Licence Protector 5

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Licence Protector 5

by Mirage Computer Systems GmbH

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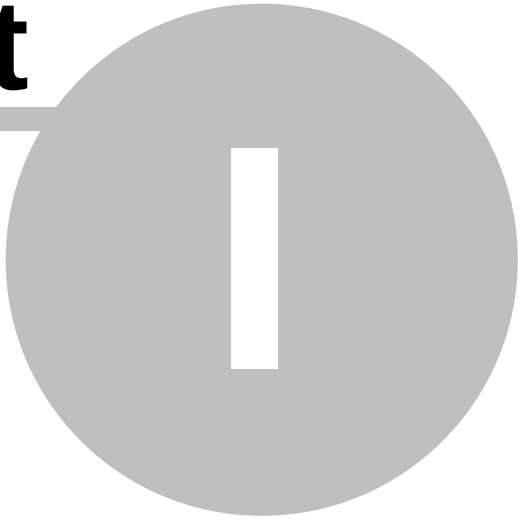

1 Introduction

This tutorial presents an easy way of learning how to use Licence Protector 5.

It is designed for developers and anyone else who wants to provide copy protection and licensing.

The Online Tutorial is updated frequently.

Update / Upgrade

Service Pack 5.1 54
Upgrade from version 4 to version 5 47

Tips and tricks

- Configuration file 181 to set important settings without changing the source code (11/2017)
- New API command GetSignalState 709 and SetSignalState 789 (11/2017)
- New API command for a complete license file download DownloadWholeLic 667 (11/2017)
- Send usage metrics 215
- Automatic backup and restore of the license file 560
- New License Viewer in Licence Protector MAC style 292
- Different ways to implement subscription based licensing 148
- Deactivate one single computer in case one key / ID is used on multiple computers
- Computer usage report in case one single key / ID is used on multiple computers

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Licence Protector Version: 5.1

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1.1 Overview

This documentation introduces you step by step how to integrate Licence Protector 5.

It explains **EasyGo,** a technique, developed by Mirage Computer Systems GmbH, to implement licensing and copy protection with **just 4-6 DLL calls** using professional screens (in multiple languages 108) and different activation options. It can be combined with all the other Licence Protector 5 features to have all the flexibility you need. As the EasyGo workflow will suit most requirements, it make sense to first check this workflow and then have a closer look at the other Licence Protector 5 options.

Licence Protector 5 requires a Source Code integration. If

- **Source Code is not available**
- **You do not want to invest much time for licensing**
- **Your application is a standalone application (no DLL, no service)**

You can use All-In-One Protector 525 which offers an integration without changing the Source Code (no programming required).

With Licence Protector 5, it is also possible to develop own screens and integrate nearly any bespoke workflow 506.

EasyGo covers registration

- Online registration via Activation Server 6
- Registration by e-mail
- Registration by fax
- Registration by phone
- Buy a license online – link to shop

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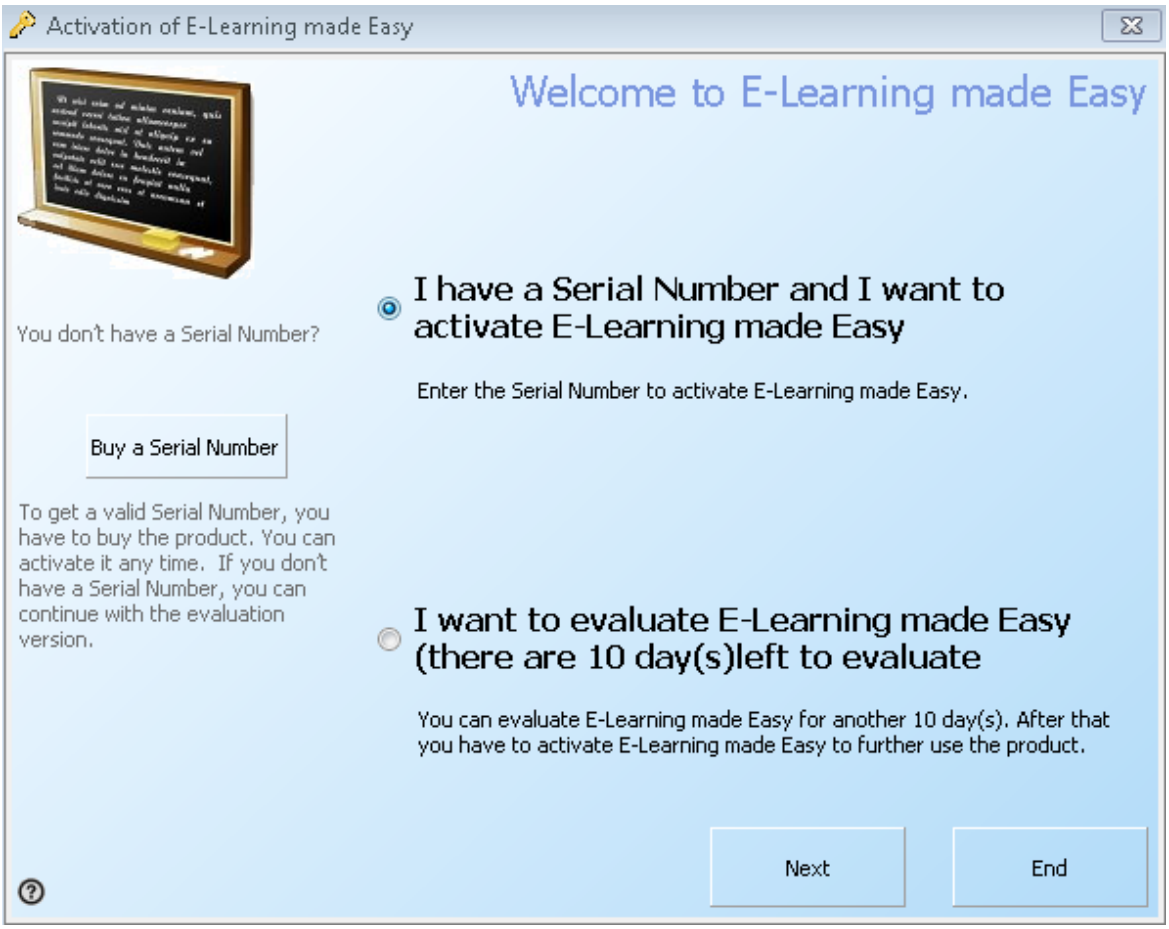
and also licensing:

- Copy protection violation
- System Date manipulation
- Network license
- Tamper detection

The built in functionality comes with self-explanatory, clearly laid out and well designed screens.

You can configure which registration and licensing options you want to use, e.g. online activation in combination with e-mail, but not registration via phone and fax. Also the logo and help text can be defined individually or you can use the preconfigured text in multiple languages.

The EasyGo feature reduces the time for implementation drastically and ensures that all major licensing options are covered.



EasyGo Start Screen

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1.2 Release Information

The latest main release number is **5.1.** There are 3 installation packages:

- Licence Protector - Version 5.1
- Automatic License Generator 464 - Version 510
- Activation Server - Version 6.0

Backward compatibility

Activation Keys

- The LicProtector510.DLL can read all Activation Keys from prior version. It can also create Activation Keys which will work in older versions.

License Files

The license file has not changed. Licence Generator 4.0 and DLL / COM exe 4.0 can open license files generated with version 4.1

Activation Server

- The Activation Server 6.0 can accept Transactions from prior DLL versions
- The Activation Server 6.0 supports all features from Licence Protector 5.1. It is **mandatory** to upgrade to Activation Server version 4.1 or newer if Licence Protector version 4 is used

If you use the Hosting Server, it will be automatically upgraded. .

Automatic License Generator

As the Automatic License Generator creates license files and Activation Keys. See restrictions above regarding format of the file and key.

1.3 Known Problems

Known Problems are listed in the Knowledge Base

Select Licence Protector, **Known Problems**, *Version 5.1*

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1.4 Evaluation Version

The evaluation version of Licence Protector 5 is a full version of the Professional Edition 27 with the following restrictions.

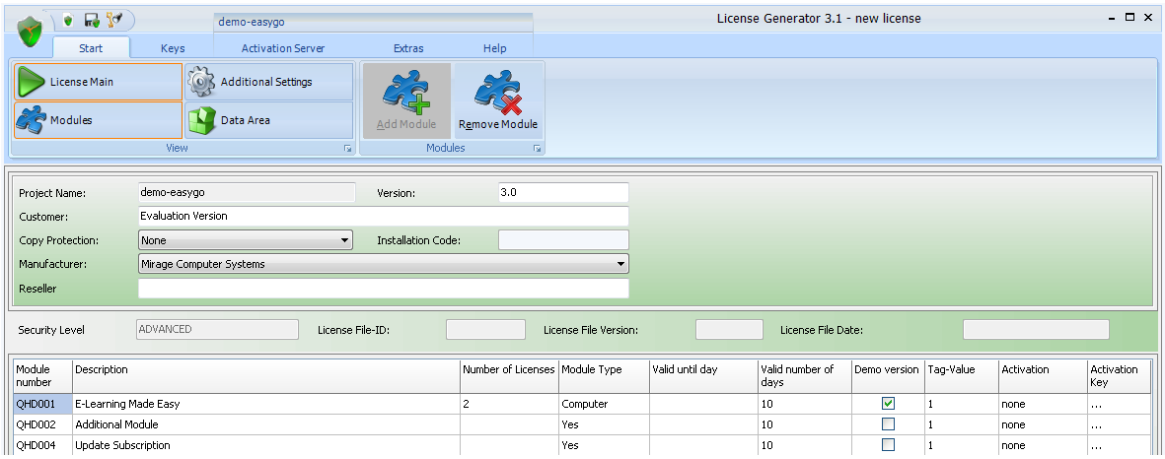
- The License Generator sets a date when the license will end – it is 10 days added to the current date
- Each Activation Key sets a date when the license will end – it is 10 days added to the current date
- The Expiry Date can not be modified

The Activation Server and the Automatic License Generator (e-commerce integration 596) is not included in the evaluation version. You can request the versions here.

1.5 Licence Generator - Start Screen

After starting License Generator the main start screen appears. You can select your language within the menu *Extra*, *Language*.

The last used project file is automatically loaded. You can now create a license file 99



1.6 Welcome Screen

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By default, the Welcome Screen is opened additional to the Start Screen 24. This screen provides you with:

- Links to most popular FAQ to get started
- Link to Online Knowledge Base
- Link to updates

The screen can be deactivated by checking *Do not display this Quick Introduction help anymore when starting* and activated again in the TAB *Help*, **Quick Introduction help**

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Thank you very much for using Licence Protector, the most powerful and safest tool for protecting your application.

And go!

Quick Introduction
How do I create a new project file?
Where do I find sample source code?
Which files do I have to distribute?
How do I create an Unlock Key?
How do I distribute a network version?
How do I generate a keylist?
How does concurrent user testing work?
How do I activate Licence Protector?

If you have any questions which are not answered by this tutorial, search in the

Online Knowledge Base

Check for updates

Your version is 2.7.0.759

Online check for updates

www.Licence-Protector.com

Do not display this Quick Introduction help anymore when starting

Close

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1.7 You are in a hurry?

If you have no time to get an overview about Copy Protection, Evaluation Options, Activation Screens and the overall concept, you can directly jump to the chapter Implementing EasyGo 76.

If your application is an application which runs only on the server, is a service or web based application see chapter: Server Application, Service Web Application. 560

1.8 Starter, Basic, Professional or MAC Edition?

Licence Protector 5 comes in a *Starter, Basic, Professional and MAC Edition.*

Check out the feature comparison matrix which provides you with all the details to decide, which version is right for you.

1.9 How to activate Licence Protector

During the trial period, the activation screen appears with each program start. You need a Serial Number to activate the product - see Buy Serial Number 29.

To be sure to work with the latest version, **always download the version you get with the order confirmation e-mail**. First uninstall the version on your PC - see How do I uninstall Licence Protector 5 525?.

What happens during activation?

The activation process will bind the license to the PC. **You can use the Serial Number within the same domain 486 on multiple PC's.** After the activation is done, Licence Protector 5 will run only within this domain. Your hardware data, Serial Number, name, e-mail address and some program specific data is transferred to our activation center. No other data stored on your PC is transmitted.

License File

If you got a license file with your order, copy this license file to the installation folder **before you activate the software.**

Select Activation Method

On the first screen, either choose

- *I have a Serial Number and I want to activate Licence Protector 5*. This will use the Online Activation 29. This is the recommended activation method and should be used if an Internet connection is available
- *You can also request an unlock key by e-mail*. This will use the e-mail Activation 30

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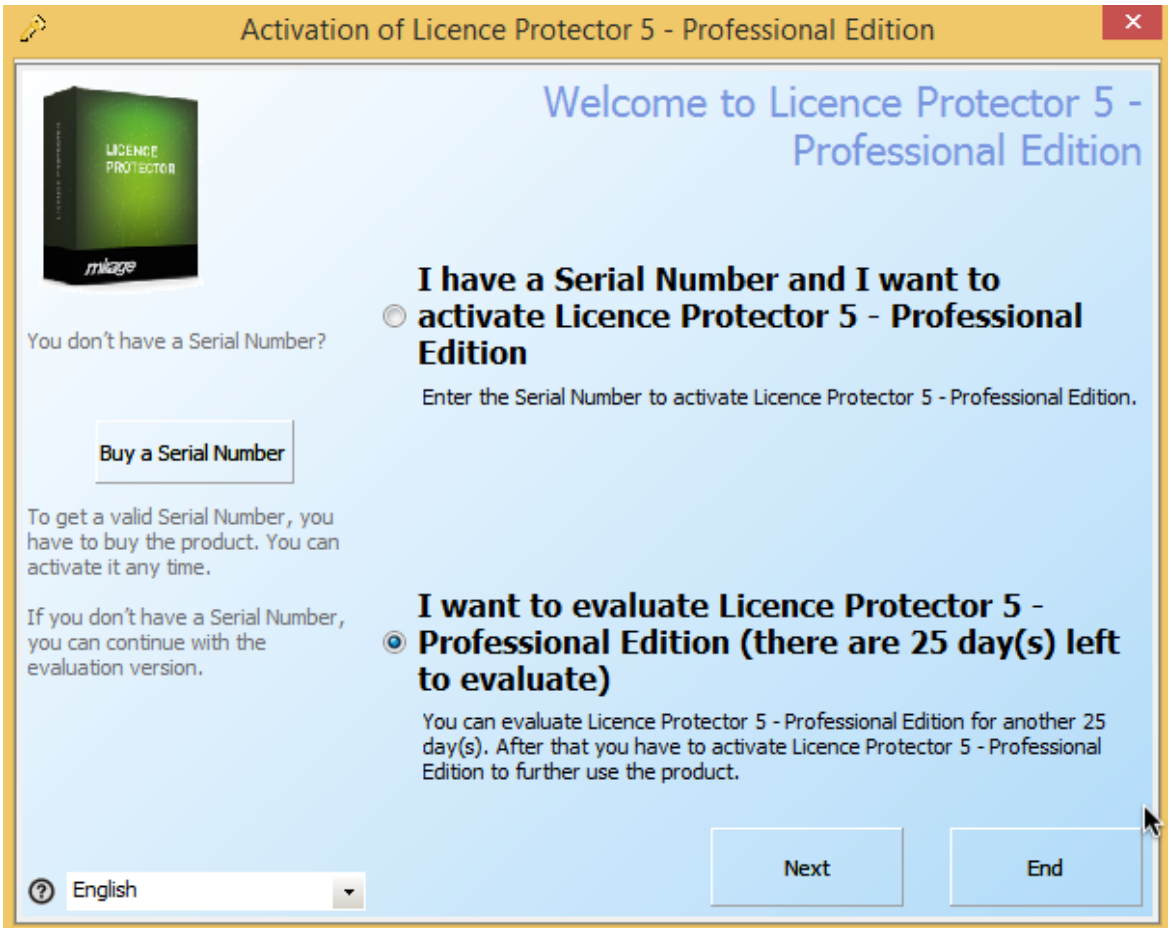

Start Video Tutorial

See also

Buy Serial Number 29
Online Activation 29
e-mail Activation 29
Reinstall Software 30
License usage and installation on multiple PC's 35

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1.9.1 Buy Serial Number

The Serial Number is your **proof of purchase**. It is unique and will look like this.

dO8uc-G1iC9-jOGeA-BqgEX-U71lD-0V1VX

There are 6 blocks each with 5 characters. The blocks are separated by a hyphen for better readability.

Select your Edition

Starter, *Basic* or *Professional* Edition? Check out the feature comparison matrix which Edition is right for you.

Buy Serial Number

If you do not have a valid Serial Number, you can buy it here - Buy Licence Protector 5.

Activate Licence Protector 5

Activate the product Online 29 or by e-mail 30.

1.9.2 Online Activation

The Online Activation requires the Serial Number 29, company name and e-mail address. Then the license will be verified online and activated. No additional step will be required. Licence Protector 5 can now be used on this PC.

Backup your Serial Number. You will need it for a reinstallation. 39

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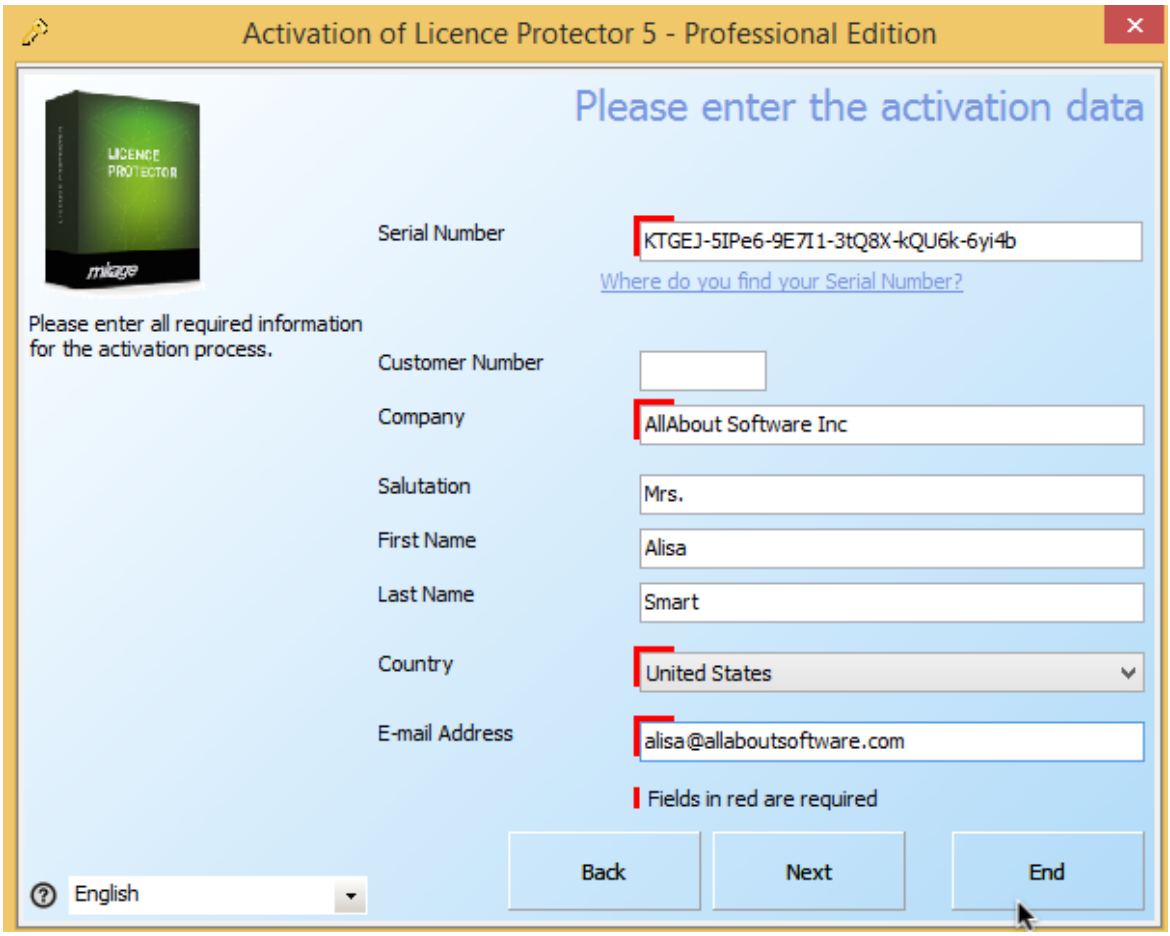

1.9.3 E-Mail Activation

The e-mail Activation requires the Serial Number 29, company name and e-mail address.

Request Unlock Key

After filling out the screen, select: ***Request Unlock Key by e-mail - send e-mail***. This will open your default e-mail client. An e-mail with the hardware IDs and license information will be created. Press **send** to send the e-mail to our activation center. You will get an Unlock Key 32 back within 2-3 business days.

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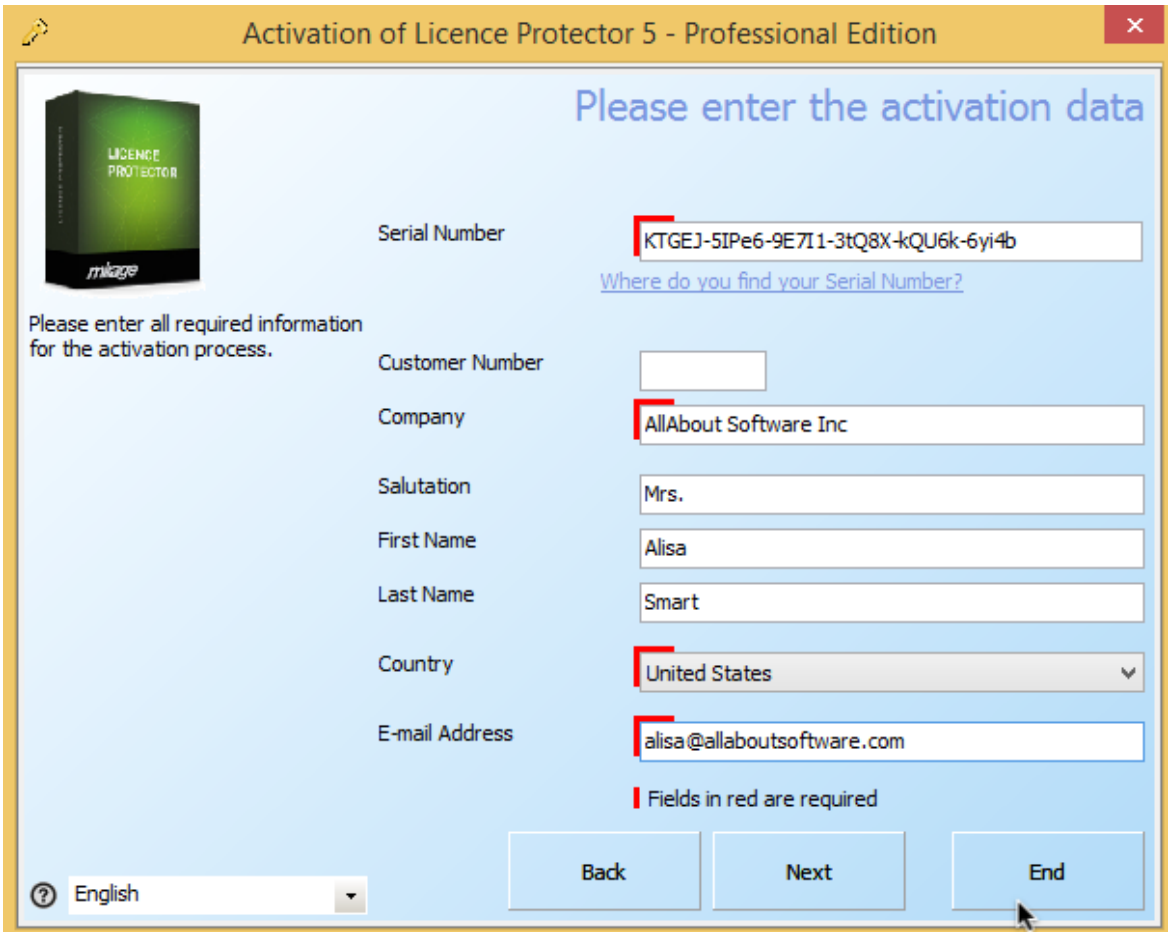

Backup your Serial Number. You will need it for a reinstallation 39.

See also

Enter Unlock Key 32

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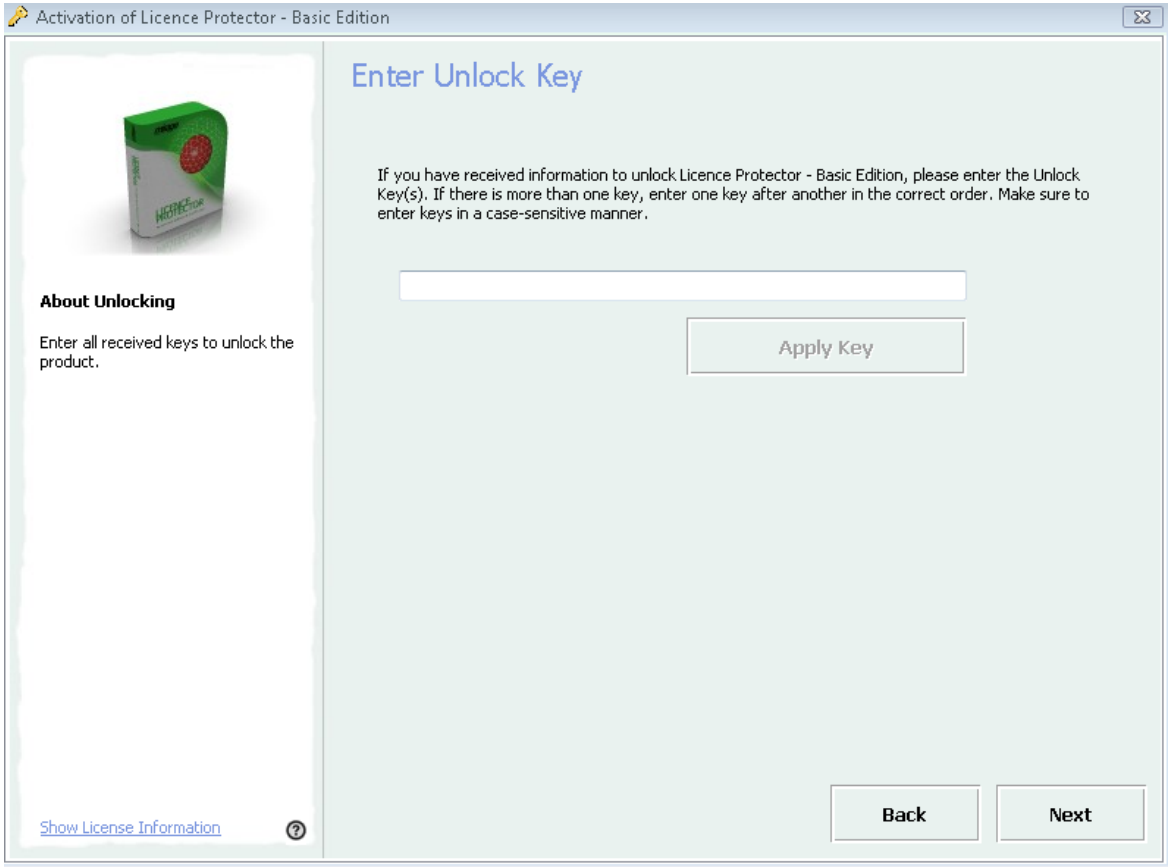
1.9.3.1 Enter Unlock Key

After requesting the Unlock Key by e-mail 30, the screen shown below will appear during each program start. Type in the Unlock Key you got back by e-mail. The activation process is then completed.



See also

e-mail Activation 30

1.9.4 Add additional keys

Additional licenses for Licence Protector 5

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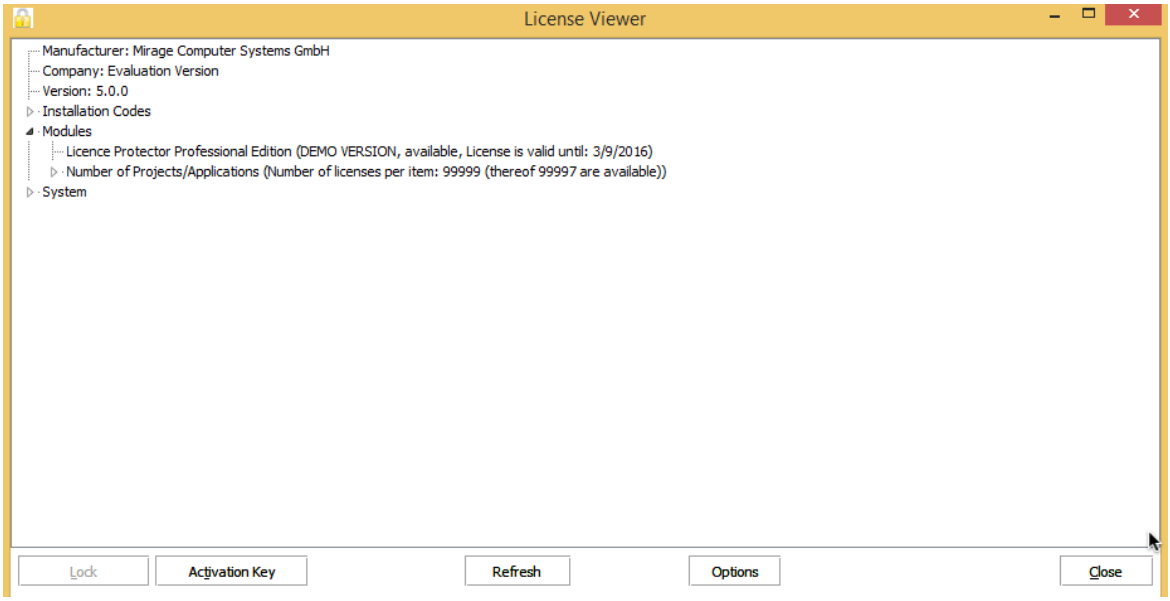
To display your licenses for Licence Protector 5, choose the TAB *Help*, **License Viewer.** If you have acquired additional licenses for Licence Protector 5 (e.g. more projects 36 or the concurrent user module), you can activate the licenses via the Activation Key 390 you got with the order confirmation.

You can type in the Activation Key after pressing the button ***Activation Key***.



Online Validation

Some Activation Keys are validated online and they require an Internet connection

Select TAB *Help*, **Buy Licence Protector** to buy additional licenses.

Apply Activation Key after Evaluation Period has expired

If the evaluation period has expired, click on the **icon ?**, select ***Show License Information*** *(see screen below)* and then press the button Activation Key.

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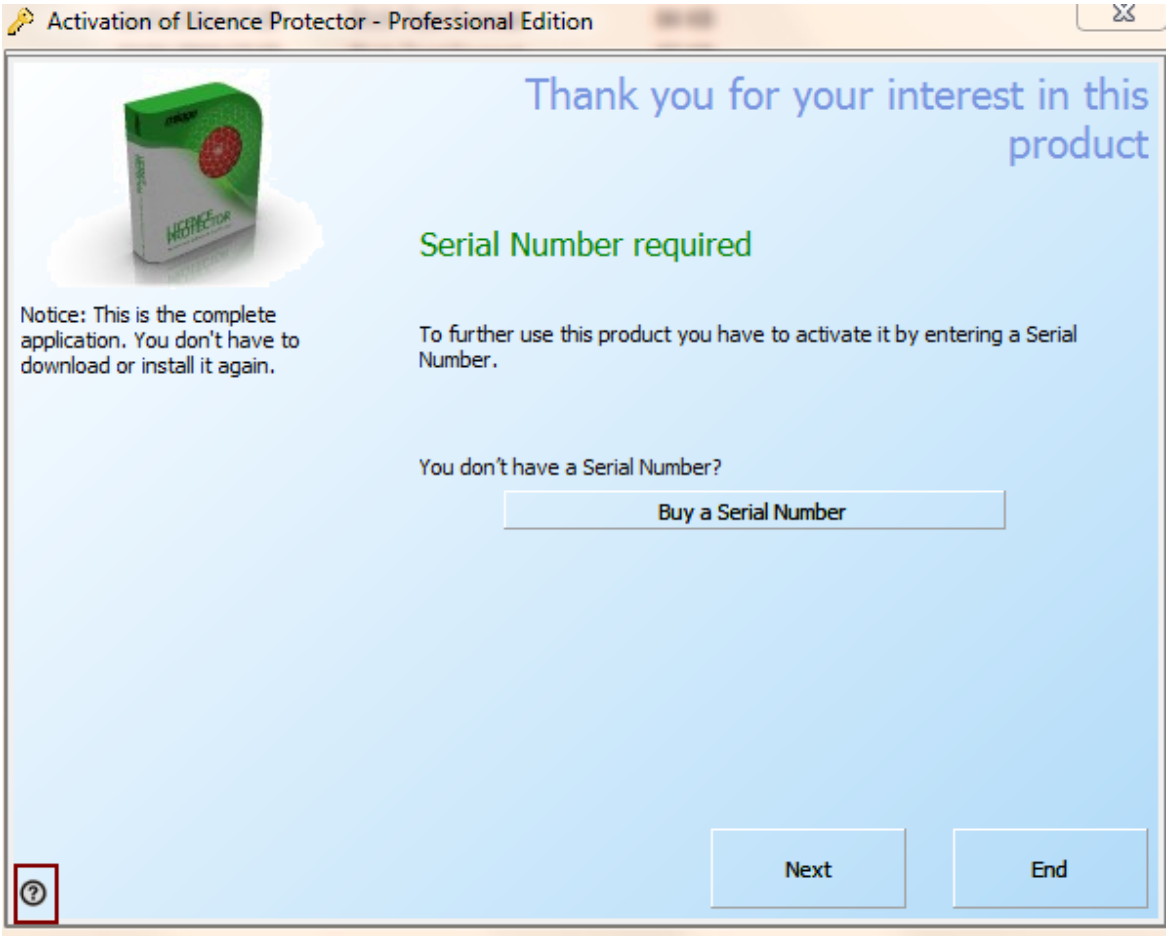

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1.9.5 License usage and installation on multiple PCs

You have to activate the product before you can use it without the restrictions of the demo version 24 - see How to activate Licence Protector 5 27

Copy Protection

Lifetime license - copy protection using the domain name 486 is turned on after activation.
Subscription license (Cloud Edition) - copy protection using Windows ID 487

Installation on multiple PCs

Lifetime license

You can either use the Serial Number **within the same domain** or just copy the license file **licprotector.lic** to another PC. If you want to use the License Generator on a machine, which is not in the same domain (e.g. a external company does the software development), then open a support ticket to allow an installation on a separate domain. See chapter license usage below if you have to buy a new license.

We recommend making a backup of the license file.

Cloud Edition

The Cloud Edition is licensed per developer. The same Serial Number can be used for 3 developers on **3** computers.

Additional Key

Every time you add an additional key (e.g. key for update subscription or you buy a new module), you can share the updated license file to other PCs easily

- After adding the key within the License Viewer 32. In the License Generator select TAB *Extras*. Click on **Backup License**. This will upload your license file to the Activation Server
- On all other machines, which already have an activated version. In the License Generator select TAB *Extras.* Click on **Restore License**. This will download your license file from the Activation Server to this PC

License Usage

You may distribute and install only those files marked for distribution in the chapter Distribution 349 of the developer documentation on any machines of your end users. You

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may distribute these files only with your software application. You must never distribute and install these files without your software.

- You are allowed to use as many project files/applications as are stated on the invoice or delivery note. If there are no project files stated, you can protect with the *Starter Edition* **3**, and the *Basic Edition* **5** and with the *Professional Edition* an **unlimited** number of project files/applications. Unused projects can be removed 36.
- You can distribute the Licence Protector DLL with your application to any customer you like - without paying more fee
- The on-premise Activation Server may be used within a company by any number of users. It is a license for **one instance**. Especially it is not allowed to use the Activation Server on multiple instances and offer hosting services

Lifetime license

- The application License Generator 372 may be used within a network by any number of users (site license)
- You need a new license for Licence Protector 5 for **each branch office** where you develop software or generate licenses (site license)
- The lifetime license does not expire

Cloud Edition (subscription license)

- The Cloud Edition is licensed per developer. The number of developers are stated on the invoice or delivery. If this information is missing the Cloud Edition is licensed for **3** developers.
- The Cloud Edition is licensed via Master Subscription Agreement

Activation Server

The Activation Server is licensed via Master Subscription Agreement

See License Agreement 40 for details of usage.

1.9.6 Number of projects / applications you can use

Number of Projects / Applications you can protect

You have acquired a license for Licence Protector 5 for a specific number of **projects = software applications**. The project name 183 of the XML project file is used for licensing.

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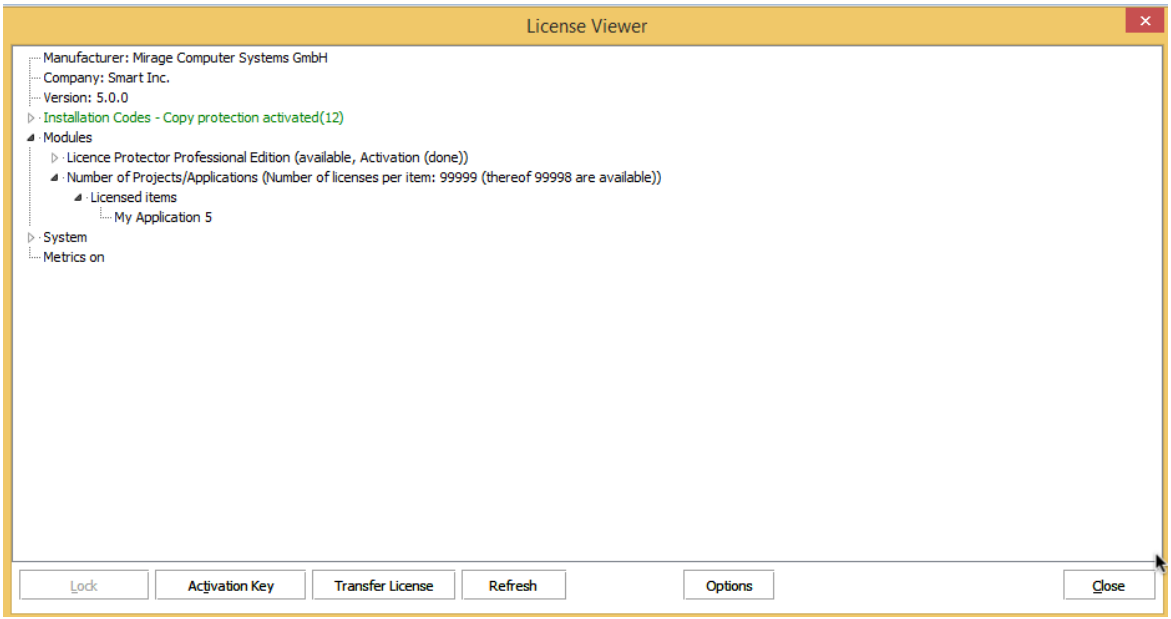
Choose the TAB *Help*, **License Viewer** to display, how many licenses are available and which projects are using the licenses.



All active projects are displayed. Deactivated projects are displayed in brackets.

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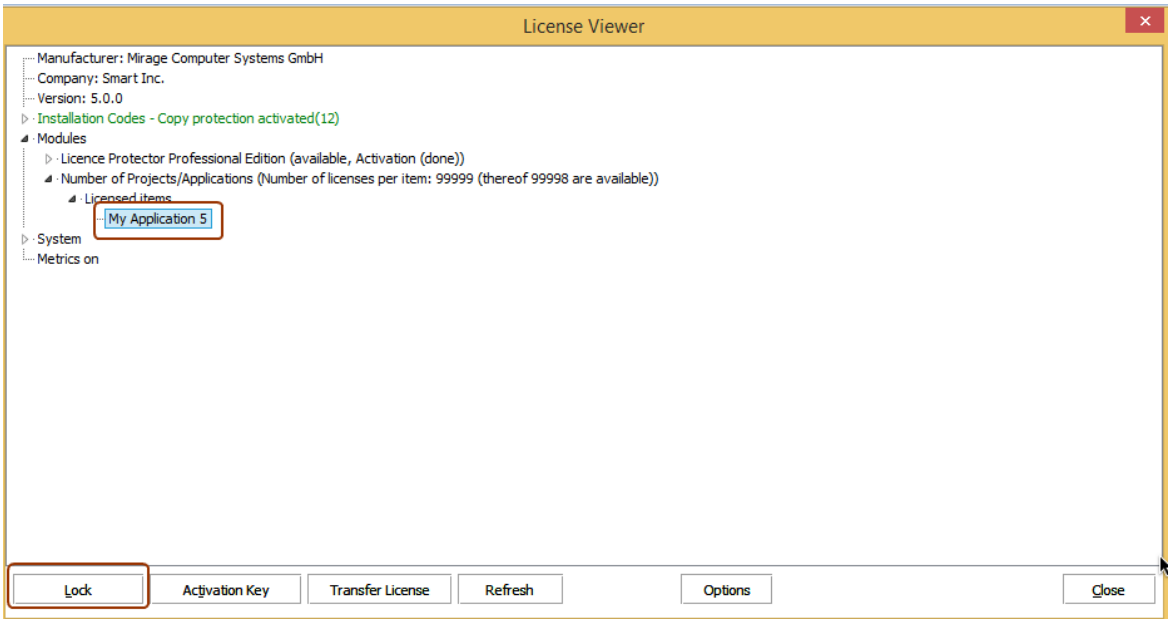
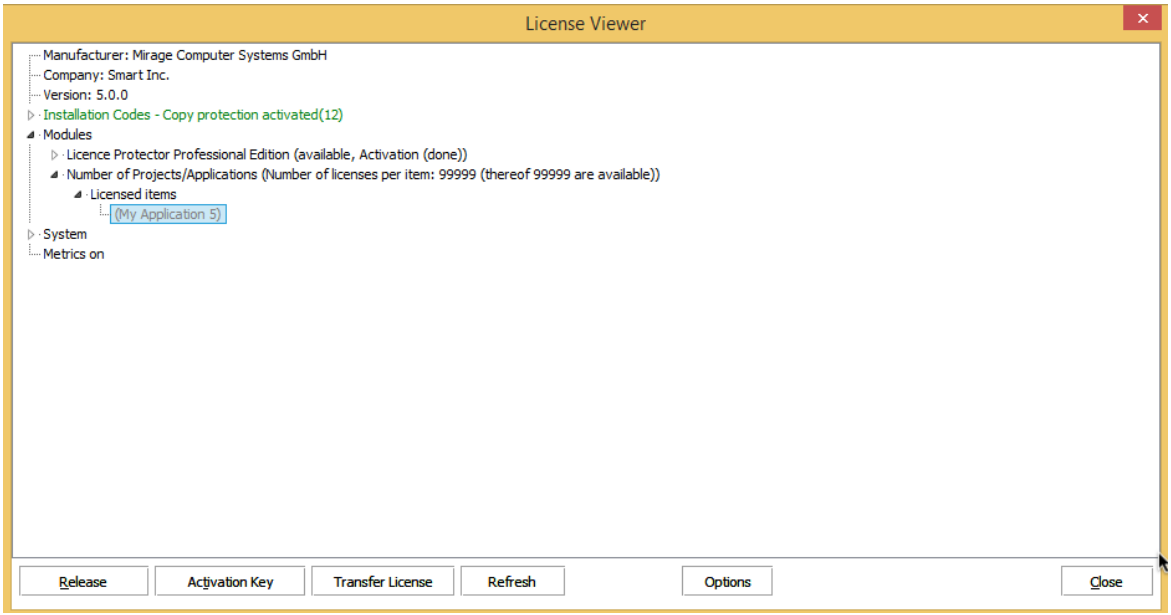
Lock a project

If you don't need a project any more, you can lock (deactivate) projects with the *Lock* button *(*highlight the project name*)* to gain free licenses.



To use the project again, highlight it and select the *Release* button.



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You can also remove projects from the Activation Server. However, once removed, online activations will no longer work - details

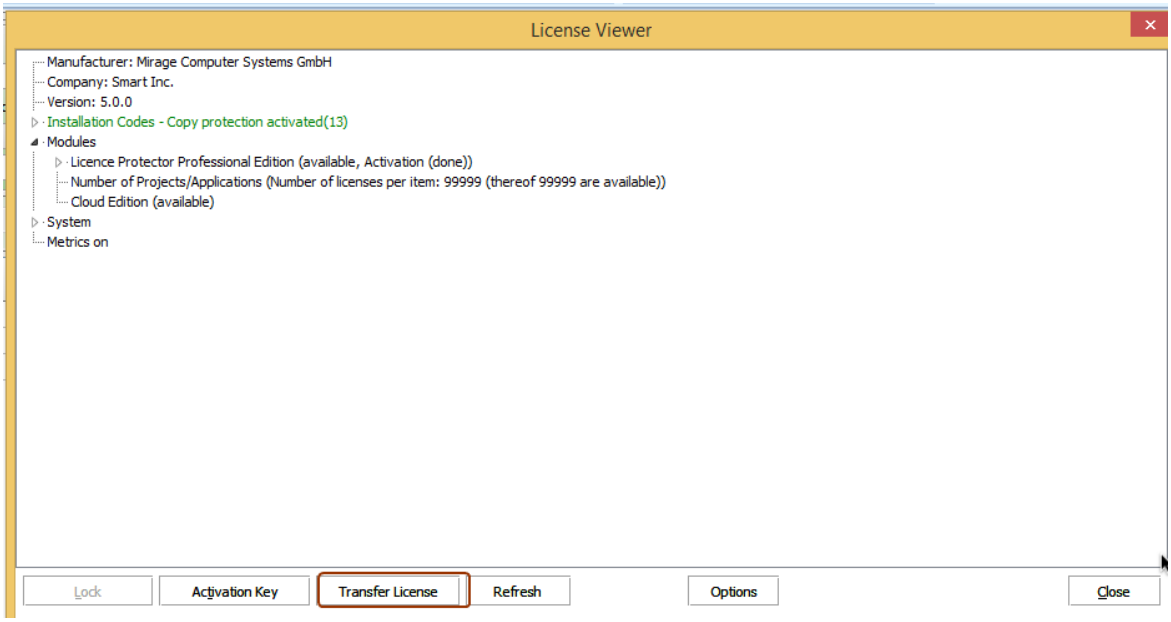
1.9.7 Reinstall Software / License transfer

Download Link. Select the version you bought.

Cloud Edition

You have to make a license transfer from the old computer so that the Serial Number can be used again.

Open the License Viewer 439 and click on the **Transfer** button.



Lifetime license

You can reinstall the application **on the same domain** as often as you like. First uninstall Licence Protector 5, delete the complete installation folder, then reinstall the application - see How to activate Licence Protector 5 27.

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1.9.8 License Agreement

You may distribute and install only those files marked for distribution in the chapter Distribution 349 of the developer documentation on any machines of your end users. You may distribute these files only with your software application. You must never distribute and install these files without your software.

- You are allowed to use as many project files/applications as are stated on the invoice or delivery note. If there are no project files stated, you can protect with the *Starter Edition* **3**, and the *Basic Edition* **5** and with the *Professional Edition* an **unlimited** number of project files/applications. Unused projects can be removed 36.
- You can distribute the Licence Protector DLL with your application to any customer you like - without paying more fee
- The on-premise Activation Server may be used within a company by any number of users. It is a license for **one instance**. Especially it is not allowed to use the Activation Server on multiple instances and offer hosting services

Lifetime license

- The application License Generator 372 may be used within a network by any number of users (site license)
- You need a new license for Licence Protector 5 for **each branch office** where you develop software or generate licenses (site license)
- The lifetime license does not expire

Cloud Edition (subscription license)

- The Cloud Edition is licensed per developer. The number of developers are stated on the invoice or delivery. If this information is missing the Cloud Edition is licensed for **3** developers.
- The Cloud Edition is licensed via Master Subscription Agreement

Activation Server

The Activation Server is licensed via Master Subscription Agreement

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Lifetime license

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Date: October 2010
LA-DE-01082003

1.9.9 Uninstall Licence Protector

You can uninstall Licence Protector 5 using Windows *Programs and Features*. Select ***Control Panel***, click on ***Programs*** and then click on ***Programs and Features.***

You will find Licence Protector 5 in the program list. Select it and then click **Uninstall**.

When you uninstall

- Your license for this computer will be returned and you can use the Serial Number on another computer (license transfer 35)
- All your project data will not be deleted and can be used on another computer

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Part II

2 Latest Updates

Find below a list of available service packs and upgrades

Upgrade 4.x to 5

Detail procedure how to upgrade from 4.x to 5.0 47

Service Packs

- Service Pack 5.1 54

2.1 Upgrade 4.x to 5

Modification history version 5.0

- For a complete list of all modifications click here

DLL / COM exe / EasyGo

Send usage metrics 215 about events, application usage, operating system, computer hardware and location information
New Basic License Viewer 292 in the same design like the Licence Protector MAC version

License Viewer 281 - new design

Sample registration images 122 you can use for the EasyGo dialogs

EasyGo screen - *Collect Activation Data* includes now an explanation: Fields in red are required 230

New error screen 273 in case the license file does not have a write permission

USB flash drive 574 - flash drives which are displayed in the file explorer as **hard disc** instead of removable media are supported
File share mode for a network license - SetOpenShareMode 772 and GetOpenShareMode 707
Automatic backup and restore of the license file 560
Set / retrieve timeout value for connections to the Activation Server 6 - SetWebRequestTimeOutInSec 799, GetWebRequestTimeoutInSec 718
After a license transfer is done and the license is locked, the Transfer button 289 in the License Viewer is no longer visible
E-Mail activation. Additional screen 238 to inform about the e-mail options (e-mail application or Browser based e-mail)

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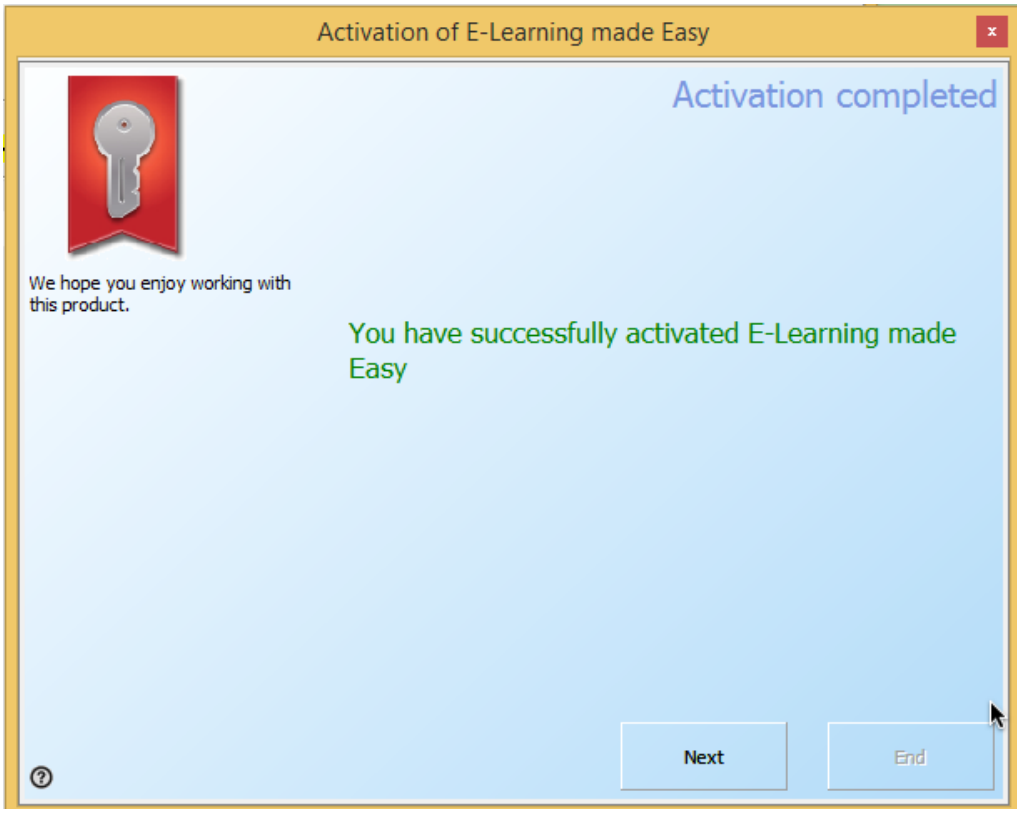
The standard address screen 229 has now the label: *Enter Name / Company / Organization* instead of just company. In case the product is sold to consumers or schools / universities this helps to clarify what kind of information is required

Concurrent user - if the maximum license usage is reached, the screen: No free license 272 appears. A user can be **removed** through this screen

Event based message screen 258 now includes a *Buy Button*

Apply Activation Keys in the License Viewer will only add one additional window and not multiple windows

The ▼ default screen



after the product activation was changed to the screen **without** the option to add an additional key. The screen can be changed using SetEasyGoProperty 141

Selecting a language in the list box, defined with SetRegisterLanguages 134, supports now **cursor up/down** and mouse selection

Design change for screen ShowWAStartPage 806, ShowWAProgressPage 804 and ShowWAResultPage 805

If there is a problem with the connection during the deactivation of the license or a license file upload, the status on Activation Server and the status in the license file are now kept in sync

Changed wording on EasyGo screens

Fixed very long product names fit on the screen: Activation completed 251

Fixed Activation of a subscription license 150 with an expiry date in the **past** now shows the correct error message

Fixed Fixed an issue with a subscription license 150 where the activation process was terminated/interrupted and the user would then have a trial version with the

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number of days specified in the Serial Number
Fixed After a license transfer with EasyGo screen 260 is done, the Serial Number is copied into the clipboard
Fixed Fixed an issue when an unknown error was displayed in the EasyGo screen 260 instead of the real error message
Fixed Screen Activation failed 263 - *Back* button did not work

License Generator

Configure usage metrics 427
Configure project password 425
Fixed When changing from hosting to own server 425 all required settings in the project template are changed automatically

Automatic License Generator

Supports license file version 5
New configuration options for metrics: <AnonymizedMetrics 194>, <SystemSignals 194>, <SignalState 194>
New configuration option for backup interval 111 of license file - <BackupInterval 194>
New configuration option for connection timeout - <WebRequestTimeoutInSec 194>

License Tester

All new API commands added

Changes in the project template

New configuration options for metrics: <AnonymizedMetrics 194>, <SystemSignals 194>, <SignalState 194>
New configuration option for backup interval 111 of license file - <BackupInterval 194>
New configuration option for connection timeout - <WebRequestTimeoutInSec 194>

Changes in the key structure

no changes

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Products to update

An update is available for:

- Licence Protector - Generator and DLL/ COM exe - **Version 5.0**
- Automatic Licence Generator - **Version 5.0**
- Activation Server - **Version 5.0**

Update eligibility

The update is free if one of the following conditions apply:

- You have a **valid update subscription**
- Your **update subscription** expired after June 15th, 2016
- You bought an **update** or **upgrade** after June 1st, 2016
- You **bought** Licence Protector after June 1st, 2016
- You got a free update to version 5 with a promotion

The update requires **a new Serial Number**. All customers who are eligible for the update will get a new Serial Number automatically. In case you did not get one until **July, 20th 2016**, open a support ticket.

How to upgrade your files and source code

- If you upgrade from version 4 see below - backward compatibility
- If you upgrade from version 2 or 3 see How to upgrade from version 2 or 3 51 - especially how to convert project templates and files from version 2.x / 3.x to version 4.

Backward compatibility

Activation Keys

- The LicProtector500.DLL can read all Activation Keys from prior version. It can also create Activation Keys which will work in older versions.

License Files

If a license file is opened, it is automatically converted into the latest file format (5.0) and it **can not be opened again with an older DLL**. Only version 4 license files can be converted automatically.

Example
- A version 4.x DLL can read an Activation Key, which was made with License Generator version 5

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- A version 4.x DLL **can not open a license file**, which was made with License Generator version 5
- A version 4.x License Generator **can not open a license file**, which was made with License Generator version 5

Activation Server

- The Activation Server 5 can accept transactions from prior DLL versions
- The Activation Server 5 supports all features from Licence Protector 5.0. It is **mandatory** to upgrade to Activation Server version 5 if the metrics feature, license transfer or license file upload is used

If you use the hosting service, your server will be automatically upgraded.

Automatic License Generator

As the 5.0 creates license files and Activation Keys. See restrictions above regarding format of the file and key.

2.1.1 How to upgrade from version 2 or 3

From version 4 onwards, older license files cannot be opened with the License Generator or DLL / COM exe of version 4. It also requires a new project template as the encryption keys (Read / Write Key) of the license file have to be in a new format.

To upgrade existing projects follow the steps listed below

Step 1 - Create new project template

You have to create a new project template. Load the **old project template** into the License Generator 5.1 and select File, Copy a Project 405

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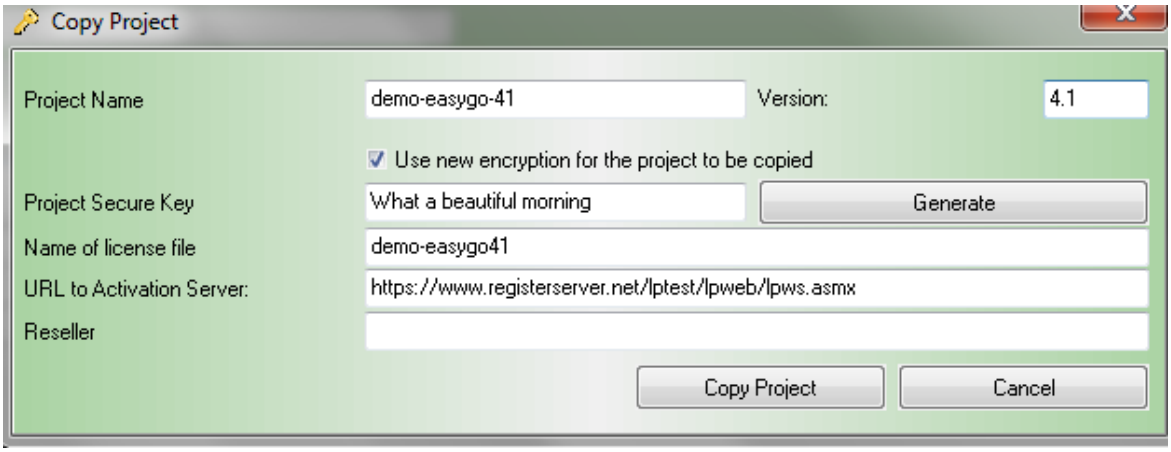

You have to change the **project name**.

If you want to use the **same** Serial Numbers like in the old project, then do **not** change the **Project Secure Key**. If you want to use new Serial Numbers, click on the *Generate* button.

Load the new project template into the License Generator and create a new license file.

Step 2 - Update Activation Server

If you use the Activation Server 6 then

- Change the default settings 424 for the copy protection
- Either configure your hosting account 427 or add the data of your own server 425
- Update the project 429 on the Activation Server 6
- You can customize the project settings in more detail on the Activation Server 6 within the product configuration.

Activation Server 4.1 or newer has to be installed in case Unicode or license file upload / download is used. Hosting customers are automatically upgraded to this version.

Step 3 - Source Code Changes

You have to change in the Source Code:

- ProgID 76 of the new DLL / COM exe
- Change the **ReadKey** in the command PrepareAndCheck 162, PrepareAdvanced 729, Prepare 727 or PrepareForce 738. The new ReadKey can be found in the project template
- In case the command AddModule 642 is used you have to add 3 new parameters
- If you are using the license transfer feature with own screens add LocksIsError 724 to find out if the license file was restored after the transfer. Details see transfer a license using custom screens 573

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Step 4 - Installer Package

Add the new DLL / COM exe and the new license file to your installer package.

Step 5 - Upgrade customer licenses

The simplest way to upgrade is to send out new Serial Numbers. If this is not possible because of complex license files with multiple modules or a large user base, there is an option to convert old license files.

To use this feature, you have to **additionally** (the regular 5.x DLL or COM exe is still required) **install and register** the special DLL **LicProtector314.dll** which can be found in the folder *...files for distribution\5.00\Convert v3 to v5.* You also have to deliver **a new version 5 license file**

Use the API command TakeOverLicFile 810 to convert the existing file. The complete file structure of the old file (including keys, system data etc.) is **transferred to the new file**. Even old Serial Numbers can be used after the conversion is done. Use the new file with the version 5 DLL / COM exe.

Step 6 - Considerations regarding existing activations

The Activation Server 6 service pack 1 (4.1) is mandatory. It ensures a complete backward compatibility.

- Licence Protector DLL / COM exe version 2.x and 3.x can communicate with Activation Server 6.1
- Licence Protector DLL / COM exe version 4 can transfer licenses or make regular online checks with keys / IDS of older versions (requires step 5)
- Licence Protector DLL / COM exe version 4 can download license files which have been uploaded with older version (requires step 5)

Step 7 - Automatic License Generator

The Automatic License Generator 5 is backward compatible regarding the key generation but not with license file generation

- Automatic License Generator 5 can generate keys which can be used in version 3.x
- Automatic License Generator 5 can generate license files which can only be opened by version 5

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2.2 Service Pack 5.1

Modification history version 5.1

For a complete list of all modifications click here

DLL / COM exe / EasyGo

NEW

- New API command for a **complete** license file download DownloadWholeLic 667. Values (e.g. a module or data area information) **which are removed on the server, are also removed in the local license file.**
- Configuration file 181 to set important settings **without changing the source code**
- New API command GetSignalState 709 and SetSignalState 789. Can also be configured in .config file 181

IMPROVEMENTS

- New text in EasyGoScreen -*If you have a Serial Number, click on Next to continue with the activation* - if version requires a Serial Number 223

License Generator

NEW

- Hosting configuration. New option to specify a hosting server 427

IMPROVEMENTS

- Project Password removed from screen Settings 424

FIXED

Changes in the Usage Metrics 427 configuration where not always saved

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Automatic License Generator

NEW

- new values from the project files are recognized

License Tester

NEW

- All new API commands added

Online Help

FIXED

Updated description of ShowWAStartPage 806, ShowWAResultPage 805 and ShowWAProgressPage 804

Changes in the project template

no changes

Changes in the key structure

no changes

Products to update

An update is available for:

- Licence Protector - Generator and DLL/ COM exe - **Version 5.1**
- Automatic Licence Generator - **Version 5.1**
- License Tester - **Version 5.1**

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Installation Instruction

Automated installation

- Select in the program manager group Check for Updates
- The update is downloaded and installs the License Generator and the DLL / COM exe files
- To update the Automatic License Generator (only necessary if license files are generated) open a support ticket.

Manual Update

- Download Version 5.1 (Licence Generator and DLL / COM exe)
- Launch lpinstall51.exe

Update eligibility

Free for users of version 5

How to upgrade your files and source code

- If you upgrade from version 5 see below - backward compatibility
- If you upgrade from version 4 see backward compatibility 50 update version 4 to 5
- If you upgrade from version 2 or 3 see How to upgrade from version 2 or 3 51 - especially how to convert project templates and files from version 2.x / 3.x to version 4.

Backward compatibility

Activation Keys

- The LicProtector510.DLL can read all Activation Keys from prior version. It can also create Activation Keys which will work in older versions.

License Files

If a license file is opened, it is automatically converted into the latest file format (5.1) and it **can not be opened again with a DLL of version 3 or 4**. Only version 5 and 4 license files can be converted automatically.

Example
- A version 5.0 DLL can read an Activation Key, which was made with License Generator version 5.1
- A version 5.0 DLL **can open a license file**, which was made with License Generator version 5.1

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- A version 5.0 License Generator **can open a license file**, which was made with License Generator version 5.1

Activation Server 6.0

- The Activation Server 5 can accept transactions from prior DLL versions
- The Activation Server 5 supports all features from Licence Protector 5.0. It is **mandatory** to upgrade to Activation Server version 5 if the metrics feature, license transfer or license file upload is used

If you use the hosting service, your server will be automatically upgraded.

Automatic License Generator

As the 5.1 creates license files and Activation Keys. See restrictions above regarding format of the file and key.

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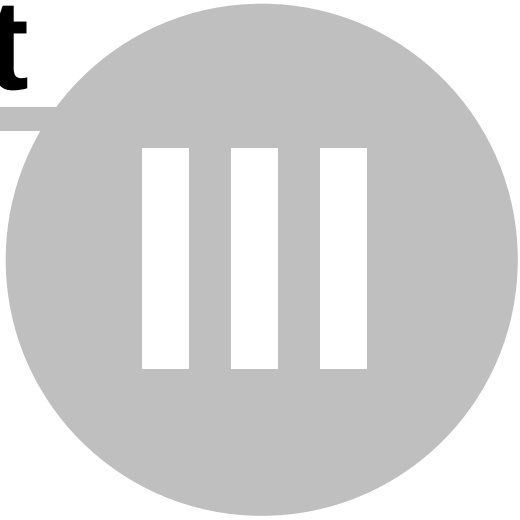
Part



3 Supported operating systems

Licence Protector is available for Windows and macOS. A basic copy protection solution is possible for Linux, Android or IOS.

Required products for

- Windows 59
- macOS 60
- Linux, Android, IOS 60

3.1 Windows

To protect Windows applications Licence Protector *Starter, Basic* or *Professional Edition* is required.

The Windows product includes

- Licence Protector DLL / COM exe
- License Generator
- Automatic Licence Generator (option)
- Activation Server 6 (option)

Licence Protector DLL / COM exe

The Licence Protector DLL is installed with your application on the end user system.

System Requirements:

- Windows Vista, Windows 7 and Windows 8/8.1, Windows 10
- Windows 2003, Windows 2008, Windows 2012 und Windows 2016 Server (no support for Windows Core server)
- All listed operating systems are supported in the 32bit and 64bit version

If you need macOS support use Licence Protector MAC Edition

License Generator

The License Generator 372 is the administration tool to create a license file or key

System Requirements:

- Windows Vista to Windows 10, 32bit and 64bit

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Automatic License Generator (option)

The Automatic Licence Generator 464 runs as a batch process in online shops or other applications, which provide customer data.

System Requirements:

- Windows Vista, Windows 7, Windows 8 / 8.1, Windows 10
- Windows 2008 and Windows 2012 Server
- All listed operating systems are supported in the 32bit and 64bit version

Activation Server

Detail system requirements are available in the Activation Server 6 Online help.

3.2 macOS

To protect macOS applications, Licence Protector *MAC Edition* is required.

The MAC product includes

- Licence Protector Framework
- Activation Server 6 (MAC Edition license)

System Requirements

3.3 Linux, Android, IOS

To protect applications on non Windows / MAC operating systems like Linux, Android or IOS, a license for Activation Server 6 is required.

The Activation Server 6 provides the back end application for the administration of licenses - create keys, lock licenses, change activations or generate reports.

The implementation covers:

- Online activation with copy protection
- Reinstallation on the same computer
- Regular online checks to revoke a license
- License of multiple features / modules

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- Using one Serial Number / ID for multiple computers

it does not cover

- trial version
- network license
- transfer of a license

Implementation guide 61

3.3.1 Implementation Guide

To implement a copy protection and license with multiple features for Linux, Android or IOS the following steps are required:

- Retrieve a **unique device ID** like MAC address or volume ID on Linux. Smartphones do either have a unique device ID, operating system ID or MAC address.
- Hash the ID to an **8 digit number**
- Make a screen where the user can type in the Serial Number / ID, name and e-mail address
- Validate the Serial Number / ID using an https request to the Activation Server 6

https://servername/lpweb/**KeyGenerator.aspx**?	
projectname=demo-easygo&	'project name 207 defined in the project template
entrykey=LNGEG-5IPc6-9E7Im-3tQ8X-MQU5k-6ii4W&	'Serial Number / ID
instcodetype=13&	'Installation Code / Hardware ID used for copy protection. This has to match with Selected IDs for initial activation in the product configuration
instcode=170D9F7C&	'Hardware ID - must be an **8 digit number**
requesttype=2&	'must be 2
moduleid=QHD001&	'module ID defined in the project template. Normally this is the main module ID 203.
customername=Smart Inc.&	'name of the user
email=tom.hanks@smartinc.com	'e-mail address of the user (optional)
oemname=mycompany&	'name of the manufacturer 378 of the product. This information is stored on the Activation Server 6 (optional)

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allkeys=true&	'must be set to true
password=ycnsjldsd78z9h	'password - see security settings. The IP address is automatically sent with the request to the Activation Server 6

Return values
The result will either be

- a unique **key** (which is the return code for license validation passed) or

an error beginning with the word Status:

- **Status: key already used** (which means that the Serial Number / ID) was already used on another computer
- **Status: key doesn´t exist** (which means the Serial Number / ID is unknown)
- **Status: module is locked** (the Serial Number / ID was locked - license was revoked)
- **Status: unknown project** (the project name 207 is used for a project which is not uploaded to the Activation Server 6)
- If the validation is OK then store the **hardware ID in a save location**
- Every time your application is starts, compare the hardware ID with the one you have stored in the save location

Example Link

Click on the link below to validate the Serial / ID *qOGE3-5IPb6-9E7IL-3tQ8X-6QU5k-6Si4v* using the demo Activation Server 6. It will accept the same Serial Number multiple times as the hardware ID is always the same.

https://registerserver.net/lptest/lpweb/KeyGenerator.aspx?projectname=demo-webapi&entrykey=qOGE3-5IPb6-9E7IL-3tQ8X-6QU5k-6Si4v&instcodetype=13&instcode=170D9F7C&requesttype=2&moduleid=QHD001&customername=Smart Inc.&email=tom.hanks@smartinc.com&oemname=mycompany&allkeys=true&password=ycnsjldsd78z9h

Regular Online Checks / Revoke a license

If you validate the license regularly (eg. every 10 days) you can revoke a license - Details

Features / Module

You can license features / modules. The number of features is not limited. Just add a new module with a unique module ID in the project template. The Serial Number is unique to a feature / module - that means that a Serial Number for module A will not work for module B.

Using one Serial Number / ID on multiple computers

It can be defined, on how many different computers one single Serial Number / ID can be used - Details 344.

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Automatic recovery in case the hardware ID changed

If the hardware ID changed, you can make a new license validation. In case other hardware IDs are still the same, the license will be automatically linked to the new hardware ID. If this feature should be used, you have to provide multiple hardware IDs.

The number of installation codes required depend on the settings defined in product configuration - Selected IDs for reactivation.

If you want to pass multiple installation codes, you have to send **ALL** possible codes. This version of Licence Protector 5 supports 13 different codes.

You have to omit the value instcodetype and provide **all** 13 installation codes separated with a **semicolon.** If for the reinstallation e.g. only 3 hardware IDs are required, the others can be left blank.

https://registerserver.net/lptest/lpweb/KeyGenerator.aspx?projectname=demo-easygo-40&entrykey=LNGEG-5IPc6-9E7Im-3tQ8X-MQU5k-6ii4S&instcode=170D9F7C;E1266C60;;CB433287;;;;;;;;;&requesttype=2&moduleid=QHD001&customername=Smart Inc.&email=tom.hanks@smartinc.com&oemname=mycompany&allkeys=true&password=ycnsjldsd78z9h

- You have to use the method GET (not POST) for the https request
- For a complete list of all parameters including the changing of the security parameters like password see Create Keys by external applications
- Sample project file

Activation Server 6 Configuration settings

To use this feature you have to:

- Upload the Serial Numbers to the Activation Server 6. Either import a complete key list with own Serial Numbers / ID or create Serial Numbers using the Activation Server 6
- Configure the Activation Server 6 that only keys are accepted, which are already stored in the database. See *Serial Number has to be saved before it can be used* in the product configuration how to configure this feature
- Configure a password within the security settings
- Configure how many requests per minute are allowed to block a possible SPAM attack

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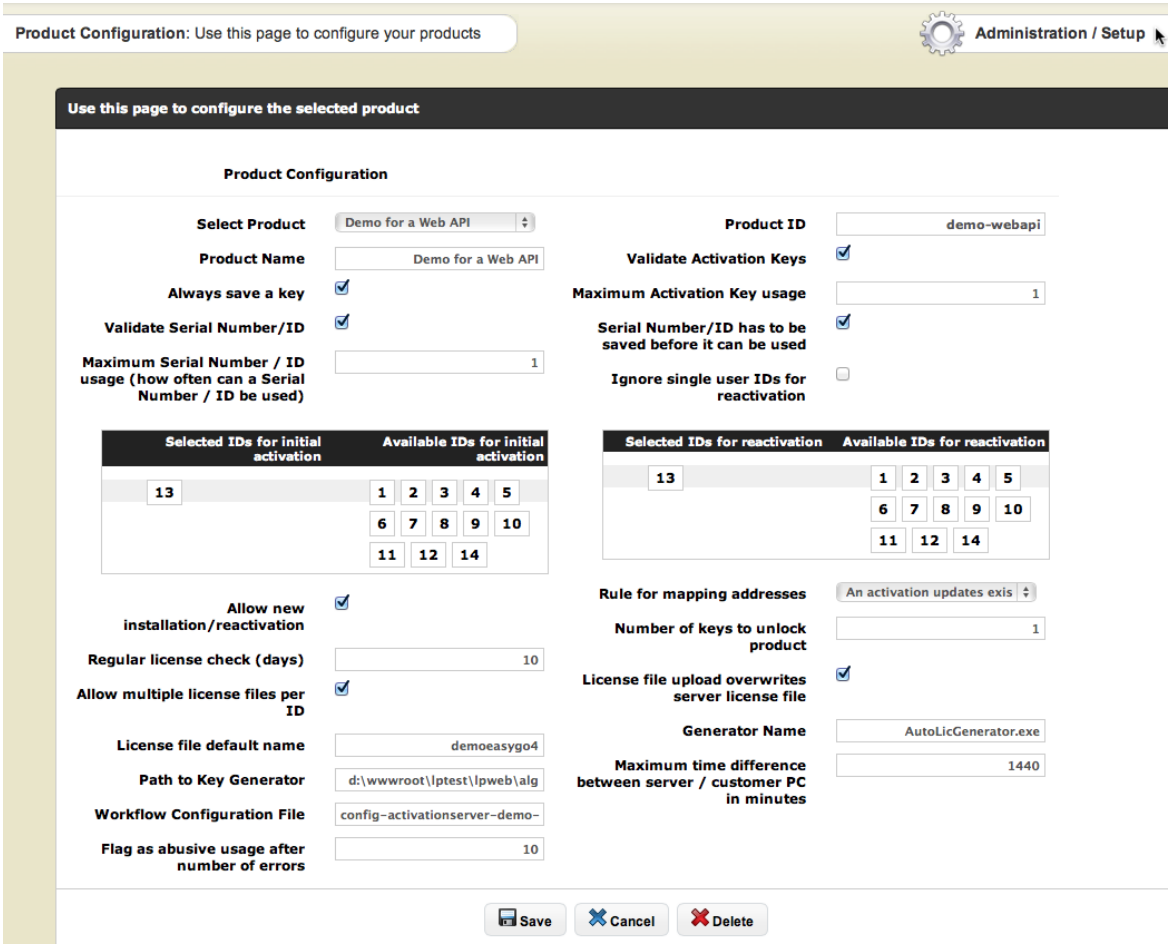

Sample Configuration

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Part IV

4 Copy Protection, Licensing, Evaluation, Activation

Licence Protector 5 offers different license, evaluation and copy protection options

- Copy Protection 67
- Evaluation options 68
- Basic license options 69
- Network license options 71

and multiple activation methods 73.

It allows to test any number of modules / functions and holds all license information in a license file 66.

4.1 The License File and Modules

Licence Protector 5 uses a license file (extension .lic) to store license information. It can contain one ore more modules 203. A module is a function you want to license, e.g. *Basic Version*, *Add-ON1*, Add-ON2. Each module can have individual license information like number of users, time limitation or demo version.

Example
Basic Version, 10 user license, full version
Add-On1, 5 user license, trial version for 10 days
Add-On2, not available

The license file stores a lot of other values like user name, URL for activation server, default values for online validation, concurrent user or copy protection type.

The idea is to have one source code and the complete logic for licensing is provided by the license file, e.g. if the application is an evaluation version or full version, single user or multi user etc.

The license file is not deleted after an update so all license information are always available.

As the file is modified during the program start and during activation, the user needs **read, write, modify an delete** access for the file.

The license file is encrypted with 2 standard encryption methods + a personal encryption 211, to ensure that each application, secured with Licence Protector 5 , has a different license file encryption.

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4.2 Copy Protection - How it works

Licence Protector 5 offers a media independent protection - the media itself like CD / DVD, download link or USB flash drive is not modified or protected. The copy protection does not prevent, that you can copy the data from CD to the hard disk or duplicate the CD, but **it prevents that the application can be started on multiple machines or that the Serial Number can be used twice.**

The license is bound to a **specific hardware ID of the PC** (e.g. MAC address). The application will start only if the license file 66 is on the specified hardware. This works in a single user environment as well as in a network environment.

The advantage of a software copy protection is:

- media independent - distribute the application via CD / DVD, download, USB flash drive or other media where you can store files
- the application can run without a CD / DVD inserted
- you can produce even one single CD - no need to have 1000 CDs duplicated at once
- no problems with the CD / DVD drives or operating systems because no physical modification (like modification of the CD) is done

The additional step, which is necessary, is to transfer the hardware IDs. With Online activation 591, this step is automated. With activation by e-mail, 237 fax 243 or phone 248 this is a manual process.

The following hardware IDs are supported:

- Volume ID 477 (1)
- MAC Address 478 of the network adapter (2)
- Hostname 480 (3)
- Netbios Name 481 (4) 1)
- Volume ID and UNC Pathname 482 (5) **- recommended for network installations**
- MAC Address and UNC Pathname 483 (6)
- IP-Address 483 (7) 1)
- Volume ID + MAC Address + Hostname + UNC Pathname 484 (8) 1)
- Volume ID + MAC Address + Hostname 484 (9) 1)
- Hostname and UNC Pathname (485 10) **- recommended for a server applications**
- USB flash drive (485 11) 1)
- Windows Domain 486 (12) 1)
- Windows ID 487 (13) **- recommended for single user installations**

Details as well as Pros and Cons about each criteria can be found in Part II - Details about Copy Protection 474

You can also use your own hardware IDs - see chapter Use own hardware IDs 490

1)
This feature is only available in the *Professional Edition.*

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If a hardware ID can not be retrieved (e.g. there is no network adapter) then the code is empty.

Installation codes which work only for single PC installations

- Netbios Name 481
- USB flash drive 485
- Windows Domain 486
- Windows ID 487 (recommended)

Server license

For a server license only use an installation code combined with the UNC pathname like code 5 482, code 6 483, code 8 484 or code 10 485

4.3 Evaluation Options

The evaluation version allows to start the application for a specific time without registration. During each program start, the days left for evaluation are displayed.

The following evaluation options are possible

- Limit number of days after first program start
- Limit until a specified expiry date
- Just display the evaluation screen to register but always allow a program start (evaluation without time limitation 227)
- No evaluation version 223 - Serial Number is mandatory
- Limit number of program starts 547
- The evaluation version cannot be activated 225. Full version requires a new installation package

If your application is in evaluation mode and the application is uninstalled and then reinstalled, this is automatically detected. The application will have the same number of days left like before the uninstall process.

Example

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Evaluation time is 30 days. After 10 days of testing the application, the user uninstalls it and then reinstalls the application. The Start Screen 222 would now display *There are 20 days left* because Licence Protector 5 detects, that the application was already installed.

If the user would install the application 2 months later because he makes a new download, then the application would instantly show the screen Evaluation Period Expired 253. This is due to the fact that Licence Protector 5 calculates during the initial installation an final expiry date and the application will never run beyond this date even after an reinstallation.

You can additionally check if the system date was modified - see Check for System Date modification 112

The evaluation option is available for **each module** and each module can have a **different evaluation time**.

Example
- Module A has a time limitation with 20 days
- Module B has a time limitation with 10 days
- Module C expires at 01.01.2009

4.4 Basic License Options

There are different license options available.

Yes / No module

This module type allows to check, if a module / function is available (module is set to Yes) or not (module is set to No).

Definition in project template: ModuleType=4

Counter

A counter is an integer you can use for licensing. This allows retrieving a value and then make an own license check.

Example
Number of Reports = 50

The counter module would return a value of 50. Your application has to ensure, that only 50 reports can be created.

Definition in project template: ModuleType=3

The value range is 0 to 2147483647

To change a counter module with a DLL command use SetVal, Token TLI 711.

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Item Counter

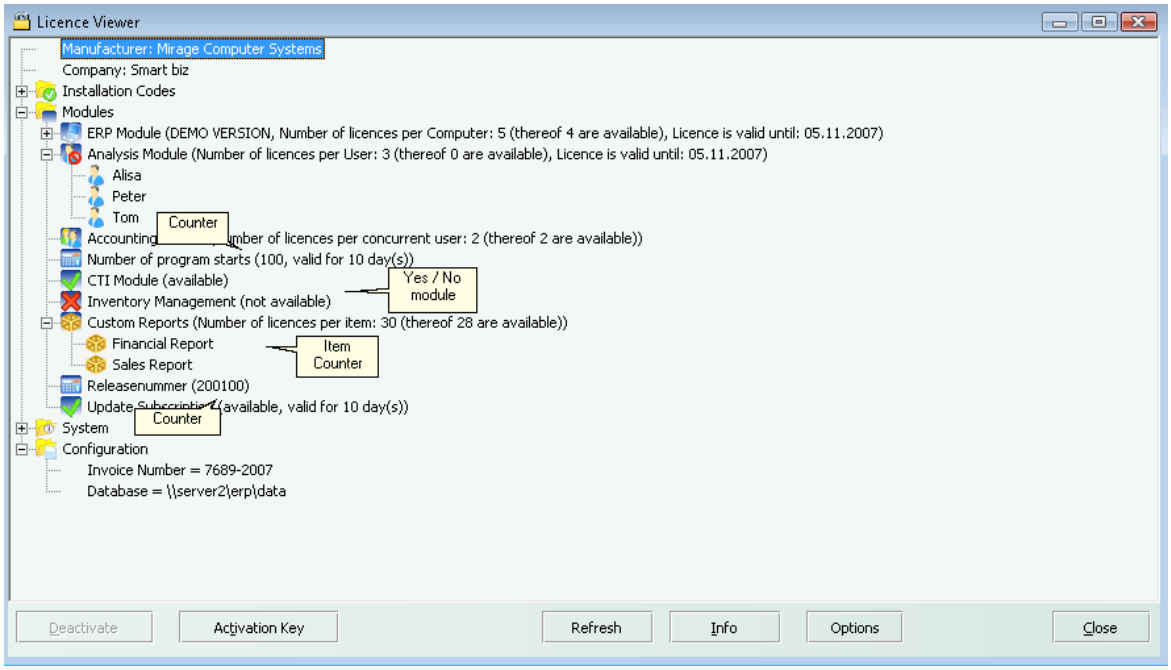
An item counter is similar to a counter and allows to store an integer value AND the names of items.

Definition in project template: ModuleType=5

The value range is 0 to 2147483647

Example
Number of Reports = 50

The license check would provide a report name (e.g. Financial report) and this report name would be stored in the license file. Licence Protector 5 would ensure, that only 50 reports can be created



Depending on the Licence Protector Edition there are limitations regarding the number of modules and available module types. For details see comparison Starter, Basic or Professional Edition 27.

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4.5 Network License Options

Licence Protector 5 supports 3 different types of network licenses:

- license per User
- license per PC
- license per Concurrent User

License per User (Person)

The Windows User name is licensed. Each user, starting the application, will need a license. The windows user name is written into the license file 66.

This type of license requires more licenses like license per PC. If 2 users would share 1 PC this would result in a 2 user license but only in 1 PC license.

For more details see chapter Network License per User 551

Definition in project template: ModuleType=1

License per PC

This is often the default license type. Each PC, starting the application, will need a license. The PC name is written into the license file 66. This type results in less licenses then license per User (e.g. if 2 users share 1 PC then 2 licenses per user are needed but only 1 PC license).

If the application runs on a Citrix / Terminal server, then the hostname of the **local PC** and not the hostname of the server is used.

For more details see chapter Network License per PC 549

Definition in project template: ModuleType=2

License per Concurrent User / Floating license

This is a typical license in a huge multi user environment. The application can be installed on an unlimited number of machines but the number of concurrent (simultaneous) users are counted and limited to the specified number. The license is assigned only as long as the application is running. If the application is terminated, the license is available again. If a user logs in with the same user name on 2 different PCs then 2 licenses are used.

Licence Protector 5 offers a sophisticated verification of concurrent user licenses. Machines that hang or crashed are detected and the license is released. This is all done automatically through the application.

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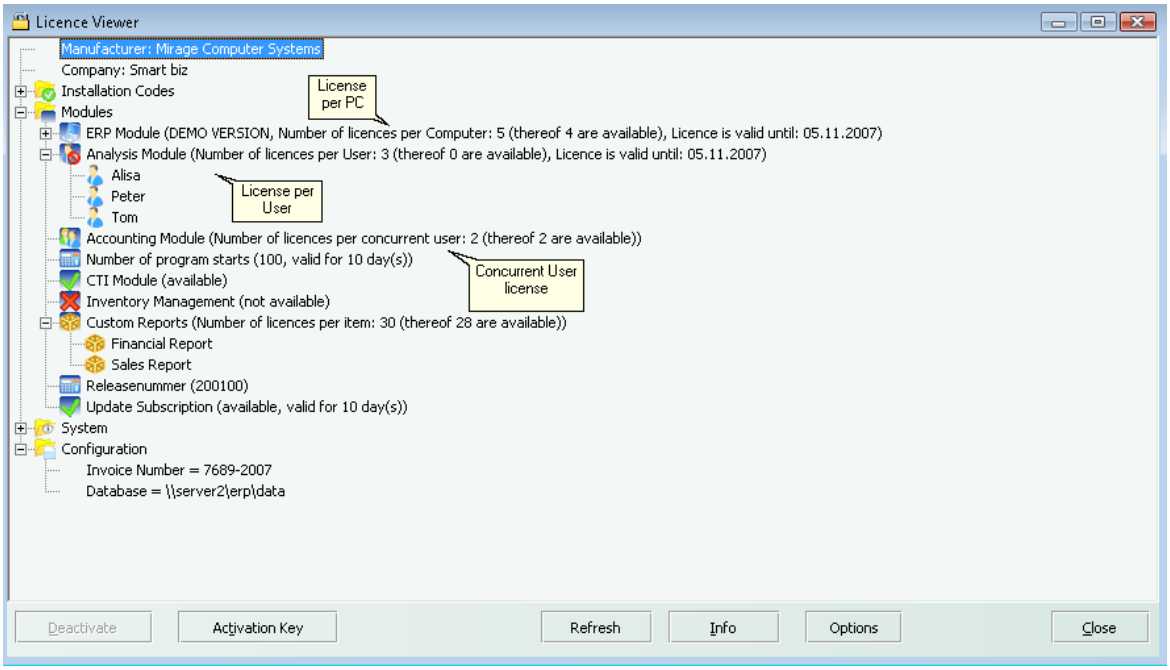
Definition in project template: ModuleType=6

All license types work also in a Terminal Server and Citrix Environment. The license information can be displayed within the License Viewer 258.

For more details see chapter Network License per concurrent user 552



Depending on the Licence Protector Edition there are limitations regarding the number of modules and available module types. For details see comparison Starter, Basic or Professional Edition 27.

See also

Network license - how it works 548
Define network license in project template 203

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4.6 Activation Methods

To activate a product means to turn on Copy Protection 67 and run the software with the specified license options 71.

There are 4 options to activate a product

- Online Activation 591 via Activation Server 6 448
- Activation by e-mail 593
- Activation by Fax 593
- Activation by Phone 593

Which activation method to choose depends on the line of business and the number of copies sold. The activation options can be combined, e.g. use 3 out of the 4 options. You can define a default activation method with the option ***Use as default option***.

Online Activation

Preferred option for medium and large sales.

+ Allows to automate the delivery process
+ No administration personnel needed
+ works 24 hours - customer can activate any time
- Internet connection required
- Could be blocked by application firewalls
- Web Activation Server needed

Activation by e-mail

Preferred option if Online Activation is not available. Should be used as an second option in combination with Online Activation

+ Almost available on any PC
+ No firewall problems
- Internet connection required
- Customer has to wait for the Unlock Key
- Administration personnel needed
- Automation of delivery process not possible

Activation by Fax

Alternative option if Online Activation is not available.

+ Good option as an alternative activation method
- Fax required
- Customer has to wait for the Unlock Key
- Administration personnel needed
- Automation of delivery process not possible

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Activation by Phone

Alternative option if Online Activation is not available.

+ Almost anybody has a phone
- Only available during business hours
- Administration personnel needed
- Automation of delivery process not possible

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Part V

5 Implementing Licence Protector using default workflow

Licence Protector 5 requires a Source Code integration. If Source Code is not available, you can use All-In-One Protector 525 which offers an integration without changing the Source Code.

Perform the following steps to implement a default workflow using EasyGo in your application.

- First download a sample source code 76 and add LicProtector510.dll to your project
- Integration in the Source Code 105
- Create Project Template 182 including personal project encryption keys - (for testing you could use the sample demo-easygo.xml. You could skip this step for a quick evaluation of Licence Protector 5)
- Create a generic license file 99
- Distribution 349

All screens used for product activation and trial version can be viewed in the chapter: Activation and License Screens with EasyGo 221.

We strongly recommend using this predefined workflow. If it does not suit your needs you can make your custom-made screens and your own workflow

- If you want to provide your **own screens** (e.g. because you need a Unicode language like Russian or Chinese) **and deliver a Serial Number Key** - see workflow - Serial Number - own screens 495. It can also be used if you do need **no user interface** because the application runs on the server. See also: Server Application or Service 560
- If you want to provide your **own screens and deliver a license file** and you **do not need online activation** - see workflow - license File - own screens 503

If your application is an application which runs only on the server see chapter: license Testing using a Server Application 560.

5.1 Sample Source Code / Add DLL / COM exe to your project

Sample Source Code

For the compilers listed below a sample source code is available

- Authorware / Director 80
- Access Basic 80
- Excel 80
- Using C++ 80
- Using C# 83

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- Delphi 84
- Using Java 84
- Using PHP 85
- VB6 86
- Using VB.NET 87
- Visual Basic Script 88
- No Source Code available 86

Where to find the DLL / COM exe

The folder *Licence Protector\5.1**files for distribution***\510 contains all Licence Protector 5 components (COM exe and DLLs).

..files for distribution\510

\DLL (signed DLL)
\COMexe (signed EXE version of the DLL - details see below)
\wrapper 91 - only necessary if COM DLLs are not supported
\Convert v3 to v4 - special DLL to convert old license files of version 3.x and 4.x

Using the DLL / COM exe

The recommended component is the **LicProtector510.EXE.** It is required for a 64bit compile or using .NET 4. The DLL can be used if the COM exe is not supported.

Depending on the development tool you add the DLL with a command like

Private objlic As Object
Set objlic = CreateObject("LicProtector.LicProtector**DLL510**")

Usage of different versions on one computer

The LicProtector510.DLL in version 5.1 has the ProgID "LicProtector.LicProtectorDLL**510**" This allows using an older LicProtector.DLL in combination with older versions of LicProtector.dll on the same system. The **ProgID changes with every main release**. The file name of the dll is different from the ProgID (file name: LicProtector510.DLL - ProgID: LicProtectorEasyGo510).

The COM exe has the ProgID: LicProtector.LicProtector**EXE510**

Registering the DLL / COM exe

The uncompressed LicProtector510.DLL and the LicProtector510.EXE is registered during program installation of Licence Protector 5.

To deliver your application or use it on different PCs, you have to register the DLL / COM exe either

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- during the installation with an installer
- using *regsvr32.exe LicProtector*510*.dll* or *LicProtector510.EXE /regserver*
- alternatively you can use the Licence Protector 5 registration tool 356.
- an installation without registering 358 the DLL is also possible.

See also: Installation and System Requirements 350

Limitations

- If your development language does not support COM Server dll use the Wrapper DLL 91 (32bit only) or use All-In-One Protector 86

- The DLL / COM exe cannot be used in threads

DLL / COM exe version information

First check the latest program version and ProgID you find in the table below or for older versions, in the readme.txt file in the folder ..\files for distribution.

If you are using sample source code 519 from our website always check if you have to change the ProgID.

If you use a CRC check 456 adapt the CRC value and CLSID.

COM exe Version 5.1

LicProtector510.exe (can be found on the folder \files for distribution\COM exe)	ProgID	**LicProtector.LicProtectorEXE510**
	CLASSID	DD72B942-27D2-4A3C-9353-FA0441FBABA0
	IID	LicProtector.LicProtectorEXE510
	LIBID	37B86290-9C1A-453F-BFA7-CB6EC9CEC00F
	CRC32	D5CC3483
	File Version	5.1.0.646

DLL Version 5.1

LicProtector510.DLL (can be found on the folder	ProgID	**LicProtector.LicProtectorDLL510**
	CLASSID	8154B85D-6368-44A8-A33D-DF6B05928302

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\files for distribution\DLL)	IID	LicProtector.LicProtectorDLL510
	LIBID	0163D3A9-A890-49B3-A439-AC67E02C9C67
	CRC32	230E7863
	File Version	5.1.0.897

COM exe Version 5.0

LicProtector500.exe (can be found on the folder \files for distribution\COM exe)	ProgID	**LicProtector.LicProtectorEXE500**
	CLASSID	EA53C73A-6402-4498-82BF-5E4E106DA678
	IID	LicProtector.LicProtectorEXE500
	LIBID	EB02C119-BB53-44CB-91C0-7E6AE3EB2A62
	CRC32	18197766
	File Version	5.0.0.641

DLL Version 5.0

LicProtector500.DLL (can be found on the folder \files for distribution\DLL)	ProgID	**LicProtector.LicProtectorDLL500**
	CLASSID	1B391193-ADFD-4611-AACB-2191F2856551
	IID	LicProtector.LicProtectorDLL500
	LIBID	DA322443-FFD3-4727-B624-FF46E16268E5
	CRC32	F70E12AE
	File Version	5.0.0.891

Also see special considerations regarding 64bit operating systems 88.

See also

Wrapper DLL 91
Register the DLL 349

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5.1.1 Authorware / Director (Macromedia)

For protecting files created with Authorware or Macromedia Director you have 4 different options:

1. Create one executable file and protect the executable file with All-In-One Protector 525. (recommended)
2. Make a Source Code integration using additional a tool www.XtraMania.com which allows to address the LicProtector**510.dll** with complete integration options. This is the most flexible solution but requires development work. It allows to protect application features
3. Make a Source Code integration using the Licence Protector 5 Wrapper DLL 91. This allows the integration with one DLL calls but has a limited set of features
4. Generate a swf flash. If the file runs in the standard flash player, it will run with All-In-One Protector 525. This is the most secure solution to protect the **content of the flash file** but could have limitations if you use special functions, which are not supported by the standard flash player

5.1.2 Access Basic

First download the Access Basic sample

- You do not need to add a reference to the Licence Protector DLL in your project, because late binding is used to access the COM Object.
- You can use the Licence Protector object directly with the following command line: Set lic = CreateObject("LicProtector.LicProtectorDLL510")
- Rebuild your application

5.1.3 Excel

Excel applications can be protected using All-In-One Protector (www.AllInOne-Protector.com), which does not require any development work. Click here for details

5.1.4 C++

C++ needs header files. Depending on the compiler you use they can be automatically created.

First download the c++ sample code

- Visual Studio 2010 (and newer) C++ with MFC
- Visual Studio 2010 (and newer) C++ without MFC
- Visual Studio 2008 C++ with MFC
- Visual Studio 2008 C++ without MFC
- C++ for Version 6.0 with MFC (can also be imported in Visual Studio 2003) for EasyGo

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- C++ for Version 6.0 without MFC (can also be imported in Visual Studio 2003) for EasyGo

Using C++ with MFC

Find below how to add a DLL to Visual Studio C++

- In Visual Studio right click on the project and Add a new class
- Choose type "MFC class from TypeLib"
- In the Class Wizard set "Add class from file" and select in "Location" the DLL you have just registered. The DLL can be found in the folder ....*Licence Protector\5.1**files for distribution\DLL***
- Press Button ">>" to generate the class from the provided interface
- Keep the Name (e.g. CLicProtectorEasyGo510.h) and press "Finish"
- Now you have a file CLicProtectorEasyGo510.h in your project.

- In file EasyGoDemoView.cpp sample modify the line using the latest version number
  #include "CLicProtectorEasyGo510.h"

- In function CEasyGoDemoView::ProtectMe() adapt the lines

```
CLicProtectorEasyGo510 licProtector;   // Licence Protector 5 object

// Create the automation object
BOOL bRes = licProtector.CreateDispatch("LicProtector.LicProtectorDLL510");
```

- Rebuild the project

Using C++ without MFC

- The DLL can be imported in a c++ project by adding the following line at the top of the source code:

```
#import "progid:LicProtector.LicProtectorDLL510
```

- All neccessary include files are generated automatically.
- To create an instance of the Licence Protector object the following lines are needed:

```
CoInitialize(NULL);
ILicProtectorEasyGo510* lp = NULL;
CoCreateInstance(__uuidof(LicProtectorEasyGo510), NULL,
CLSCTX_INPROC_SERVER, __uuidof(ILicProtectorEasyGo510), (void**)&lp);
```

Only if the #import command is not available with your C compiler use the following method to build a header file

- Create header file

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- Use the "OLEViewer Version 2.1 or later". It comes with Visual Studio, Win32SDK or can be downloaded from the Microsoft Homepage http://www.microsoft.com/downloads/details.aspx?FamilyID=5233b70d-d9b2-4cb5-aeb6-45664be858b6&DisplayLang=en
- Open the "oleview.exe"
- Open the LicProtector510dll with "File" - "View TypeLib...". The DLL can be found in the folder ....*Licence Protector\5.1**files for distribution\signed-compressed***
- Save the generated text into a ".idl" file
- Open the idl-file with a text-editor and copy the typedef sections from the end to the beginning of the library section. Save the idl-file.
- Search for the "midl.exe" on your system (it comes with Visual Studio or Win32SDK)
- Execute the "midl.exe" with command line parameters (IDL file, header file)
  example: *midl.exe C:\MIDLTest\LicProtector510.idl /out C:\MIDLTest /header LicProtector510.h*

- Use the file CLicProtectorEasyGo510.h in your project.
- In file EasyGoDemoView.cpp sample modify the line using the latest version number
  #include "CLicProtectorEasyGo510.h"
- In function CEasyGoDemoView::ProtectMe() adapt the lines

```
CLicProtectorEasyGo510 licProtector;   // Licence Protector 5 object

// Create the automation object
BOOL bRes = licProtector.CreateDispatch("LicProtector.LicProtectorDLL510");
```

- Rebuild the project

Note: if the "midl.exe" tells you that there is a file missing (for example "OAIdl.Idl"), search your system for it and copy it into the directory of the "midl.exe".

Additional information

The latest information about the ProgID, ClASSID, IID, LIBID can be found here 76.

As Licence Protector 5 is a COM server DLL it is used the same way you would integrate a Word automation. Just google for - Word Automation DLL C++ to find guides for different compilers.

- For Visual Studio C++ 2007 and newer you need Licence Protector version 4.1
- Compiling with .NET 4 will result in an error. Compile using the COM exe 88

Code Protection with All-In-One Protector

To protect the code against de-compilation or reverse engineering, you can combine

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Licence Protector with All-In-One Protector for a special bundle price.

See chapter: Code Protection / Decompile Protection 461

5.1.5 C#

First download the C# sample code

- C# 2010 and newer
- C# 2008

Find below how to add a DLL to Visual Studio C#

- In Visual Studio Solution Explorer go to References, select "licenseProtector" and remove it.
- Select "References" and add a reference
- Chose tab "COM"
- Select the "Licence Protector 5 Library" entry whose path points to the new LicProtector510.exe. The COM exe can be found in the folder ....*Licence Protector\5.1**files for distribution****COMexe**
- Press button "Select"
- Press button "Ok" - Now the new Licence Protector 5 object is available in your application
- Rebuild your application

The latest information about the ProgID, ClASSID, IID, LIBID can be found here 76.

As Licence Protector 5 is a COM server DLL it is used the same way you would integrate a Word automation. Just google for - Word Automation DLL C# to find guides for different compilers.

- C# creates an interop.licenseprotector.dll. This DLL must be installed on the same directory like the main EXE file.exe
- Compiling with .NET 4 will result in an error. Compile using the COM exe 88

An installation **without** needing administration rights to register the COM exe is possible. See details - Register DLL / COM exe without admin rights 356

Code Protection with All-In-One Protector

To protect the code against de-compilation or reverse engineering, you can combine Licence Protector with All-In-One Protector for a special bundle price.

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See chapter: Code Protection / Decompile Protection 461

5.1.6 Delphi

First download the Delphi sample source code.

- You do not need to add a reference to the Licence Protector DLL in your project, because late binding is used to access the COM Object.
- You can create the Licence Protector object in Delphi with the following command line: lic := CreateOleObject(LicProtector.LicProtectorEXE510);. The COM exe can be found in the folder ....*Licence Protector\5.1**files for distribution****COMexe**
- The variable for the COM object can be declared as:
  lic: OleVariant;
- Rebuild your application

An installation **without** needing administration rights to register the COM exe is possible. See details - Register DLL / COM exe without admin rights 356

Code Protection with All-In-One Protector

To protect the code against de-compilation or reverse engineering, you can combine Licence Protector with All-In-One Protector for a special bundle price.

See chapter: Code Protection / Decompile Protection 461

5.1.7 Java

First download the Java sample source code

Java can not directly access a DLL or ActiveX control. You need a Java - COM/Activex bridge, e.g.

- http://sourceforge.net/projects/jacob-project/ (open source)
- http://www.javain.com/javain/index.jsp (OLEJA)
- http://www.infozoom.de (jacozoom)
- http://j-integra.intrinsyc.com (jintegra)
- http://www.ezjcom.com (EZ JCom)

The provided sample for Java is made with Java 6 and JACOB Java COM Bridge, but it can easily be transferred to another Java version or another Java COM bridge.

Necessary steps using JACOB Java COM Bridge

- Download the Java sample source code from the website
- Download the JACOB Java Com Bridge

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- Copy the *jacob-1.14-x86.dll* into the sytem32 folder or into your application folder
- Make sure that the jar of the Java-COM/ActiveX Bridge is in the project-library and that the **path is correct**.To config the Jacob Library path, right click on Libraries.Then click on "Properties". Now you can add the file “Jacob.jar” by clicking on the button “Add JAR/Folder
- Make sure that the LicProtector510.exe is installed an registered on the machine. The COM exe can be found in the folder ....*Licence Protector\5.1**files for distribution****COMexe
- Replace all occurrences of the old object (e.g. LicProtector.LicProtectorEXE300) with the latest version, which is LicProtector.LicProtectorEXE510
- If you get compile errors or need more background information - click here. Some XP machines seem to have missing components. It may be usedfull to install the Microsoft Visual C++ 2005 SP1 Redistributable Package. Just add it in your installer and make a shell execute in silent mode: *VCRedist_x86.exe /Q*

An installation **without** needing administration rights to register the COM exe is possible. See details - Register DLL / COM exe without admin rights 356

Code Protection with All-In-One Protector

To protect the code against de-compilation or reverse engineering, you can combine Licence Protector with All-In-One Protector for a special bundle price.

See chapter: Code Protection / Decompile Protection 461

5.1.8 PHP

PHP code cannot protected directly. You have to extract **important** code parts from PHP and place the code into a DLL. Then you protect the DLL with Licence Protector 5. The DLL can be written with any compiler. If you would directly address the Licence Protector 5 DLL, a hacker could remove the DLL commands.

Another option is to compile PHP to an EXE file. There are different tools which offer this option. Then All-In-One Protector can be used.

How to reference a DLL from PHP see http://www.php.net/manual/en/ref.com.php

See also: Server Application, Service, Web Application 560

Code Protection with All-In-One Protector

To protect the code against de-compilation or reverse engineering, you can combine Licence Protector with All-In-One Protector for a special bundle price.

See chapter: Code Protection / Decompile Protection 461

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5.1.9 Other compilers / No Source Code

If you do not have the source code of an application or a DLL cannot be used, it is not possible to use Licence Protector 5 - use instead **All-In-One Protector**. It allows similar license and product activation options without the need to develop or change source code.

www.AllInOne-Protector.com

5.1.10 VB6

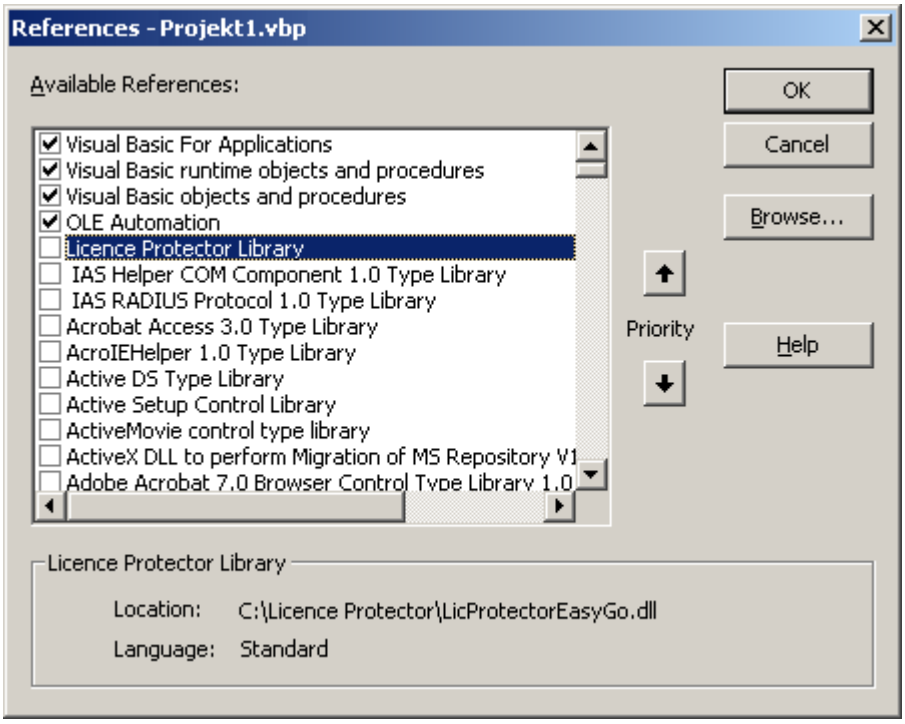
First download the VB6 sample source code

Using late binding

- If you use late binding, you do not need to add a reference to the Licence Protector EXE. Note that code completion does not work if late binding is used.
- You can use the Licence Protector object directly with the following command line: Set lic = CreateObject("LicProtector.LicProtectorEXE510")
- Rebuild your application

Using early binding

- In Visual Basic 6.0 click on the “Project” menu and open the menu item “References…”. Remove the entry "Licence Protector Library" if it is already there



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- Then add the new "Licence Protector Library" entry whose path points to the new LicProtector510.exe. The COM exe can be found in the folder ....*Licence Protector\5.1**files for distribution****COMexe**
- Now the new Licence Protector object is available in your application.
  You can use it with the following command line:
  Set lic = New LicProtector.LicProtectorEXE510
- Replace all occurrences of the old object (e.g. LicProtector.LicProtectorEXE300) with the latest version, which is LicProtector.LicProtectorEXE510
- Rebuild your application

An installation **without** needing administration rights to register the COM exe is possible. See details - Register DLL / COM exe without admin rights 356

Code Protection with All-In-One Protector

To protect the code against de-compilation or reverse engineering, you can combine Licence Protector with All-In-One Protector for a special bundle price.

See chapter: Code Protection / Decompile Protection 461

5.1.11 Visual Basic .NET

First download the VB.NET sample source code

- VB.NET 2010 and newer
- VB.NET 2008

- In Visual Basic .NET open project properties. Go to page "References" and remove "Licence Protector Library"
- Add a new reference
- In the "Add Reference" window chose tab "COM"
- Select the "Licence Protector Library" entry whose path points to the new LicProtector510.exe. The COM exe can be found in the folder ....*Licence Protector\5.1**files for distribution****COMexe**
- Now the new Licence Protector object is available in your application
- Rebuild your application

An installation **without** needing administration rights to register the COM exe is possible. See details - Register DLL / COM exe without admin rights 356

Compiling with .NET 4 will result in an error. Compile using the COM exe 88

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Code Protection with All-In-One Protector

To protect the code against de-compilation or reverse engineering, you can combine Licence Protector with All-In-One Protector for a special bundle price.

See chapter: Code Protection / Decompile Protection 461

5.1.12 Visual Basic Script

VB Script is typically used in office applications like Excel, Access or Word. You could also use All-In-One Protector (www.AllInOne-Protector.com), which does not require any development work. Click here for details

First download the VB Script sample source code

- You do not need to add a reference to the Licence Protector DLL in your project, because late binding is used to access the COM Object.
- You can use the Licence Protector object directly with the following command line: Set lic = CreateObject("LicProtector.LicProtectorDLL510")
- Rebuild your application

5.1.13 64bit / 32bit support / COM exe

Licence Protector 5 is a 32bit DLL. It runs on 64bit operating systems like Vista / Windows 7 / Windows 8 64bit or Windows 2008 / 2012 Server 64bit as long as the main application is compiled for **32bit**.

If you need a **64bit compile** or you compile a .NET application for any CPU or for .NET4, you have to use the COM exe version of Licence Protector - **LicProtector510.EXE.** It is a DCOM component which can be used by a wide range of compilers. It can be found in the folder The folder *Licence Protector\5.1**files for distribution\COM exe***

The COM EXE supports 32bit and 64bit operating systems as well as 32bit and 64bit compiles.

There is no need to change the source code (only to change the ProgID 76) to switch from a 32bit compile to a 64bit compile. Even applications, compiled with 32bit and 64bit within a network can access the same license file.

Depending on the development tool you add the COM exe (like a DLL) with a command like

```
Private objlic As Object
Set objlic = CreateObject("LicProtector.LicProtectorEXE510")
```

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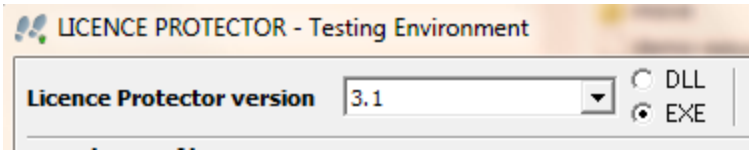
The LicProtector510.exe in version 5.1 has the ProgID " LicProtector.LicProtector**EXE510**" This allows using an older LicProtector.exe in combination with older versions of LicProtector.exe on the same system. The **ProgID changes with every main release**. The file name of the exe is different from the ProgID (file name: LicProtector510.exe - ProgID: LicProtectorEXE510).

- As the COM exe works with 32bit AND 64bit compiles, you can exclusively use the LicProtector510.EXE instead of the DLL.

- To use the COM exe (64bit) for testing with the License Tester 296, select EXE right to the Licence Protector version number.



Registration

- The COM exe has to be registered with **LicProtector510.EXE /regserver**. If the user does not have admin credentials, it will register for **this user only**. There are some situations where you need to register on machine level (e.g. your application is a service). Then use **LicProtector510.EXE /regserver /NOREDIRECT.** This requires administrator rights
- Alternatively you can use the Licence Protector 5 registration tool 356 to register without admin rights

Permissions

Some applications may require special permissions for the COM exe (e.g. if they are a **service**). You can change the permission:

- From the **Start** menu, click **Run** and type **MMC -32**
- Then **add** the *Component Services* snap-in from there (File / Add Snap-in)
- In **Component Services**, click **Console root**, expand **Component Services**, expand **Computers**, and then click **My Computer**
- Expand **DCOM Config** and search for **LicProtector Obj**
- Right click - select **properties** and then the **Security** TAB
- Add the users from your service

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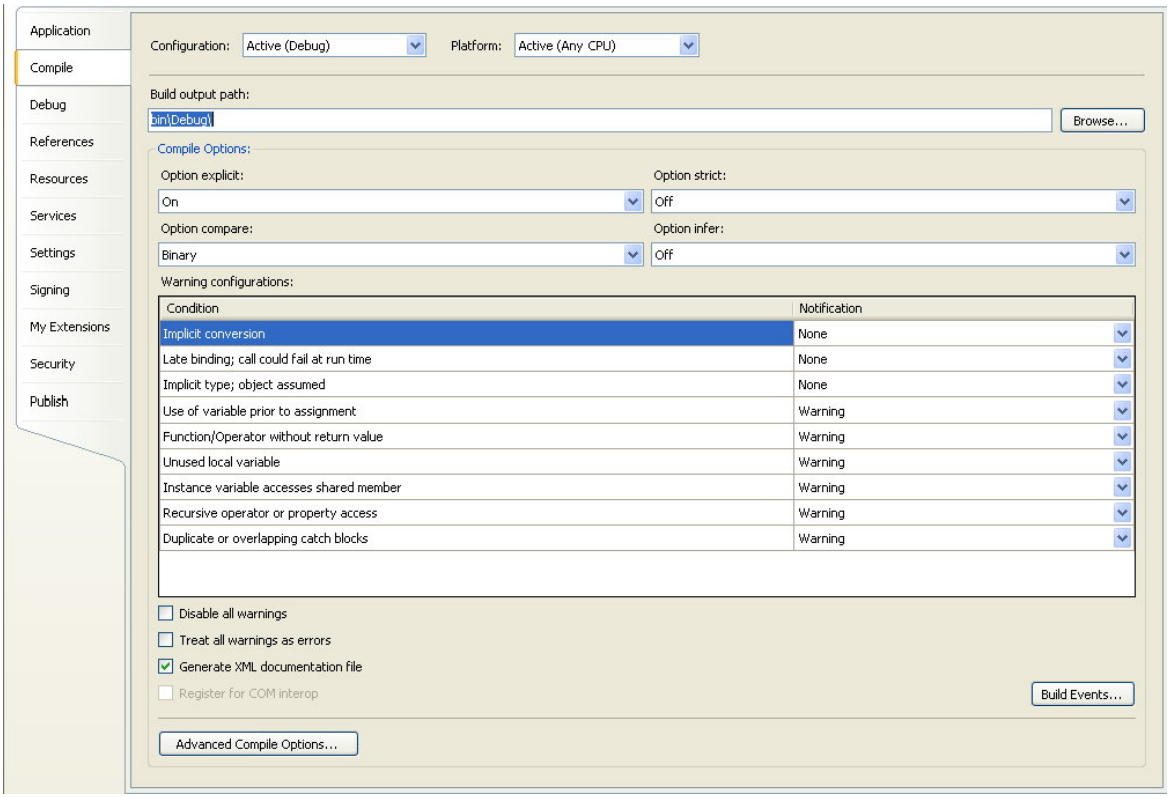
Errors

A compile setting for **any CPU** will generate an error 80040154 at runtime. Either use the COM exe (recommended) or change your compile settings to compile for compiled for **x86 CPU**.

Details

Find below how to change the settings for Visual Basic 2008. Other .NET compilers have a similar option.

To change the platform open the project properties and click under the submenu "*Compile*" on the button "*Advanced Compile Options...*":



Advanced Compile Options

Now you can change Target CPU from "Any CPU" to "**x86**".

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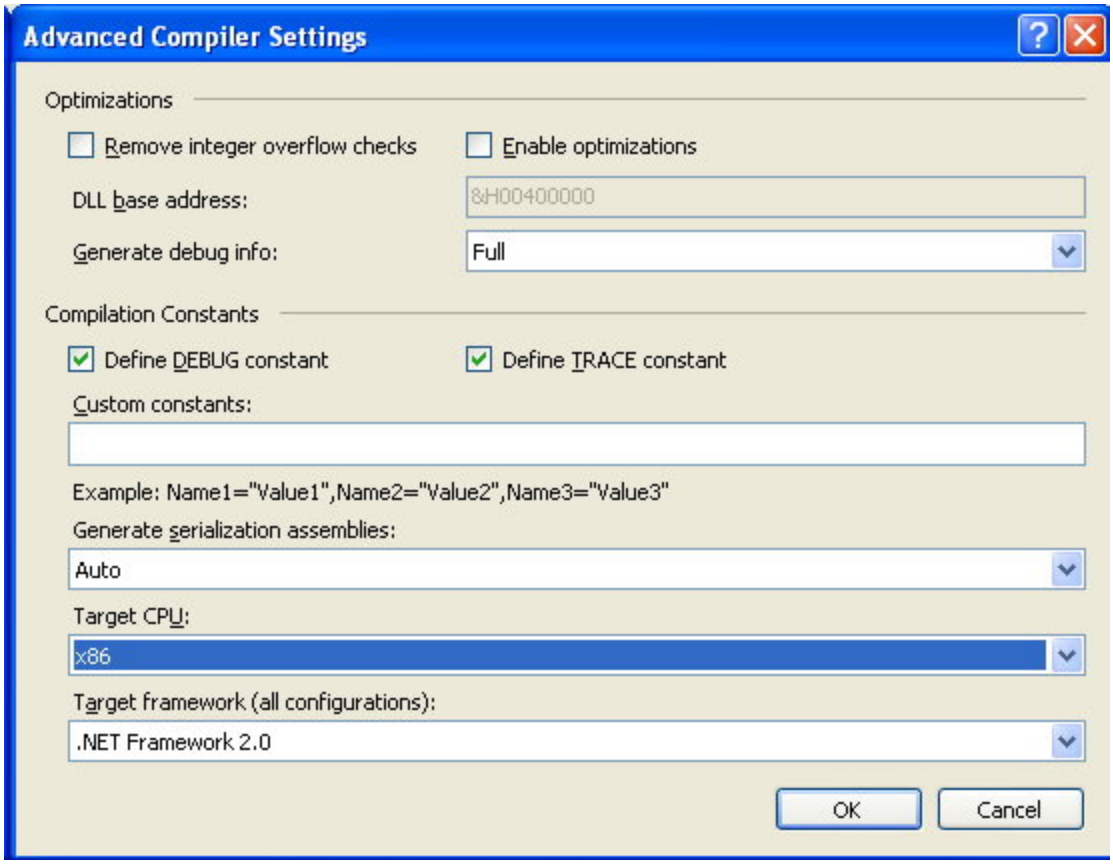

5.1.14 Compiler is not listed here

If the compiler you are using is not listed here, you can use the sample source code we provide as text information 105.

5.1.15 Wrapper DLL

Some development languages like Macromedia Director, Authorware or Borland Builder C++ 5.0 don't support COM Server DLLs. Licence Protector offers additionally a standard Windows DLL with limited options to support theses development tools. This DLL - **lpdll**510**.dll** - uses internally the main LicProtector 76 510.dll 76. The DLL acts as a wrapper to the main DLL with standard DLL interface.

You have to deliver and register the LicProtector510 **and** lpdll510.dll. The lpwrapper needs no registration.

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Download the Wrapper DLL with sample Source Code and check the available DLL commands.

See also - commands of the Wrapper DLL

CheckFulllicense 92
ShowLicViewer 97
ValidateModule 98

5.1.15.1 CheckFullLicence

This DLL command performs a full license and activation check using EasyGO. It wraps the commands SetLanguage 108, SecurityLevel 110, SetRegisterSettings 116 and PrepareAndCheck 162 into **one single command**. All details of the parameters are described in the function reference of these commands.

Param	Datatype	Example	Description
pcFileName	String	“demo-easygo.lic”	The full path to the license file . See details for UNC pathnames
pcReadKey	String	“r1lkYAp1xGQN81fBrcZ1dfXtw1doy3Z1 l4KHy0N2yvL0ZBDcX274DHV1BfV7s0R FpjZ1NOmMf1qXGsu1MqTXK1t4Tsq1c7 jQq1iP3VM1NNx6j1s64YK299TY71YSrb K0NdSom29inxM29bPTJ1mmLNV0SNd C41xCbdT2adSqt2aazQL1dslWy1fGXFi 11YWOv1fFhLt2acufE1hRGXY1VxH0R 0ViybX0XmcNz1lm76W1gQqQe21grLU 1VAc401UqH8l0YHwOD1S46cC20hVp	The project secure key or Read Key for that license file. See details - Read Key 166

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		D1cfAYk299ixt”	
pcModuleID	String	“QHD001”	Unique ModuleID – identifies the module to be tested in EasyGo functionality - see details main module 166
pcUsername	String	“”	The user or item name to check the module for. Normally, you would pass this information only if you have an own user administration. Default option is to use the automatic function - UseWindowsUser = true
bUseWindowsUser	Boolean	true	Determines if the windows login name or hostname should be used as name for the license. Concurrent User uses a combination of username and PC name. If the module is an Item Counter, provide the name for the item counter in the field Name and set UseWindowsUser to false
iLanguage	Int	0	Language code (0 is language of the operating system - list of Language codes 108)
iSecurityLevel	int	1	SecurityLevel: 110 1 is advanced

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			(ReadKey is used), 0 is basic (PSK is used)
pcImageFile	String	“cdc.jpg”	Absolute path to the logo image used in the EasyGo form. Notice: The Image has to be of format JPEG. Use a size of 175x115 to get the best result. The pixel in the left upper corner is used as transparency color . Also see: Background Image 123
bLicViewerAllowed	Boolean	true	Controls whether theLicense Viewer 281 is accessible in the EasyGo form. The icon appears if the link is provided. The option is: *Show License Information* Notice: On the EasyGo error screen the License Viewer is always available independent of this parameter.
bSerialIsAK	Boolean	**true**	Controls whether the Serial Number 301 is a Licence Protector 5 Serial Number or an own ID 179
pcManufacturer	String	“Mirage Computer Systems”	Name of the manufacturer
pcProductname	String	“CTI Data Connector”	Name of the application which is displayed in the title

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			bar. If value is empty the projectname 190 of the license file is used.
bRegisterOnline 232	Boolean	true	Controls whether online Registration is allowed. The WebServiceURL 210 in the license file is used for the Activation.
bRegisterBye-mail 237	Boolean	true	Controls whether registration by e-mail is allowed
pcEMail	String	register@registerserver.net	e-mail-Address to which the e-mail registration has to be sent
bRegisterByFax 243	Boolean	true	Controls whether registration by fax is allowed
pcFaxumber	String	“+49 721/15159963”	Fax-Number to which the registration form has to be sent
bRegisterByPhone 248	Boolean	True	Controls whether registration by phone is allowed
pcPhonenumber	String	“+49 700 54885342”	Phone number which has to be called to receive the Unlock Key(s)
pcEMail_Fax_Text	String	“Your registration information is sent to our Activation Center. Please allow 1 to 2 business days to send an unlock key.”	Additional text that appears on the registration e-mail or Fax. May be empty.
iDefaultMethod	Int	0	Controls the primary registration method: 0 = Online (default) 1 = e-mail 2 = Fax

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			3 = Phone
pcBuyURL	String	“www.mirage-systems.de/cdc/order.html”	URL on which the product can be bought online. **If empty no BUY button is visible** EasyGo form. The BUY button is only visible until the Serial Number is typed in. Can also be a link to a file on the local hard disk, e.g. PDF order form
pcHelpURL	String	“www.mirage-systems.de/cdc/activation-guide.html”	URL to provide additional help information for the registration process. The icon appears if the link is provided. See details for default help. 131
pcCopyProtectionSwitchOnKey	String	“V3DEq-5CP93-9E4Ik-3tJ8X-lQD5k-6c14X”	Copy Protection Switch On Key - please check documentation
pcCopyProtectionSwitchOffKey	String	“”	Copy Protection Switch Off Key - please check documentation
pcLanguages	String	“2;1”	all Languages that can be used for the Application, separate by semicolon - see: SetRegisterLanguages 134
bShowError	Boolean	True	if there are errors in the dll, they will be shown in a message box

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5.1.15.2 ShowLicViewer

This commands displays the License Viewer 281. It opens the license file either in Basic mode (Prepare 727) or Advanced mode (PrepareAdvanced) 729, sets the language with SetLanguage 108, displays the License Viewer with ShowLicViewer 800 and closes the license file with quit 179.

Param	Datatype	Example	Description
pcFileName	String	“demo-easygo.lic”	The full path to the license file . See details for UNC pathnames
pcReadKey	String	“r1lkYAp1xGQN81fBrcZ1dfXtw1doy3Z1 l4KHy0N2yvL0ZBDcX274DHV1BfV7s0R FpjZ1NOmMf1qXGsu1MqTXK1t4Tsq1c7 jQq1iP3VM1NNx6j1s64YK299TY71YSrb K0NdSom29inxM29bPTJ1mmLNV0SNd C41xCbdT2adSqt2aazQL1dslWy1fGXFi 11YWOv1fFhLt2acufE1hRGXY1VxH0R 0ViybX0XmcNz1lm76W1gQqQe21grLU 1VAc401UqH8l0YHwOD1S46cC20hVp D1cfAYk299ixt”	The project secure key or Read Key for that license file. See details - Read Key 166
iLanguage	Int	20000	Language code (0 is language of the operating system - list of Language codes 108)
iSecurityLevel	int	1	SecurityLevel: 110 1 is advanced (ReadKey is used), 0 is basic (PSK is used)

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5.1.15.3 ValidateModule

This command allows to perform a license check on module level. It opens the license file either in Basic mode (Prepare 727) or Advanced mode (PrepareAdvanced) 729, checks the module using the ValidateCommand 818 and closes the license file with quit 179.

Param	Datatype	Example	Description
pcFileName	String	“demo-easygo.lic”	The full path to the license file . See details for UNC pathnames
pcReadKey	String	“r1lkYAp1xGQN81fBrcZ1dfXtw1doy3Z1 l4KHy0N2yvL0ZBDcX274DHV1BfV7s0R FpjZ1NOmMf1qXGsu1MqTXK1t4Tsq1c7 jQq1iP3VM1NNx6j1s64YK299TY71YSrb K0NdSom29inxM29bPTJ1mmLNV0SNd C41xCbdT2adSqt2aazQL1dslWy1fGXFi 11YWOv1fFhLt2acufE1hRGXY1VxH0R 0ViybX0XmcNz1lm76W1gQqQe21grLU 1VAc401UqH8l0YHwOD1S46cC20hVp D1cfAYk299ixt”	The project secure key or Read Key for that license file. See details - Read Key 166
pcModuleID	String	“QHD001”	the module to validate
pcUsername	String	“”	The user or item name to check the module for. Normally, you would pass this information only if you have an own user administration. Default option is to use the automatic function - UseWindowsUser = true

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bUseWindowsUser	Boolean	true	Determines if the windows login name or hostname should be used as name for the license. Concurrent User uses a combination of username and PC name. If the module is an Item Counter, provide the name for the item counter in the field Name and set UseWindowsUser to false
iSecurityLevel	int	1	SecurityLevel: 110 1 is advanced (ReadKey is used), 0 is basic (PSK is used)

5.2 Create License File

EasyGo uses a **generic** license file 66. You would distribute the **same file to all users** within your installation package 349. The license file is always necessary even if you work only with Activation Keys.

Start the License Generator 24 and load your project template (, *Open project files*). If you just want to test, use the file ..\EasyGo\demo-easygo.xml.

Typically, you select the default settings for the evaluation version and then save the file.

- Define time limitation 100
- Define number of licenses 103 (only for network version)
- Define Demo version 104
- Save the license file -

This will either create a time limited full version or time limited demo version.

Other scenarios are also possible:

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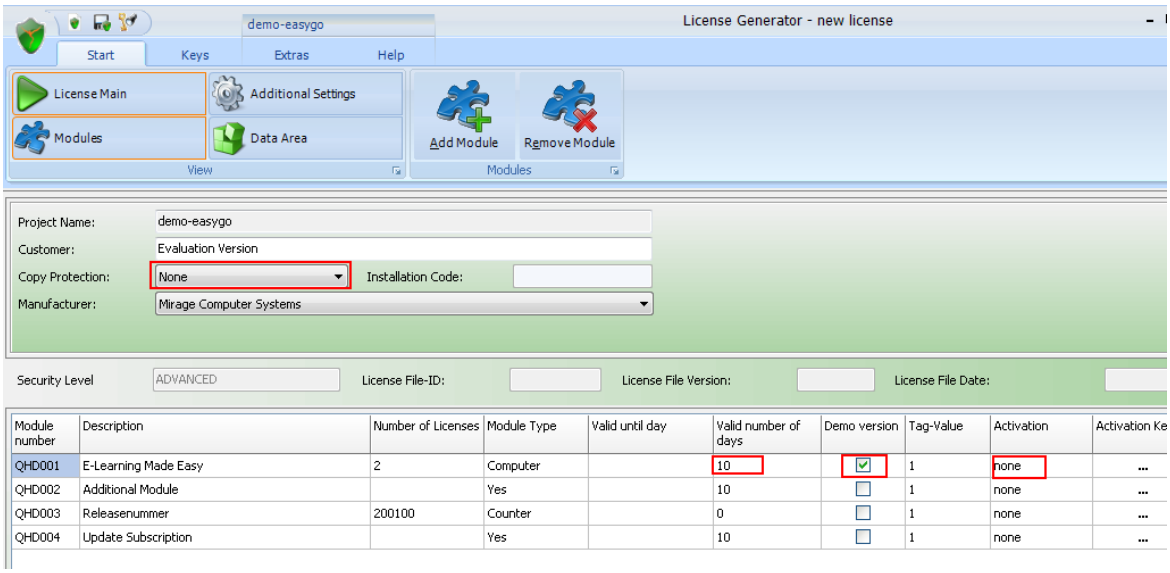
- Evaluation version without time limitation 227
- No Evaluation version 223 - a Serial Number is needed to start the application
- The evaluation version cannot be activated 225. Full version requires a new installation package

Typical settings for an evaluation version



- The status of the field **Activation** must be set to **none**. The status is the trigger to allow activation and is set later to required with the Serial Number. 301
- The generic license file is **without** copy protection because the hardware Id's 475 are only available after installation
- If you want to simulate a new installation of your application multiple times on the same test machine see chapter: License File - Testing 104

5.2.1 Define Time Limitation / Evaluation Options

You can limit the evaluation period

There are 2 different options to limit a module

- **Number of days** after first usage and/or
- **Final expiry date** (Valid until day)

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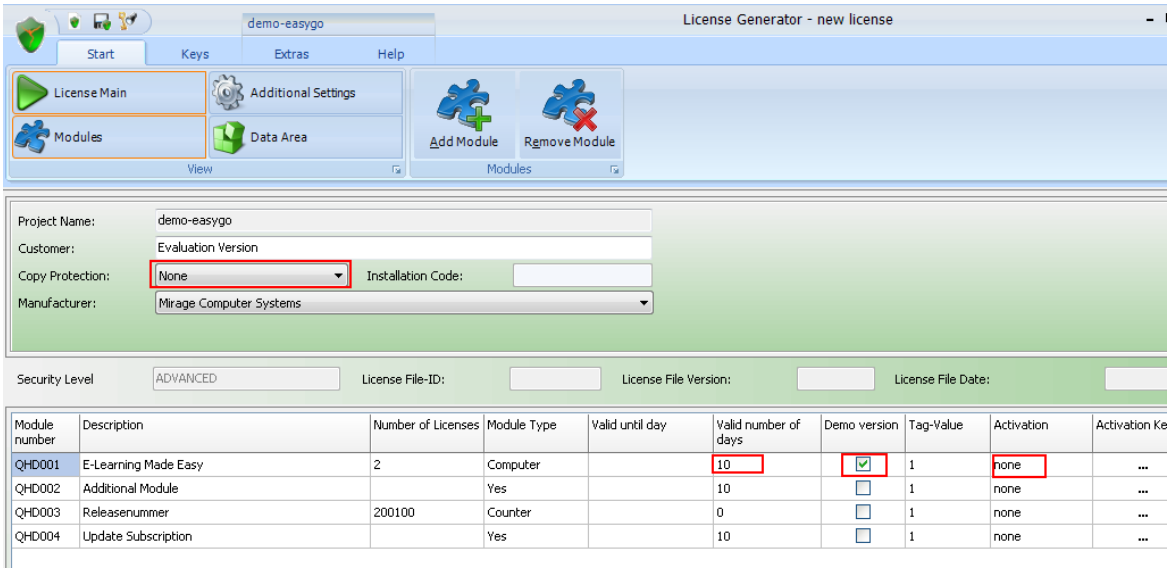

If you specify number of days **and** an expiry date, then the event which happens first, is used.

Example
Expiry date is 10.10.2008, number of days is 10

- First program start is June 5th - program would expire after 10 days on June 15th
- Frist program start is October 5th - program would expire after 5 days on October 10th

When does time limitation start?

Time limitation starts not with installing the program or with opening the license file - it starts with the **first usage** of the Validate 818 / PrepareAndCheck 162 call for a module.

This allows to start the time limitation for each module separately. Example:

You have 2 modules. Both modules have a trial period of 30 days.

If module A is first used on 01.01.2007, then module A expires at 30.1.2007. If module B is first used on 10.01.2007 then only module B expires at 10.02.2007.

If you want to start the trial period with the installation of the software, then invoke the application after installation and use the validate command for all modules.

Evaluation options, time limitation on module level, limit number of program starts

The evaluation version allows to start the application for a specific time without

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registration. During each program start, the days left for evaluation are displayed.

The following evaluation options are possible

- Limit number of days after first program start
- Limit until a specified expiry date
- Just display the evaluation screen to register but always allow a program start (evaluation without time limitation 227)
- No evaluation version 223 - Serial Number is mandatory
- Limit number of program starts 547
- The evaluation version cannot be activated 225. Full version requires a new installation package

If your application is in evaluation mode and the application is uninstalled and then reinstalled, this is automatically detected. The application will have the same number of days left like before the uninstall process.

Example

Evaluation time is 30 days. After 10 days of testing the application, the user uninstalls it and then reinstalls the application. The Start Screen 222 would now display *There are 20 days left* because Licence Protector 5 detects, that the application was already installed.

If the user would install the application 2 months later because he makes a new download, then the application would instantly show the screen Evaluation Period Expired 253. This is due to the fact that Licence Protector 5 calculates during the initial installation an final expiry date and the application will never run beyond this date even after an reinstallation.

You can additionally check if the system date was modified - see Check for System Date modification 112

The evaluation option is available for **each module** and each module can have a **different evaluation time**.

Example
- Module A has a time limitation with 20 days
- Module B has a time limitation with 10 days
- Module C expires at 01.01.2009

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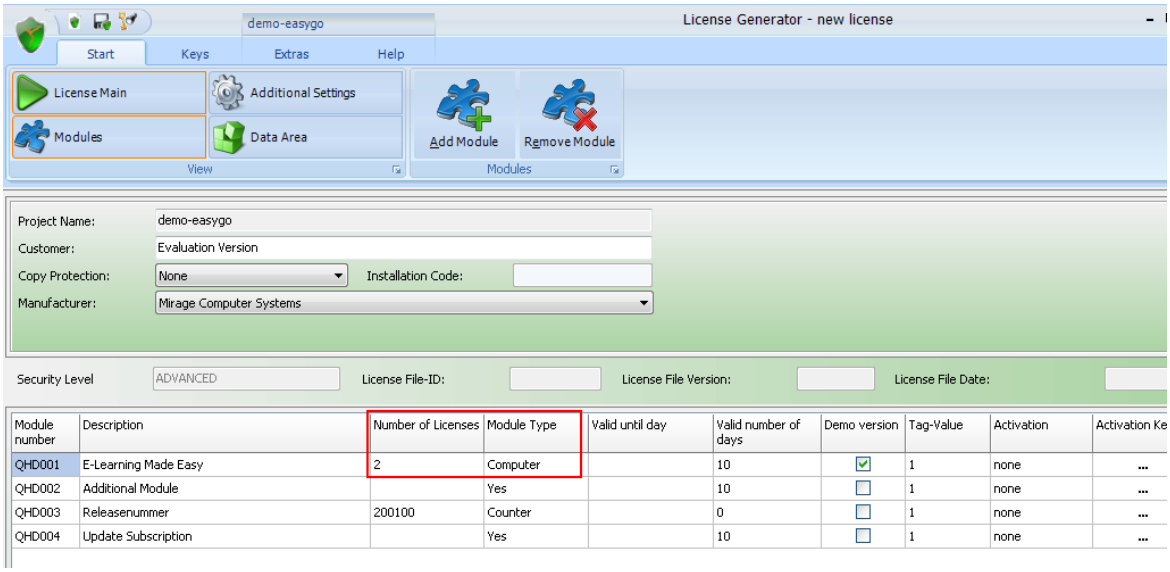
The demo version of Licence Protector 5 always sets an expiry date of 10 days

5.2.2 Define number of licences

Only if you use a network license 71, you have to specify the number of licenses for the evaluation version.

The license type is defined in the project template, item ModuleType 188.



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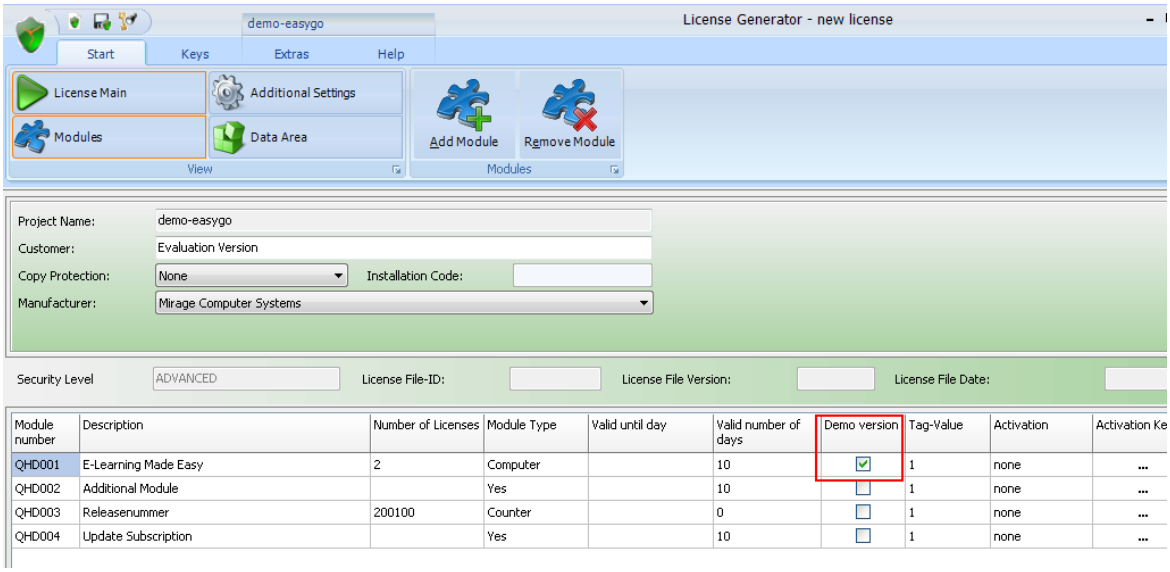
5.2.3 Define Demo version

The Demo version is just a flag. You have to check it 173 and implement your own limitations like do not save, print etc.



5.2.4 License File - Testing

In the moment you open a license file, it leaves traces on the PC. Never use a license file twice for testing.

Every time you want to make a new test on the same machine, you have to create a new license file - Icon . Only a new license file guarantees to have the same situation like a user would have, after he installed your software.

Never deliver a file which was used for testing! Always create a new one to use in the installation package.

5.3 Function Reference EasyGo - complete licensing with ready to go screens

EasyGo offers a comprehensive licensing and copy protection implementation with dialogs in 22 with just a few API calls. All possible license and error situations are covered.

EasyGo is exclusively available for Licence Protector Windows and MAC.

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Sample code sequences are in Delphi (Pascal) syntax. If you are not familiar with Pascal here are some hints to understand the included samples:

- Commands are separated by an semicolon
- Blocks are enclosed by keywords “begin” and “end”
- The operator for variable allocation is “:=”. The operator for compare is “=”

Licence Protector comes in 4 editions

- Starter Edition
- Basic Edition
- Professional Edition

The MAC Edition 60 comes with a separate SDK.

Each function is marked with to indicate, for which Edition the function is available.
If a function is only available as an option (for example the concurrent user feature is an option for the Basic Edition), then this is indicated as follows .

Functions in order they should be used. The commands marked with ** are required, all other commands are an option.

Start testing using a sample with a complete license workflow 105.

A **complete** function reference could be found in the chapter Function Reference 635.

5.3.1 Sample - complete license workflow

You can download a sample source code for multiple compilers in the FAQ area on our website. This is the best way to start.

Find below a sample which covers **complete basic license testing**:

- open the license file with the EasyGo screens
- check if it is a time limited trial version - in case the trial expired, displays the screen: Evaluation period expired 253
- check if the system date was tampered with (only if CheckSysdateChanged 112 was used). In case of an error displays the screen: System date was tampered 275
- check if the product is activated - otherwise offers to use one of the specified activation methods 228
- check if copy protection is OK - in case of an error displays the screen: copy protection violation 264 and try an automatic reactivation

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- check if network license is OK - in case of an error displays the screen: No free license available 272
- check if a user / PC was deactivated -in in case of an error displays the screen: Network license -deactivated 272

// The sample source code requires a registered Licence Protector dll 76. The dll is already installed and registered when you install the software development kit including the Licence Generator.

```
          iRes := 0;
          sTag := '';
          sReadKey :=
'r1lkYAp1xGQN81fBrcZ1dfXtw1doy3Z1l4KHy0N2yvL0ZBDcX274DHV1BfV7s0'
    +
'RFpjZ1NOmMf1qXGsu1MqTXK1t4Tsq1c7jQq1iP3VM1NNx6j1s64YK299TY71YSrbK0Nd
So'
    +
'm29inxM29bPTJ1mmLNV0SNdC41xCbdT2adSqt2aazQL1dslWy1fGXFi11YWOv1fFhLt2
ac'
    +
'ufE1hRGXY1VxH0R0ViybX0XmcNz1lm76W1gQqQe21grLU1VAc401UqH8l0YHwOD1S4
6cC20hVpD1cfAYk299ixt';
  result := true;

          // the example needs the licence file: demo-easygo.lic


    lic := CreateOleObject('LicProtector.LicProtectorDLL510');
  except
    on E: Exception do
    begin
      ShowMessage('No or wrong LicenceProtector installed: ' + E.Message);
      result := false;
    end;
  end;

  if result then
  begin
    try


      lic.SecurityLevel 110 := 1;// use 1 for Security Level ADVANCED


      lic.SetLanguage 108(0);    // Set Default language using the language settings of the
operating system  - parameter changed from integer to string
```

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```
lic.SetRegisterLanguages (134) ('1;2;3;4;6;7;8;9;10;11;12;13;14;15');  //user can select a language
lic.SetOpenShareMode (772) (0)  //access mode for network license
lic.SetBackupInterval (111) (60)  //network license - backup of license file
lic.CheckSysdateChanged (112) := true;   // Check for system date modification

iRes := lic.SetRegisterLicTransfer (114)(true, 'default', 'this is like a password string');  //activate license transfer option

bOk:=  lic.SetNewsletter (132)(1, 'Licence Protector Newsletter%%1%%Inside Licence Protector%%3%%Licence Protector bulletin d'information%%9%%Licence Protector boletín de noticias'); //collect newsletter information

bOk := lic.SetNewsletter(2, 'Inside All-In-One Protector');

lic.SetRegisterSettings (115)('blackboard.jpg',              // Image that is displayed in the Registration form (has to be of format JPEG)
                    true,          // allow License Viewer (281)
                    true,          // Serial is an Activation Key or use your own ID for product activation (179)
                    'Mirage Computer Systems', // Name of the manufacturer
                      'E-Learning Made Easy',      // Name of the product
                    true,          // use Online-Activation (232) - needs Activation Server
                    true,          // Activation by e-mail (237)?
                    'registereasygo@registerserver.net', // e-mail-address for activation requests
                    '',        // Subject of the eMail (if empty a default text is used)
                    true,                    // Activation by fax (243)
                    '+49 32121203546, // Fax-Number for incoming Activation requests
                    true,          // Activation by phone (248)
                    '+49 7525/529339', // phone number for activation requests
                    'Your registration information is sent to our Activation Center. Please allow 1 to 2 business days to send an Unlock Key.',
                    // additional text for e-mail and fax, may be empty
                    0,                                  // Default Registration 0 = online, 1 = eMail, 2 = fax, 3 = phone
                    'http://www.mirage-systems.de/licence-protector/order.html',     // URL for buying the product

'http://www.helpserver.biz/onlinehelp/lp/easygo/3.0/activationhelp/index.html',      // URL for online help
                    ' ', //background image
                    1, //workflow (145)- evaluation version, activate full version. May not be empty if license files with previous versions should be used
                    1, //collect Basic Activation Data (229)

                    'support@mycompany.com',  //address for support
                    false// - full version has no time limitation or is time limited
                    );
```

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```
iRes := lic.PrepareAndCheck('demo-easygo.lic', sReadKey, 'CU001', '', true, false, sTag);
```

5.3.2 Define Language

Define the language for all screens and messages. The default language setting is English but we recommend defining the language even if only English is used. With language code = **0** the language, which is configured in the operating system, is used. If the operating system uses an unsupported language, the default language would be used.

The language, which is in use by Licence Protector 5, can be retrieved with GetLanguage.

As Licence Protector 5 supports Unicode, a screen with Chinese characters can be used on an English operating system.

Name	**SetLanguage**
Purpose	Sets the language for Activation Screens, messages and the License Viewer.

Params

Parameter	*Type*	*Example*	*Note*
Language	String	2	**Language configured in Windows** = 0 German – 1 English – 2 (Default language if this command is not used) French – 3 Italian – 4 Portuguese European – 5 (no longer in use. Is converted to 6) Portuguese - 6 Dutch – 7 Swedish – 8 Spanish – 9 Norwegian – 10 Danish - 11 Serbian - 12 Czech - 13 Polish - 14 Turkish - 15 Chinese simple - 16 Chinese traditional - 17 Greek - 18

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<table>
<tr><td></td><td>
<table>
<tr><th>Parameter</th><th>Type</th><th>Example</th><th>Note</th></tr>
<tr><td></td><td></td><td></td><td>Lithuanian - 19
Japanese - 20
Russian - 21
Vietnamese - 22
Bulgarian - 23</td></tr>
</table>
</td></tr>
<tr><td>Returncode</td><td>
<table>
<tr><th>Returncode
Type Integer</th><th>Note</th></tr>
<tr><td>0</td><td>Language successfully set</td></tr>
<tr><td>8193</td><td>This language is not supported</td></tr>
<tr><td>Other value</td><td>Error occurred, see list of return codes 635</td></tr>
</table>
</td></tr>
<tr><td>Usage</td><td>To change the current language for messages and the License Viewer</td></tr>
<tr><td>Sample</td><td>

```
iRes := lic.SetLanguage(2);
if iRes <> 0 then
begin
   << an error occurred >>
   ...
end
else
begin
   << language successfully set to english >>
   ...
```

</td></tr>
<tr><td>See also</td><td>GetLanguage 700, SetRegisterLanguages 134</td></tr>
<tr><td></td><td></td></tr>
</table>

- It is possible to use this command before a license file has been opened.
- You can define, that the user gets a list with languages, where he can select the desired language during the first program start with the command SetRegisterLanguages 134.
- You can always create an own GUI of the end user screens for languages, which are not supported right now - e.g. Russian or Chinese. See chapter Custom-made User Interface 495

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5.3.3 Define Security Level **

Licence Protector 5 is always backward compatible. The latest version can always read old license files. As there are 2 options for the personal encryption, you have to specify the method.

Define the security level 207 according to the specification in the project template. This information is mandatory. We recommend using **Advanced** which works with a set of 3 keys. The security level has to be the same like defined in the project template 191.

Name	**SecurityLevel**
Purpose	Property to set the security level of a license file.
Params	None
Returncode	***Returncode Type Integer*** / ***Note*** 0 / The security level is BASIC (only used for backward compatibility) 1 or other return codes / The security level is **ADVANCED - this is the recommended level**
Usage	Sets the Security Level before calling Prepare or PrepareForce

Sample	`lic.SecurityLevel := 1; << this license file is an ADVANCED one >>`
	`iRes := lic.Prepare(sMyLicfile, 'r1lkYAp1xGQN81fBrcZ1dfXtwi1doy3Z1l4KHy0N`
	`2yvL0ZBDcX274DHV1Bfv7s0RFpjZ1NOmM1qXGsu1MqTXK1t4Tsq1c7jQq1iP3VM1Nk6j1s64YK299TY71YSrb`
	`K0NdSom29inxM29bPTJ1mmLNv0SNdC41xCbdT2adSqt2aazQL1dsIWy1fGXFi11YW0v1fFhLt2acufE1hRGX`
	`Y1vxH0R0MybX0XmcNv1lm76W1gQqQe21grLU1VAc401UqH8l0YHwOD1S46cC20hVpD1cfAYk299ixt');`
	`....`

See also	Prepare, PrepareForce, PrepareAdvanced, PrepareSimple

Do not use the Project Secure Key (in the sample: What a beautiful morning) when the SecurityLevel is *Advanced*. Use the ReadKey 166 within the PrepareAndChec 162k command.

5.3.4 Network license - set file share mode

Define the mode how file sharing for a network license is handled. The value can be retrieved with GetOpenSharedMode 707.
Default value is 0.

The command must be used **before** any Prepare command 920 (license file open).

Name	**SetOpenShareMode**
Purpose	Define the mode how file sharing for a network license is handled

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Params				
	Parameter	***Type***	***Example***	***Note***
	iMode	Integer	1	0 = license file is only locked for certain write operations (default) 1 = deny writing - while there is a read , the license file is locked for writing (recommended in larger installations or if you experience problems) 2= share exclusive - other users can not open the file while an update on the license file is performed (not recommend)
Returncode	***Returncode Type Integer***	***Note***		
	0	Share Mode successfully set		
	Other value	Error occurred, see list of return codes 635		
See also	GetOpenShareMode 635			

For a network license, use a **configuration file** where you can change the following values if required.

- Share Mode 110
- ConcurrentUserLevel 660
- SetCheckInterval 756
- SetLogging 769
- SetBackupInterval 753
- SetWebRequestTimeOutInSec 799

5.3.5 Network license - automatic backup

Activates a continuous backup of the license file. Default is off. Details 560

Name	**SetBackupInterval**			
Params	***Parameter***	***Type***	***Example***	***Note***
	Seconds	Integer	30	0 = no backup (default) x = activate backup in seconds where 10 seconds

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				is the smallest value possible

Returncode	***Returncode Type Integer***	***Note***
	0	Command was successful
	Other return codes	Error occurred, see list of return codes 635
See also	GetBackupInterval 674	

- Use a value between 30 to 60 seconds
- The backup file is only updated when there is a change in the license file
- The backup file update could be delayed to seconds + 50%*seconds

5.3.6 Check for System Date modification

Enables checking, if the system date is modified back **more than 1 day**. See error screen - System date was tampered 275

This option will stop the application if the date was turned back.

CheckSysdateChanged Command

Name	**CheckSysdateChanged**	
Alternative if property can not be used	Get_CheckSysdateChanged → WordBool Set_CheckSysdateChanged(WordBool)	
Purpose	Property to get or set the date manipulation checking at function Prepare	
Params	None	
Returncode	***Returncode Type Boolean***	***Note***
	True	Checking is enabled

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	False: Checking is not enabled
Usage	Activate the date manipulation checking implicitly at function Prepare**. Has to be set before using Prepare**.

Sample	`Get:`
	`  bIsCheckOn := lic.`**`CheckSysdateChanged`**`;`
	`  << use Boolean bIsCheckOn >>`
	
	`Set:`
	`  lic.`**`CheckLicChanged`**` := true;`

See also	Prepare, SysdateChanged

To unlock the system date lock, you can use **any Activation Key** - e.g. a key which sets demo version to true or a key without any settings. To open the license file despite the error message, use PrepareForce 738 and then open the License Viewer so that the user can type in a key. The command PrepareAndCheck 162 will offer the License Viewer by default.

If your application is in evaluation mode 68 and the application is uninstalled and then reinstalled, this is automatically detected. The application will have the same number of days left like before the uninstall process. *CheckSysdateChanged* is an **additional** test to the test in evaluation mode.

If you want to control that the system date check is **only done when the version is in evaluation mode**, you need additional checks.

Check System Date only when in Evaluation / Demo mode

Do not use CheckSysdateChanged. Instead use this test sequence

- After the main license check with PrepareAndCheck 162 test your main module if it is in evaluation mode or a demo version
- Check demo version: ValidateEx 173
- Check time limited mode: NoOfDays 727
- Only if the version is a demo version or NoOfDays is >0 then check if the System Date was modified with SysDateChanged 809
- This command gives you full control to decide if you want to continue or not. In case the system date was changed and you do not want to continue display an error page with ShowStartErrorPage 802 using error number 16382 (which will display this page 275) or display your own error message

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See also

How to unlock system date lock? 523

5.3.7 Activate License Transfer / license file download

This command **enables** the license transfer option from PC A to PC B. If this command is not used, the license **cannot** be transferred at a later point of time. It also activates the option to download a license file 526 during activation.

It must be used **before** the command PrepareAndCheck 162

You can transfer only a single module or a **complete license file including all modules**. The license transfer needs an **online connection** to the Activation Server 6 and is therefore only available, if the product activation method was online.

Name	**SetRegisterLicTransfer**
Purpose	Adds the information on the Activation Server which is needed for a license transfer

Params

Parameter	*Type*	*Example*	*Note*
TransferLicence	Boolean	true	true = enables a **complete license file** transfer including all modules and the complete license file content false = only the **module** will be transferre
File Description	String	default	name to identify the license file. One ID c store multiple files using different names like default-backup-January2010 default-backup-February2010
Encryption Code	String	this is like a password string	ensures, that a file can only be download when a password is provided. The password is also used with the command UploadLic 814, DownloadLic 665. Should l maximum **40 characters**.

Returncode

Returncode	*Note*

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	Type Integer
	0 — Command was successful
	Other return codes — Error occurred, see list of return codes 635

Sample	`iRes := lic.SetRegisterLicTransfer(true, 'default', 'this is like a password string');`
	`if iRes = 0 then`
	`begin`
	`  << command successful >>`
	`  ...`
	`end`
	
	`else`
	`begin`
	`  << other errors >>>`
	`  ...`

See also	TransferLicence 812

5.3.8 Customize screens and Activation Options

There are multiple commands to customize the activation screens and error messages:

- define activation options (online, e-mail, fax, phone)
- define data to collect, e.g. address information 129 and newsletter 132
- change the text and wording 136 on all screens
- set the language information 108 or let the user select his language 134
- enable or disable options like buy button, License Viewer
- define background image 123 and logo
- define a workflow 145

The screen size was designed to work on common screen resolutions with default font size.

- A complete summary of all DLL commands, which allow to customize the screens, can be found in the chapter EasyGo Dialog 889
- The dialogs need at least a screen resolution of 800 x 480 pixel
- It is possible to create own screens and own workflows - see chapter: Custom-made user interface 495

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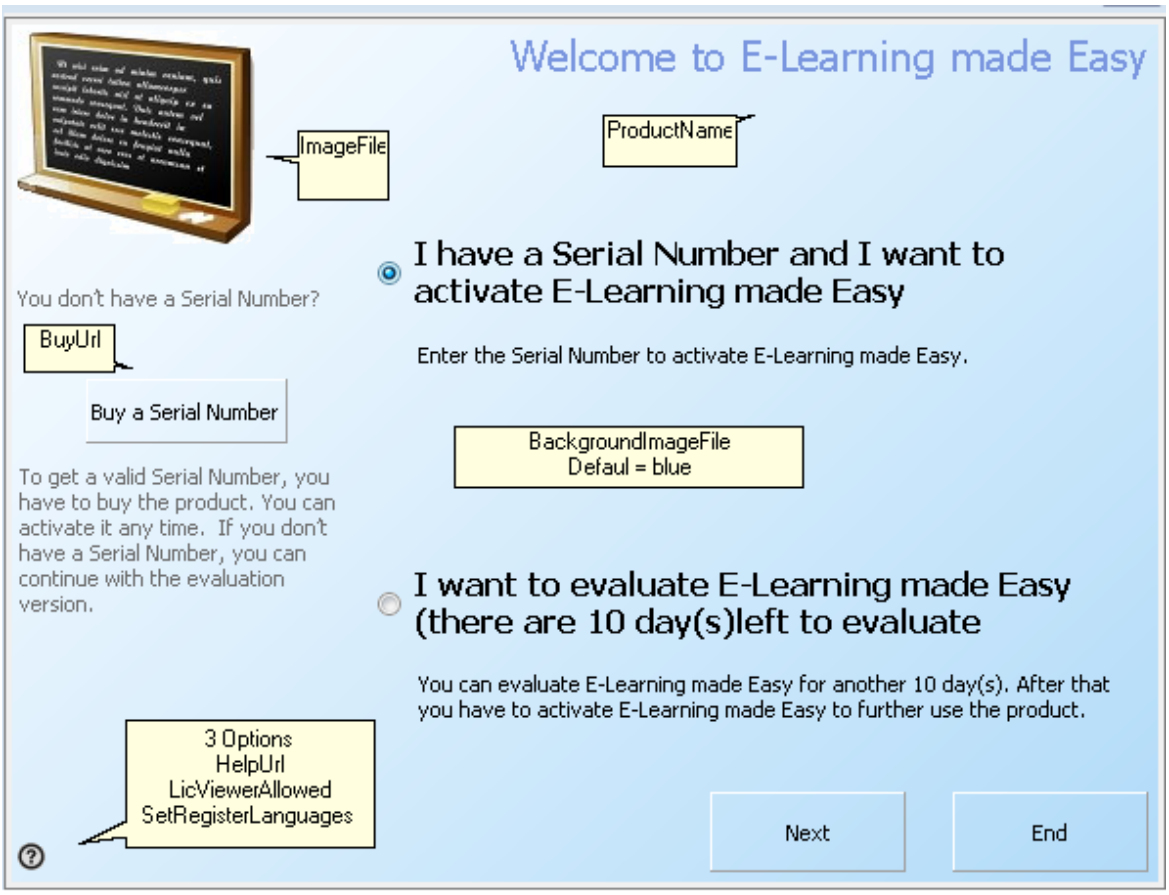
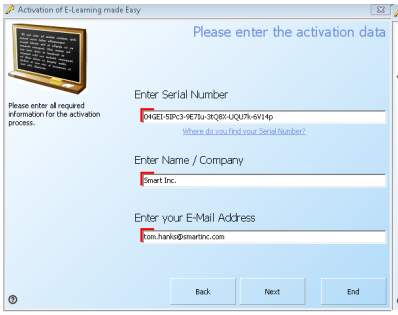
5.3.8.1 Main screen Customization - SetRegisterSettings **

This command defines the main settings of the activation screens, the workflow 145 and also the activation options.

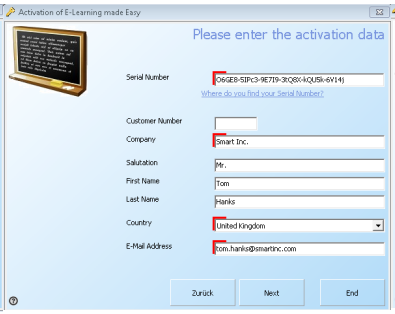
Click on an image to see what you can customize.



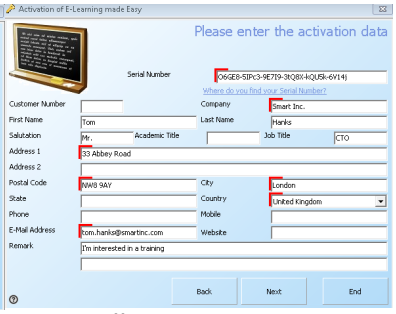
Welcome Screen



Standard Activation Data



Basic Activation Data



Full Activation Data

ActivationDataType

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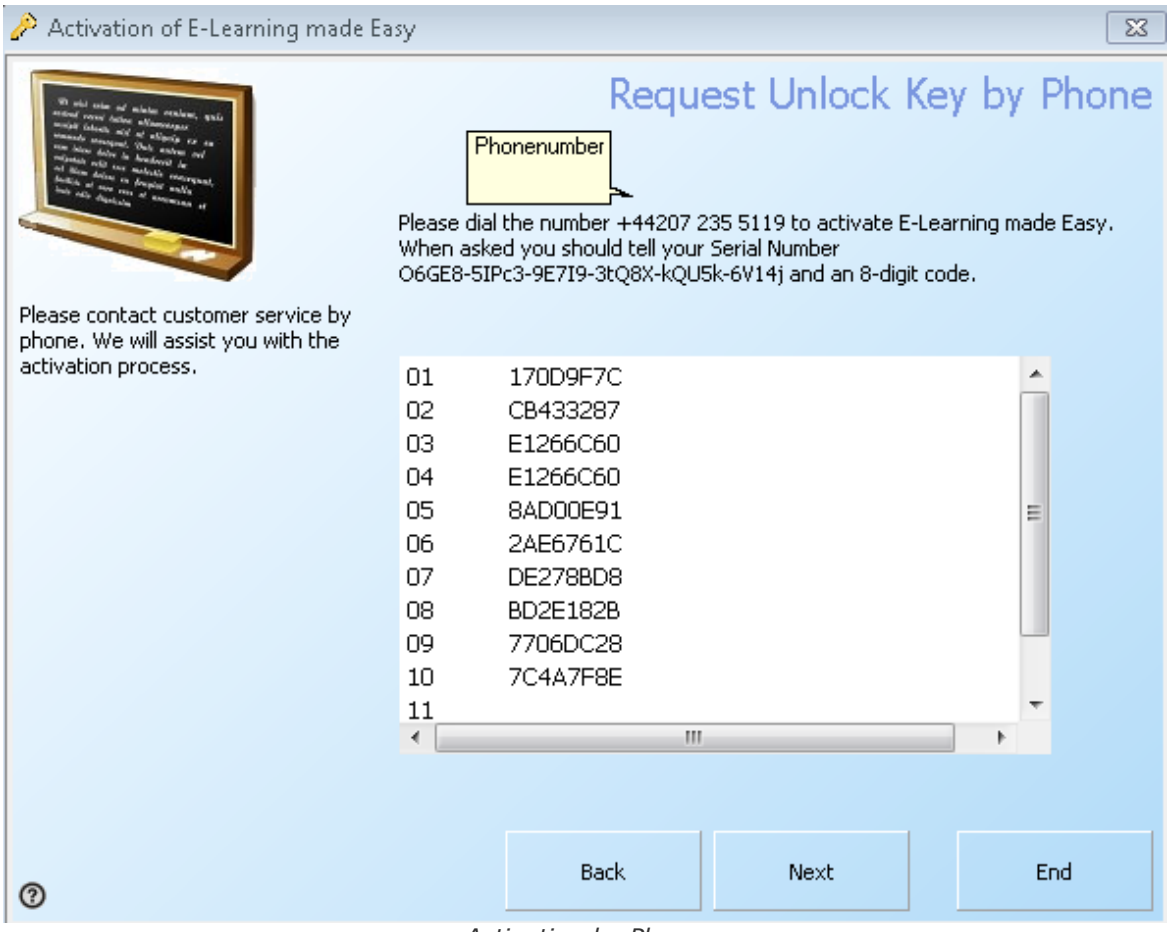

Activation by Phone

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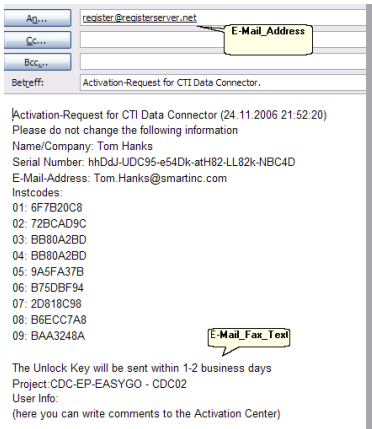
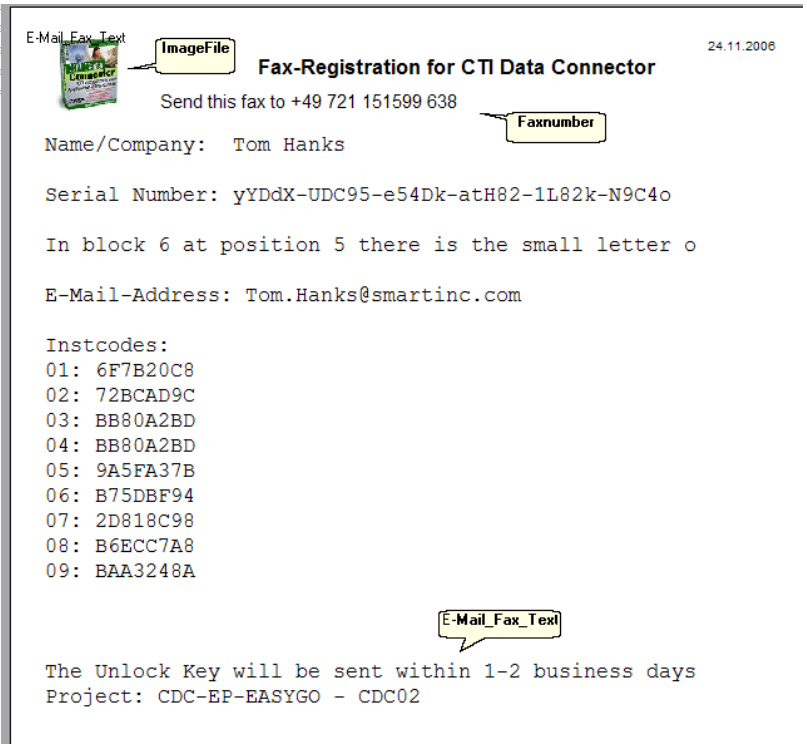


Modification Options E-Mail



Modification Options Fax

Name	**SetRegisterSettings**
Purpose	Set parameters for the EasyGo (PrepareAndCheck 162) functionality.

Params

Parameter	*Type*	*Example*	*Note*
ImageFile	String	"C:\program files\myapp\mylogo.jpg"	Absolute path to the logo image used in the EasyGo form. Notice: The Image has to be of format JPEG. Use a size of 175x115 to get the best result. The pixel in the left upper corner is used as transparency color . Sample registration images 122 Also see: Background Image 123
LicViewerAllowed	Boolean	True	Controls whether theLicense Viewer 281 is accessible in the EasyGo form. The icon

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			appears if the link is provided. The option is: *Show License Information* Notice: On the EasyGo error screen the License Viewer is always available independent of this parameter. You can enable or disable 291 buttons in the License Viewer.
SerialIsAK	Boolean	True	Controls whether the Serial Number 301 is a Licence Protector 5 Serial Number or an own ID 179
Manufacturer	String	My Company	Name of the manufacturer. Used in error screens
Productname	String	My Product	Name of the application which is displayed in the title bar. If value is empty the projectname 190 of the license file is used.
RegisterOnline 232	Boolean	True	Controls whether online registration is allowed. The WebServiceURL 210 in the license file is used for the activation.
RegisterBye-mail 237	Boolean	True	Controls whether registration by e-mail is allowed
e-mail_Address	String	activate@mycompany.com	e-mail-Address to which the e-mail registration has to be sent
sEMailSubject (Note: This parameter is available from version 2.6.4 onwards)	String	Activation Request for my product	Subject line in the e-mail. If empty, a default text is used.
RegisterByFax 243	Boolean	False	Controls whether registration by fax is allowed
Faxnumber	String	123456789	Fax-Number to which the registration form has to be sent

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RegisterByPhone 248	Boolean	False	Controls whether registration by phone is allowed
Phonenumber	String	987654321	Phone number which has to be called to receive the Unlock Key(s)
e-mail_Fax_Text	String		Additional text that appears on the registration e-mail or fax. May be empty.
DefaultMethod	Integer	0	Controls the primary registration method: 0 = Online (default) 1 = e-mail 2 = Fax 3 = Phone
BuyURL	String	http://myproduct.mycompany.com/buy.html	URL to buy the product. **If empty no BUY button is visible** EasyGo form. The BUY button is only visible until the Serial Number is typed in. Can also be a link to a file on the local hard disk, e.g. PDF order form
HelpURL	String	http://myproduct.mycompany.com/help.html	URL to provide additional help information for the registration process. The icon appears if the link is provided. See details for default help. 131
BackgroundImageFile	String	"C:\program files\myapp\background.png"	Absolute path to the image for the background. Must be png format. If this image is missing the background is light blue. See details 123
WorkflowType	Integer	1	defines a workflow 145 for a module. The default workflow is specified in the project template, TAG <EasyGoWorkflow> 211

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<table>
<tr><td></td><td>
<table>
<tr><td></td><td></td><td></td><td>and is used, if the field here is empty (recommended)
Possible values 211</td></tr>
<tr><td>ActivationDataType</td><td>Integer</td><td>0</td><td>Defines the activation data 229 to collect
0 = Standard
1 = Basic
2 = Full</td></tr>
<tr><td>ContactAddress</td><td>String</td><td>support@mycompany.com</td><td>contact address which is displayed in error screens - example 264. If this string is empty the company name from the template (TAG <Manufacturers> 191) is used</td></tr>
<tr><td>FullVersionIsTimeLimited</td><td>Boolean</td><td>false</td><td>True = Full Version is time limited - Details see workflow 145</td></tr>
</table>
</td></tr>
<tr><td>Returncode</td><td>
<table>
<tr><th>Returncode
Type Integer</th><th>Note</th></tr>
<tr><td>0</td><td>Command was successful</td></tr>
<tr><td>4</td><td>Do not continue - a major error occurred (e.g. insufficient network license) - terminate the application</td></tr>
<tr><td>Other value</td><td>Error occurred, see list of return codes 635</td></tr>
</table>
</td></tr>
<tr><td>Usage</td><td>To customize the EasyGo form. This call is in most cases necessary and has to be done before calling PrepareAndCheck.</td></tr>
<tr><td>Sample</td><td>

```
lic.SetRegisterSettings('c:\temp\myimage.jpg',         // ImageFile
                        true,                        // Allow License Viewer
                        true,                        // Serial is a Key
                           'My Company',                      // Manufacturer
                           'My Product',                       // Productname
                           true,                           // Register
Online
                           true,                           // Register By e-
mail
                           'activate@mycompany.com',                // e-
mail-Address
                        true,                          // Register By Fax
                           '012345/6789-1',                      // Faxnumber
                           false,                           // Register By
Phone
```

</td></tr>
</table>

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	``
	'', //
	Phonenumber
	'', // e-mail Fax Text
	0, //
	DefaultMethod
	'http://www.mycompany.com/buymyproduct', //
	Buy URL
	Help URL '
	http://www.helpserver.biz/onlinehelp/lp/easygo/5.0/activationhelp/index.html ',//
	
	Background Image 'C:\program files\myapp\background.png'); //
	Workflow Type 1, //
	TimeLimitedFullVer. false, //
	ContactAddress 'support@mycompany.com'
	...
	``

See also	SetCustomText 136, SetRegisterLanguages, 134 PrepareAndCheck 162, SetLanguage 108, SetRegisterSerialNo 776

Additional configuration options are available using

- SetNewsletter 132
- SetRegisterLanguages 134
- SetCustomText 136
- Workflow 145

You can provide the Serial Number for the Activation Screens using SetRegisterSerialNo 776 in case you use a generic Serial Number or you already have another screen, where the user typed in the Serial Number.

Important change if you upgrade from a version before 3.0
The parameter: *CopyProtectionSwitchOnKey* was replaced with a configuration setting in the project file to handle the status after the activation. 198

5.3.8.1.1 Registration Image

Licence Protector 5 comes with a selection of images files for the registration screen. The files are located on the folder **.\EasyGo\registration images**

They perfectly fit to the screen.

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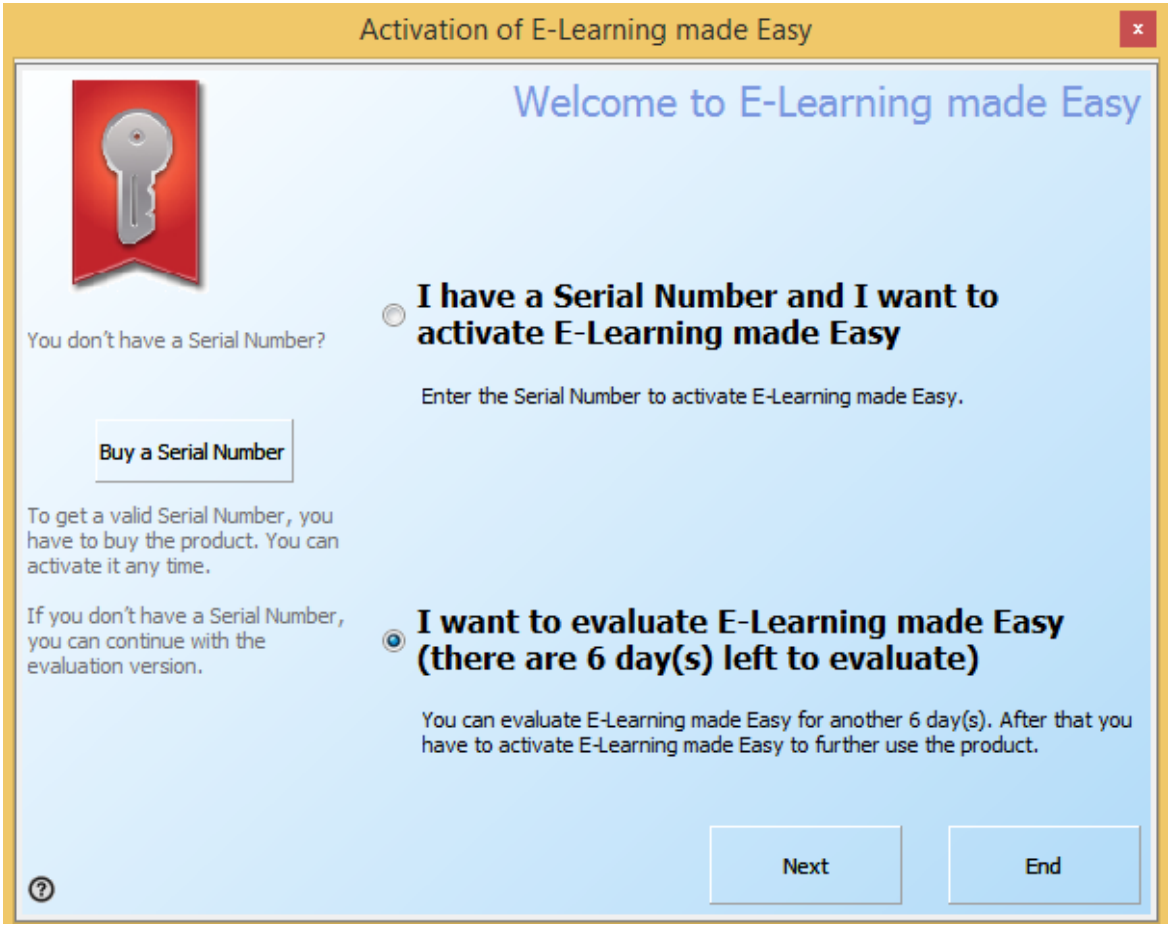

5.3.8.1.2 Background Image

The default background image can be replaced with a customized image. The image requirements are:

1. Size: 640 x 480 pixel
2. Format: PNG

The default image is blue

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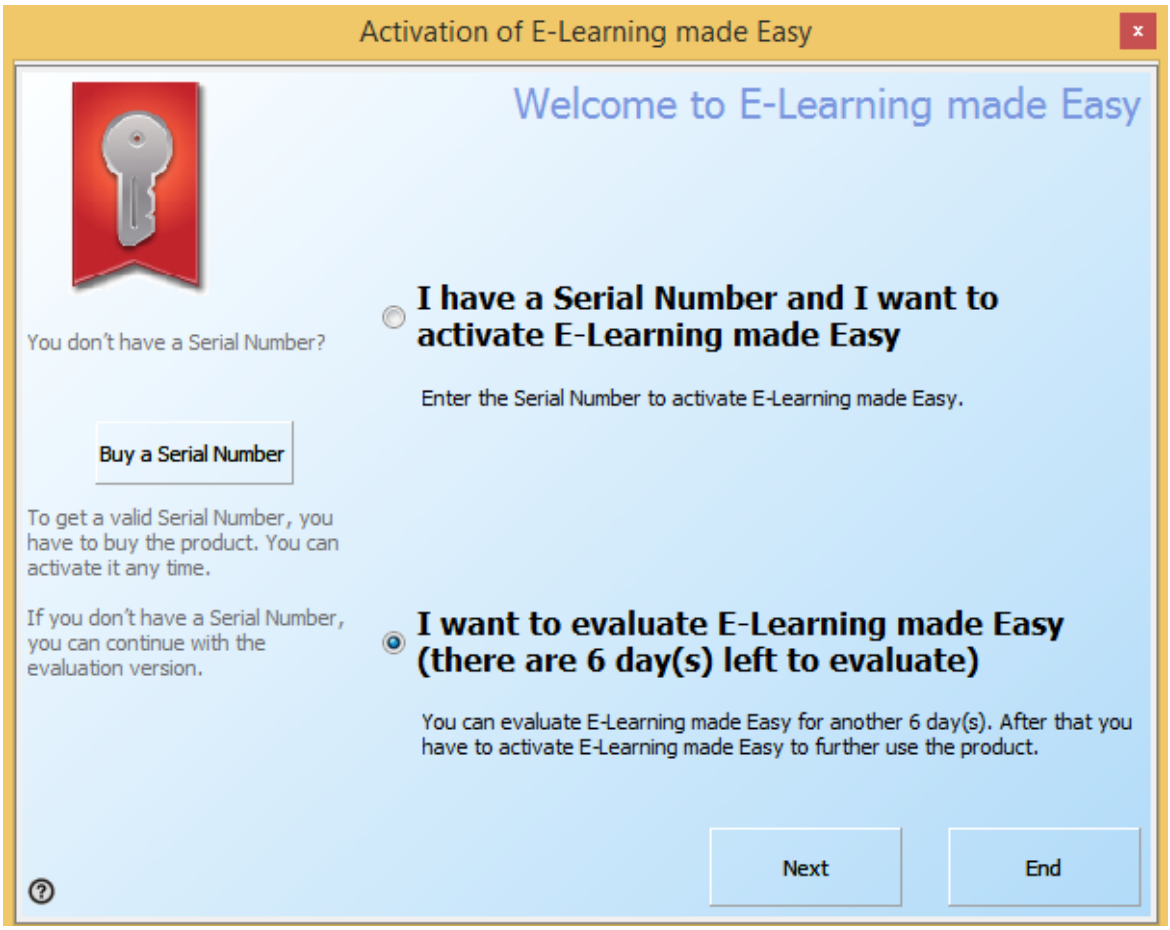

Default Screen

Tips

- Use only light colors
- If your logo should be transparent on the background, leave the image field property 118 in SetRegisterSettings empty and add the logo on the background image.

Your registration screen could look like this

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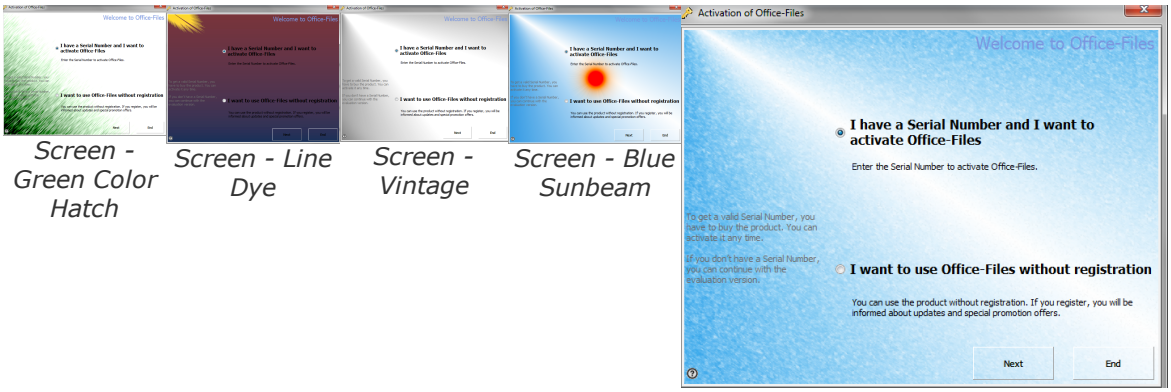

Screen - Green Color Hatch *Screen - Line Dye* *Screen - Vintage* *Screen - Blue Sunbeam* *Screen - Blue Snow*

Sample Background Images

Select from a wide variety of ready-to-use background images

- Download all background images

Left click on an image below to enlarge

Forms *Gray* *Line Dye* *Sepia* *Vintage* *White Background*

Variations of Green

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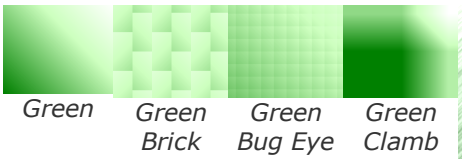
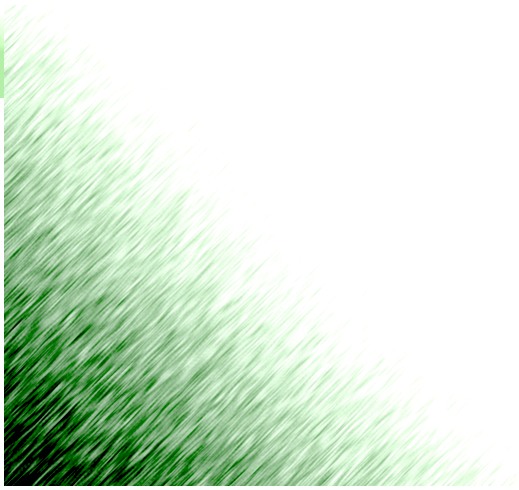
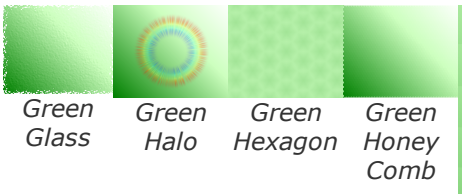


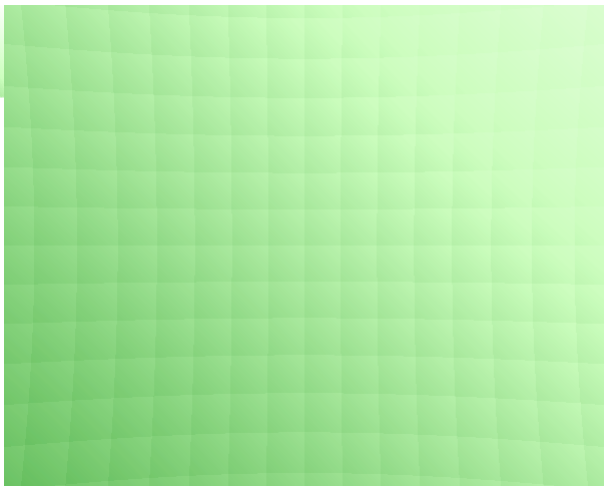
Green | Green Brick | Green Bug Eye | Green Clamb



Green Color Hatch

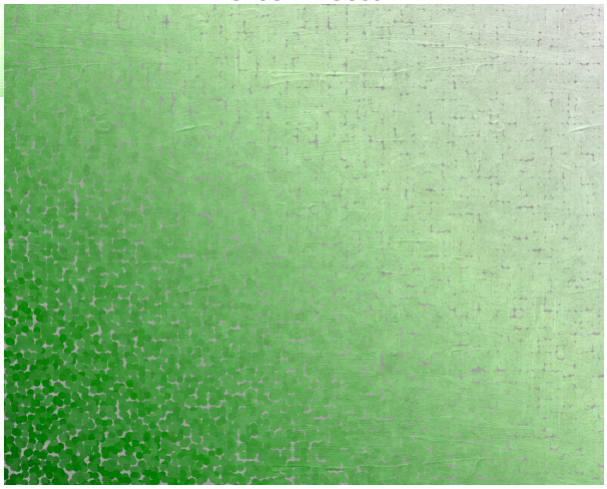


Green Glass | Green Halo | Green Hexagon | Green Honey Comb



Green Insect

Green Mirror | Green Noise | Green Pin Wheel | Green Pixelate



Green Pointillize

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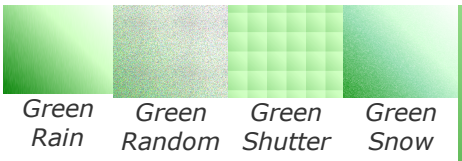
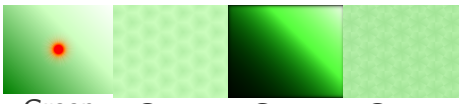


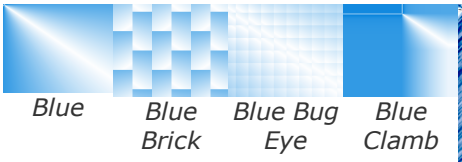
Green Rain | Green Random | Green Shutter | Green Snow

Green Star Shine

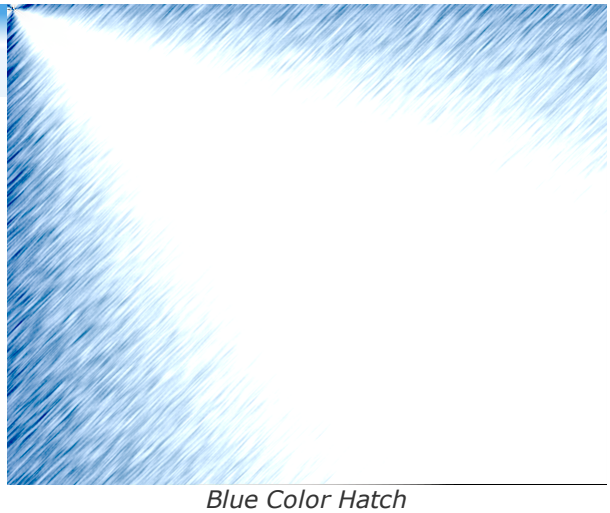


Green Sun Beam | Green Triangle | Green Twilight | Green Windmill

Variations of Blue



Blue | Blue Brick | Blue Bug Eye | Blue Clamb



Blue Color Hatch

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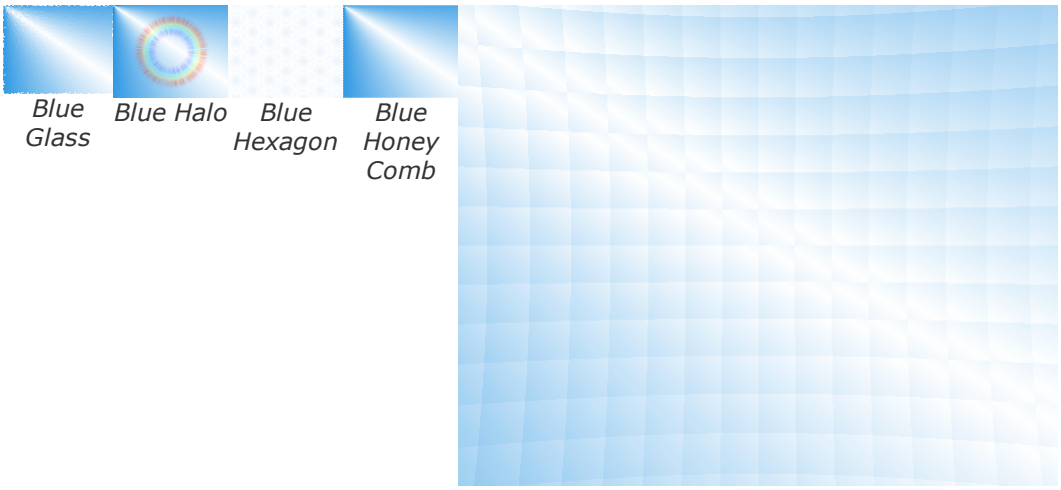
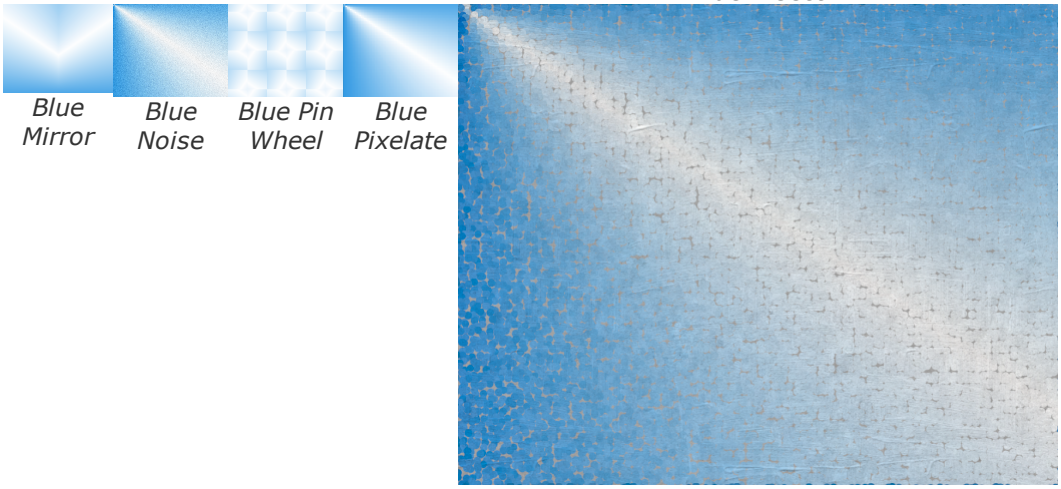


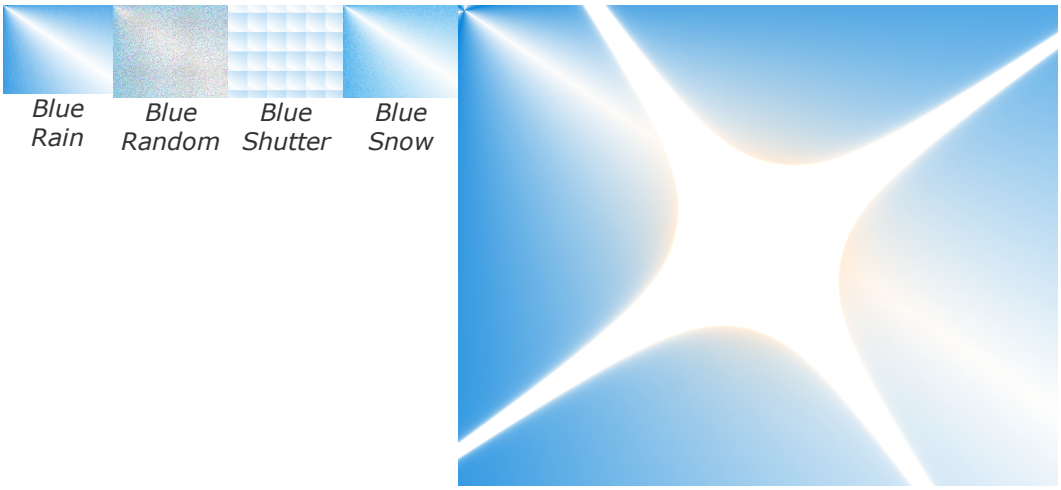
Blue Glass | Blue Halo | Blue Hexagon | Blue Honey Comb

Blue Insect



Blue Mirror | Blue Noise | Blue Pin Wheel | Blue Pixelate

Blue Pointillize



Blue Rain | Blue Random | Blue Shutter | Blue Snow

Blue Star Shine

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Blue Sun Beam *Blue Triangle* *Green Twilight* *Blue Windmill*

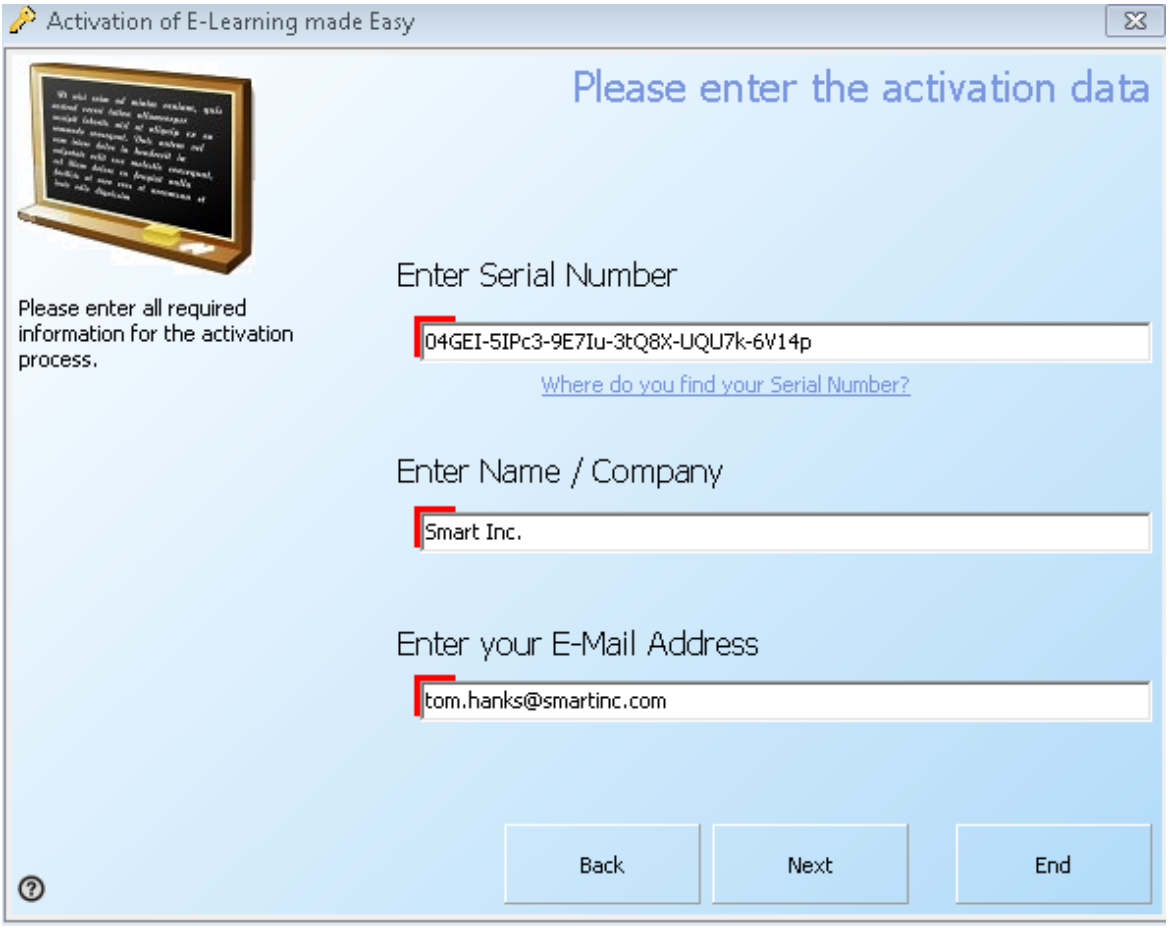
5.3.8.1.3 Customer data / address information

Depending on the field ActivationData there are 3 different options to collect customer data.

Standard - Code = 0

The standard setting collects *customer name* and *e-mail address*.

Required fields are company name and e-mail address.



Standard Activation Data

Basic - Code = 1

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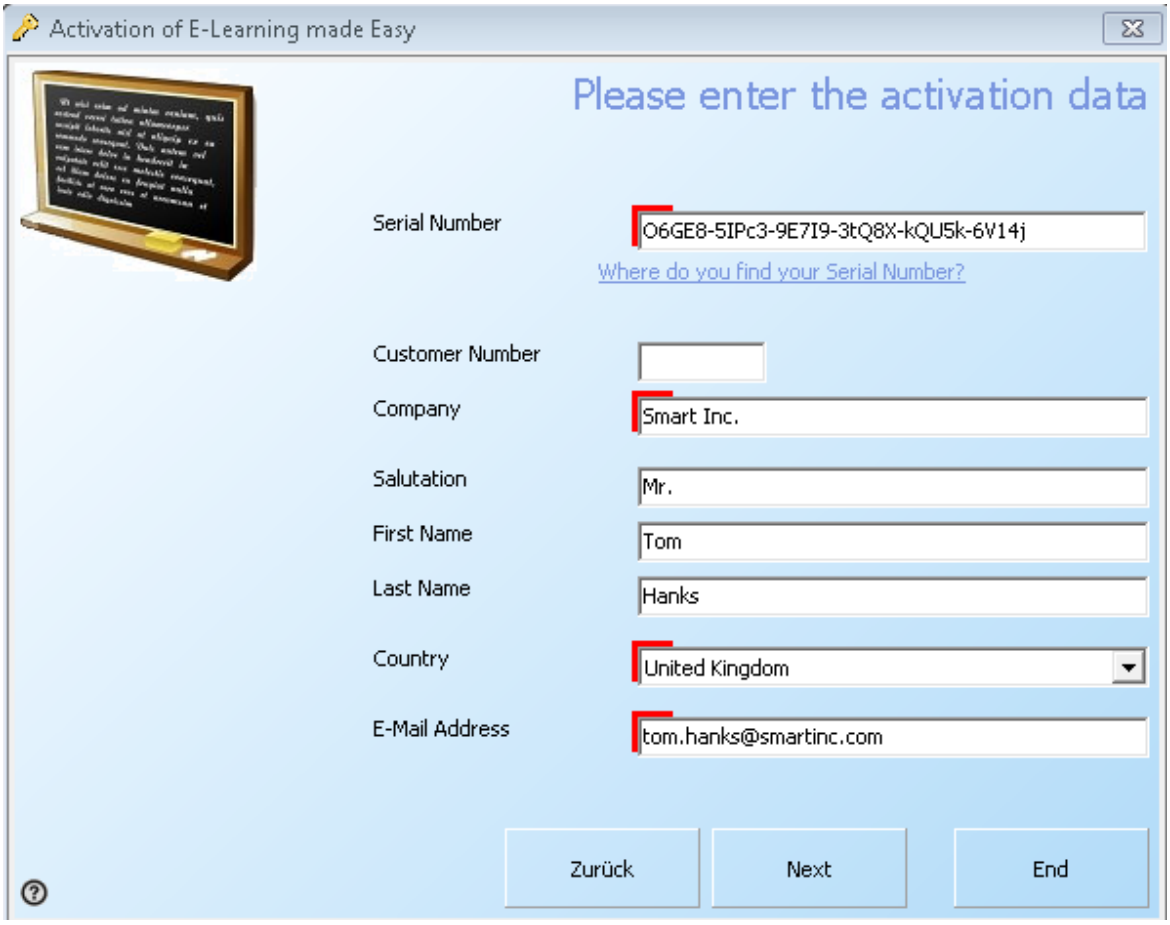
The basic setting collects: customer ID, company name, salutation, first name, last name, country and e-mail address.

Required fields are company name, e-mail address and country.



Basic Activation Data

Full - Code = 2

The extended setting collects: customer ID, company name, salutation, academic title, job title, first name, last name, address 1 and 2, postal code, city, state, country, phone, mobile, website, remark (2 lines).

Required fields are company name, e-mail address, address 1, postal code, city and country.

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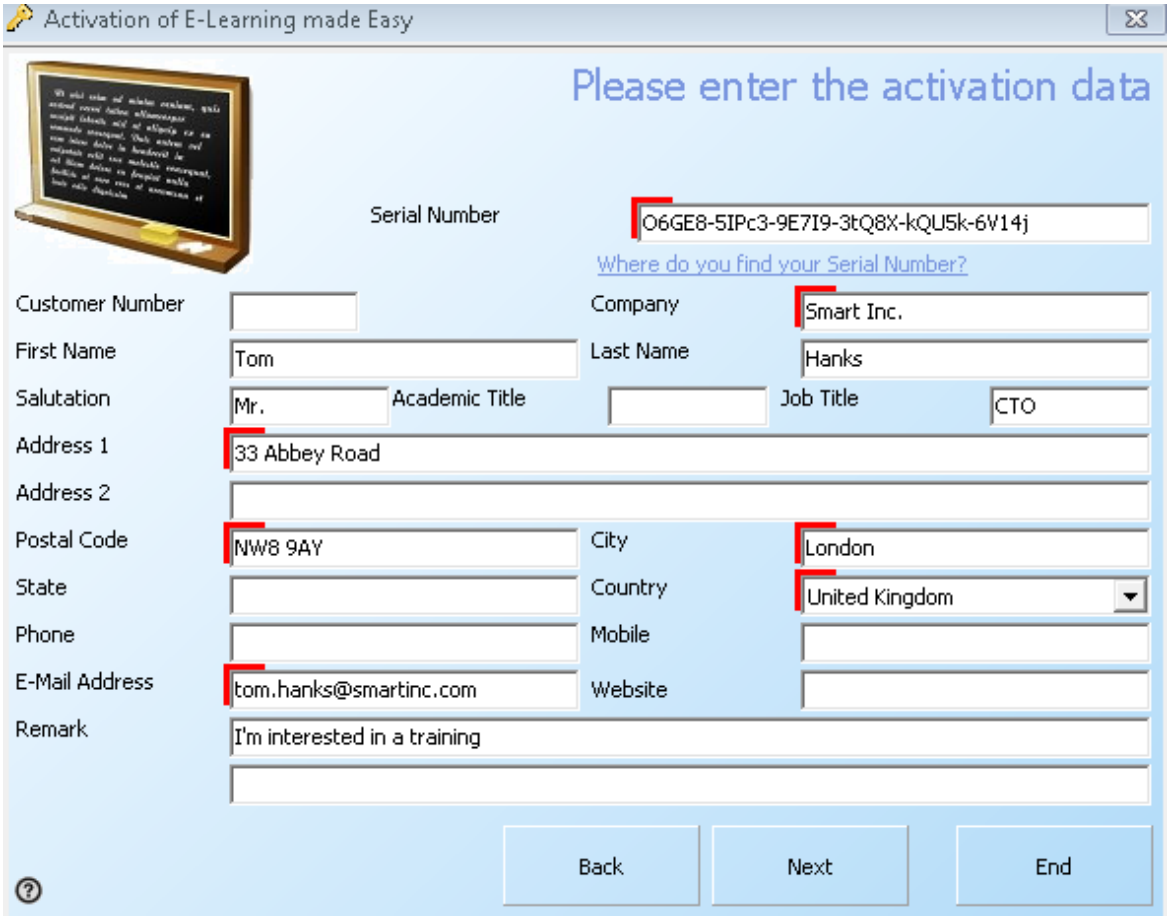

Full Activation Data

5.3.8.1.4 HelpURL

If you specify a help URL 120 with SetRegisterSettings 116, a Help Icon is displayed. The link should direct to a website which offers help during the registration process. You could also invoke a local file - e.g. PDF file.

We provide a generic help for the registration process at **http://www.helpserver.biz/onlinehelp/lp/easygo/5.0/activationhelp/index.html**. It also includes a Video Tutorial for the product activation. You can alternatively use your own online help. You are welcome to copy the text and modify it to your needs.

A link to a website must begin with http:// and not with www.

Correct link: http://www.mirage-systems.de
Wrong link: www.mirage-systems.de

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This can also be a link to an HTML file or PDF file on the local hard disk

The Video Tutorial offers a live demonstration of each activation method.

Start Video Tutorial

5.3.8.2 Newsletter - SetNewsletter

Define up to 4 newsletter fields as a checkbox. If selected, this information is collected during product activation and is sent to the Activation Server 6.

The newsletter information is sent if **online, e-mail** or **fax** is selected as activation option. It is not available for activation by phone.

The name of the newsletter can be defined for each language separately. The command has to be used for each newsletter (1-4) separately.

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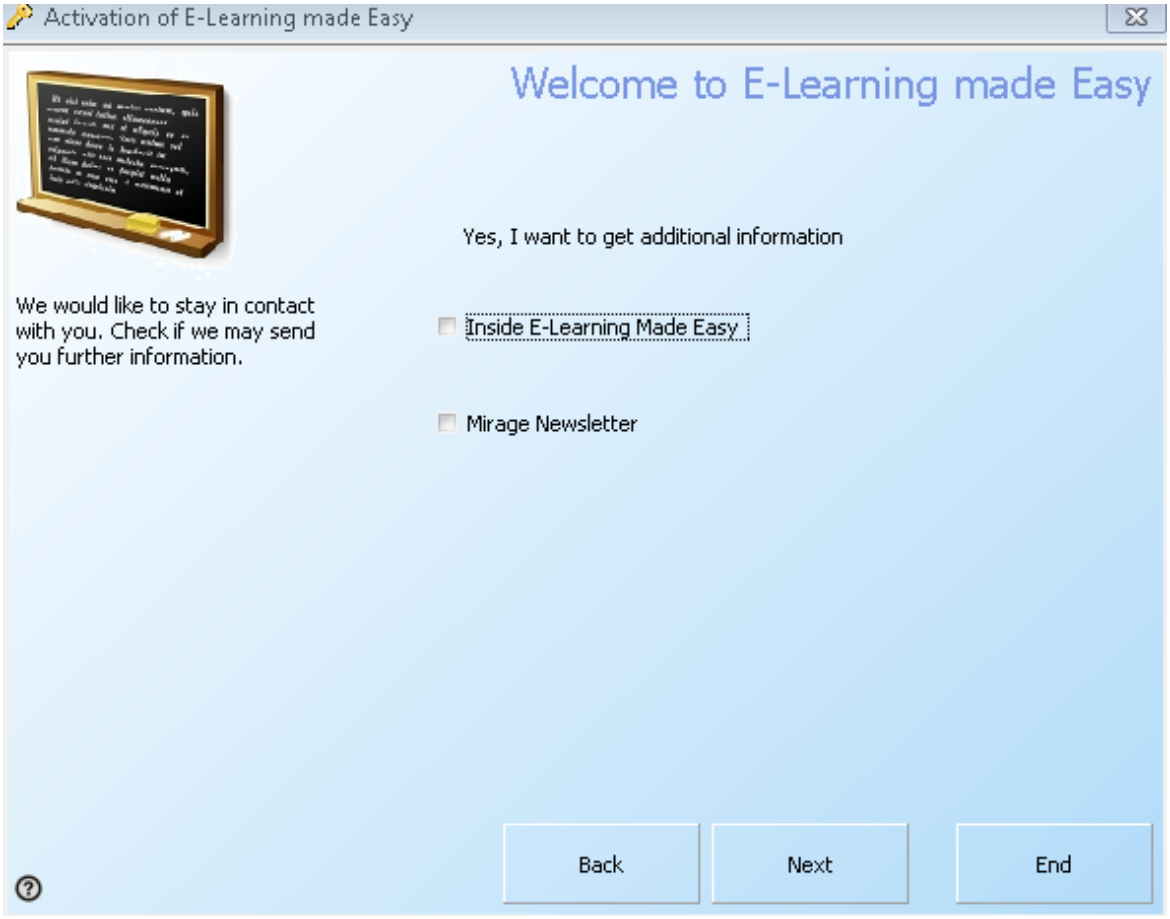

Newsletter Page

Name	**SetNewsletter**
Purpose	Checks if an entry (user, computer, item) is registered in a module

Params

Parameter	***Type***	***Example***	***Note***
No	Number	1	Newsletter Number 1-4
LanguageTexts	String	Licence Protector Newsletter	see detail example below - define language text

Returncode

Returncode Type Integer	***Note***
0	Command was successful
Other return codes	Error occurred, see list of return codes 635

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Sample	`bOk := lic.SetNewsletter(1, 'Licence Protector Newsletter%%1%%Inside Licence Protector%%3%%Licence Protector bulletin d'information%%9%%Licence Protector boletín de noticias');`
	
	`bOk := lic.SetNewsletter(2, 'Inside All-In-One Protector');`

See also	SetRegisterSettings 116

Define Language Text

- If only one Text is defined, then this text is used for all languages
- The text for each language can be defined using **%%languageId** - see overview about all language IDs 108
- The **first text entry** is always the **default text**. If no separate text for a language is defined, this text is used

Example
Licence Protector Newsletter%%1%%Inside Licence Protector%%3%%Licence Protector bulletin d'information%%9%%Licence Protector boletín de noticias

For German (ID 1), French (ID 3) and Spanish (ID 9) a separate newsletter text is used. For all other languages, the text would be: Licence Protector Newsletter

5.3.8.3 Language Selection - SetRegisterLanguages

If the user should be able to select a language via a drop down list, you can specify the languages which should be available.

A list box appears in all screens, to select a language

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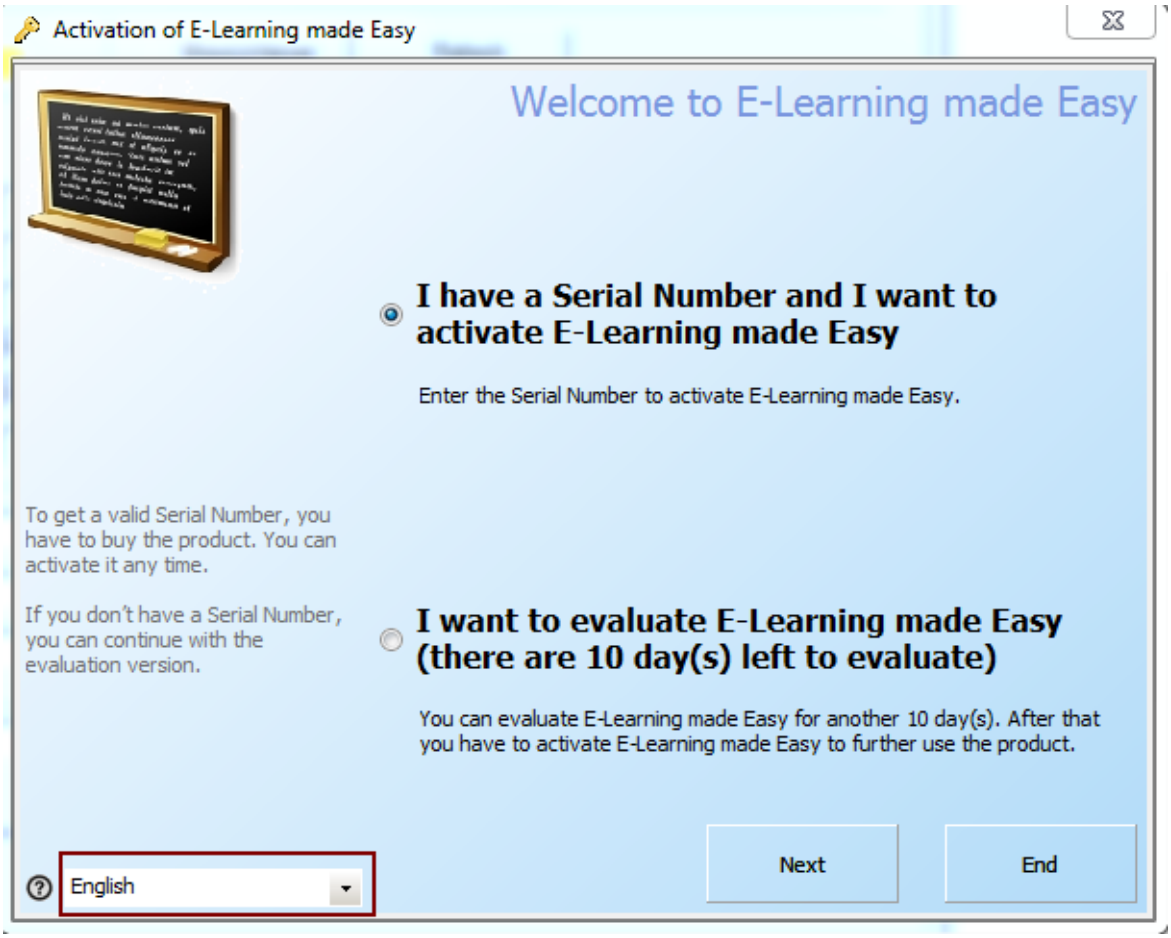

Select language

The language can also be selected, if the user clicks on the Help Icon .

Change language

The languages, which should be available in the drop down list, are defined using the language code separated by semicolon.

Example: **1;2;7** would allow to select German, English and Dutch.

If case the user changed the language, the new value can be retrieved with GetLanguage 700.

The default language is set with SetLanguage 108.

Name	**SetRegisterLanguages**
Purpose	Sets all possible languages for the EasyGo page (PrepareAndCheck)

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Params	<table><tr><th>Parameter</th><th>Type</th><th>Example</th><th>Note</th></tr><tr><td>Languagelist</td><td>String</td><td>2;9;3;4</td><td>Languagecodes (separate by semicolon) One or more language code. Valid codes see SetLanguage 108</td></tr></table>
Returncode	<table><tr><th>Returncode Type Integer</th><th>Note</th></tr><tr><td>0</td><td>ok</td></tr><tr><td>8194</td><td>Function is not implemented</td></tr></table>
Sample	`lic.SetRegisterLanguages('1;2;9');` …
See also	GetLanguage 700, SetRegisterSettings 116, SetLanguage 108, SetCustomText 136

5.3.8.4 Change Text Information - SetCustomText

The text on **all screens** and for **each language** can be changed. This function is ideal to change a few line of text but it cannot be used to add a new language.

To change a line of text, specify the language ID, a text ID and the new text.

Name	**SetCustomText**
Purpose	Checks if an entry (user, computer, item) is registered in a module
Params	<table><tr><th>Parameter</th><th>Type</th><th>Example</th><th>Note</th></tr><tr><td>Language</td><td>String</td><td>2</td><td>see overview about all language IDs 108 . Languag ID **cannot be 0**</td></tr><tr><td>Index</td><td>Integer</td><td>601</td><td>see detail list below - defin language text. Range 1-9999</td></tr><tr><td>Text</td><td>String</td><td>I have a Serial Number and I want to activate $product</td><td>Text for the selected language and Index. Replaces default text</td></tr></table>
Returncode	<table><tr><th>Returncode</th><th>Note</th></tr></table>

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	Type Integer	
	0	Command was successful
	Other return codes	Error occurred, see list of return codes 635
Sample	`bOk := lic.SetCustomText(2,613, 'Activation by phone');`	
See also	SetRegisterSettings 116; SetLanguage 108	

Change the text for each language

To change a line of text, you have to search in the language text file. A good idea is to search the English translation and then use this number to find the text in another language. You have to change the text for each language used by your application.

Example 1:
You want to change the following text in Danish language, which has language code 11.
Search in language Code 2 = English language
2**0613**, "Phone Activation"

To change the Danish translation
SetCustomText (11,613, 'Telefonaktivering')

Example 2:
You don't work with a Serial Number. Your unique ID is the customer number.

2**0657**, "To further use this product you have to activate it by entering a Serial Number."

To change the English translation
SetCustomText (2,657,'To further use this product you have to activate it by entering your customer number (check your invoice to retrieve the customer number)')

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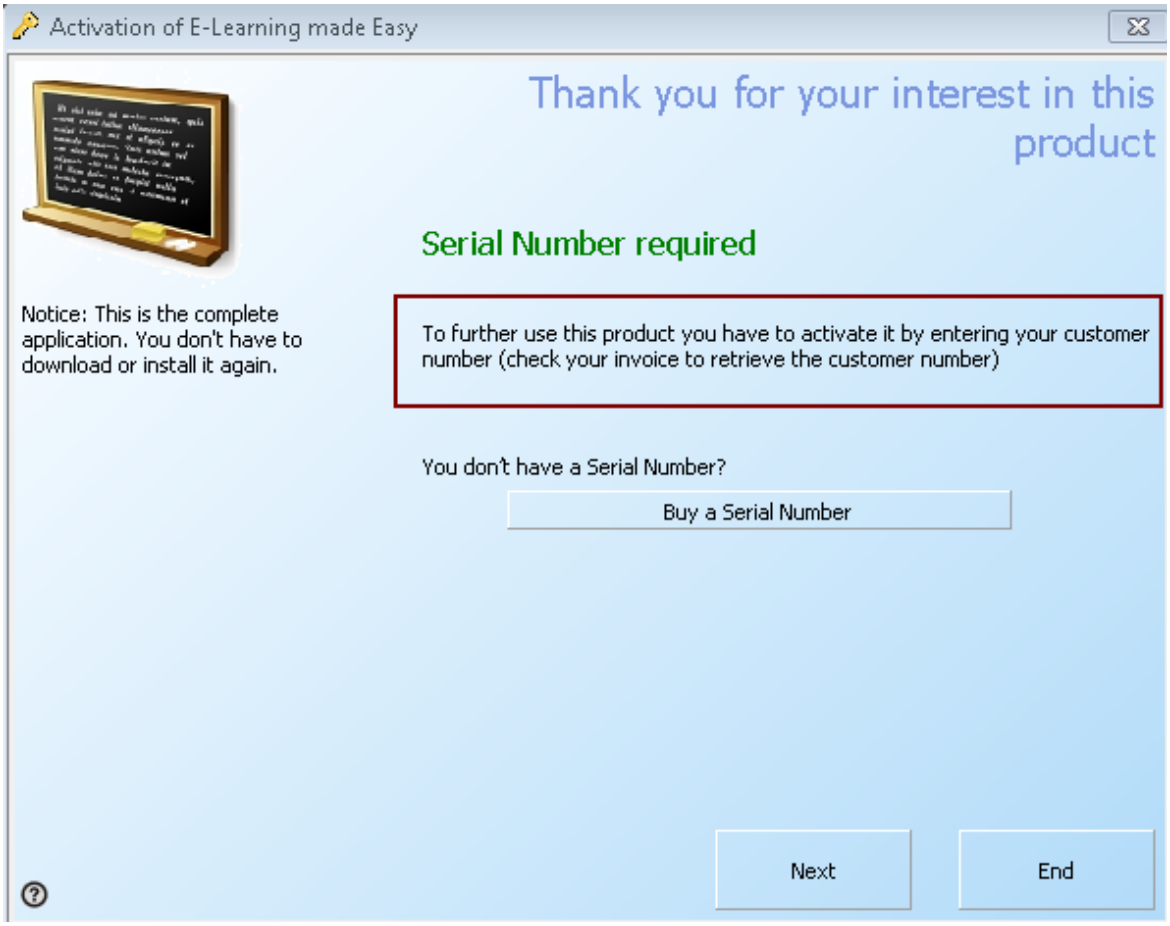

Of course you can change all the other text like: *Serial Number required* to *Customer Number* required or *Buy a Serial Number* to *Buy this product now*

SetCustomText (2,603,'You don't have a Customer Number?')
SetCustomText (2,604,'Buy this product now')
SetCustomText (2,656,'Customer Number required')

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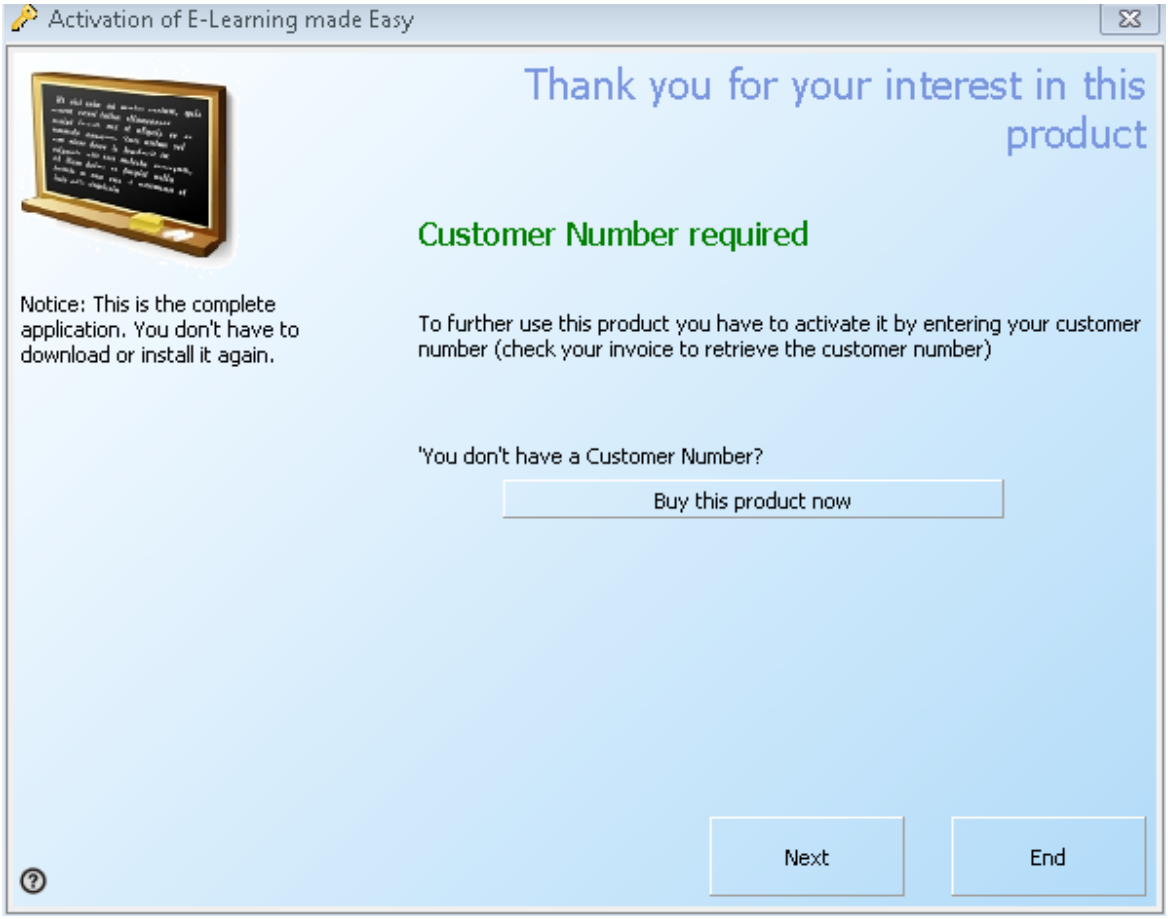

Text followed by a $ sign may never be changed. It is a variable. Examples are $product or $days. The name of the variable is the same in all languages.

Example

20744, "This is an evaluation version. You can evaluate **$product** for another **$days** day(s)."

The characters \n insert a new line.

Download language file

Download the latest language text file. It is a zip file which includes, depending on the character set, different TXT files. The English translation can be found in the file: *languagecommon_1252_WEUR.unicode*. Click here and save it on your hard disk.

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5.3.8.5 Change layout / buttons / behaviour of screens

Allows to modify the layout / buttons / behaviour of some EasyGo screens 221.

Name	**SetEasyGoProperty**
Purpose	Allows to modify the layout / buttons / behaviour of some EasyGo screens 221.

Params

Parameter	*Type*	*Example*	*Note*
Property	String	ActionAfterSuccess	defines the screen which is changed. For a complete li of all properties see below
Parameter	String		Additional parameter for some properties. Values depending on the field Property. For a complete li see below
Value	String	1	defines the layout / buttons / behaviour of the screen. Values depending on the field Property. For a complete list see below

Returncode

Returncode Type Integer	*Note*
0	Command was successful
Other return codes	Error occurred, see list of return codes 635

Sample

```
bOk := lic.SetEasygoProperty('ActionAfterSuccess','', '1');
```

See also: GetEasyGoProperty 681

You can retrieve the actual value of each property using GetEasyGoProperty 681

Property List

The following properties are supported.

- ActionAfterSuccess

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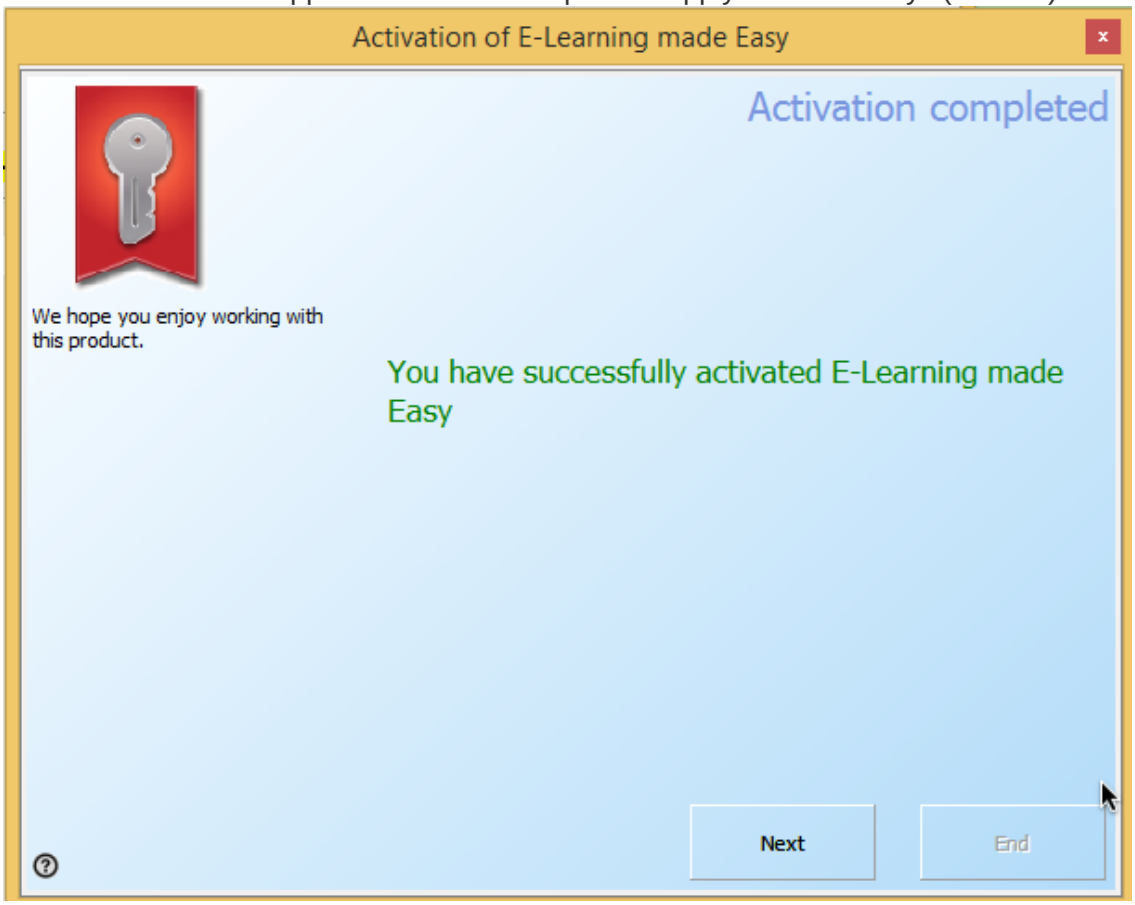
Changes the screen which is displayed after a successful activation 251.

Parameter

<not used>

Value

- Value = 0 - the screen is suppressed and **does not appear**
- Value = 1 - screen appears **without** the option to apply additional keys (**default**)



- Value = 2 - screen appears with an option to **apply additional keys**

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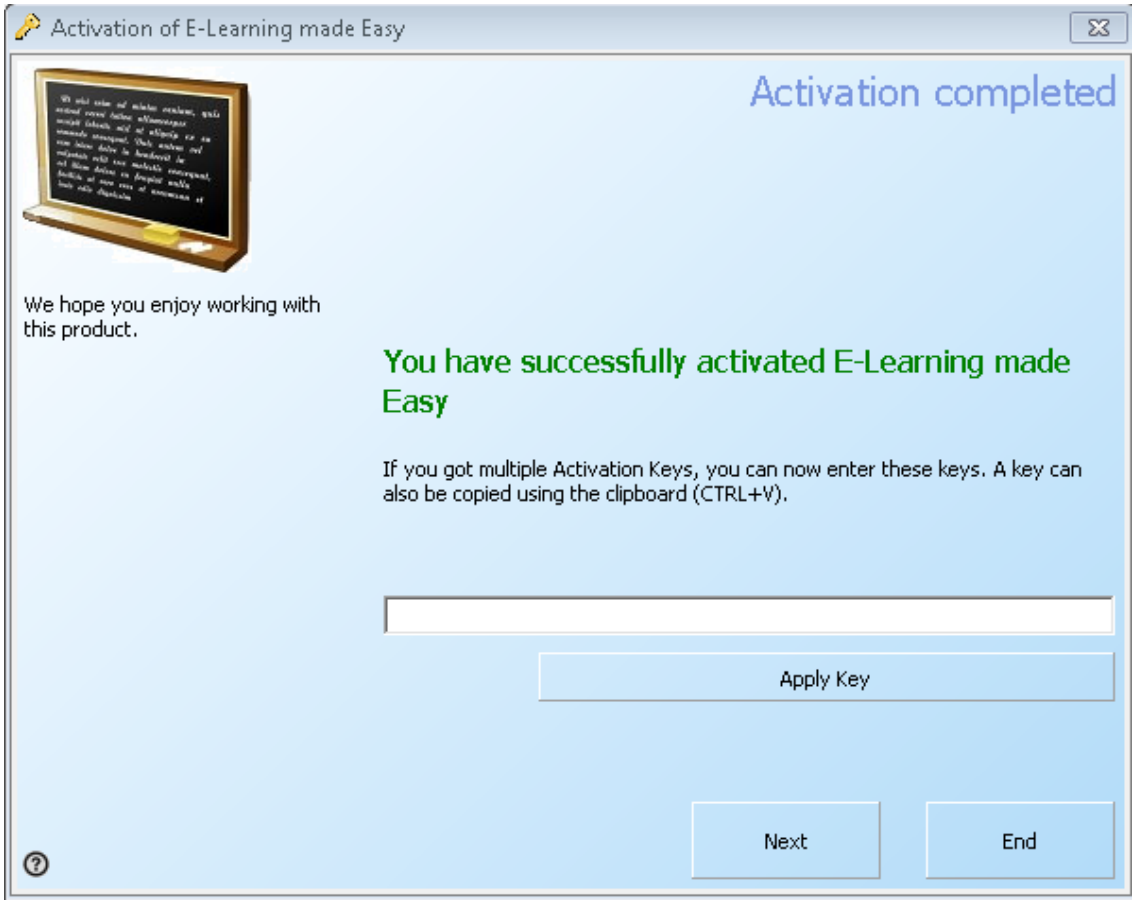

5.3.8.6 Additional Options

Depending on the license workflow you can use additional configuration options.

- The command: SetRegiserSerialNo 776 places a Serial Number / ID in the product activation screen. This could be useful if you use a product activation, where the user types in only his name but for all activations the same Serial Number / ID is used

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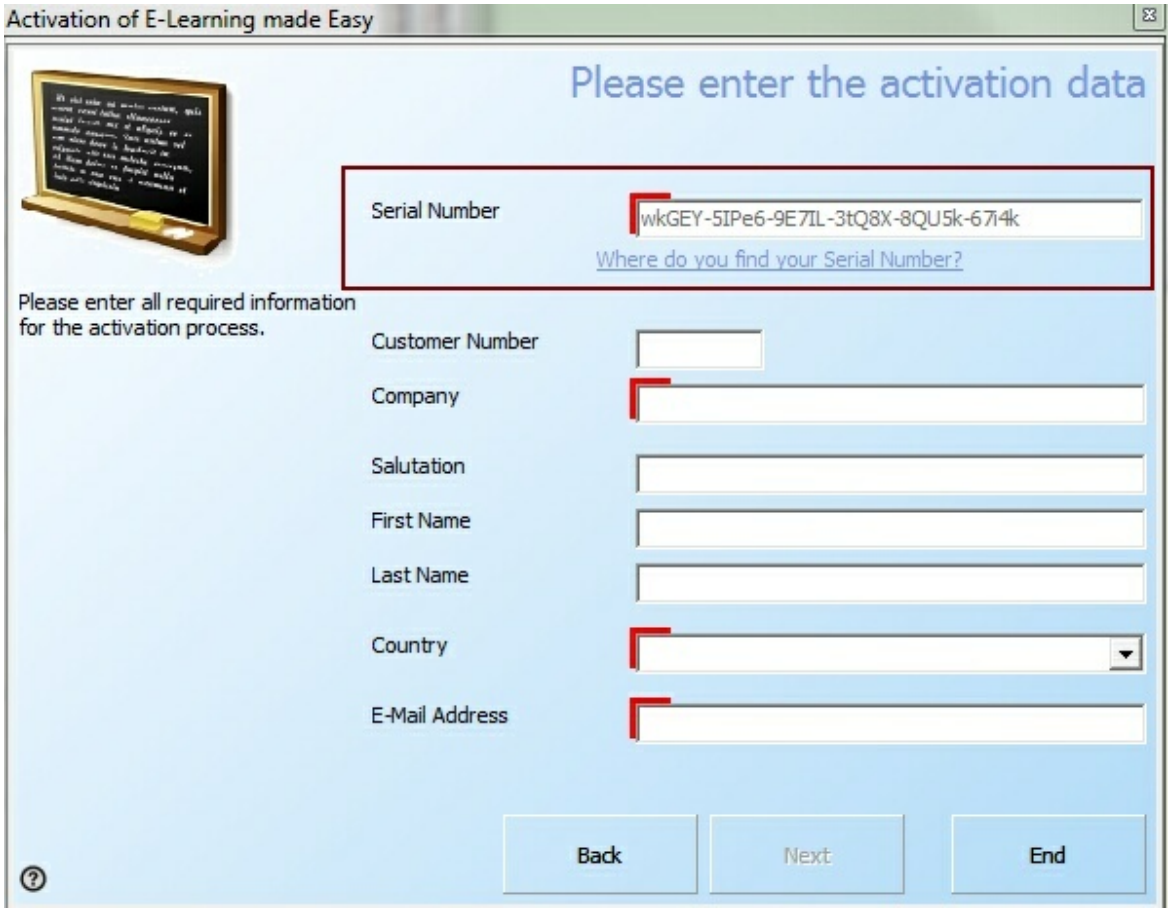

5.3.8.7 Online - / E-Mail - background information

All screens which could appear during a product activation process are explained in detail in the chapter: Activation and License Screens with EasyGo. 221

Find below background information about e-mail and Online Activation.

E-mail Activation

Licence Protector 5 uses the command **mailto:** to open the default e-mail Client. This will mostly work, but there are 2 situations, when it fails:

- The user has no default e-mail client and uses a Browser based e-mail system. To cover this situation a screen is displayed explaining that the e-mail content including the e-mail address to send the e-mail is in the clipboard. The user could just open the e-mail client and paste the e-mail content.

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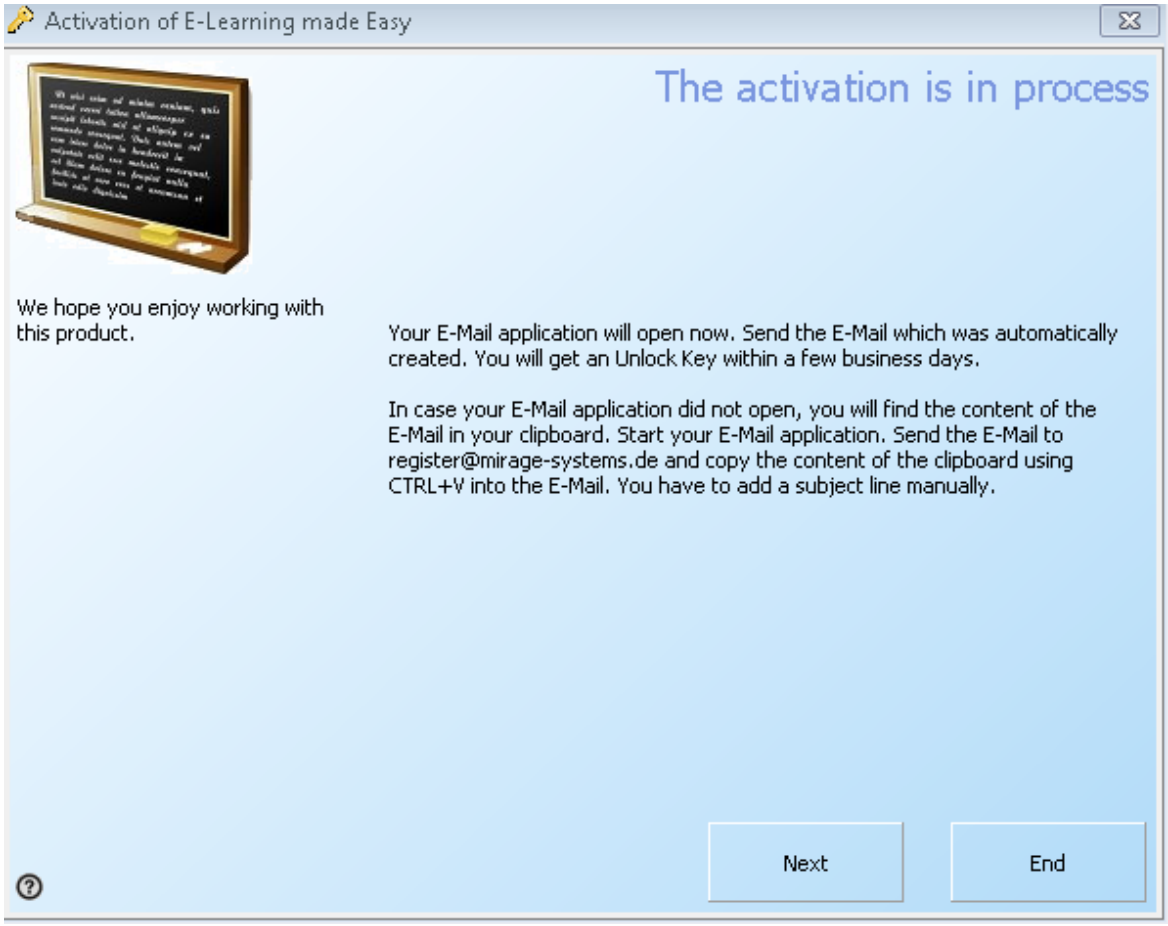

E-Mail - activation in process

- There is a text size limit for the command mailto: If the text would be truncated the users gets the following message within the e-mail client:

Due to technical reasons the e-mail content can not be inserted automatically. It is in the clipboard and you should insert it by pressing CTRL-V or right-click and select 'Insert'

Some e-mail Clients like Outlook or Live Mail support MAPI. There is no size limit for text. You can enable to use MAPI with the command: UseMapi 817. If MAPI is not available on the end user system, then callto: is used. There could be situations where using MAPI on a system without MAPI available results in an error. Therefore the default setting is UseMapi=false.

It is recommended to use the command UseMap 817 if e-mail activation is required.

All screens - Activation by e-mail 237

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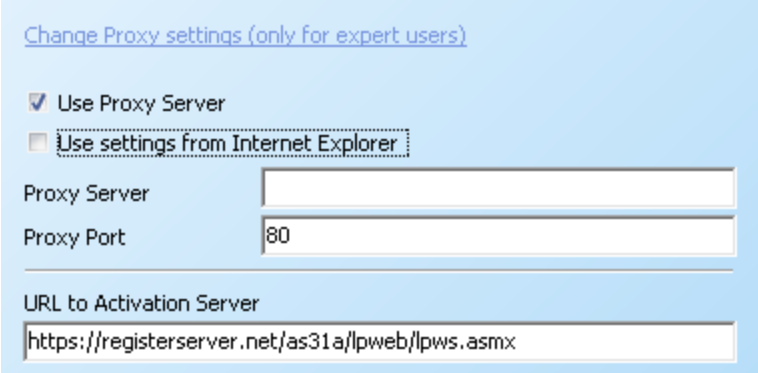
Online Activation

In case an internet connection is available, the online activation works in 99% because of comprehensive application logic of Licence Protector 5:

- An http or https command is used on port 80 to simulate a Browser. If the end user has a standard firewall or standard router it will always work. An internal ticket system ensures that despite the standard http command only the Licence Protector 5 can communicate with the Activation Server 6
- If a proxy server is configured in the Browser (only IE), then the Browser settings for the proxy server are retrieved. It is not used by default. The user has to enable the option to use the proxy server is used (configuration also possible with UseLocalIEProxy 816 ,UseLocalProxy 817)
- If a local software firewall like McAfee or Norton is used, it will pop-up. The user just has to confirm the access
- Only if an application firewall is used and port 80 is blocked (which is very seldom), then the online activation does not work. The user can change the port in the activation dialog



All screens - Online Activation 232

5.3.9 Workflow Options

Licence Protector 5 covers all typical workflows of an application. The workflow is set with the command SetRegisterSettings, parameter WorkflowType 120.

- Full version never expires 146 (perpetual license)
- Full version is time limited 150 (subscription license)
- Special workflows 155 like endless evaluation version
- Special workflows for evaluation versions 159 (evaluation version requires product activation)

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5.3.9.1 Full version never expires (perpetual license)

Find below different workflows for products, where the full version never expires (perpetual license)

Evaluation version, product activation, full version has no time limitation

The product starts in evaluation mode 222. It is activated using one of the activation methods (online, e-mail, fax, phone). After the product activation, it is a **full version without any time limitations**.

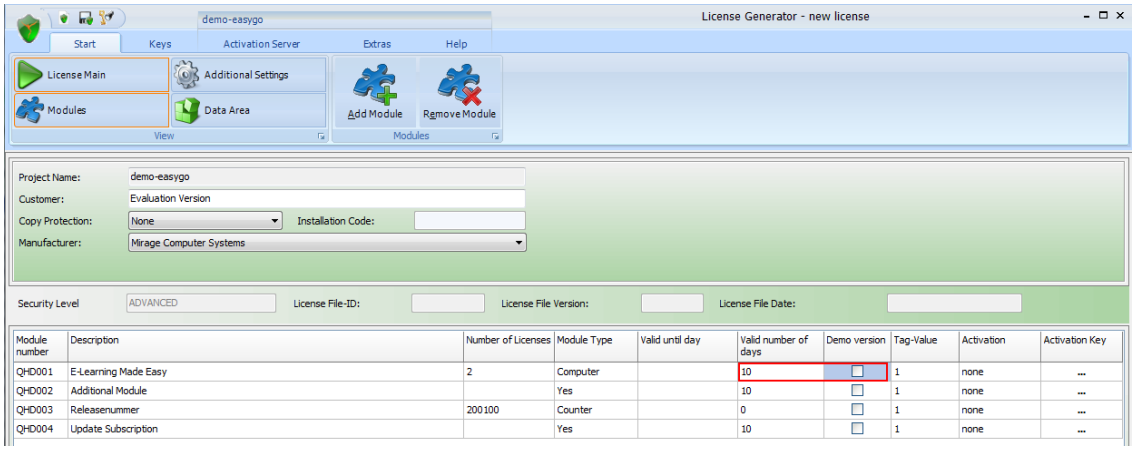
WorkflowType=1 120
FullVersionIsTimeLimited 121=false
ActivationStateAfterCPon 198=2

License File Settings

By default, the Demo Version / Evaluation Version is either a

- Time limited version with no functional restrictions or

  Flag Demo Version is **unchecked.** Field *Valid number of days* is set to a value **greater then 0**



- Time limited Demo Version with restrictions like not printing, no saving etc.

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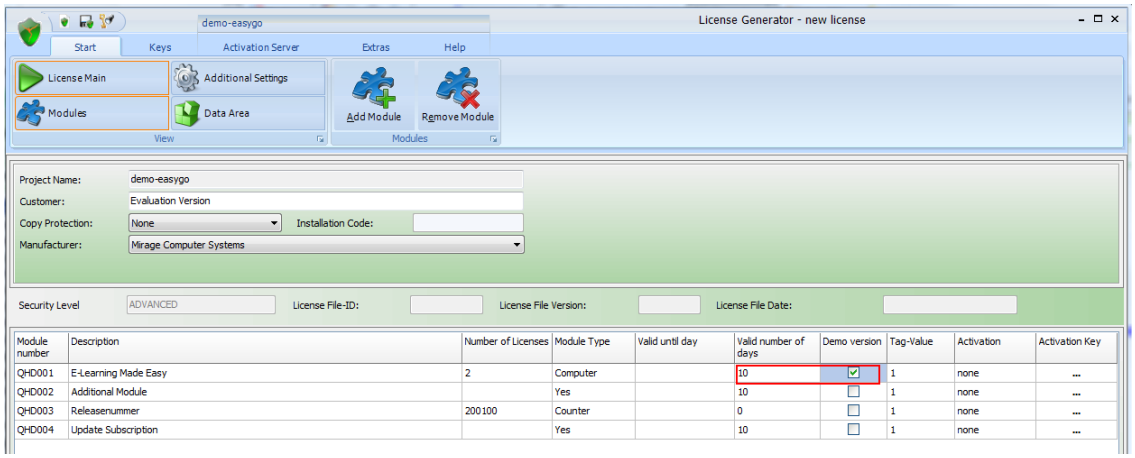
Flag Demo Version is **checked.** Field *Valid number of days* is set to a value **greater then 0**



- Typical start screen in evaluation mode 222

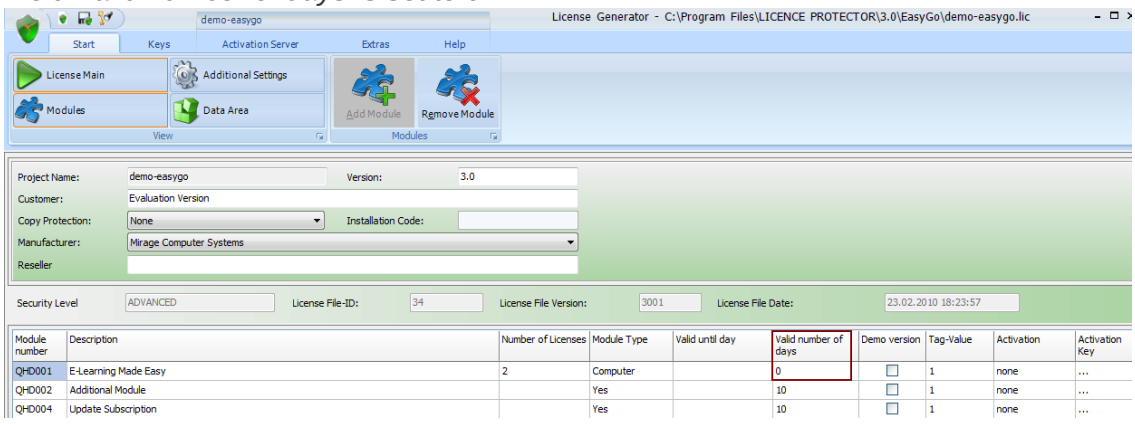
No evaluation version, product activation, full version

The product has **no evaluation period**. It needs a Serial Number before it can be used. It is activated using one of the activation methods (online, e-mail, fax, phone). After the product activation, it is a **full version without any time limitations**

WorkflowType=2 120
FullVersionIsTimeLimited 121 =false
ActivationStateAfterCPon 198 =2

License File Settings

Field *Valid number of days* is set to **0**



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- Typical start screen - No Evaluation Mode 223

5.3.9.2 Subscriptions / Maintenance contract

Licence Protector 5 supports selling software based on subscriptions or handling maintenance contracts.

- Subscription based software 148
- Maintenance contract 153

5.3.9.2.1 Subscription based Software

A subscription is a license of the full version, which **expires after some time**. The counterpart of a subscription is a perpetual license which will never expire.

There are 2 options to handle subscriptions

Using Serial Numbers (Windows only)

The expiry date or number of days is coded in the **Serial Number**. Once the license expires, the user will need a **new** Serial Number with a new expiry date.

+ An online connection is not mandatory
+ Process could be automated. No manual interaction for the software vendor required
- License transfer and using a Serial Number with days instead of an expiry date would result in starting the subscription again
- Customer has to type in a key every time the subscription is prolonged
- Needs an e-commerce integration 596 for automation to send out Serial Numbers automatically

Best option for yearly subscriptions

Using regular online checks (Windows and MAC)

The user gets a **perpetual license**. **Regular online checks are required** to detect if the license was terminated. The user never has to type in a new key when the subscription is prolonged.

+The regular online check 541 is convenient for the customer as he does not have to type in a key
+ License transfer possible
- The software vendor has to manually lock the license
- An online connection is required

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Best option for monthly or quarterly subscriptions and if no e-commerce integration is used

Regular license checks

When using regular license checks, you would deliver a version which does not expire (perpetual license). An online check is either done **per day, per week, per month** or **per program start**. If the user cancels the subscription you would lock the license on the Activation Server 6. The next online check would then lock the license on the local computer. If the user wants to continue with the subscription, just remove the license lock on the Activation Server 6.

Code implementation

- Workflow - full version never expires 146 (perpetual license)
- Activate regular online checks 543 with 1 day and grace period 544 0 days or 1 day
- If the subscription expires lock the license 545 on the Activation Server 6
- Screen license deactivated 270 allows to reactivate once the lock is removed on the Activation Server 6

To implement a check **per program start**

- Workflow - full version never expires 146 (perpetual license)
- Activate regular online checks 543 with 1 day and set the parameter **ForceCheck=true** in the command CheckModuleSubscription 654. Set grace period 544 0 days or 1 day
- If the subscription expires lock the license 545 on the Activation Server 6

Using Serial Numbers

When using Serial Numbers, you would deliver a version which does expire depending on the value in the Serial Number (time limited full version). The Serial Number either includes an expiry date (recommended) or the number of days when the license should expire. An online connection is only required when the Serial Number is used.

Code implementation

- Workflow - full version is time limited 150 (subscription)
- Create a Serial Number 301 with expiry date (recommended) or number of days
- Once the full version (subscription) expires, a new Serial Number is needed. Screen full version expired 257.

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5.3.9.2.1.1 Full version is time limited (subscription)

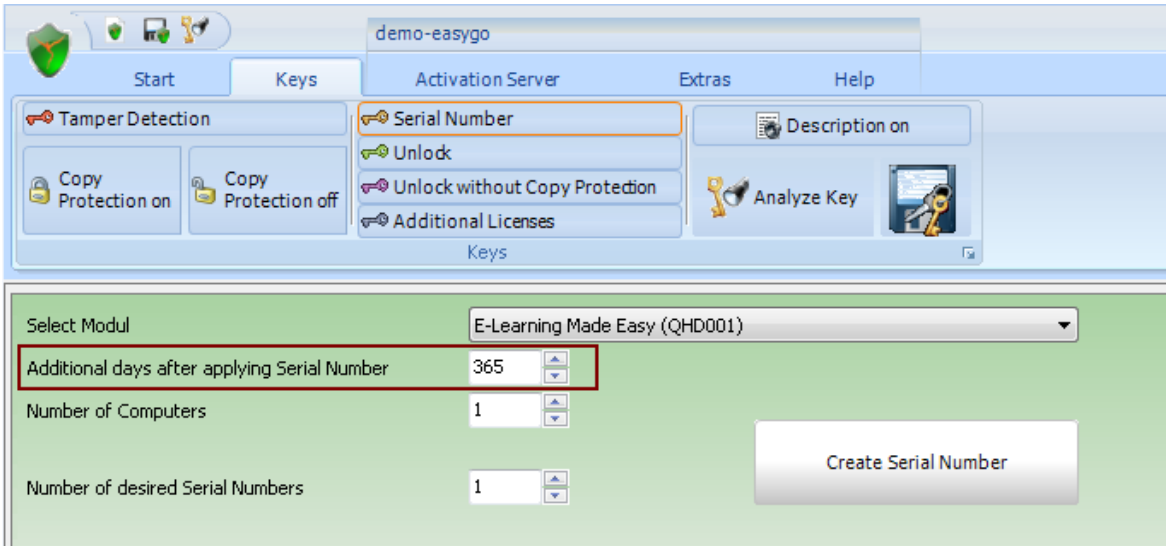
Find below different workflows for products, where the full version is time limited (subscription product).

Evaluation version, product activation, full version is time limited

The product starts in evaluation mode 222. It is activated using one of the activation methods (online, e-mail, fax, phone). After the product activation, it is a **full version with a time limitation** . This workflow is ideal for **subscription products** which should expire if the subscription is not prolonged.

WorkflowType=1 120
FullVersionIsTimeLimited 121=**true**
ActivationStateAfterCPon 198=**10**

The time limitation of the full version is coded in the Serial Number 301.



Create Serial Number with time limitation for full version

- Screen - Full version expired 257

One or more **time dependent** message screens can be defined to notify the user before the product expires - Details 778

License File Settings

By default, the Demo Version / Evaluation Version is either a

- Time limited full Version or

  Flag Demo Version is **unchecked.** Field *Valid number of days* is set to a value **greater then 0**

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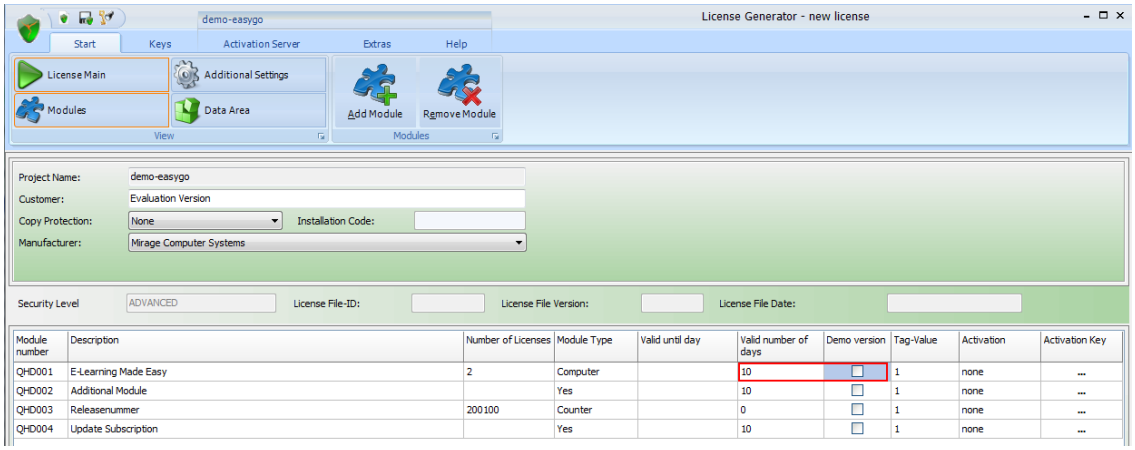
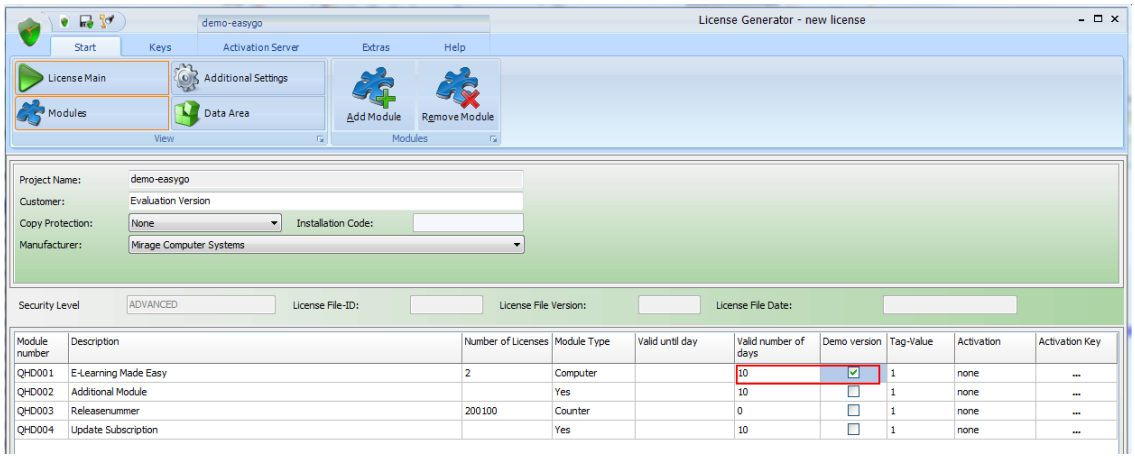


- Time limited Demo Version

  Flag Demo Version is **checked.** Field *Valid number of days* is set to a value **greater then 0**



- Typical start screen in evaluation mode 222

To prevent, that the user can install the product again after it expired, there are 2 options:

- Do not allow a reinstallation (recommended) or
- Activate tamper detection 565

Once the full version (subscription) expires, a new Serial Number is needed. Screen full version expired 257.

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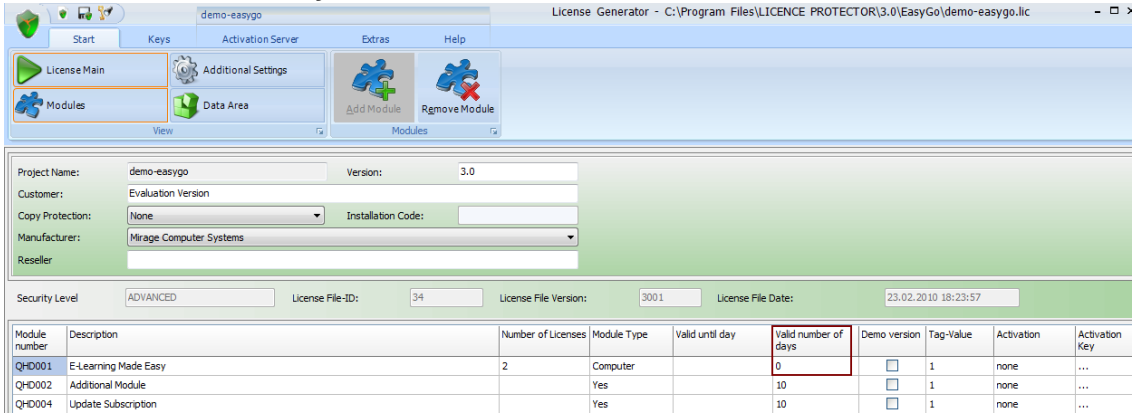
No evaluation version, product activation, full version is time limited

The product has **no evaluation period**. It needs a Serial Number before it can be used. It is activated using one of the activation methods (online, e-mail, fax, phone). After the product activation, it is a **full version with a time limitation**. This workflow is ideal for subscription products which should expire if the subscription is not prolonged.

WorkflowType=2 120
FullVersionIsTimeLimited 121 =**true**
ActivationStateAfterCPon 198 =**10**

- License File Settings

  Field *Valid number of days* is set to **0**



The time limitation of the full version is coded in the Serial Number 301.

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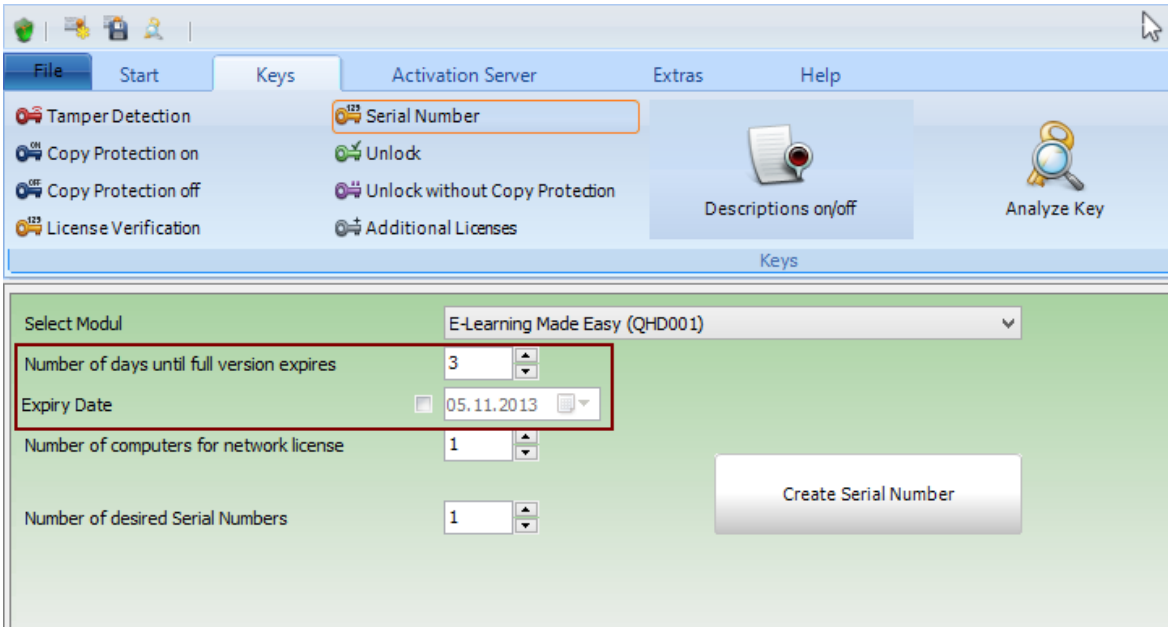

Create Serial Number with time limitation for full version

The setting in the license file - valid number of days or expiry date - is ignored.

- Typical start screen - No Evaluation Mode 223
- Screen - Full version expired 257

One or more **time dependent** message screens can be defined to notify the user before the product expires - Details 778

To prevent, that the user can install the product again after it expired, there are 2 options:

- Do not allow a reinstallation (recommended) or
- Activate tamper detection 565

Once the full version (subscription) expires, a new Serial Number is needed. Screen full version expired 257.

5.3.9.2.2 Maintenance contract

Maintenance contracts

There are 2 ways to handle maintenance contracts

- Make regular online checks 541, e.g. every 30 days

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- Send out an activation key to renew the contract

Pros/Cons

Regular online checks
+The regular online checks is convenient for the customer as he does not have to type in a key
- The software vendor has to manually lock the license
- An online connection is necessary

Using activation keys
+ Completely automated for the software vendor
+ Online connection not required
- Customer has to type in a key
- Needs an e-commerce integration 596 for automation

Using an Activation Key to handle a maintenance contract

You can easily implement, whether your customer may install an update or not. Add a new module of the type Yes/No (module type 4) with the module name *Update Subscription*. Set a default value for number of days - e.g. 30 days.

Tests within the application

The expiry date is calculated, when you use the ValidatesYes 945 command. During evaluation time of the software, don't test the update subscription module. When the version is a full version (Status of Activation is set to done - GetWebActivation 717) use ValidatesYes 945 to start the subscription.

Tests within the update program

Your update program now checks, if the module is available and if it has expired. If the module is available **and** not expired, the update can be installed. Otherwise you display an error message like: *Update Subscription has expired and the update cannot install.*

The commands are:
- ValidatesYes 945 - to check if the module is set to Yes or No
- RemainingDays 743 - to check if the module is time limited or not

If your customer buys an update subscription, you just send him an Activation Key for the desired time period.

This is a very convenient way to handle updates, because you can place the update on the internet and only customers with a valid update subscription can install it.

You can automate billing in combination with e-commerce providers . They offer to create recurring invoices, e.g. every 3, 6 or 12 month. If the customer pays the invoice, then an

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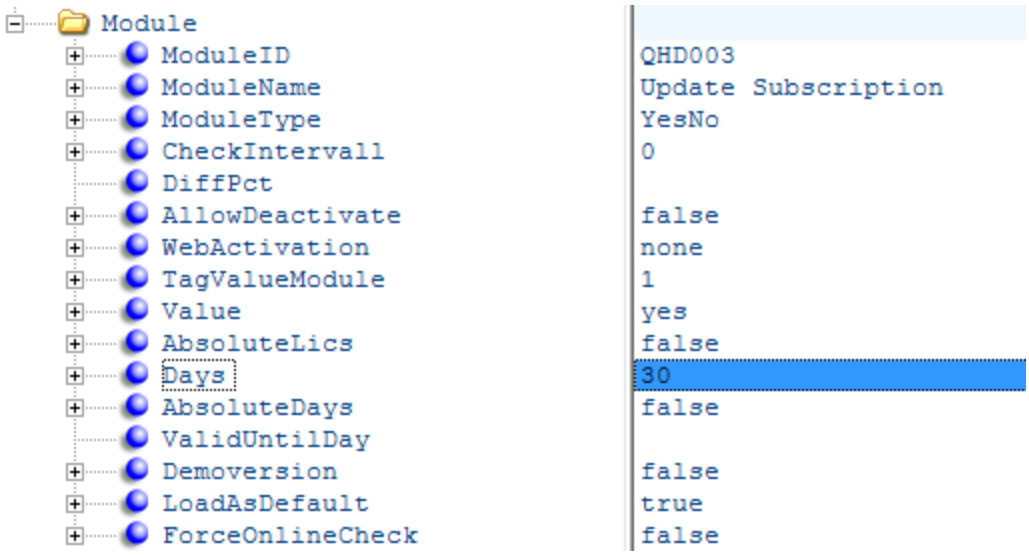
Activation Key for the module is generated to prolong the period for 3, 6 or 12 month. See Integration in Online Shops 596.



Combine this test with a Release Number 517. You could then install a service pack for a specific release without having a valid update subscription.

5.3.9.3 Special Workflows

Evaluation version but NO product activation

The product starts in evaluation mode 222 but the evaluation version **cannot be activated and converted to a full version**. This workflow is ideal if you deliver a special build of the application for the full version.

WorkflowType=3 120
FullVersionIsTimeLimited 121=false
ActivationStateAfterCPon 198=0

License File Settings

By default, the Demo Version / Evaluation Version is either a

- Time limited full Version or

  Flag Demo Version is **unchecked.** Field *Valid number of days* is set to a value **greater then 0**

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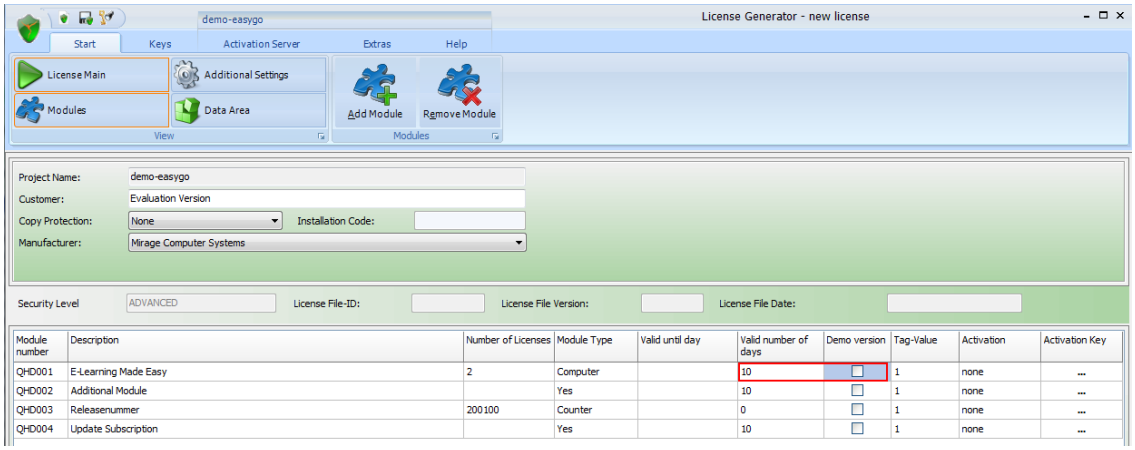
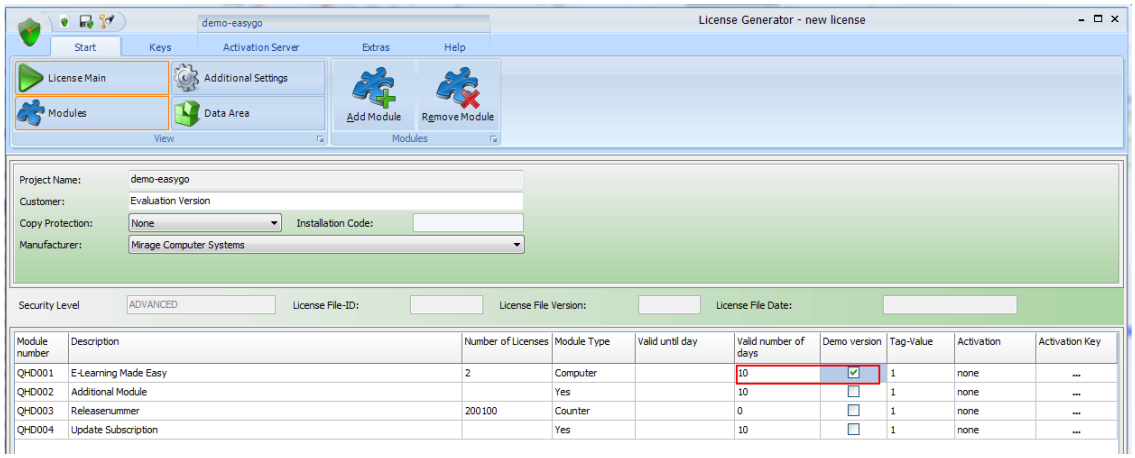


- Time limited Demo Version

  Flag Demo Version is **checked.** Field *Valid number of days* is set to a value **greater then 0**



- Typical start screen - no product activation possible 225

Endless evaluation version, product activation, full version

The product has an **endless** evaluation period. This workflow is ideal for a free version, which can be upgraded to a full version with more options.

WorkflowType=1 120
FullVersionIsTimeLimited 121 =false
ActivationStateAfterCPon 198 =2
Valid number of days = **0**

License File setting

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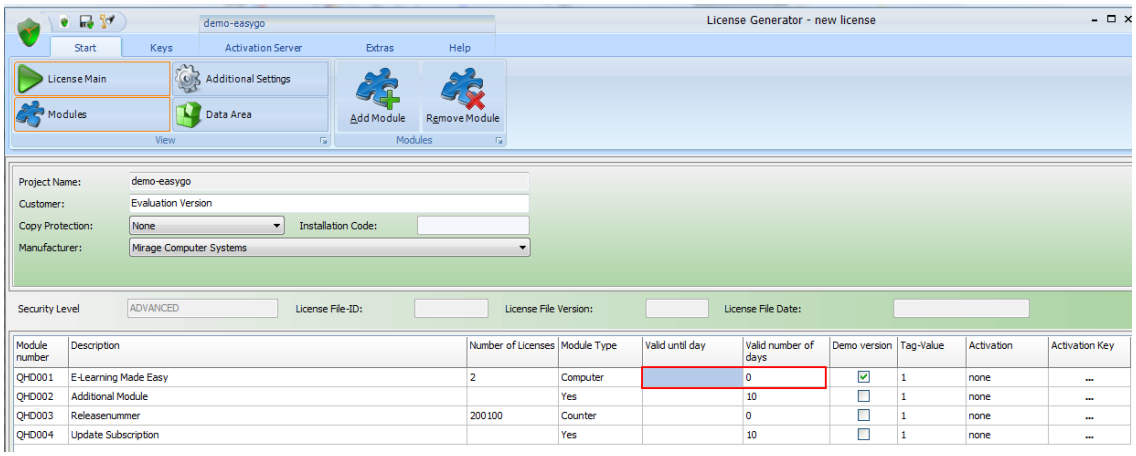
To use this option just **do not** define an expiry date and set days for evaluation to **0**.
See screenshot.



Typical start screen - evaluation version without time limitation 227

Endless evaluation version, product activation, full version is time limited

The product has an **endless** evaluation period. This workflow is ideal for a free version, which can be upgraded to a full version with more options. After the product activation, it is a **full version with a time limitation**.

WorkflowType=1 120
FullVersionIsTimeLimited 121 =**true**
ActivationStateAfterCPon 198 =**10**
Valid number of days = **0**

- License File setting
  To use this option just **do not** define an expiry date and set days for evaluation to **0**.
  See screenshot.

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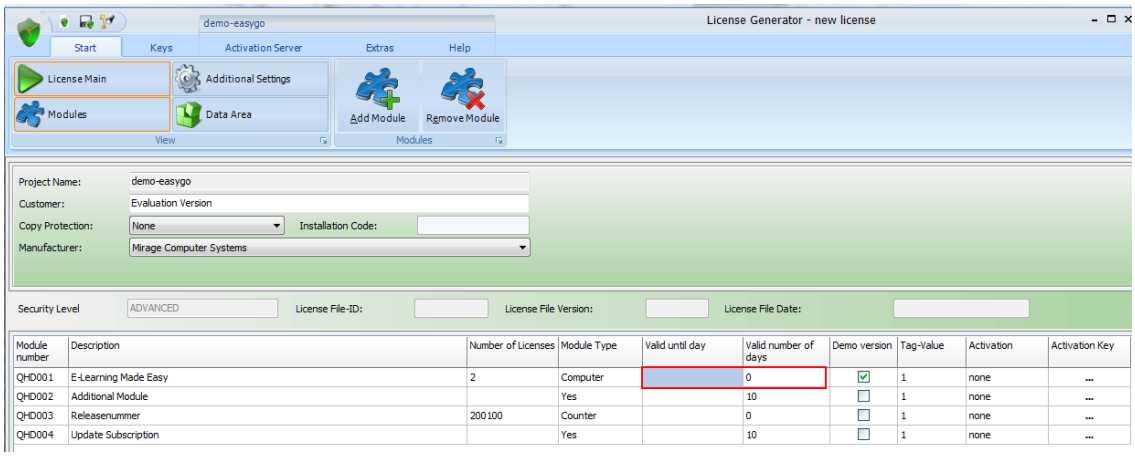
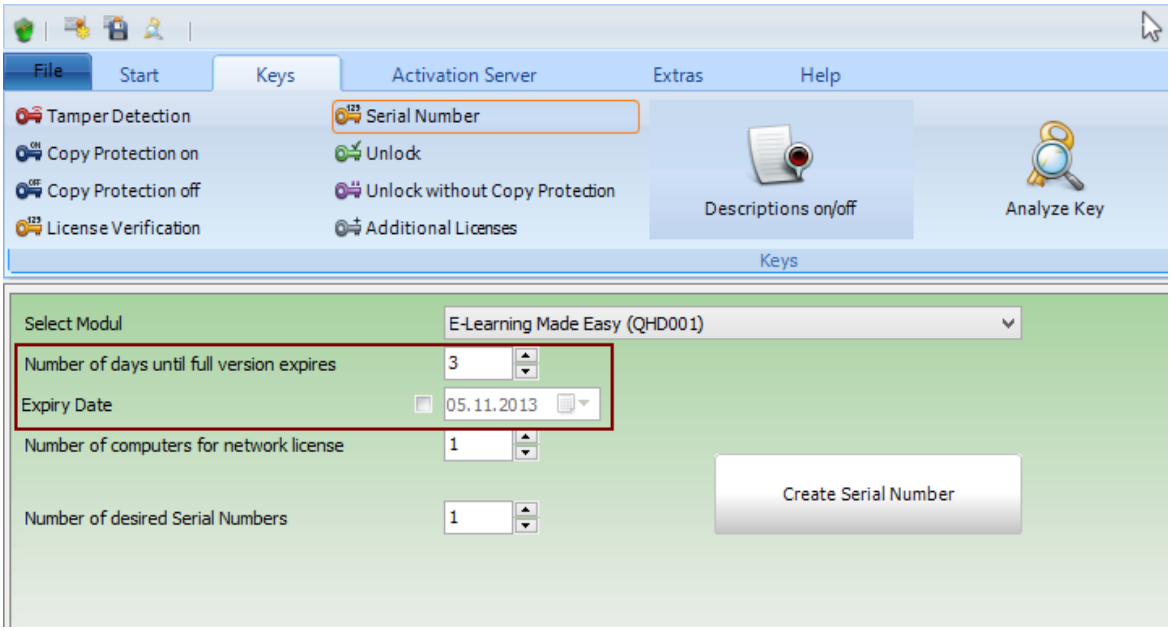


The time limitation of the full version is coded in the **Serial Number**.



Create Serial Number with time limitation for full version

One or more **time dependent** message screens can be defined to notify the user before the product expires - Details 778

To prevent, that the user can install the product again after it expired, there are 2 options:

- Do not allow a reinstallation (recommended) or
- Activate tamper detection 565

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Evaluation Version needs to be activated

If the evaluation needs to be activated or you want to collect address data, see chapter: Evaluation Version - Special Workflows 159

5.3.9.4 Evaluation Version - Special Workflows

By default, an evaluation can just be used without registration or product activation. It is possible to collect address information or activate an evaluation version.

- Activate the evaluation version - Serial Number needed 159
- Activate the evaluation version - No key needed 161

5.3.9.4.1 Evaluation Version requires Activation - Serial Number needed

If you want to offer an evaluation version, which needs to be **activated using a unique Serial Number**, use the following workflow. If the evaluation version should be usable without a Serial Number but with a registration and activation, see workflow: Evaluation Version requires registration - no key needed 161

Create project template

Modify the Project Template 182 and add a new module with type Yes/No (module type = 4). This module is only used for activation of the evaluation version. Set the default value for this module to **Yes**, **days = 0 , EasyGoWorkflow= 2, ActivationStateAfterCpon=2** and name it e.g. *Evaluation Version***.**

Detial settings for template

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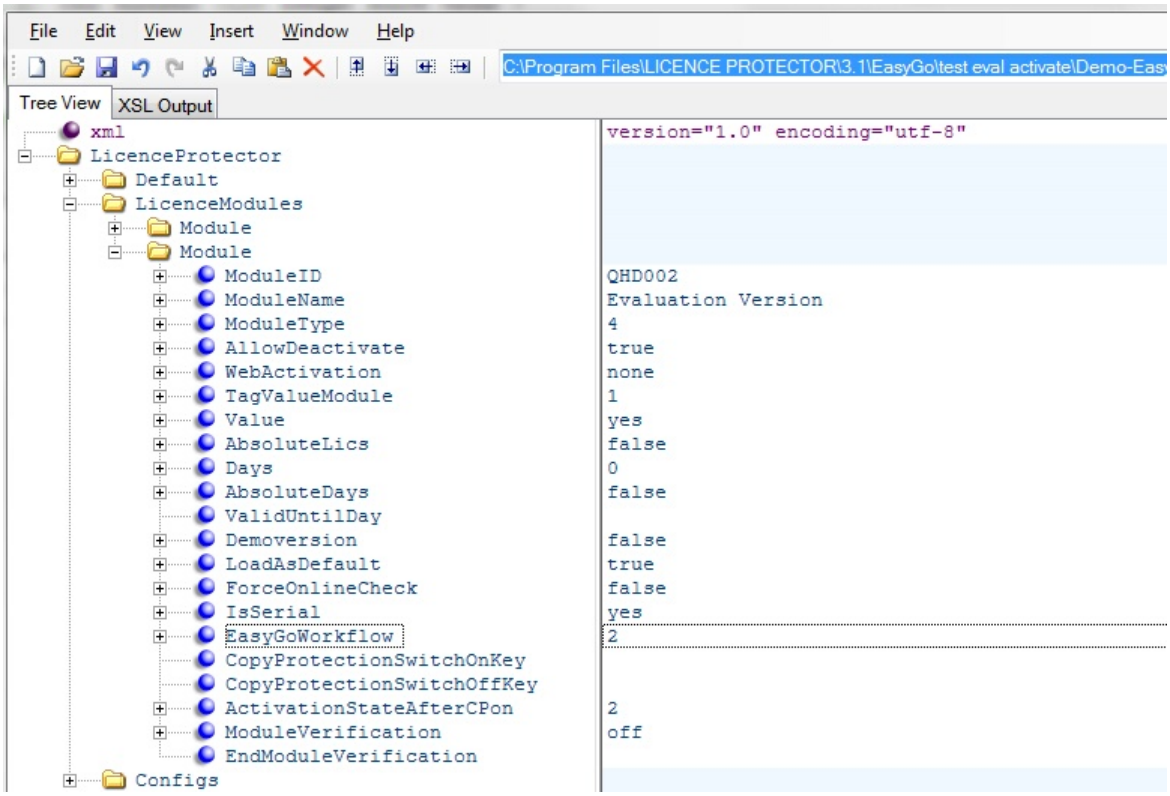

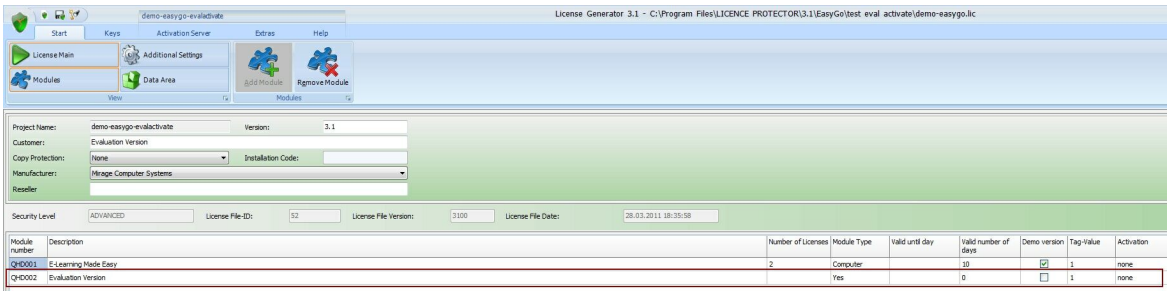

Use the workflow settings - [No evaluation version, product activation, full version](#) 147 for the additional module (sample is QHD002). The user can start the application only if he has a valid Serial Number.

Source Code integration

Implement this logic at the start of your application:

- Open the license file without user interface - [PrepareAdvanced](#) 729 - (in case of an error continue with PrepareAndCheck for the main module)

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- Check if the activation status of the module *Evaluation Version* is set to done (GetWebActivation 717 = 2) - this indicates that the demo version was activated

Check - evaluation version

If the evaluation version was NOT activated (GetWebActivation<>2) then

- Use PrepareAndCheck 162 with the **moduleID of the evaluation version module** (in the example screenshot below it is QHD002). The user has to activate the evaluation version - he gets the screen: No Evaluation Version 223.
- If the return code is <> 0 quit the application
- Continue with check - main module

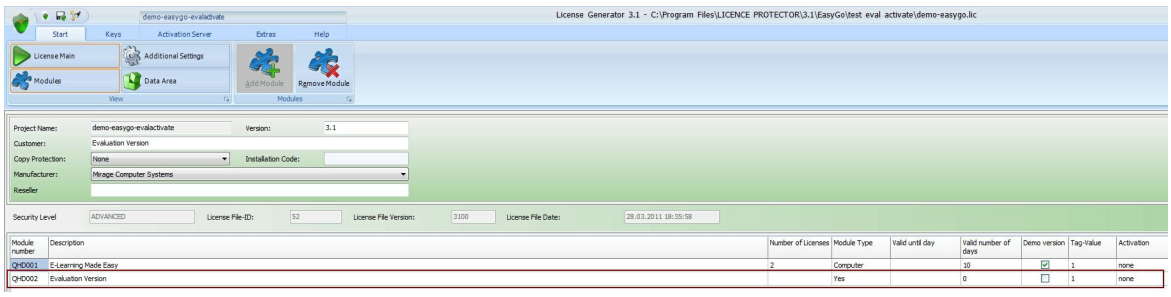
Check - main module

Continue with PrepareAndCheck 162 for the **main module (QHD001).**

5.3.9.4.2 Evaluation Version requires registration - no key needed

If you want to offer an evaluation version, and the evaluation version should only **start after it has been registered and activated**, you can implement this with a few additional DLL calls. The user can download the demo version, activate it and use it. If the evaluation version should be usable only after the user activates it with a Serial number, see workflow: Evaluation Version requires Activation - Serial Number needed 159

Modify the Project Template 182 and add a new module with type Yes/No (module type = 4). This module is only used for activation of the evaluation version. Set the default value for this module to **No** and name it e.g. *Evaluation Version***.**



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Use the workflow settings - No evaluation version, product activation, full version 147 for the additional module (sample is QHD002).

The testing has to be done **before** you use PrepareAndCheck 162 with EasyGo.

Implement this logic at the start of your application:

- Open the license file without user interface - PrepareAdvanced 729 - (in case of an error continue with PrepareAndCheck for the main module)
- Check if the activation status of the module *Evaluation Version* is set to done (GetWebActivation 717 = 2) - this indicates that the demo version was activated. If you deleted the module after activation (see below), GetWebActivation will return -1

If return code is not 2, then the evaluation version has to be activated - otherwise it was already activated.

- Retrieve all installation codes of the machine with GetInstCode 684 and add all codes to one string. This will be the **unique identifier** for the Activation Server 6
- In the command SetRegisterSettings, set the field SerialIsAKey 119 to **false**. This allows using any ID for a Serial Number
- Now define, that the unique identifier you calculated is used as a Serial Number - command SetRegisterSerialNo 776. This ID will be **automatically pasted in the Serial Number field**
- Use PrepareAndCheck with the **moduleID of the evaluation version module** (in the example screenshot below it is QHD002) and WorkflowType=2 120. The user has to activate the evaluation version - he gets the screen: No Evaluation Version 223
- If the return code is 0 (activation was successful) then you could delete the module QHD002 (DeleteModule 664) and continue with PrepareAndCheck for the **main module** (in the example screenshot below it is QHD001). **Before** validating the main module, change the workflow to Evaluation version, product activation, full version has no time limitation 146
- If the return code is <> 0 quit the application

5.3.10 Prepare and Check **

This is the main command to invoke the EasyGo dialogs and perform the **complete basic license testing**:

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- open the license file with the EasyGo screens
- check if it is a time limited trial version - in case the trial expired, displays the screen: Evaluation period expired 253
- check if the system date was tampered with (only if CheckSysdateChanged 112 was used). In case of an error displays the screen: System date was tampered 275
- check if the product is activated - otherwise offers to use one of the specified activation methods 228
- check if copy protection is OK - in case of an error displays the screen: copy protection violation 264 and try an automatic reactivation
- check if network license is OK - in case of an error displays the screen: No free license available 272
- check if a user / PC was deactivated -in in case of an error displays the screen: Network license -deactivated 272

See List of Return / Error Codes 635 and Other Errors 638.

Name	**PrepareAndCheck**
Purpose	Opens the license file and executes the EasyGo form.

Params

Parameter	*Type*	*Example*	*Note*
license file 66	String	F:\mylic.lic	The full path to the license file . See details for UNC pathnames
ProjectSecureKey/ ReadKey	String	I am a project secure key	The project secure key for that license file. See details - Read Key 166 Note: Using a PSK is supported for backward compatibility but should not be used.
ModuleID	String	QHD001	Unique ModuleID – identifies the module to be tested in EasyGo functionality - see details main module 166
Name	String		The user or item name to check the module for. Normally, you would pass this information only if you have an own user administration. Default option is

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			to use the automatic function - UseWindowsUser = true
UseWindows User	Boolean	True	Determines if the windows login name or hostname should be used as name for the license. Concurrent User uses a combination of username and PC name. If the module is an Item Counter, provide the name for the item counter in the field Name and set UseWindowsUser to false
Quit	Boolean	False	Controls whether the Licence Protector 5 object is available (for further calls) an the license file is not closed or if it is not needed any more and therefore quit. On false (no quit) the Quit 179 has to be made explicitly at end of the application. For concurrent user testing 552 quit must be set to false. If you need any other testing after PrepareAndCheck also set quit to false
TagValue	String, **output**	Empty	A variable which can absorb the Tag value of the main module. For details see Using the TAG value 459 (Anti Hacker Strategies)

Returncode

Returncode Type Integer	***Note***
0	The license file was successfully opened and the main module was successfully checked or even activated. It is also possible that the main module is in an evaluation state.

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	2 — The license file could not be found or was not opened 4 — EasyGo screen terminated by closing the screen with X (close button) or using the END button 16 — Trial or full version expired 32 — No more free license (only when using network license per computer, user or concurrent user) 1024 — This is a copy protection violation. The Installation Code of the license file doesn't match with the %ID%. See common reasons for this error 2048 — The file %filename% is not a valid license file or file cannot be opened See common reasons for this error 3010 — Online Activation - The Serial Number was already used on another PC 16382 — If CheckSysdateChanges is set to true and Licence Protector 5 recognizes that the date was manipulated then you get this error code. Other return codes — Prepare or Validate failed, see list of return codes 635
Usage	Important function in order to use Licence Protector 5

Sample	`iRes := lic.PrepareAndCheck(sMyLicfile, 'XTIORHjmV65XFlH/pRYBjxlRJnhCL....', 'D1001', '', true, false, sTagVariable);`
	`if iRes <> 0 then`
	`begin`
	`<< an error occurred >>`
	`...`
	`end`
	`else`
	`begin`
	`<< everything is fine, continue >>`
	`...`

See also	EasyGo, SetRegisterSettings, SetRegisterHelp, SysdateChanged, CheckSysdateChanged, Validate, ValidateEx, Quit, PrepareForce, PrepareAdvanced

Some compilers (known for Visual Studio C++ 2007 an newer) crash when using this command. The reason is the tag value parameter. Use **PrepareAndCheckNT** 735 instead. The command has the same parameters but **no tag value parameter.**

You can terminate your application if the error code is not 0. 0 means that everything is OK. The activation does not indicate the status of the license (e.g. trial version, activation done) because EasyGo handles everything automatically.

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If you do a manual system date modification check with SysDateChanged 809, you have to call this command even if the status code of PrepareAndCheck is not 0. SysDateChanged 809 generates an internal flag that the application was started today even when the start fails, e.g. because the license expired. The flag is set automatically if CheckSysDateChanged 112 is used instead.

If you need status information about a module, use GetWebActivation 717, RemainingDays 744, RemainigLicenses 744 - list of commands 171 to retrieve module information.

If the version expires, the number of licenses are not sufficient or copy protection is violated, this is indicated with an different error code.

You have to set the SecurityLevel 110 before you can use this command

The PrepareAndCheck command would display screens indicating that an online validation is done. The screens can be suppressed using ShowWAStartPage 806, ShowWAProgressPage 804 and ShowWAResultPage 806

The command SetRegisterSerialNo 776 would display this Serial Number as a default value in the activation dialogues

See also

Module ID 166
Read Key 166
Open multiple license files at the same time 167

5.3.10.1 ModuleID

For EasyGo you need one **main module**, which is used for the activation of the product. This should be the module which is **always included**. Otherwise just make a module with the name of the application which is only used for activation.

If you have not such a module just generate a module like *My application name* and use this module just for the purpose of activation with EasyGo.

5.3.10.2 Read Key

The Read Key, used in PrepareAndCheck 162 is the 'key' to your license file. The ReadKey in the project template and PrepareAndCheck must be the same.

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It is important to obfuscate the Read Key in your source code.

- How do I hide the Read Key? 462
- How do I create the Read Key? 403
- Where do I store the Read Key? 183

5.3.10.3 Open multiple license files at the same time

If you need to open multiple license files at the same time, you have to create an instance with the Licence Protector 5 object for each file.

5.3.10.4 Activation Method

To find out, **how** (Online, e-mail, Fax, Phone) the product was activated, use the command GetVal, token LAT 713. The date of the activation can be retrieved with GetVal, token LAM 713.

This information can be used to implement options, which are available only with an online connection, e.g. upload a backup of the license file 814 to the Activation Server 6.

The command GetActionsOfLastPrepareAndCheck 673 provides the information, if the product was activated an how it was activated, only **once immediately** after the product activation occured.

5.3.11 Licensing of multiple modules/features

Licence Protector 5 supports any number of modules / features (= functionality you want to license) inside a license file. You define the modules in the project template 182.

To validate a module 171 there is a complete set of commands which can retrieve or change any bit of a module information, e.g. module name, number of users, time limitation, activation status etc.

Concept with one main module + optional modules

If your application is sold with **one** main module 203 (a basic product the customer always have to buy) and several **optional** modules, the way a module is activated depends on the way you distribute the product and other parameters. The main module is always activated using a Serial Number and the command PrepareAndCheck 162.

- If you are using an e-commerce system, send out keys manually (you sell only small volumes) or if you can rely on an online connection, you would send out an Activation Key 334 which changes the module information in the license file, e.g. sets a yes/no module to yes or adds additional network licenses. The Activation Key is typically typed in using the License Viewer 281 (or the command ApplyActivationKey 644) and no additional programming is necessary

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- If you sell each single module with a separate CD or you cannot rely on an online connection and you sell large volumes youl, every module would be activated using a Serial Number. See: Activate each module with a Serial Number 168
- If your application has more than 5 modules a good approach is to deliver a license file + Serial Number 172
- If you can rely on an online connection, you can deliver by downloading the license file 525. Only **one Serial Number / ID** is used to download a customer specific license file **with all the specific customer settings including multiple modules**

Concept with 2 versions or no main module

If you sell **2 versions of an product** (e.g. Standard and Premium version) or a version with **several modules** but **no main module**, one of the following approaches could be used:

- 2 Versions - Standard / Premium version 169
- Version with several modules but no main module 169

See also

Validate modules 171
Deliver license file + Serial Number 172
Activate each module with a Serial Number 168
Create Activation Keys 334

5.3.11.1 Activate each module with a Serial Number

To activate each module with a Serial Number, the following code implementation is necessary.

- The user selects the module he wants to use in the application
- Define the Activation Screen using SetRegisterSettings 116
- Use PrepareAndCheck 162 to allow a product activation using a Serial Number

If the user should be able to type in a key without selecting the module, you have to analyze the key 696 to get the moduleID. The module ID is necessary to start the activation screen with PrepareAndCheck 162 .

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All fields of the product activation screens are stored in the license file. To activate another module, only the Serial Number is needed for the next product activation and all the other fields are already filled out with the user data from the first activation.

5.3.11.2 2 or more modules - no main module

If you have **no main module** (module which the customer has always to buy) and the customer could buy one of the following combinations

- module A
- module B
- module A **or** module B
- module A **and** module B

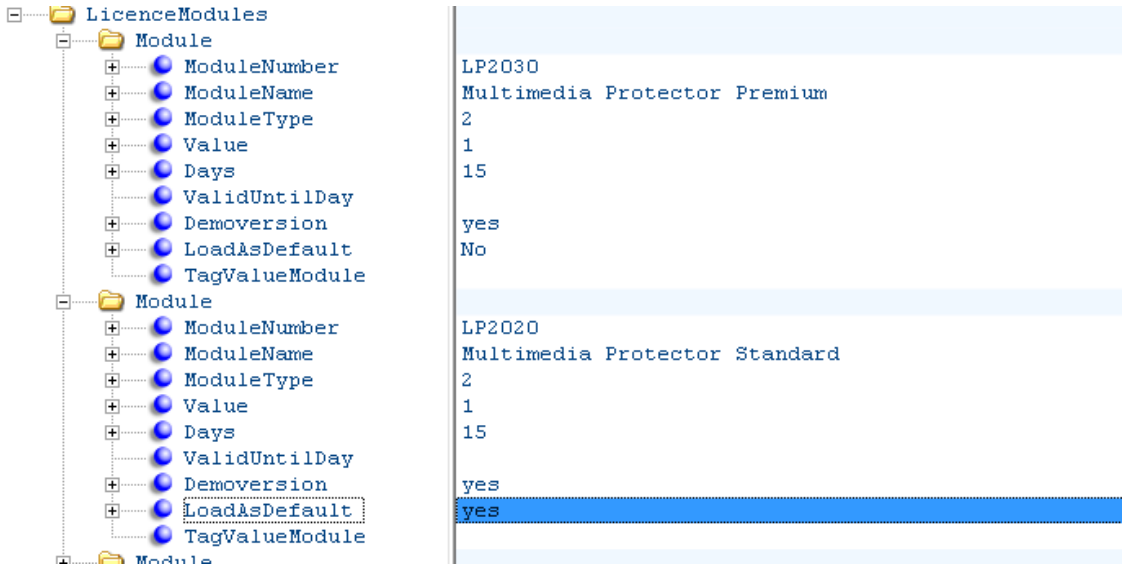
Use the implementation: Activate each module with a Serial Number 168

5.3.11.3 2 Versions - Standard / Premium version

If you have 2 versions and the user can either buy a *Standard* **or** *Premium* version, then one implementation option is to use the following workflow.

- Create a project template including both modules

  Create a project template which includes both modules and set *LoadAsDefault* for only **one module** to true. This will load by default only this module in the License Generator. Each module has an own **ModuleNumber** which ensures, that a key for module 1 can not be used on module 2.



You could also make 2 different project files with different project encryption keys 404 instead of one project file and 2 modules. This is mandatory if each product has additional modules.

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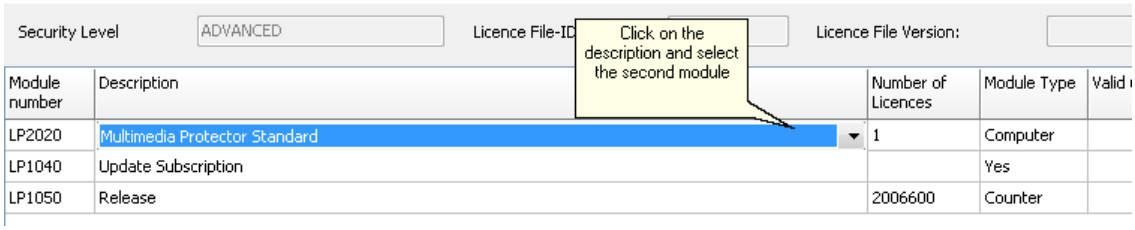
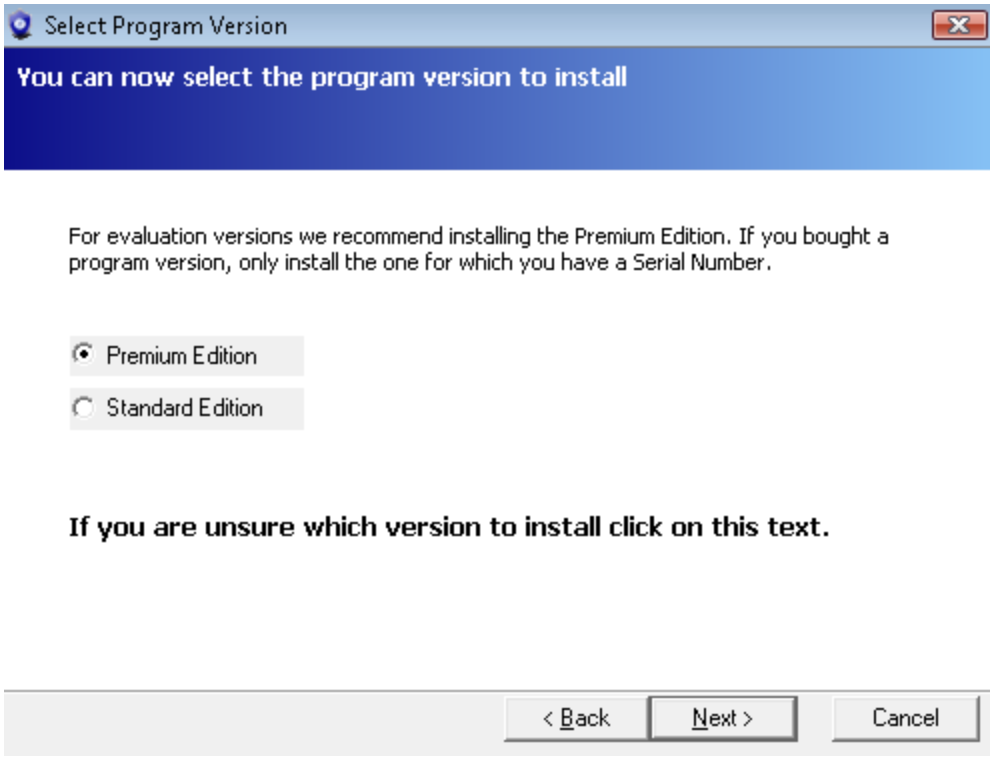
Create 2 license files

Now generate **2 license files**. One which contains the *Standard* Version and one which contains the *Premium* Version.
Start the License Generator. The default module will load. Save a license file as *standard.lic*. Then change the standard module. Click in the list on the description of the module. A listbox will appear where you can select the *Premium* Version module. Save a license file as *premium.lic*.



Installer - allow to select the version

The installer includes **both license files** (standard.lic and premium.lic). When the user downloads a trial version he can select which version he likes to install. Depending on the version you copy either the premium.lic or standard.lic.



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Instead of selecting the product during the installation process, you could install both license files (with different names) and let the user select the product within the application. Just open the license file which belongs to the selected application.

- Start application using EasyGo

  Depending on the available license file, you start the application using EasyGo either with the **module number** for *Standard* or *Premium* version in the command PrepareandCheck 166.

  Install the version on separate directories e.g. ..\programs\xy *Standard* and programs\xy *Premium*

  As each license file has an own license file ID 202, the user has the full evaluation time for both versions, e.g. 15 days for Standard version and 15 days for Premium version

If you want to use only **one license** file instead of 2 different files, you could use GetModuleList 707 to retrieve the module number, which is used in the license file. The module number defines, if it is a Standard or Premium Version.

5.3.11.4 Validate modules - command overview

Find below a summary of commands which allow to validate modules.

To use the following commands, the license file needs to be opened first with one of the Prepare commands. See - open a license file 920.

You can test a module using ValidateEX 820 (recommended), Validate 818 or ValidateAndDecrease 819. Additional options are:

- Retrieve the module type - GetVal 710, Token LTY 714. Module type is also retrievable with GetModuleList 707 (list of all modules within a license file)
- Retrieve module name - ModuleName 725. Module name is also also retrievable with GetModuleList 707
- Check if a module exists in a license file - ExistsModule 671
- Retrieve status Demo version of a module (ValidateEx 820)
- Retrieve time limitation of a module RemainingDays 743 and/or ExpiredOn 672
- Retrieve the number of days which have been set for the trial period - NoOfDays 727
- Retrieve Activation Status of a module - GetWebActivation 717 (2 = product / product activation for a module is done)

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- Find out, if a module / license is deactivated using GetVerificationOfModule 716 (result: frozen = 2)
- You can add modules (AddModule 642) to the license file or remove modules (DeleteModule 664) . This is necessary if you e.g. install an update of the application with new features

For modules which are from **type user, PC, concurrent, Item counter** you can

- Retrieve number of licenses and available licenses of a network module - TotalLicences 813 and RemainingLicences 744. If the module is from type counter then you get the **value of the counter** with TotalLicences 813
- Retrieve all entries / user / computer - GetEntriesOfModule 683
- Deactivate an entry / user / computer - DeactivateEntry 658
- Activate an entry / user / computer again - ActivateEntry 641
- Delete all entries / users / computers - RemoveAllItems 745
- Delete all deactivated entries / user / computer - RemoveDeactivated 746
- Check if a specified entry / user / computer exists - ExistsEntry 670
- Check if an entry / user / computer is in use or deactivated - IsEntryActivated 719

Some other useful commands are:

- Retrieve the customer name (name typed in during registration) - GetCustomer 681
- Save an Activation Key in the license file - ApplyActivationKey 644 or ApplyInvisibleKey 646
- In case you have a large number of modules a cache mode 873 is available to read all modules

You can also use EasyGo to test multiple modules. In this case you should use the module name in the Product Name to make it transparent for the user, e.g. CTI Data Connector – Module Database Profiles. This allows testing each module with time limitation and use Activation Keys per module.

If you have more than 5 modules you could deliver a customer specific license file - see license File with EasyGo 172

5.3.11.5 Deliver license file + Serial Number

If you have **more than 5 modules** it makes sense to deliver a customer specific license file with all the modules enabled the customer has bought. Otherwise the user would have to type in an Activation Key per module. If you can rely on online connection the license file can be automatically downloaded from the Activation Server 6 526 during the product activation.

This scenario works as follows:

- Evaluation Version with generic license file 99. Use the same settings like EasyGo
- Customer buys the product - he gets a **customer specific license file and a Serial Number**

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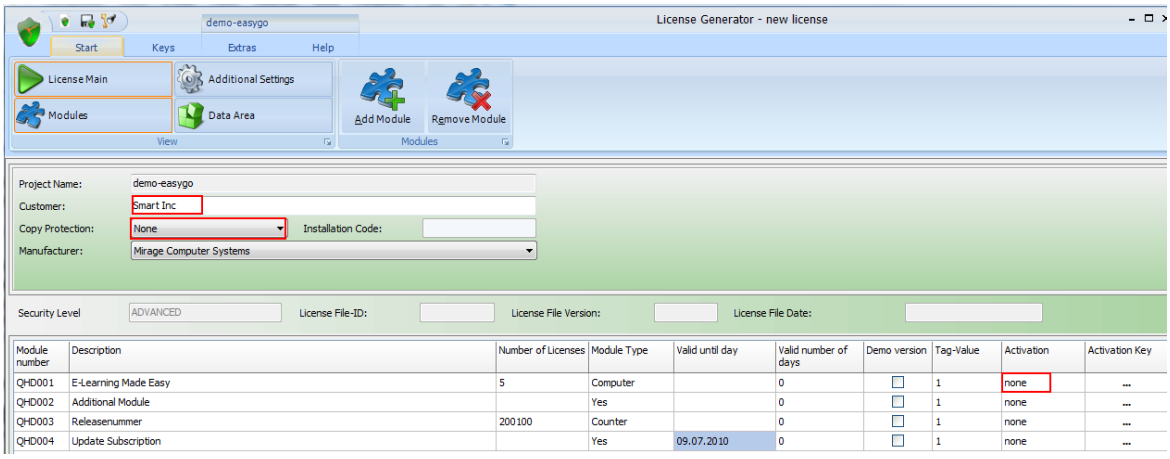
- Type in the customer name
- Copy protection must be set to **none**
- The Activation status must be set to **none**
- Set all modules to the values the customer has bought
- The Serial Number is used to activate the product using the EasyGo Workflow - see Workflow - from Distribution to Activation 585
- Customer copies license file to the installation directory
- Activation of the product using the EasyGo screens and workflow - how to implement EasyGo see Implementing EasyGo 76

Customer specific license File

This license file should have the same settings like the generic license file 99 (including time limitation for the **main module**) but all other modules the customer has **bought without time limitation** and set to the values needed (e.g. set number of licenses bought). The time limitation of the main modules defines the time the customer can use the software before he has to activate it.



5.3.12 Check for Demo Version

To check, if a module is a demo version, you have to use the command ValidateEx 820. The return code is 1 for demo version.

This is just a status you get back. You have to define in your source which restrictions a demo version should have, e.g. not print or save.

The demo version flag is set in the License Generator, column Demo Version.

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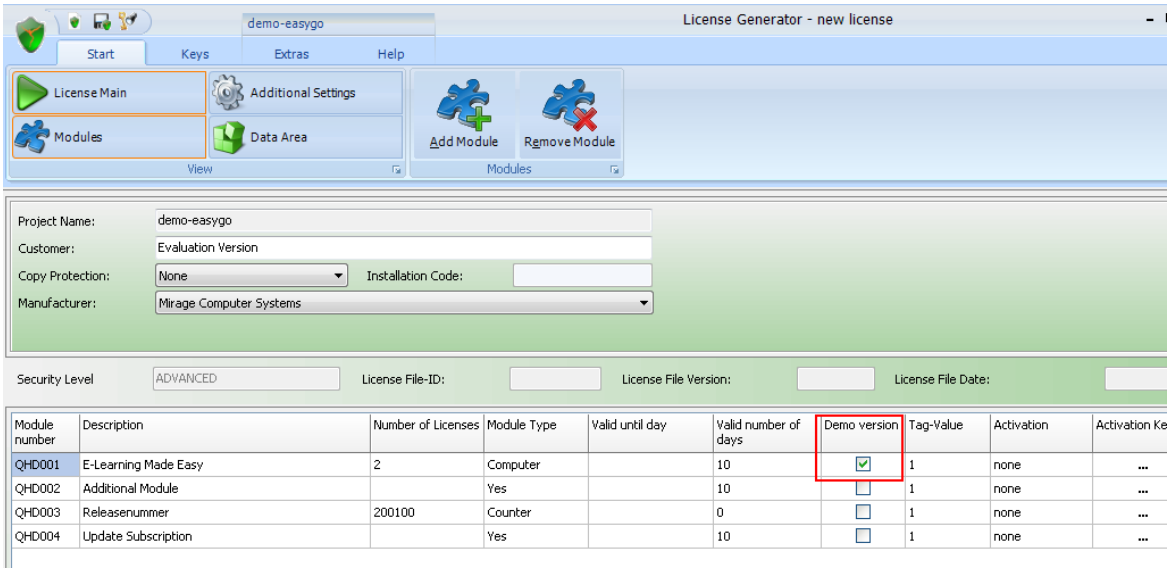

5.3.13 Display custom messages

You can display own messages and error messages using the EasyGo design.

Display custom messages

This command allows to display a message in a screen which uses the same design as EasyGo.

Tips

- Use GetLanguage 700 to retrieve the language the user selected
- Use SetRegisterSettings 116 to define the logo image
- Use ShowStartErrorPage 802 to display a standard **error** screen
- Use SetCustomerText 136 to change the wording on default screens

Name	**ShowMessagePage**
Purpose	Shows a message in an EasyGo-like screen
Params	

Parameter	***Type***	***Example***	***Note***
Title	String	‘Attention’	The title of the message.
Header	String	‘Something	The header of the message.

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<table>
<tr><td></td><td>
<table>
<tr><td></td><td></td><td>happened…'</td><td></td></tr>
<tr><td>Text</td><td>String</td><td>'This is a sample text'</td><td>The text of the message.</td></tr>
<tr><td>ShowLicViewer</td><td>Boolean</td><td>True</td><td>A link to open Licence Protector's licenseViewer 281 can be displayed if true.</td></tr>
</table>
</td></tr>
<tr><td>Returncode</td><td>
<table>
<tr><th>Returncode
Type Integer</th><th>Note</th></tr>
<tr><td>0</td><td>Ok</td></tr>
<tr><td>8194</td><td>Function is not implemented</td></tr>
</table>
</td></tr>
<tr><td>Usage</td><td>ShowMessagePage should be used to display messages in an EasyGo environment. SetRegisterSettings 116 should be used to set properties like the image on the side.</td></tr>
<tr><td>Sample</td><td>

```
   << you want to inform the user about something >>
   ShowMessagePage('Attention', 'Something happened…', 'This
happened:…', false);
   ...
```

</td></tr>
<tr><td>See also</td><td>ShowStartErrorPage 802</td></tr>
</table>

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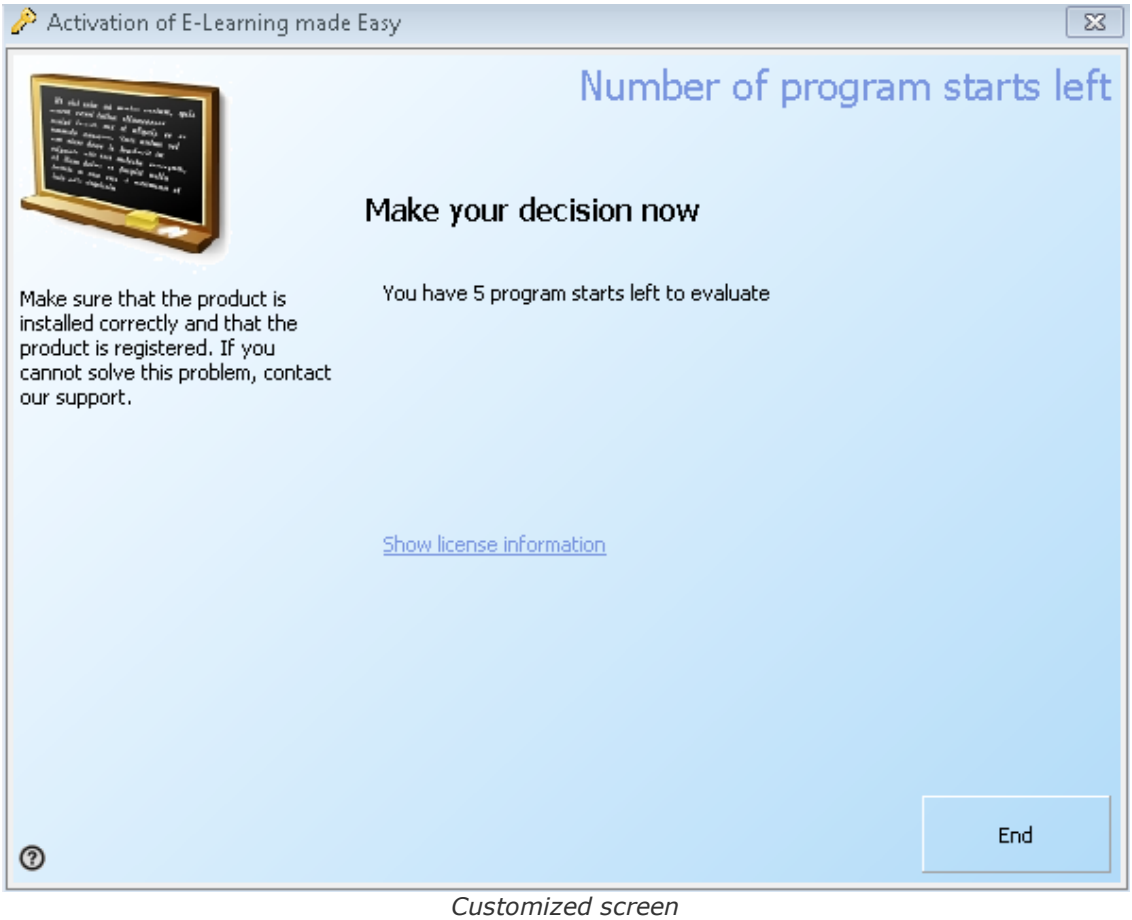

Customized screen

Display Error Message

This command allows displaying an error message in a screen which uses the same design as EasyGo. The error number must be a valid error code - see list of error codes 635.

Use SetCustomerText 136 to change the wording on default screens

Example
Error Code 32 (no free license) would pop-up this error screen 272.

Name	**ShowStartErrorPage**
Purpose	Shows a Licence Protector error message in an EsayGo-like page.

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<table>
<tr><td>Params</td><td>
<table>
<tr><th>Parameter</th><th>Type</th><th>Example</th><th>Note</th></tr>
<tr><td>ErrorNo</td><td>Integer</td><td>16</td><td>Errornumber</td></tr>
</table>
</td></tr>
<tr><td>Returncode</td><td>
<table>
<tr><th>Returncode
Type Integer</th><th>Note</th></tr>
<tr><td>0</td><td>Ok</td></tr>
<tr><td>8194</td><td>Function is not implemented</td></tr>
</table>
</td></tr>
<tr><td>Usage</td><td>ShowStartErrorPage should be used to display error messages in an EasyGo environment. SetRegisterSettings 116 should be used to set properties like the image on the side.</td></tr>
<tr><td>Sample</td><td>

```
iRes := lic.Validate('D1001', '', true);
if iRes > 1 then
begin
   ShowStartErrorPage(iRes);
end
else
begin
   << successfully validated >>
   ...
...
```

</td></tr>
<tr><td>See also</td><td>Error numbers, SetRegisterSettings, PrepareAndCheck (EasyGo)</td></tr>
</table>

Note
The user can terminate the screen only with the END button. The error code is always 0 (and not 4) to indicate, that the message was displayed properly.

Use SetCustomerText 136 to change the wording on **default** screens

5.3.14 License Transfer

Add a new menu item (e.g. *Help*, ***Transfer license***) within your application and make the following Source Code modifications.

All screens, which handle the license transfer including error situations can be found here 260.

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At the start of the application

- Activate the license transfer option 114 using SetRegisterLicTransfer 114. Set option *TransferLicence* to true, to transfer the complete file. This command must be used **before** PrepareAndCheck.

Command to transfer the license

- Retrieve **main module ID** with MainModuleID 725
- Retrieve Serial Number / ID with GetSerial 709. If the Serial Number / ID is empty then the license transfer is not possible as the product is not activated yet
- Transfer the license using the command TransferLicence 812 and the **main** module ID and Serial Number as parameters

The **complete** license file is uploaded to the Activation Server 6 and the license file on the local PC is locked.

- If the user restarts the application, an online connection would try to reactivate the license - see details License deactivated / reactivate license 265. The user gets different options to activate the license again
- If the user installs the application on PC B, he can activate the product using the same Serial Number / ID he used to activate the product on PC A
- Modules from type license per PC or User: All the PC / User entries are removed after the download.

  Example: A 10 user license on Server A, 7 licenses are used and 3 licenses are free. After the license transfer 9 licenses are free on Server B (one is used by the PC which does the license transfer)
- The license file can be viewed or changed on the Activation Server 6

A transfer license button could also be added in the License Viewer - see Transfer License button 289
To find out, if a module / license is deactivated, use GetVerificationOfModule 716 (result: frozen = 2)

If the user makes a backup of the license file before he does the license transfer and restores the license file after the transfer, automatically a new online validation will be done during the next application start. This ensures that the license cannot be used twice.

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5.3.15 Additional license testing

All Licence Protector 5 DLL calls can be used to do advanced testing or retrieve information on module level.

See - Function Reference 635

5.3.16 Quit **

Closes the license file and terminates the testing. Should be used at the end of the application.

Name	**Quit**
Purpose	Ends the usage of Licence Protector 5 and frees its used resources.
Params	None
Returncode	***Returncode Type Integer*** / ***Note***
	0 / The license file was successfully closed
	Other return codes / Prepare failed, see list of return codes
Usage	Important function in order to end the usage of Licence Protector 5. Generally used at closing the application.

Sample	`iRes := lic.Quit;`
	`<< ignore the result and continue closing the application >>`
	`...`

See also	Prepare, Validate

For concurrent user testing 465 quit may be used only at the end of the application. It removes **all users from all modules**. If you want to terminate the user of a single module (only in concurrent user mode), use the command StopConcurrentUsage 808.

5.4 Use own IDs for product activation

A Serial Number contains a lot of information like:

- Number of network licenses
- Expiry date

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- Module Number
- Encryption to ensure that the Serial Number only can be used for the license it was made for
- CRC value to ensure that it was not modified

To hold this information every Serial Number has this format

ldGEl-5IPc3-9E8Iq-3tQ8X-PQU5k-6m14D

There are situations, especially with CD distribution, where a short number with only upper case letters would be ideal.

If the following situation fits, you can use **any ID** as a Serial Number:

- Singe user license
- Network license but you additionally deliver a license file 172
- Full version has no time limitations after the product activation

If you create the IDs you have to just ensure, that they are unique.

Source Code Settings

In the command SetRegisterSettings set the parameter SerialIsAK 119 to **false**.

In case you use your own screens.

- Save the ID using SetVal, Token SNR 715
- After saving, change the Activation State using SetVal, Token WST 715, Value = 1

The commands ApplyActivationKey 644, ApplyActivationKeyForProject 645 and ApplyInvisibleKey 646 do not work with own IDs

Activation Server

To ensure, that only IDs are accepted, which belong to this product, you have to upload the IDs to the Activation Server 6 and you have to configure the project, that **only uploaded IDs are accepted**.

See product configuration setting: Serial Number has to be saved before it can be used

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5.5 Configuration file - changing settings

Starting with version 5.,1 a configuration file allows changing settings without the need to make a source code change.

The following settings can be modified:

- **Share mode** for network licensing
- **Concurrent user level** to set options for concurrent user licensing
- Enable or disable **logging**
- Enable / Disable **backup mode** for network license
- **Timeout** for communication with the Activation Server 6
- Enable / Disable usage metrics 215

The configuration file must

- be in the same folder like the license file
- have the same name like the license file but with the extension .config

Once the values are applied, they are **permanent** as they are either stored in the license file or in the registry.

Example
License file is in ..\server folder**myapp5**.lic
Configuration file would be: ..\server folder**myapp5.config**

Example file

```
<LPPatch>
<OpenShareMode>1</OpenShareMode>
<ConcurrentUserLevel>1</ConcurrentUserLevel>
<SetLogging>c:\tmp\</SetLogging>
<SetBackupInterval>60</SetBackupInterval>
<SetWebRequestTimeOutInSec>60</SetWebRequestTimeOutInSec>
<SetSignalState>off</SetSignalState>
</LPPatch>
```

Parameter	Values	Explanation
<OpenShareMode>[	0, 1 , 2	API command SetOpenShareMode 110
<ConcurrentUserLevel>	0, 1	API command ConcurrentUserLevel 660
<SetLogging>	empty for off, path to enable logging into that folder	API command SetLogging 769. The folder must exist. Could alternatively be enabled using the License Viewer 281
<SetBackupInterval>	0 = backup off, other value =	API command SetBackupInterval 111

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Parameter	Values	Explanation
	backup interval in seconds	
<SetWebRequestTimeOutInSec>	Timeout in seconds	API command SetWebRequestTimeOutInSec 799
<SetSignalState>	on, off or 3,0	Enables or disables usage metrics. API command SetSignalState 789

The file can be found in the installation folder: **..\EasyGo\sample configuration.config**

5.6 Project Template - define license file

The project template defines the structure of a license file.

For every software package you want to protect, you create an own project file. It acts as a template for the license file and holds all modules 203 of the software. The template is an XML file and has to be defined **once**. If you do not have an XML Editor, you can use the free XML notepad - download: http://www.snapfiles.com/get/xmlnotepad.html

We recommend using the **demo-easygo.xml** file (folder ..\EasyGo) without modification for testing. This ensures that everything including the Mirage Test Web Server can be used.

To create your **personal template**, just select TAB File, Create a new Project 403 or copy an existing template 405

The project template is used by administration to create files and Activation Keys. It contains your personal project keys. 211

If somebody would steal the template, he can create your files and write an application to open your files. The *Professional Edition* has an option, that a password is necessary to create a license file/key. This adds additional security.

Store the XML file in a place, where only legitimated persons have limited read/write access.

If you want to use an umlaut (ö,ä,ü etc.) in an project file, then the XML file must be saved in UTF-8 format.

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5.6.1 Quick Start

If you have an application with just one module and no add-on modules you can **change the demo-easygo.xml file** (installation folder ..Licence Protector\5.1\easygo\). Only a few values have to be changed to have an application with all settings running on Defaults. You can later fine tune the settings.

All entries are **case sensitive** – e.g. Absolutedays instead of AbsoluteDays would be wrong

Open the demo-easygo.xml file. Make the necessary changes in:

- Node <Default> 183
- Node <Module> 187

See also

Structure of the Template- complete command reference 190
Module Type 203
License File ID 202
TagValue 209

5.6.1.1 Node <Default>

Open the project file and go to the node <Default>. Change the following settings. All other settings can be left on the default settings.

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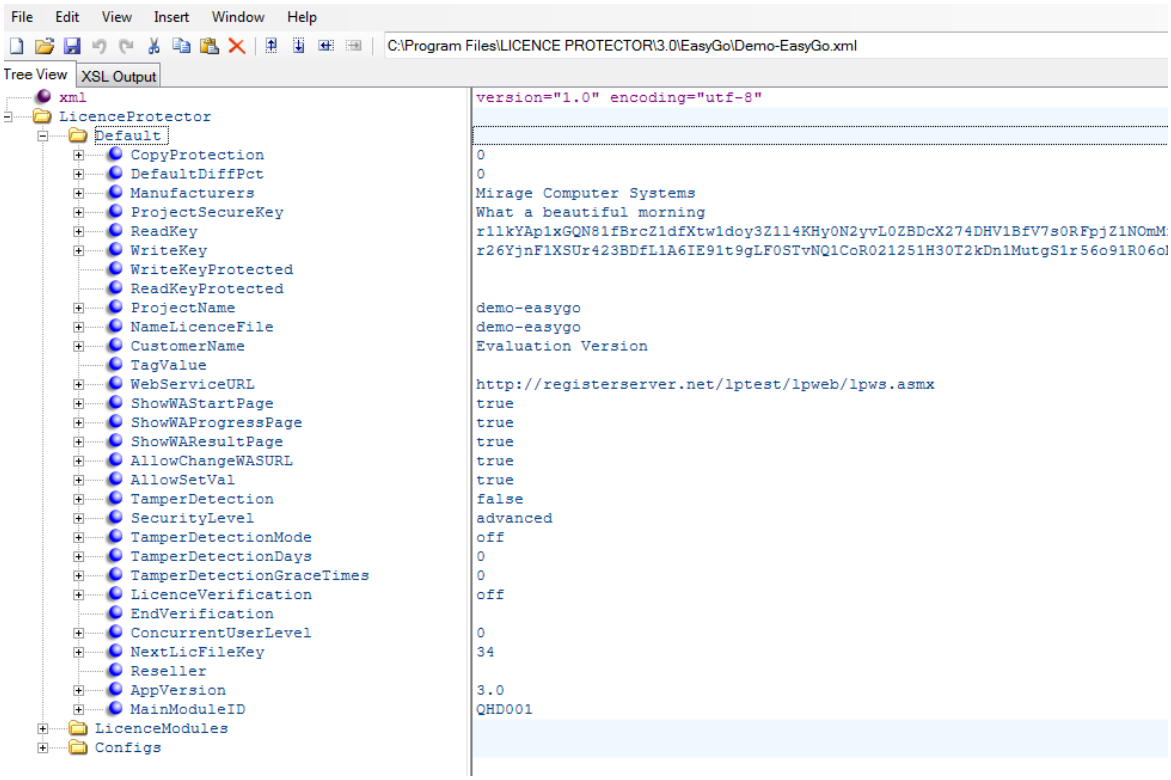
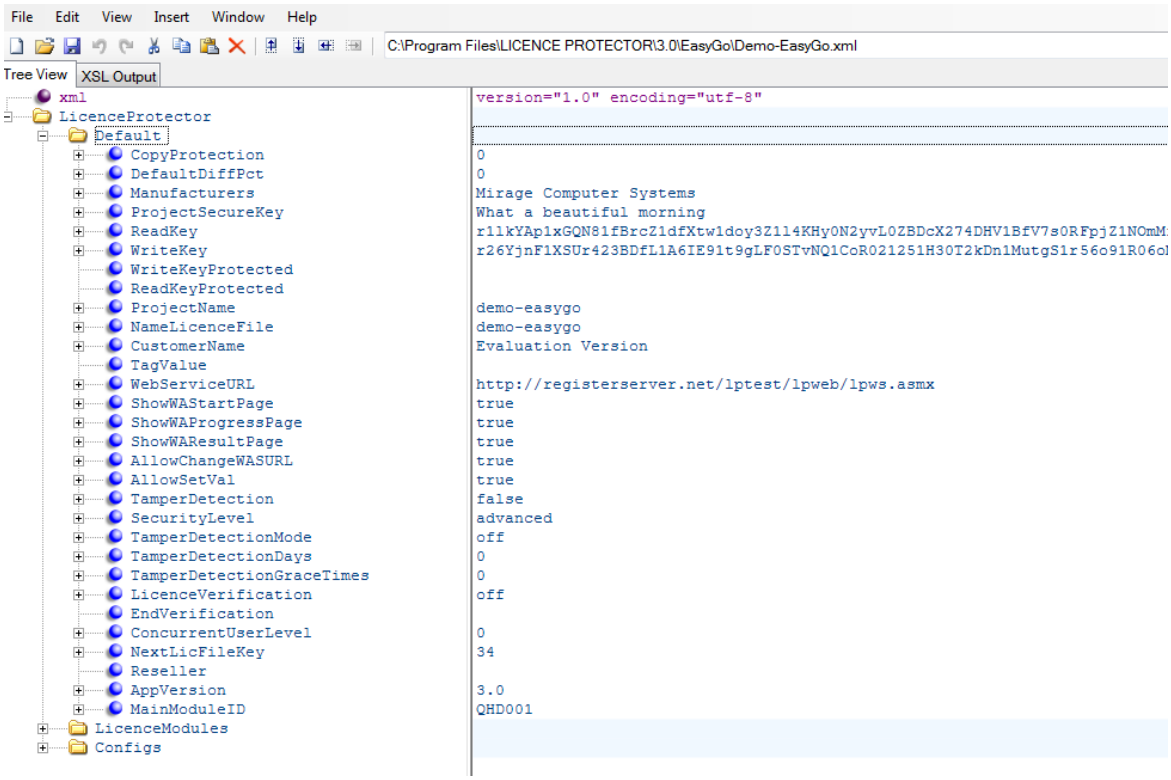


Node <Default>



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Manufactures

Type in your company name here. If you sell OEM licenses with different names see full description 191.

Customer Name

Default customer name which is displayed in the license file during the trial period.

Personal Encrpytion

For testing purpose, do not change the *ProjectSecureKey*, *ReadKey* and *WriteKey*. After finalizing the test, replace it with your own Project Keys 404 to get a personalized encryption.

ProjectName

Short name of your application. It should contain **no spaces and is case sensitive**. The project name 190 is used to allow different workflows on the Activation Server 6. It is mandatory even if you use no Activation Server 6.

TagValue

Can be used to store any ASCII value. Details see TagValue. 209

NamelicenseFile

Default name 192 of the license file 66. It should contain no spaces.

WebServiceUrl

<WebServiceURL> in the node <Default> 183

Link to the Activation Server 6. 448 The default link goes to the Mirage test server. If you want to use the Activation Server 6, either replace it with the link to your own server or with the link you get if you are using the hosting service 427 of Mirage.

Syntax: http://www.registerserver.net/lptest/lpweb/**lpws.asmx**

To use online activation, set the parameter RegisterOnline 119 in the command SetRegisterSettings to true.

The URL is sent to the default port which is normally port 80

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The settings can be changed in the License Generator, TAB Activation Server

- Change settings for own server 425
- Change settings for Hosting 427

For Hosting customers the URL is:
http://www.registerserver.net/hostingnumber/lpweb/lpws.asmx

AppVersion

Version number of your application. This information is sent to the Activation Server 6 and the value can be retrieved with the DLL command GetVal, Token VER 712.. It can be changed in the License Generator, TAB Main License 377. See: How can I test a release number? 517

MainModuleID

The module ID which is used for the main module - Details 203

See also

Structure of the Template- complete command reference 190

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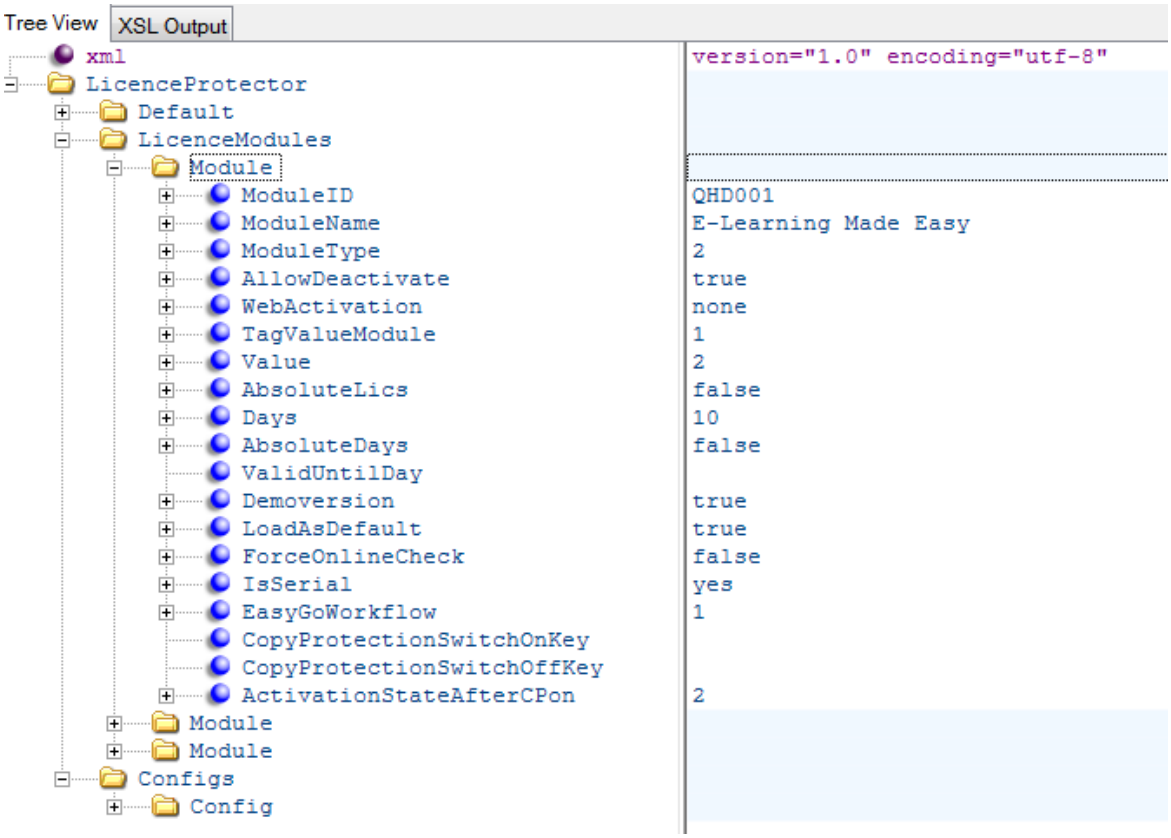
5.6.1.2 Node <Module>

Open the project file and delete the complete nodes with module ID D1001 and module ID QHD003 so that only module **QHD001** is left.



Module definition QHD001

ModuleID

The ModuleID 194 is the reference in the DLL call to address a module. It must be unique per project. The format of the ModuleID is up to 6 characters containing only **capital letters** A-Z and digits 0 to 9.

For EasyGo you need one **main module**, which is used for the activation of the product. This should be the module which is **always included**. Otherwise just make a module with the name of the application which is only used for activation.

Do not use a ModuleID with value 000000

ModuleName

Change ModuleName 195 to the name of your application

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ModuleType

All module types 203 like license per computer, user, concurrent user or Yes/No, counter, item counter are supported.

Change the module type for the main module to one of these settings

U or User or 1 = license per **user**
S or Computer or 2 = license per **Computer**
C or Counter or 3 = **Counter** Module
Y or YesNo or 4 = **Yes/No** Module
I or Item or 5 = **ITEM Counter**
R or Concurrent or 6 = **Concurrent** user license

(example: you can either use U or User or 1 to define a user module.)

Depending on the Licence Protector Edition there are limitations regarding the number of modules and available module types. For details see comparison Starter, Basic or Professional Edition 27.

The maximum value of the User, Computer, Concurrent, Counter and ITEM Counter module is 2147483647. This value can only be used when a license file is created. The maximum value you can set with an Activation Key is 23328.

Value

Change the value 195 tag to:

- Yes - if the module is a Yes/No module
- Number of licenses for the evaluation version if the module is a license per user, computer or concurrent user

Time limitation (Days)

Define the number of days 195 the version can be used without registration. During each program start the days left for evaluation are displayed.

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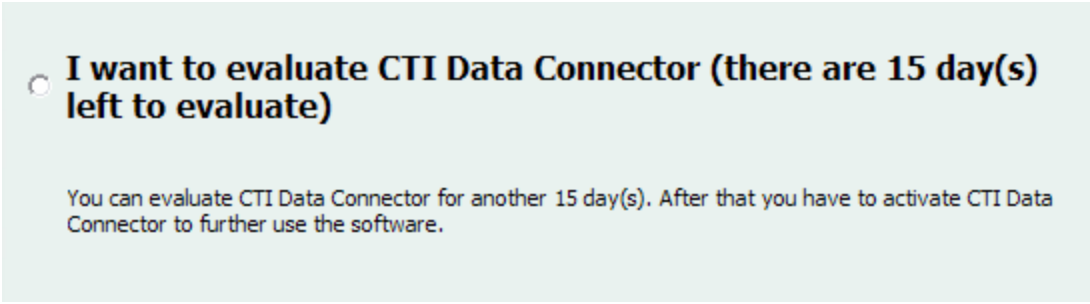

Setting days to **0** allows using the software without time limitation but offers an option for web registration. This makes sense to collect address information (note: to collect complete address information including newsletter information will be available at a later time).

If you set an Expiry Date (**<ValidUntilDay>)**, which is **before today's date**, then the version will expire instantly and can not be used without the Serial Number - See No evaluation version 223 - Serial Number is mandatory.

See Date Format.

Demoversion

If you want to have a time limited demoversion, then set Demoversion to true. The limitations of the Demoversion have to be defined in your application.

WebActivation

The status must be set to **none**. The status is the trigger to allow activation and is set later to required with the Serial Number. 301

TagValueModule

Can be used to store any ASCII value. Details see TagValue. 209

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Workflow

See details - Workflow 211

ActivationStateAfterCPon

See details - Activation Status after product activation 198

See also

Structure of the Template- complete command reference 190

5.6.2 Structure of the Template

Below is a complete description of all values of the project template. Values with an (D) are just set as default values in the project file and can be changed within the License Generator 24 when creating a license file for a customer.

All entries are **case sensitive** – e.g. Absolutedays instead of AbsoluteDays would be wrong.

Tag	Description	Comment
<LicenceProtector> *	Surrounds the whole project configuration	
<Default> *	Surrounds the global project definitions.	
<ProjectName>	Name of the project. If this item is empty, the filename of the project file is used. The project name is used to administrate the numbers of projects within the License Generator, The project name should be unique.	If no explicit project is set in a Web Activation Call this ProjectName is used. So be sure to use the same name in the definition of your Web Activation configuration. It should contain **no spaces and is case sensitive** Example: Demo project
<ProjectSecureKey> *	The PSK is used to encode and decode the license files of a project.	Example: What a beautiful morning

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	Please use a minimum of 6 characters, 15 and more are recommended. Note: The PSK must never be modified after having been applied, because otherwise you would not be able to read your license files.	
<SecurityLevel>	Possible values are BASIC and ADVANCED. In advanced mode the ReadKey and WriteKey are used.	Default is ADVANCED. BASIC is only for backward compatibility to version 1.x or 2.x. See details 207.
<WriteKey>	The Write Key is used in projects with security level ADVANCED to write the license file. It has to be created using the function “File, Create Project Keys” in the License Generator and has to match its Read Key.	It may be longer than 255 characters .
<ReadKey>	The Read Key is used in projects with security level ADVANCED to open the license file. It has to be created using the function “File, Create Project Keys” in the License Generator and has to match its Write Key.	
<CopyProtection> **(D)**	The default CopyProtection used in this project: 0 = None 1 = Copy Protection Volume ID 2 = Copy Protection MAC Address 3 = Copy Protection Hostname 4..n see chapter copy protection for the latest options	Example: 2
<Manufacturers> **(D)**	All companies which should be listed in the field Manufacturer in the Licence Generator. The first entry is the default value. Multiple entries have to be separated by a semicolon	Example: Mirage Computer Systems GmbH;Another Company;And the third Company
<NextLicFileKey>	Next license File ID which is assigned to the license file. If you create licenses at **different locations**, we recommend that you use an own range of values for each location. Example: use 20000 for location 2 as starting	This value is automatically increased if a license file is created by a Licence Protector 5 Generator. Ensure to have write-access to the project file.

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	value. The value range is between 1 and 2147483647	
<NameLicenceFile> **(D)**	Name of the license file which is used as default name when saving the file	Example: MyApplication
<CustomerName> **(D)**	Default value for the Customer information in the license file. This value is overwritten if interactively changed in License Generator.	Example: Evaluation
<TagValue> 209	Special string value for the whole license file. There is also a TAG value per module available	Individual information can be stored here
<AllowSetVal>	Controls whether this license file may be altered with SetVal calls	Default is yes. See also command SetVal 791
<DefaultDiffPct>	Difference percentage used in Concurrent user modules. This value is used in a module if not explicitly set with <DiffPct>. It not set a built in default value is used	See also command DiffPct 664
<CheckInterval>	Sets the interval of the concurrent user heartbeat in seconds. Default value = -1 (468 automatic calculation 466 depending on number of licenses)	See also command SetCheckInterval 756
<ConcurrentUserLevel>	Sets the concurrent user level 0 = Heartbeat, 1 = Light - Details 466	See also command ConcurrentUserLevel 660
<TamperDetection>	Switch to turn on or off the detection of manipulation of the license file.	Default is no. See also command TamperDetection 812
<TamperDetectionMode>	Sets the mode of the detection of manipulation: off, auto, manual	Default is off
<TamperDetectionGraceTimes>	Allowed *negative* difference between the Run Numbers of the license file and the local Registry	Default is 0
<WebServiceURL>	The URL used to reach the Web Activation Service. Details 210	Example: http://www.lptest/lpweb/lpws.asmx

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<AllowChangeWASURL>	Controls if the set URL to the Web Activation Service can be manually changed by the user.	Default is no. See Online Activation 232
<ShowWAStartPage>	If Web Activation calls are used this setting controls if the Web Activation client start page is shown	Default is true. See also command ShowWAStartPage 806 and Online Activation 232
<ShowWAProgressPage>	If Web Activation calls are used this setting controls if the Web Activation client progress page is shown	Default is true. See also command ShowWAProgressPage 804 and Online Activation 232
<ShowWAResultPage>	If Web Activation calls are used this setting controls if the Web Activation client result page is shown	Default is true. See also command ShowWAResultPage 805 and Online Activation 232
<LicenceVerification>	Sets the mode of the online license verification. Possible values are: off = turned off on = Ongoing Verification frozen = License is locked deactivated = Verification is deactivated That mode controls the behaviour of the CheckLicence call. Details Regular Online Checks 541	Default is off. See also command LicenceVerification 950
<EndVerification>	Controls on which date the ongoing license Verification is stopped. A value of +10 would calculate 10 days from now, Absolute dates can also be used.	Default is open end.
<Reseller>	Name of a Reseller	This name can be changed in the License Generator and is also stored on the Activation Server 6
<AppVersion>	Version number of the application	The version number can be can be changed in theLicense Generator 377 and is also stored on the Activation Server 6. Details 200
<UseAlwaysAllModulesForCPSwOn>	true / false	true - one Unlock Key activates all modules false (default) - one Unlock Key activates one module

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		Only modules where the activation status is set to **required** are unlocked
<MainModuleID>	Module ID of the main module	If empty, the first module is the main module 203
<AnonymizedMetrics>	true	True / False. Default is true. Configuration in Activation Server Settings 424
<SignalState>	on	off, on, offline, noautoresend. Default is on
<SystemSignals>	fist;acmm;acam;daam;damm;fivd;eist	List of metrics events. Default is none. Configuration in Activation Server Settings 424 • First application start ='fist' (no module ID). Does not matter if demo mode or not • First Validate as Demo = 'fivd' (on module level) • First Validate (no demo) = 'fiva' • First Activation of Main Module = 'acmm' • First Activation of any Module = 'acam' • First Deactivation(Lock) of Main Module = 'damm' • First Deactivation(Lock) of any Module = 'daam'
<BackupInterval>	30	0 = off (default). Set the backup interval instead of using SetBackupInterval 753
<WebRequestTimeoutInSec>	30	empty or 0 = default. Set the timeout in seconds instead of using SetWebRequestTimeoutInSec 799
<LicenceModules>	Surrounds all modules inside this project	
<Module>	Surrounds a module definition	
<ModuleID>	Unique number for each module. May occur only 1 time per project file. **It is used as a parameter in most DLL calls.**	Format of the ModuleID is up to 6 characters containing only characters A-Z (only upper case) and digits 0 to 9. The ModuleID is case insensitive.

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		Example: D1001
<ModuleName>	Name of the module. This name is used in License Viewer and should be self-descriptive	Example: ERP-Module
<ModuleType>	Type of a module. Explained in chapter Module Type 203 U or 1 = license per user S or 2 = license per Computer C or 3 = Counter Module Y or 4 = Yes/No Module I or 5 = ITEM Counter R or 6 = Concurrent user license	Example: Y
<Value> **(D)**	Default for **number of licenses** in the module. A module of type 4 (Yes/No) is set to yes or no.	Example: 10 (e.g. user licenses in a type 1 module) Yes (in a type 4 module)
<Days> **(D)**	Default for **Number of days** in the module. This value starts to count after the first Validate to that module („Module initialisation“)	Example: 10 10 days after the first Validate()-call this module will expire.
<ValidUntilDay> **(D)**	Default value. Explicitly set or calculated date of expiry of this module. The difference between a fix date set with <ValidUntilDay> to 30 days from today to a value 30 in the field <Days> is that with <ValidUntilDay> the module will expire in 30 days **regardless when the software will be installed**. When 30 is set in <Days> then the module will expire 30 days after the module is first Validated.	Use an explicit date in the format set in **your Windows settings** e.g. 5/16/2005 or use a term +X to calculate the date as today plus X days. E.g. +30 calculates a date 30 days from today
<Demoversion> **(D)**	Default value. A yes or no value to set the mode of this module	Example: Yes
<WebActivation> **(D)**	Default value for Web Activation. Valid values are: 0 or none 1 or required 2 or done 3 or erroneous See Web Activation for further details.	Example: Required

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<TagValueModule> 209 **(D)**	Default value. Special value to detect a software hack - for details see developer documentation	
<LoadAsDefault>	A yes/no value to control whether this module is shown when the project is loaded in License Generator or not. With this feature you can load all modules normally needed in a project automatically	
<IsSerial>	Defines, if a module is a Serial Number Valid values are: yes no	Details see - define Serial Number 201
<AllowDeactivate>	A yes/no value that is only applicable for module type 1, 2 and 5. Defines, whether a user or ITEM can be deactivated in order to free a license.	
<ForceOnlineCheck>	**Only useful for key generation in the Automatic License Generator**. A yes/no value to control whether generated keys should be checked with the Web Activation server	
<AbsoluteLics>	A Yes/No Value. **Only useful for key generation in the Automatic License Generator**. If set to Yes the number of licenses in Value is not added to the present number of licenses in the license file, it overwrites the number of licenses with the absolute value. This value is overridden if the value <AbsoluteLics> is set in the product configuration file or in the *order* file	Example: In a license file there are 5 licenses for a Module X. A key for 3 licenses with AbsoluteLics set to no will increase the number of licenses to a total of 8 licenses. The same key with AbsoluteLics set to yes will set the total number of licenses to 3. Default is not set.
<AbsoluteDays>	A Yes/No value. **Only useful for key generation in the Automatic License Generator**. If set to Yes the number of days in Value is not added to the present number of days in the license file, it	If set to yes a key will set the maximum number of days to <Days> unattached if there are already existing number of days in the license file. Default is not set.

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	overwrites the number of days with the absolute value. This value is overridden if the value <AbsoluteDays> is set in the product configuration file or in the *order* file	
<EasyGoWorkflow>	Define a workflow 145	More Details 211
<ActivationStateAfterCPon>	Default action if an Unlock Key is applied. Changes the status of the value *activation* to 0 = no change 1 = Activation Required, delete time limitation **2 = Activation done, delete time limitation** 11 = Activation required, don't change time limitation **12 = Activation done, don't change time limitation**	This entry defines the action if an Unlock Key 251 or a key to enable copy protection is entered (either in the License Viewer 281 or with ApplyActivationKey 644). A standard action would be to delete the time limitation, delete the demo version flag, set status of activation to done *12* More details 198
<SubGraceDays>	Number of days for the grace period in case the online validation with CheckModuleSubscription 654 fails	0 = no grace days
<ModuleVerification>	Sets the mode of the online license verification. Possible values are: • off = turned off • on = regular online verification is enabled • frozen = license is locked • deactivated = regular online verification is deactivated (see EndModuleVerification) That mode controls the behavior of the CheckModuleSubscription 654 and CheckModule call. Details Regular Online Checks 541	Default is off. See also command GetVerificationOfModule 716
<EndMOduleVerification>	Controls on which date the ongoing license Verification is stopped. A value of +10 would calculate 10 days from now,	Default is open end.

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	Absolute dates can also be used		
<configs>	1 [1,1]	Surrounds all configuration values	Store configuration values and data. See details in the chapter *Store data in the license file* 562
<config>	2 [1,n]	Surrounds a configuration definition	
<name>	3 [1,1]	Unique name of a configuration value	A unique name to store a value Example: BasicConfiguration
<visible>	3 [0,1]	A Yes/No value.Defines, if the config value is visible in the License Viewer	
	[1,1]	Configuration value. Can be any ASCII Text	This is a text

5.6.2.1 Activation Status after product activation

The TAG <ActivationStateAfterCPon 197> defines the status of the license **after** the product activation is done. It modifies the status: *Activation* of a module and changes values, especially the field *demo version* and *time limitation*.

It only works if copy protection is activated during the activation process.

The status can also be set using a dll command: SetVal, Token SAC 711

Default Workflow

The default workflow after a product activation is a **full license without any time limitation**. The module is changed as follows:

- Time limitation is deleted
- Status of the flag Demoversion is set to No
- Activation Status is set to: Done

The configuration setting would be:

<ActivationStateAfterCPon>**2**</ActivationStateAfterCPon>

Time limited full version

To **keep** the time limitation after the product activation is done, use the following settings:

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- Time limitation coded in the Serial Number or configured in the license file is kept
- Status of the flag Demoversion is set to No
- Activation Status is set to: Done

<ActivationStateAfterCPon>**10**</ActivationStateAfterCPon>

Other workflows

A lot of workflows can be defined to change fields after the product is activated.

ActivationStateAfterCPon	Change value after product activation
0	no value is changed
1	Activation Status = required Time Limitation = removed Demo Version = No
2	Activation Status = done Time Limitation = removed Demo Version = No
9	Activation Status = required Time Limitation = unchanged Demo Version = No
10	Activation Status = done Time Limitation = unchanged Demo Version = No
17	Activation Status = required Time Limitation = removed Demo Version = Yes
18	Activation Status = done Time Limitation = removed Demo Version = Yes
25	Activation Status = required Time Limitation = unchanged Demo Version = Yes
26	Activation Status = done Time Limitation = unchanged Demo Version = Yes
33	Activation Status = required Time Limitation = removed Demo Version = unchanged

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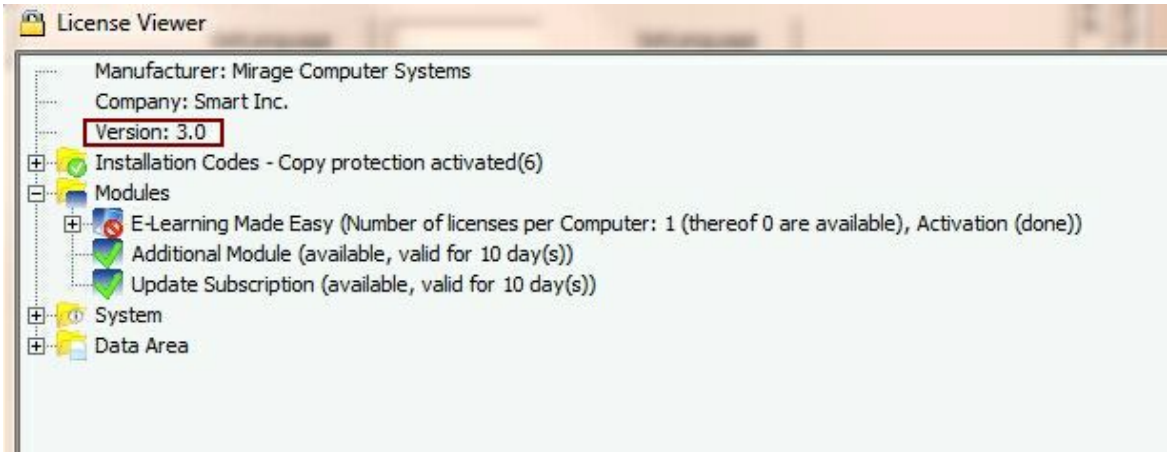
34	Activation Status = done Time Limitation = removed Demo Version = unchanged
41	Activation Status = required Time Limitation = unchanged Demo Version = unchanged
42	Activation Status = done Time Limitation = unchanged Demo Version = unchanged

5.6.2.2 Application Version

Version number of the application. Is stored as a default value in the project template using <AppVersion> 193. Can be changed in the License Generator 377. This information is also visible on the tActivation Server 6 to assign a product activation to a version number of the application.

The value can be retrieved and changed with AppVersion 647 during runtime.

Version information in the License Viewer



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How can I test a release number? 517

5.6.2.3 Configuration for regular online checks

In case regular online checks 541 are used, default values can be defined in the project template

<SubGraceDays>	Number of days for the grace period in case the online validation with CheckModuleSubscription 654 fails	0 = no grace days
<ModuleVerification>	Sets the mode of the online license verification. Possible values are: • off = turned off • on = regular online verification is enabled • frozen = license is locked • deactivated = regular online verification is deactivated (see EndModuleVerification) That mode controls the behavior of the CheckModuleSubscription 654 and CheckModule call. Details Regular Online Checks 541	Default is off. See also command GetVerificationOfModule 716
<EndMOduleVerification>	Controls on which date the ongoing license Verification is stopped. A value of +10 would calculate 10 days from now, Absolute dates can also be used	Default is open end.

5.6.2.4 Define module for Serial Number

Define the module(s), which are used in EasyGo for product Activation and therefore a Serial Number can be generated. The Serial Number generation is then limited to this module(s) - see: create a Serial Number 301

TAG: **<IsSerial>yes</IsSerial>**

Note: You can define multiple modules as a Serial Number.

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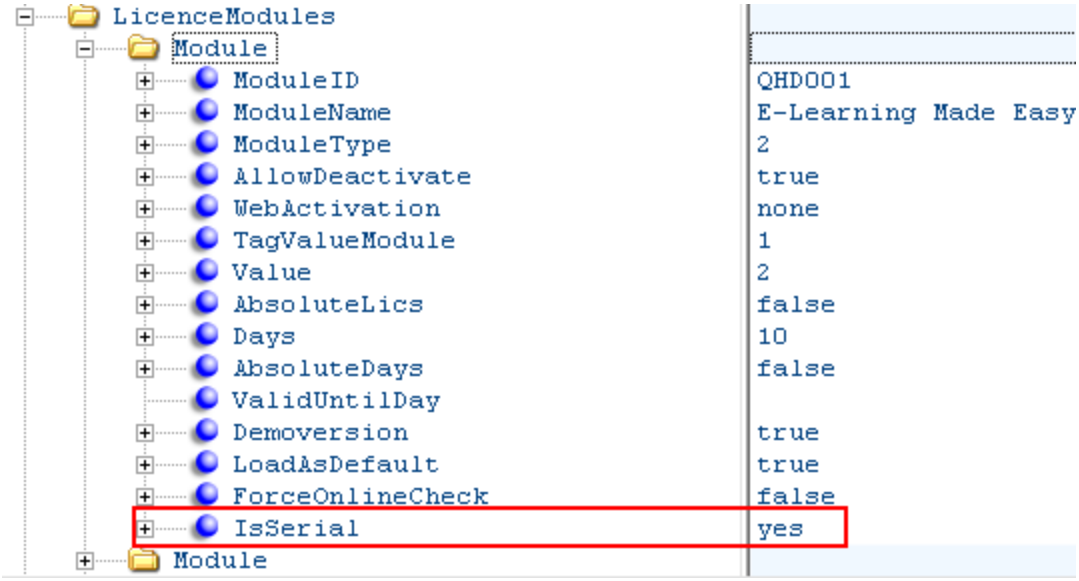

If this entry is missing, all modules can be selected as a Serial Number.

There is an extra definition required to specify the main module 203 of the application.

5.6.2.5 License File ID

The license file ID is a counter which is increased every time a new license file is created. The counter is stored in the project template in the field <NextLicFileKey 192>.

If you use the project files in different locations, use per location a different range of values.

Example:

- 10000 - 190000 for location 1
- 20000 - 209000 for location 2

As the license file ID is also used to track time limitation 68 on a PC, just make a new license file for a new release to allow that a user can test the application again.

You can retrieve the license file ID with GetLicFileID 701.

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5.6.2.6 Main Module

Every project needs a **main module**. This is typically the module which is used for product activation. Even if multiple modules are used for product activation, one module must be defined as the main module. If the definition is missing, then the first module is the main module.

Tag: **<MainModuleID>modulenumber</MainModuleID>**

There is an extra definition required to specify for which modules a Serial Number 201 can be generated.

The main module ID can be retrieved using MainModuleID 725.

5.6.2.7 Module Type

A license file consists of **one or more** modules.

The module type defines the **method** a license can be checked. There are different kind of module types available which are defined in the node <Module> 188.

- Basic module types - Yes/No, Counter, Item Counter

There are different license options available.

Yes / No module

This module type allows to check, if a module / function is available (module is set to Yes) or not (module is set to No).

Definition in project template: ModuleType=4

Counter

A counter is an integer you can use for licensing. This allows retrieving a value and then make an own license check.

Example
Number of Reports = 50

The counter module would return a value of 50. Your application has to ensure, that only 50 reports can be created.

Definition in project template: ModuleType=3

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The value range is 0 to 2147483647

To change a counter module with a DLL command use SetVal, Token TLI 711.

Item Counter

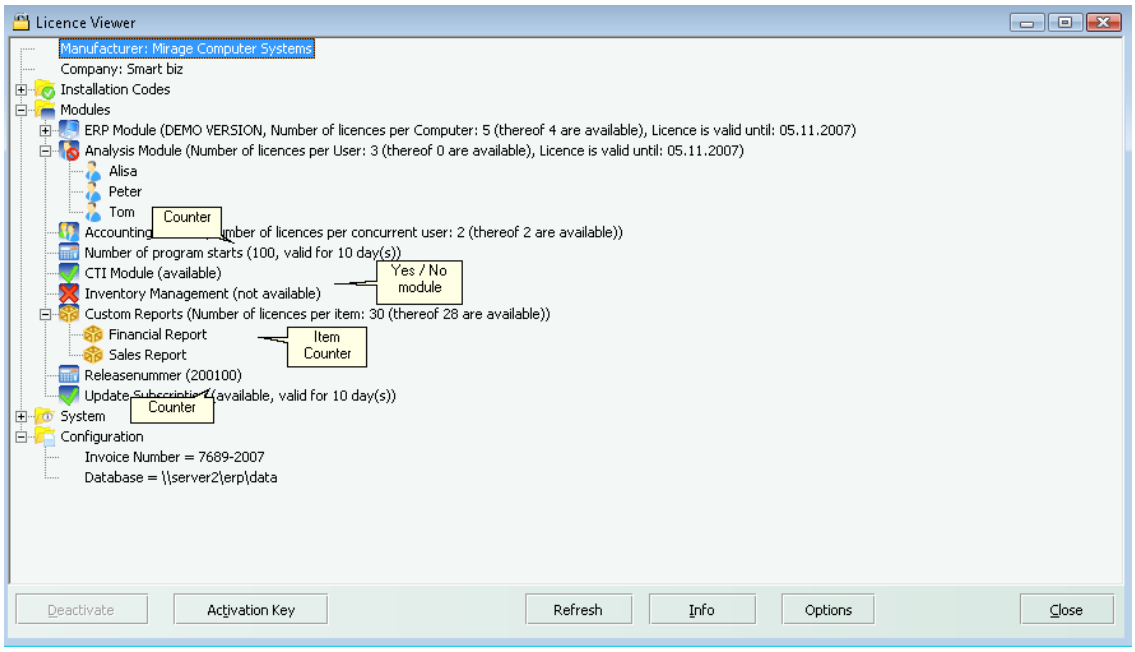
An item counter is similar to a counter and allows to store an integer value AND the names of items.

Definition in project template: ModuleType=5

The value range is 0 to 2147483647

Example
Number of Reports = 50

The license check would provide a report name (e.g. Financial report) and this report name would be stored in the license file. Licence Protector 5 would ensure, that only 50 reports can be created



Depending on the Licence Protector Edition there are limitations regarding the number of modules and available module types. For details see comparison Starter, Basic or Professional Edition 27.

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Network module types - License per PC, User, Concurrent user

Licence Protector 5 supports 3 different types of network licenses:

- license per User
- license per PC
- license per Concurrent User

License per User (Person)

The Windows User name is licensed. Each user, starting the application, will need a license. The windows user name is written into the license file 66.

This type of license requires more licenses like license per PC. If 2 users would share 1 PC this would result in a 2 user license but only in 1 PC license.

For more details see chapter Network License per User 551

Definition in project template: ModuleType=1

License per PC

This is often the default license type. Each PC, starting the application, will need a license. The PC name is written into the license file 66. This type results in less licenses then license per User (e.g. if 2 users share 1 PC then 2 licenses per user are needed but only 1 PC license).

If the application runs on a Citrix / Terminal server, then the hostname of the **local PC** and not the hostname of the server is used.

For more details see chapter Network License per PC 549

Definition in project template: ModuleType=2

License per Concurrent User / Floating license

This is a typical license in a huge multi user environment. The application can be installed on an unlimited number of machines but the number of concurrent (simultaneous) users are counted and limited to the specified number. The license is assigned only as long as the application is running. If the application is terminated, the license is available again. If a user logs in with the same user name on 2 different PCs then 2 licenses are used.

Licence Protector 5 offers a sophisticated verification of concurrent user licenses. Machines that hang or crashed are detected and the license is released. This is all done automatically through the application.

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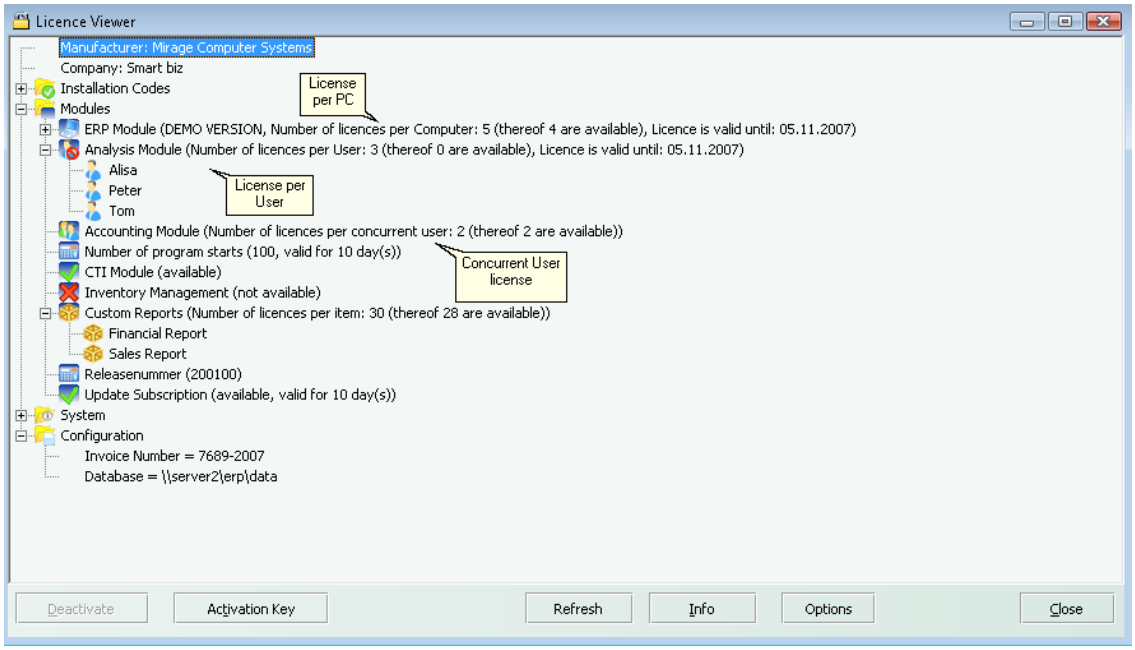
Definition in project template: ModuleType=6

All license types work also in a Terminal Server and Citrix Environment. The license information can be displayed within the License Viewer 258.

For more details see chapter Network License per concurrent user 552



Depending on the Licence Protector Edition there are limitations regarding the number of modules and available module types. For details see comparison Starter, Basic or Professional Edition 27.

See also

Network license - how it works 548
Define network license in project template 203

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All values of a module can be changed with an Activation Key 334, e.g. increase number of users, switch from Demo Version to full version

5.6.2.8 Project Name

Short name of your application. It should contain **no spaces and is case sensitive**. The project name 190 is used to allow different workflows on the Activation Server 6. It is mandatory even if you use no Activation Server 6.

5.6.2.9 READ ONLY license file

The DLL is able to change the license file, e.g. add a new module or change the values of a license. As this is quite handy when you make a new update which provides a new module, it is also a possible option for an hacker if he has stolen the PSK/ReadKey 211.

If you are sure that you will never **modify** your license file using a DLL call with **SetVal / AddModule / DeleteModule**, you can protect the content of the license file by using the **<AllowSetVal>No</AllowSetVal>** 192 in the project file or setting this option in the additional settings page within the License Generator 386. This blocks modifying important information via SetVal like adding new licenses or modules.

Activation Keys can be used any time but a hacker would not be able to modify the license file using the licprotector.dll (even in case of stealing the PSK/Read Key) and make a generic program to modify license files.

5.6.2.10 SecurityLevel

To make sure, that every project of a customer has a different encryption, Licence Protector 5 offers 2 methods.

Security Level Basic

The security level **Basic** is mostly used for backward compatibility. It offers only **one key** for the personal (project specific) encryption - the *Project Secure Key* (PSK). It is a symmetric method (the same key is used for encryption and decryption).

- The operations on the license file are very fast
- The encryption of the license file itself is save as the encryption methods used are high level standard algorithms

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- If the Project Secure Key is stolen, a hacker can use the License Generator to create license files

Settings in the project template: <SecurityLevel>BASIC</SecurityLevel>

Security Level Advanced

If you start a new project, always use the level *Advanced*. If offers **3 different keys** for encryption:

- Project Secure Key
- ReadKey
- WriteKey

The *ReadKey* is used in the Source Code and allows to **decrypt** the license file (see commands PrepareAndCheck 162, Prepare 727, PrepareAdvanced 729). The *WriteKey* is used in the License Generator to **encrypt** a license file. *ReadKey* and *WriteKey* are a key pair and belong together (asymmetric method).

The Project Secure Key is used for additional encryption of Activation Keys.

- Very safe, as stealing of the *ReadKey* doesn't allow to built a Generator. The *Project Secure Key* and the *WriteKey* will stay in the company, so a hacker could steal only the *ReadKey*.
- The encryption of the license file itself is save as the encryption methods used are high level standard algorithms

- The operations on the license file are slower like the operations using the Basic Level

Settings in the project template: <SecurityLevel>ADVANCED</SecurityLevel>

Additional Topics

See chapter Project Keys 211 how to create the keys.

Make sure that you hide the Project Secure Key / ReadKey 462 in the Source Code.

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See also

Personal Encryption 211
Security considerations 212
Hide the PSK / ReadKey in the Source Code 207

5.6.2.11 TagValue

The TagValue field is an ASCII field where you can store any type of information in a **save and hidden place**. It is available on

- license file level in the node <Default> and also on
- Module level in the node <Module>

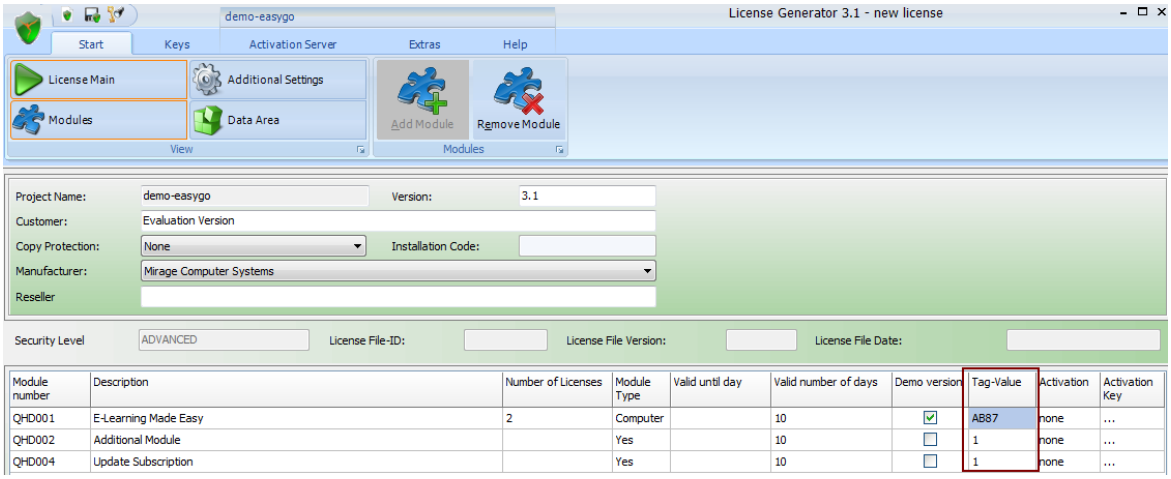
It could also be used to detect if the code was patched (see Anti Hacker Strategies 459)

Commands to read or write the data are:

TagValue on **Module level** 189

- ValidateEx 820
- GetTagValue 710
- GetVal 710 - Token TAG 711
- SetVal 791 - Token TAG 715 (write value)
- PrepareAndCheck 162

The value can be added for each module in the main license screen



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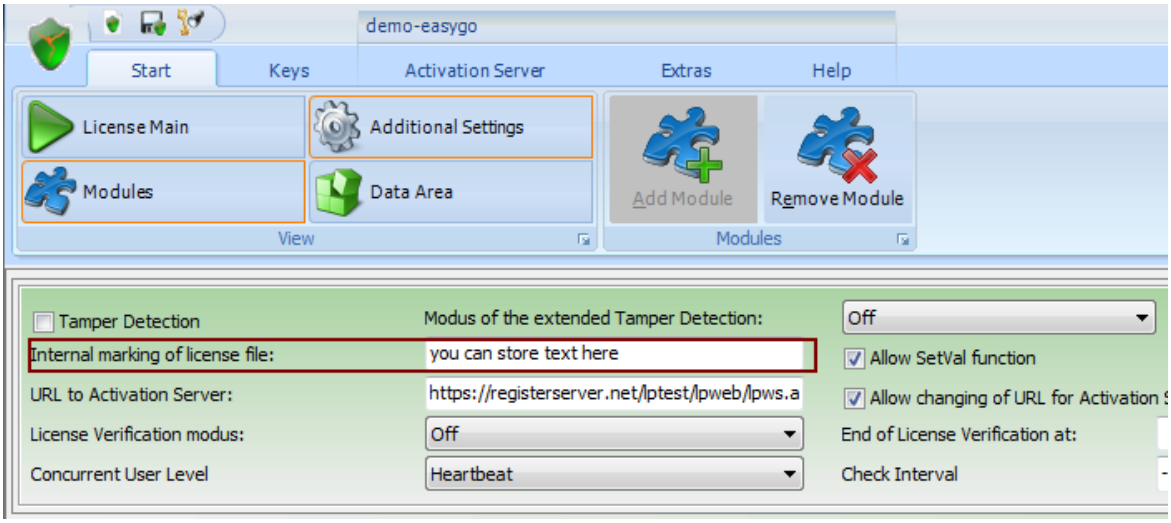
TagValue on license file level (node Default 185)

- GetVal 710 - Token LTG 712
- SetVal 791 - Token LTG 712 (write value)

The value can be added in the *Additional Settings* screen.



To store additional data in the license file, which is not module related, see chapter: Store data in the license file. 562

5.6.2.12 Web Service URL

<WebServiceURL> in the node <Default> 183

Link to the Activation Server 6. 448 The default link goes to the Mirage test server. If you want to use the Activation Server 6, either replace it with the link to your own server or with the link you get if you are using the hosting service 427 of Mirage.

Syntax: http://www.registerserver.net/lptest/lpweb/**lpws.asmx**

To use online activation, set the parameter RegisterOnline 119 in the command SetRegisterSettings to true.

The URL is sent to the default port which is normally port 80

The settings can be changed in the License Generator, TAB Activation Server

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- Change settings for own server 425
- Change settings for Hosting 427

For Hosting customers the URL is:
http://www.registerserver.net/hostingnumber/lpweb/lpws.asmx

5.6.2.13 Workflow

By default, you would code a workflow 145 with the command SetRegisterSettings 116.

It is possible, to define the desired workflow in the project template using the following TAG:

<EasyGoWorkflow>1</EasyGoWorkflow>

To use the workflow from the project template, leave WorkflowType 120 in SetRegisterSettings **empty**.

Using the workflow from a project template would allow to deliver different versions of an application just by using another license file.

Values
1 = Evaluation Version
2 = No Evaluation Version
3 = Evaluation version but NO product activation

Overview about all Workflows 145

5.6.3 Project Keys / Personal Encryption

Each project has an own encryption to ensure, that keys and license files are unique.

The personalization is achieved with a **Read Key** (used in the application to read/open license files = decryption) and a **Write Key** (in the Generator to create files = encryption). For certain encryption issues a **Project Secure Key** is used. See chapter SecurityLevel 207 for background information.

This ensures that:

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- a hacker can **never build a generator** as he would need **all 3** encryption keys (Read Key, Write Key, Project Secure Key)
- every product has a different encryption so that a Serial Number for product A would never work for product B

After finishing all tests, the demo keys in the project template 183 have to be replaced with encryption keys, **which are unique for the project**. Use TAB *File*, Copy Project 405 to get new encryption keys for an existing template or TAB *File*, Create Project 403 to create a new template with new encryption keys..

5.6.4 Security considerations regarding encryption key

Licence Protector 5 uses standard encryption methods in combination with a personal encryption. As personal ***encryption*** the

- **WriteKey** and
- **Project Secure Key**

is used. For ***decryption***, the **ReadKey** is used. See chapter Project Keys 404 how to generate these keys. If you are using the Basic Security Level 110 (not recommended), then only the Project Secure Key is used for encryption and decryption.

If a hacker would steal the ReadKey (which is used in the application), he would not be able to make a generator to produce license files or Activation Keys. This would require also the WriteKey and Project Secure Key. See also how to Hide the Read Key in your source code. 462

Security Considerations

As all keys are inside the license file template 190, you improve security using these steps.

After finishing the integration, generate new project 403 to get new encryption keys. Now distribute the template as follows:

Development

Make a project template, which includes only the **ReadKey**. This project template can be used by development. The source code requires only the ReadKey in the PrepareAndCheck, Prepare or PrepareAdvanced statement.

Administration

The License Generator needs a project template with **WriteKey** and **Project Secure Key**. If an existing license file should be opened within the License Generator, then the ReadKey is necessary.

Depending on your needs you can make a project template which includes only:

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- Project Secure Key - if an Activation Key should be generated
- WriteKey - if a license file should be generated
- ReadKey - if a license file should be opened

You could also make a Web Based interface to generate the keys using the Automatic License Generator 464. This allows to place the project template on a server and limit the file access.

Activation Server 6

The Activation Server 6 needs a project template with ReadKey, WriteKey and Project Secure Key.

Automatic License Generator

Depending on your needs you can make a project template which includes only:

- Project Secure Key - if an Activation Key should be generated
- WriteKey - if a license file should be generated

A ReadKey is not necessary.

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Part VI

6 Send usage metrics

Licence Protector offers the option to send usage metrics like number of trial installations or information about the computer hardware to the activation server. The feature is by default turned of and you have to enable it if you want to use it. Activation Server 6 version 5 or higher is required.

What kind of data is sent

A pre-configured data set of hardware information is sent when you enable the metrics usage.

- Operating system
- Platform type
- Physical memory
- Screen resolution
- User language of the operating system
- Top locations (countries)

This information is sent only once per computer even if multiple events (like install demo version) are recorded.

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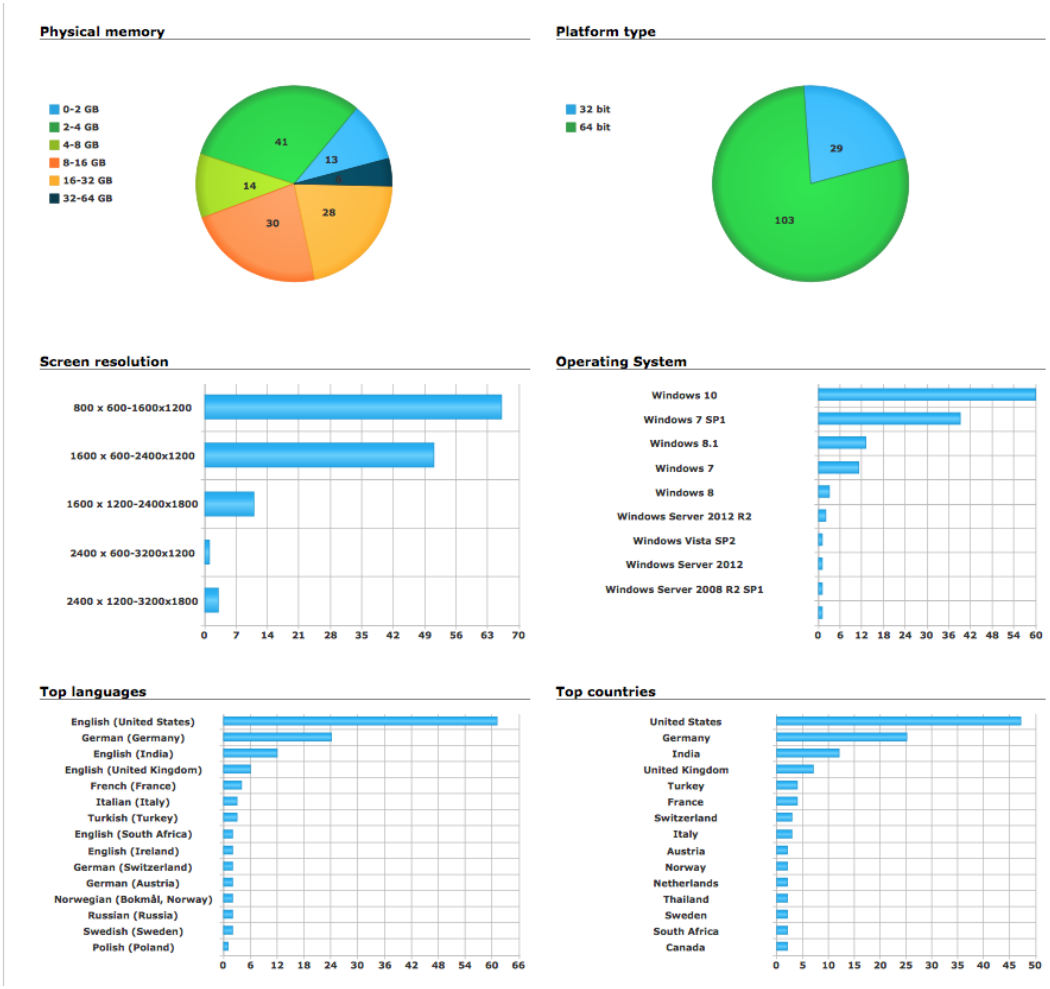

Events which can be recorded

The data is sent on selected events like first time installation or product activation or even during each program start.

There are a couple of pre-defined events

- First installation of an application
- First time a demo version is installed
- First product activation of the main module. The main module is defined in the project template 203
- First activation of any module. This allows to track the product activation of any module in the license file
- Any start of the application will track how often the application was started
- Any product deactivation of the main module 203. A deactivation is either DeactivateModule 664 or TransferLicence 812

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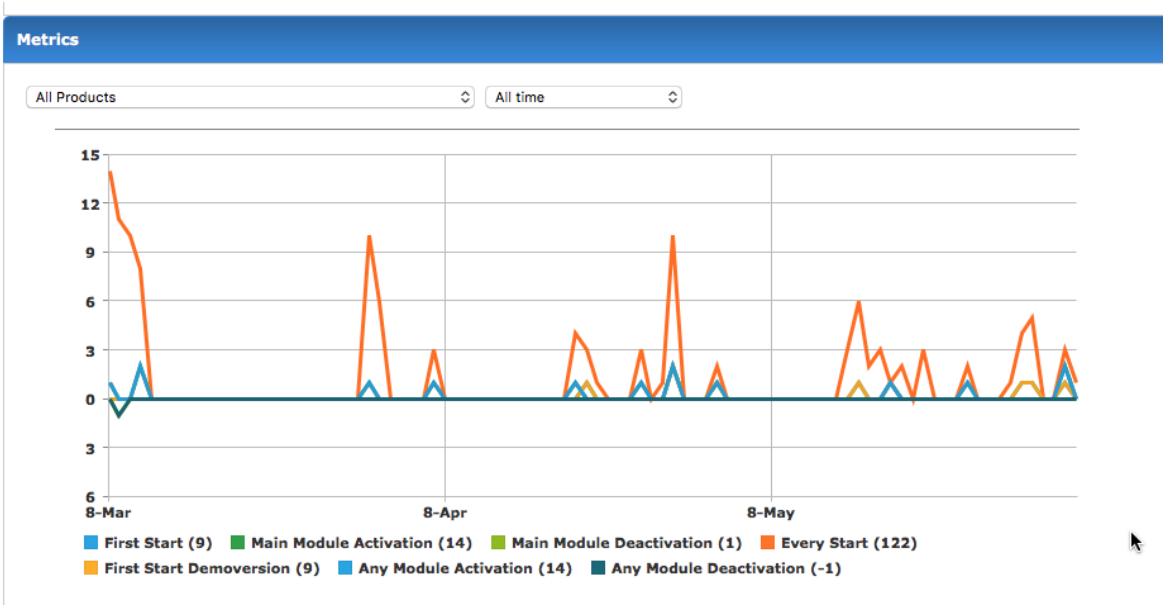
In addition to that you can record any **custom program events** 218, e.g. every time a user selects a menu item or processes a functionality you want to record.



Tracking of data

The data can be sent anonymous (recommended) or linked to a specific Serial Number. Linking the data to a serial number allows to get more insight how a specific customer is using your application.

Hosting usage

Each event counts as a transaction. It is recorded with the transaction type: *Metric Data*

Implementation of metrics in the source code

The implementation of the default metrics using EasyGo is quite simple

- Select the events you want to record in the TAB Activation Server / Metrics 427
- Update the modified product to the Activation Server 429

If you use EasyGo 104, the selected events including the additional data set about Windows and hardware information is automatically sent.

In addition to the default events, you can add custom events 218 or implement the metric feature with custom activation screens.

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Using metrics reports

Find more about the metrics charts and reports - Activation Server help

Your can turn on / off the usage metric with SetSignalState 789

This feature is only available in the *Basic and Professional Edition.*

6.1 Implement metrics on custom events

You can send metrics on **custom events** like

- every time a menu item is invoked, e.g. to analyze how often the menu help is used
- every time a document is opened
- every time a special workflow is triggered
- every time an error occurs

<table>
<tr><td>Name</td><td colspan="4">SendIntMetric</td></tr>
<tr><td>Params</td><td colspan="4"><table>
<tr><th>Parameter</th><th>Type</th><th>Example</th><th>Note</th></tr>
<tr><td>ProjectName</td><td>String</td><td>easygo</td><td>If empty, project name from the template is used</td></tr>
<tr><td>ModuleID</td><td>String</td><td>QHD001</td><td>Unique ModuleID. Can be empty. Reporting not yet available on module level</td></tr>
<tr><td>MetricName</td><td>String</td><td>Menu: Help</td><td>The value you want to trace</td></tr>
<tr><td>Section</td><td>String</td><td>My App</td><td>This value can be used to group the result. Reporting not yet available for this feature</td></tr>
<tr><td>MetricValue</td><td>Integer</td><td>1</td><td></td></tr>
</table></td></tr>
<tr><td>Returncode</td><td colspan="4"><table>
<tr><th>Returncode Type Integer</th><th>Note</th></tr>
<tr><td>0</td><td></td></tr>
<tr><td>A date</td><td></td></tr>
</table></td></tr>
<tr><td>Transaction</td><td colspan="4">Counts as 1 transaction on the Activation Server 6</td></tr>
</table>

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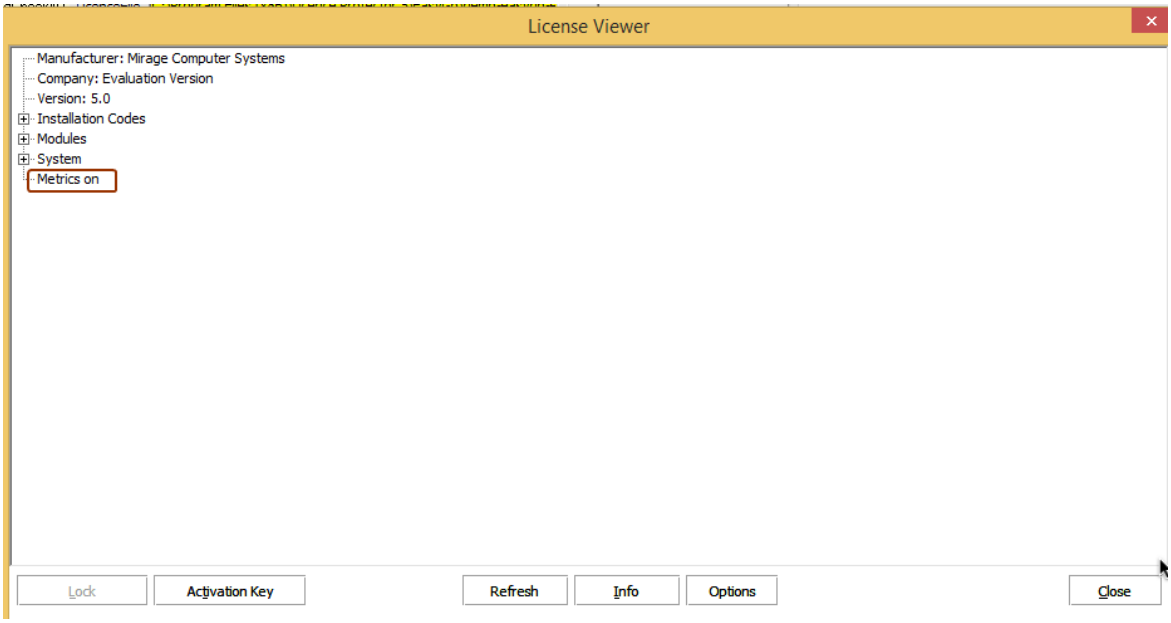
Count	
See also	SetSignalState 789, GetSignalState 709

Example
SendIntMetric('', '', 'Menu: Help', 'My APP', 1);
SendIntMetric('', '', 'Error: SQL Connection failed', 'Core1.DLL', 1);

Your can turn on / off the usage metric with SetSignalState 789

6.2 License Viewer - Metrics information

If metrics is enabled or not can be checked in the License Viewer



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Part VII

7 Activation and License Screens with EasyGo

This chapter describes all relevant screens of the EasyGo during the licensing 71 and activation 73 process.

It also covers:

Start options

- Time limited evaluation version 222
- No evaluation version - Serial Number needed to start 223
- Evaluation without time limitation 227
- The evaluation version cannot be activated 225. Full version requires a new installation package

Product Activation

- Collect Activation Data 229
- Subscribe to Newsletter 231
- Online Activation 232
- E-mail Activation 237
- Fax Activation 243
- Activation by Phone 248
- Enter Unlock Key 251

Covering problems during program start

- Evaluation Period Expired 253
- Copy Protection Violation - automatic reactivation 264
- Network license deactivated 270
- No free license available 272
- No Internet connection 272
- System date was tampered 275

The Video Tutorial offers a live demonstration of each activation method.

Start Video Tutorial

- The activation dialogs are available in multiple languages 108

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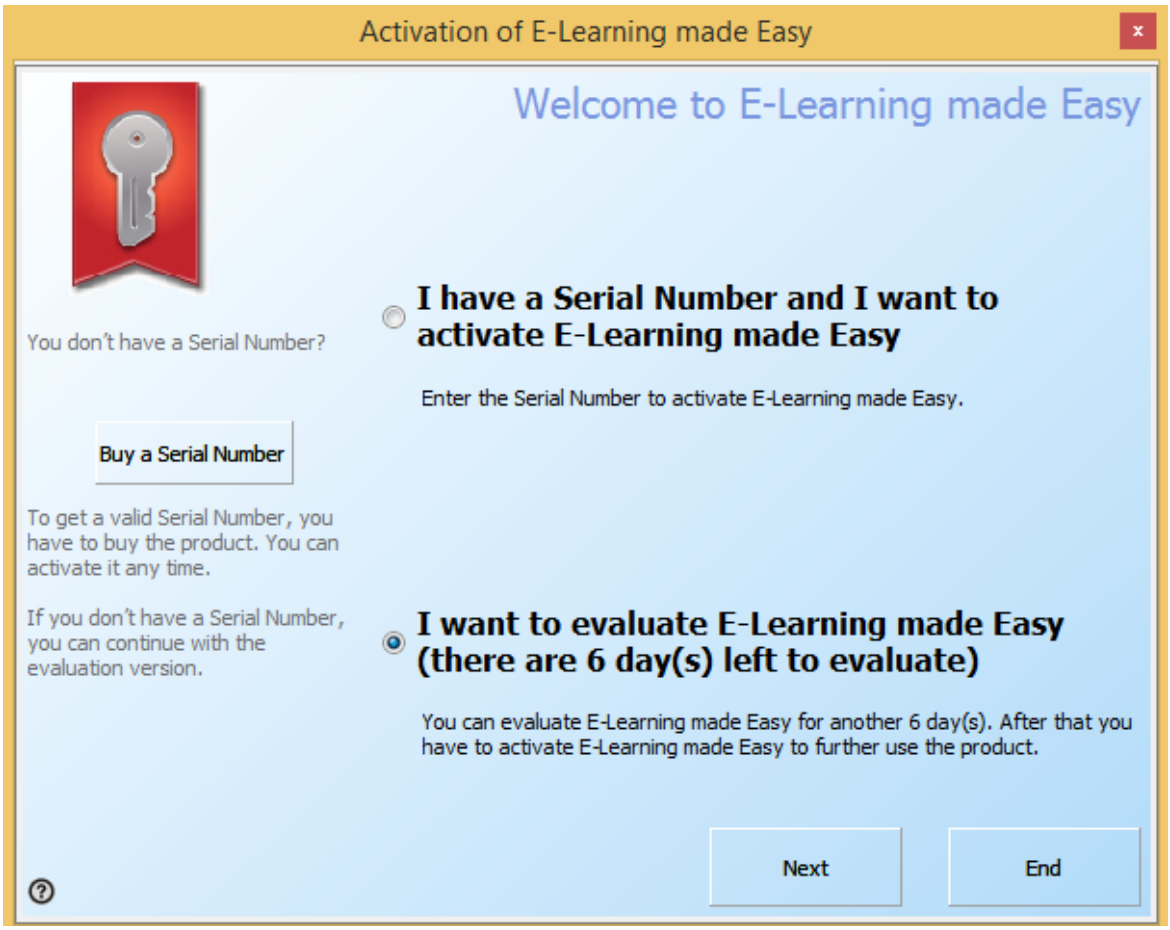
- The dialogs need at least a screen resolution of 800 x 480 pixel
- It is possible to create own screens and own workflows - see chapter: Custom-made user interface 495

7.1 Start Screen in Evaluation Mode

This is the initial screen, which pops-up as long as the software is not activated and the version is a trial version. It depends on the selected customization options.

It allows either to continue unregistered or to type in the Serial Number 590. The version can be used x days for evaluation before the activation has to be done.



When the trial expires, the screen changes - details 253

Source Code Settings
The following configuration settings are configured with the command **SetRegisterSettings** 116:

- Application Name - Productname
- Buy it button - BuyURL

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- Registration Image - ImageFile
- Show license Information - LicViewerAllowed
- Activation Options - RegisterOnline, RegisterBye-mail, e-mail_Address, RegisterByFax, Faxnumber, RegisterByPhone, Phonenumber, e-mail_Fax_Text
- Default Activation Option - DefaultMethod
- Workflow 145 must be = **1**
- Link to Help 131
- Define language 108
- Use SetCustomerText 136 to change the wording on default screens

License Generator Settings
The following configuration settings are configured in the project template or License Generator 100.

- Number of days 187 to evaluate

Check the chapter workflow 145 for all possible settings!

7.2 Start Screen - No Evaluation Mode

The product has no evaluation mode. The user has to type in the Serial Number 590 and activate the product before it can be used.

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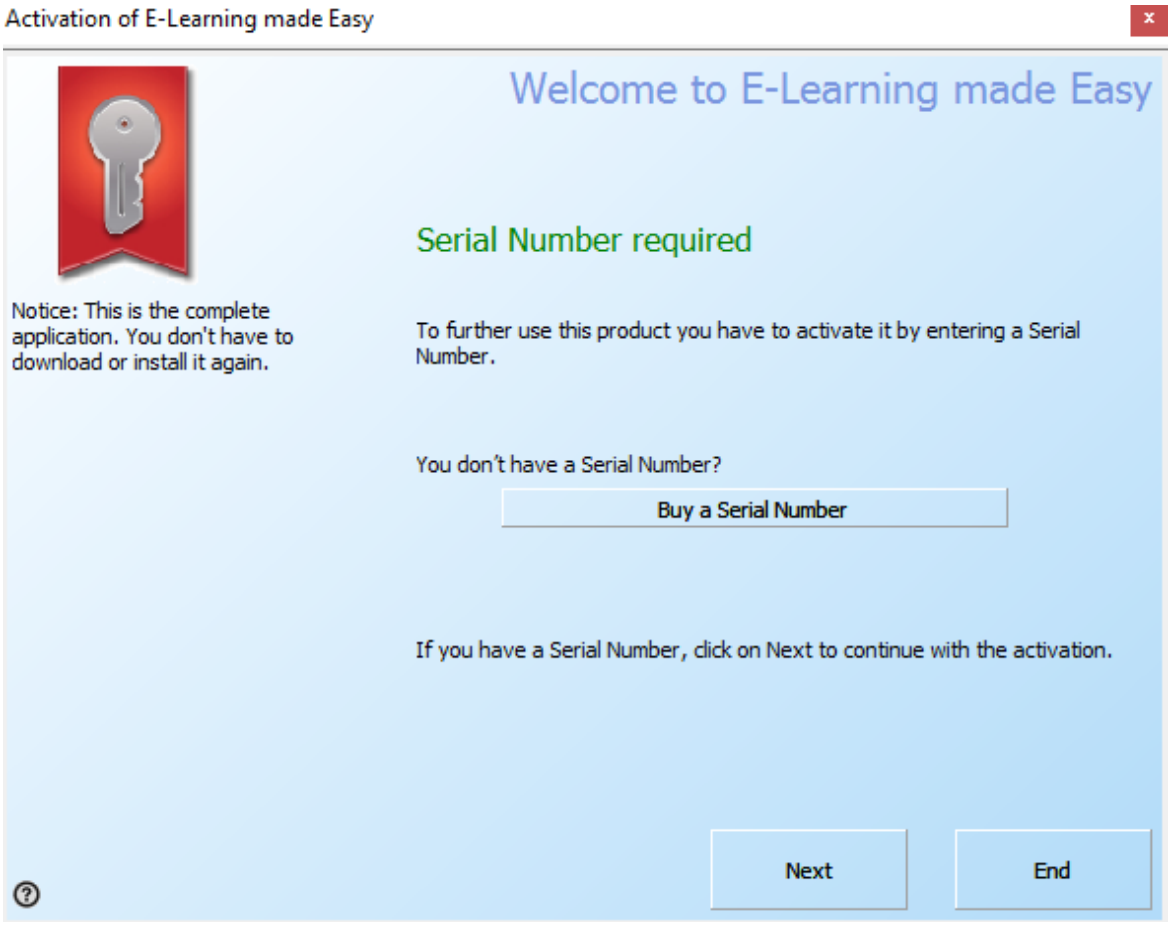

Without a Serial Number the user cannot continue. He has to type in the*Unlock Key* 251 before the application can be used. Without the *Serial Number* or Unlock Key, only the *End* button can be used.

Source Code Settings
The following configuration settings are configured with the command **SetRegisterSettings** 116**:**

- Application Name - Productname
- Buy it button - BuyURL
- Registration Image - ImageFile
- Show license Information - LicViewerAllowed
- Activation Options - RegisterOnline, RegisterBye-mail, e-mail_Address, RegisterByFax, Faxnumber, RegisterByPhone, Phonenumber, e-mail_Fax_Text
- Default Activation Option - DefaultMethod
- Workflow 145 must be = **2**
- Link to Help 131
- Define language 108
- Use SetCustomerText 136 to change the wording on default screens

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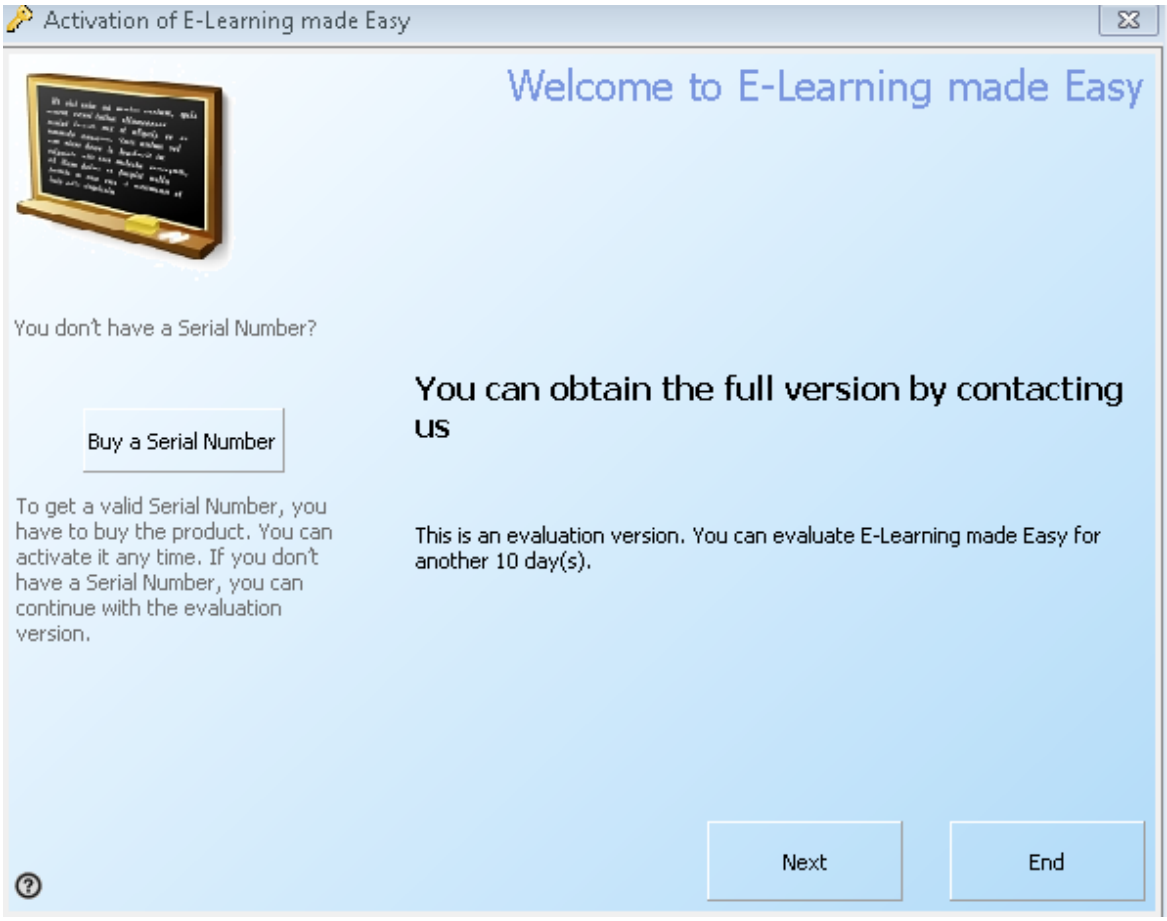
Check the chapter workflow 145 for all possible settings!

7.3 Start Screen - No product activation possible

The product is only available as an evaluation version. It **cannot be activated** - the user needs a new installation package for the full version.



If the trial period expires, the following screen is displayed.

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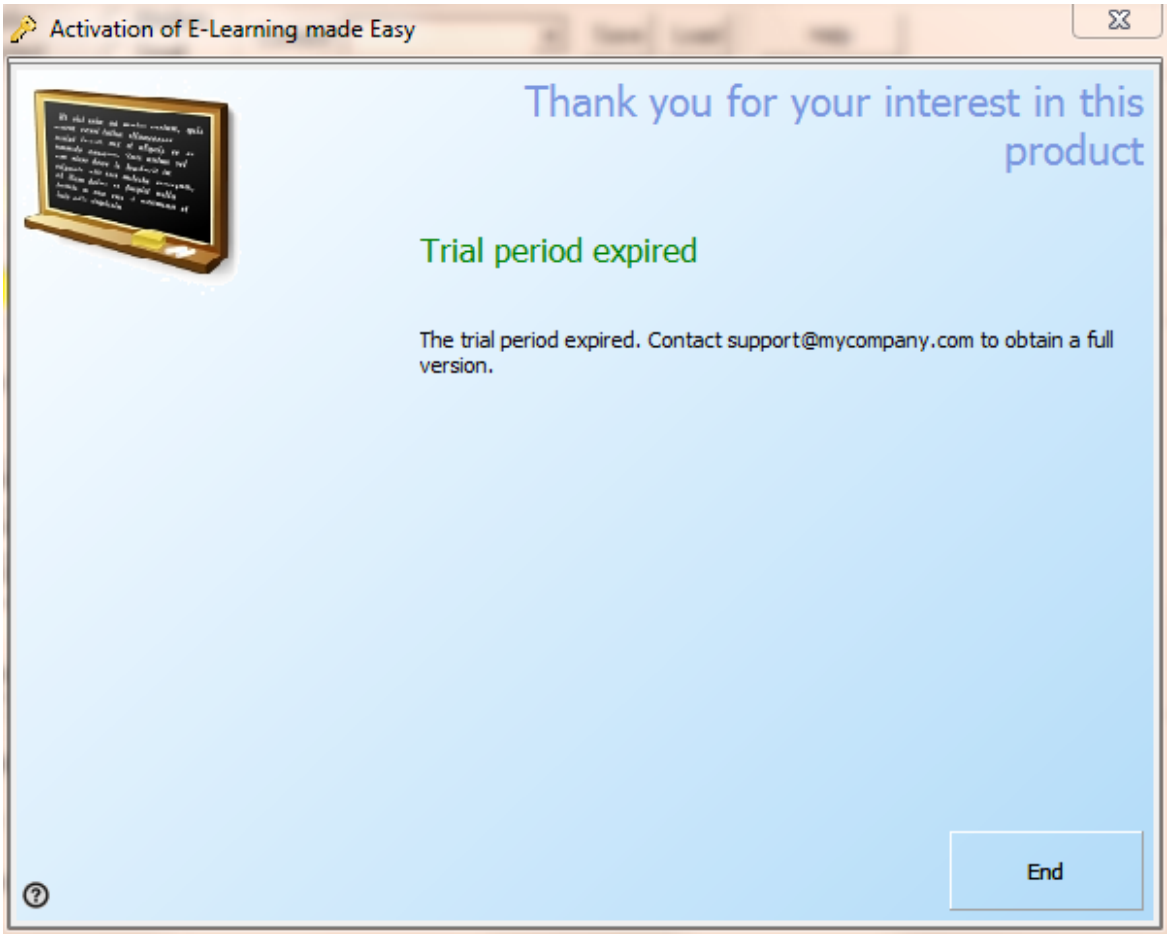

Source Code Settings

The following configuration settings are configured with the command **SetRegisterSettings** 116:

- Application Name - Productname
- Buy it button - BuyURL
- Registration Image - ImageFile
- Show license Information - LicViewerAllowed
- Activation Options - RegisterOnline, RegisterBye-mail, e-mail_Address, RegisterByFax, Faxnumber, RegisterByPhone, Phonenumber, e-mail_Fax_Text
- Default Activation Option - DefaultMethod
- Contact address - ContactAddress
- Workflow 145 must be = **3**
- Link to Help 131
- Define language 108
- Use SetCustomerText 136 to change the wording on default screens

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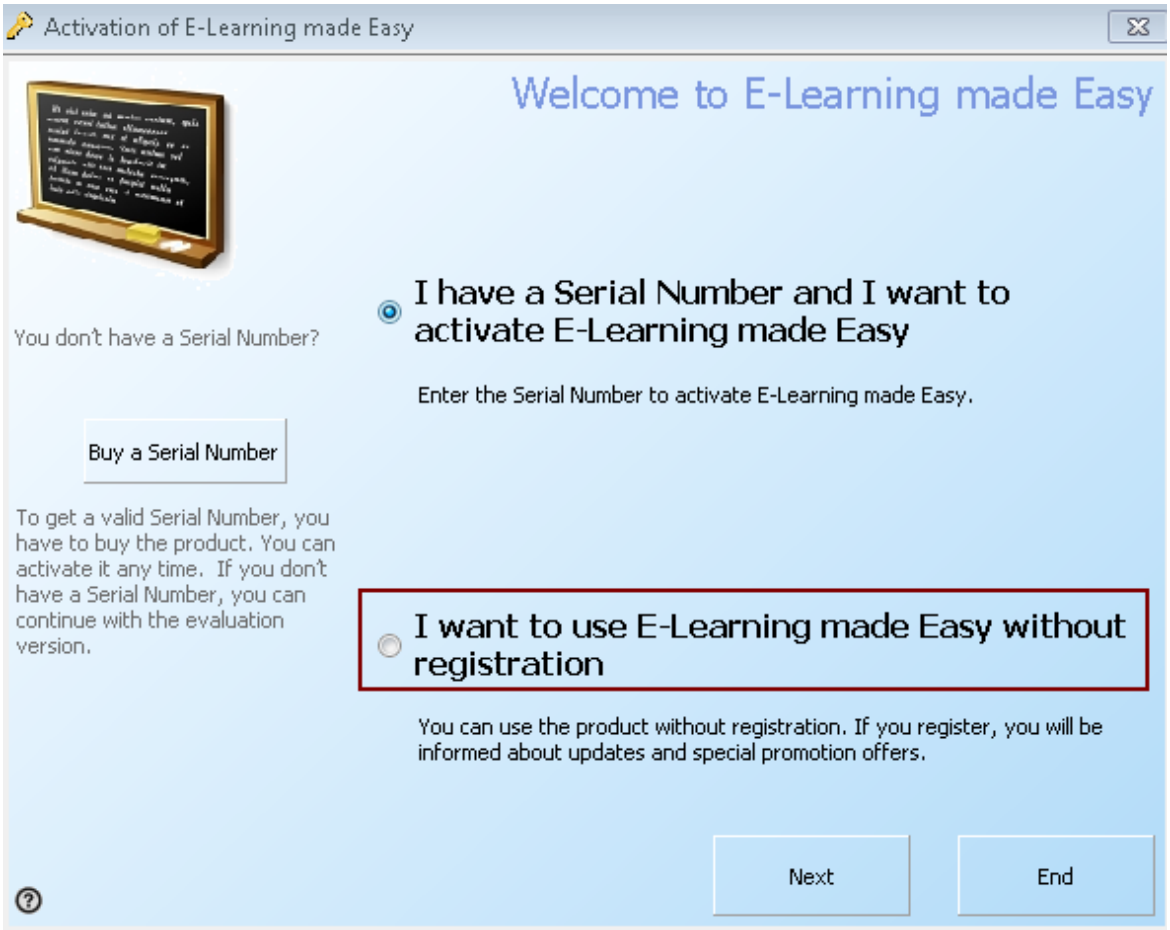
Check the chapter workflow 155 for all possible settings!

7.4 Start Screen - Evaluation without time limitation

This option allows using the evaluation version for an **unlimited time** but brings up an registration screen during each program start.



Source Code Settings
The following configuration settings are configured with the command **SetRegisterSettings** 116:

- Application Name - Productname
- Buy it button - BuyURL
- Registration Image - ImageFile
- Show license Information - LicViewerAllowed
- Activation Options - RegisterOnline, RegisterBye-mail, e-mail_Address, RegisterByFax, Faxnumber, RegisterByPhone, Phonenumber, e-mail_Fax_Text

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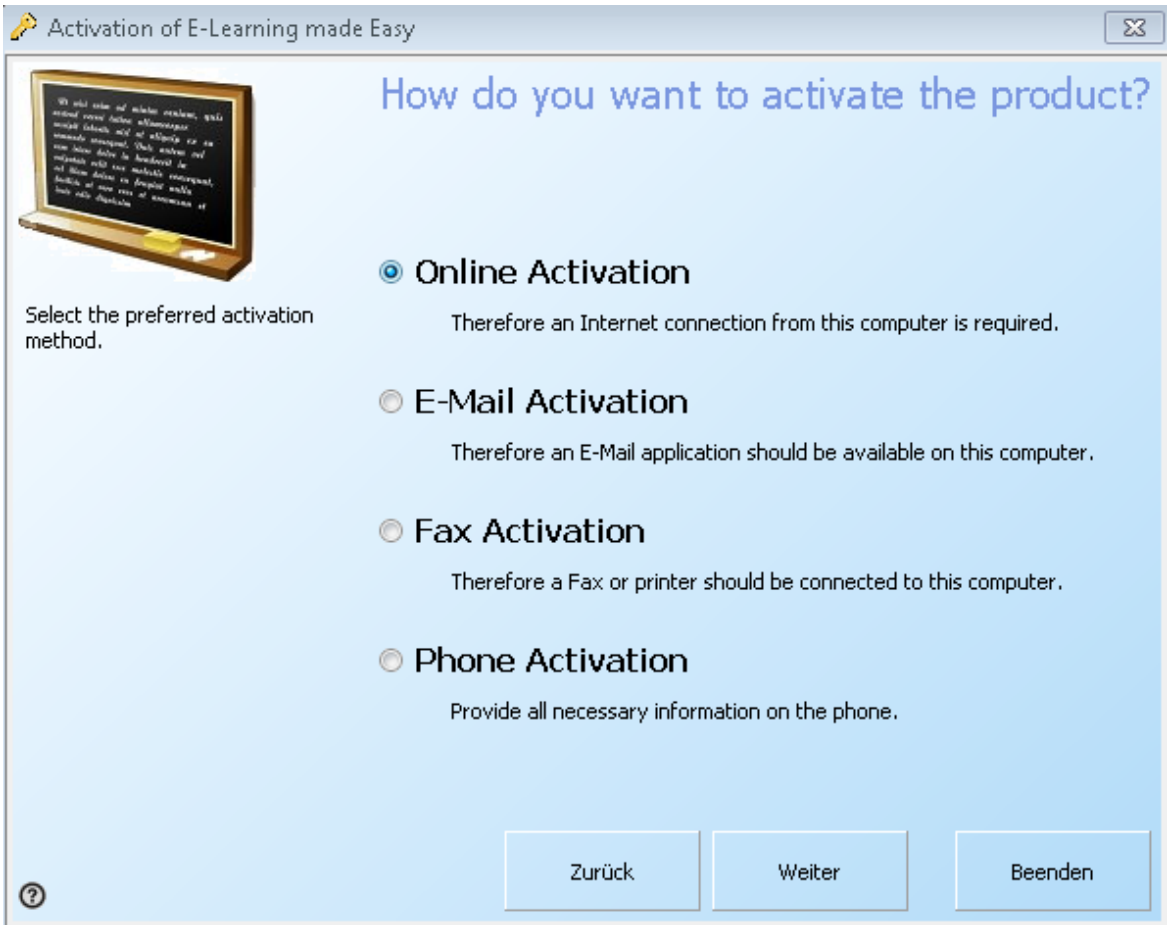
- Default Activation Option - DefaultMethod
- Workflow 145 must be = **1**
- Link to Help 131
- Define language 108
- Use SetCustomerText 136 to change the wording on default screens

Check the chapter workflow - endless evaluation 155 for all possible settings!

7.5 Select Activation Method

Depending of the activation method defined with SetRegisterSettings 116 , the user can select between one or more activation methods:



Source Code Settings
The following configuration settings are configured with the command **SetRegisterSettings** 116:

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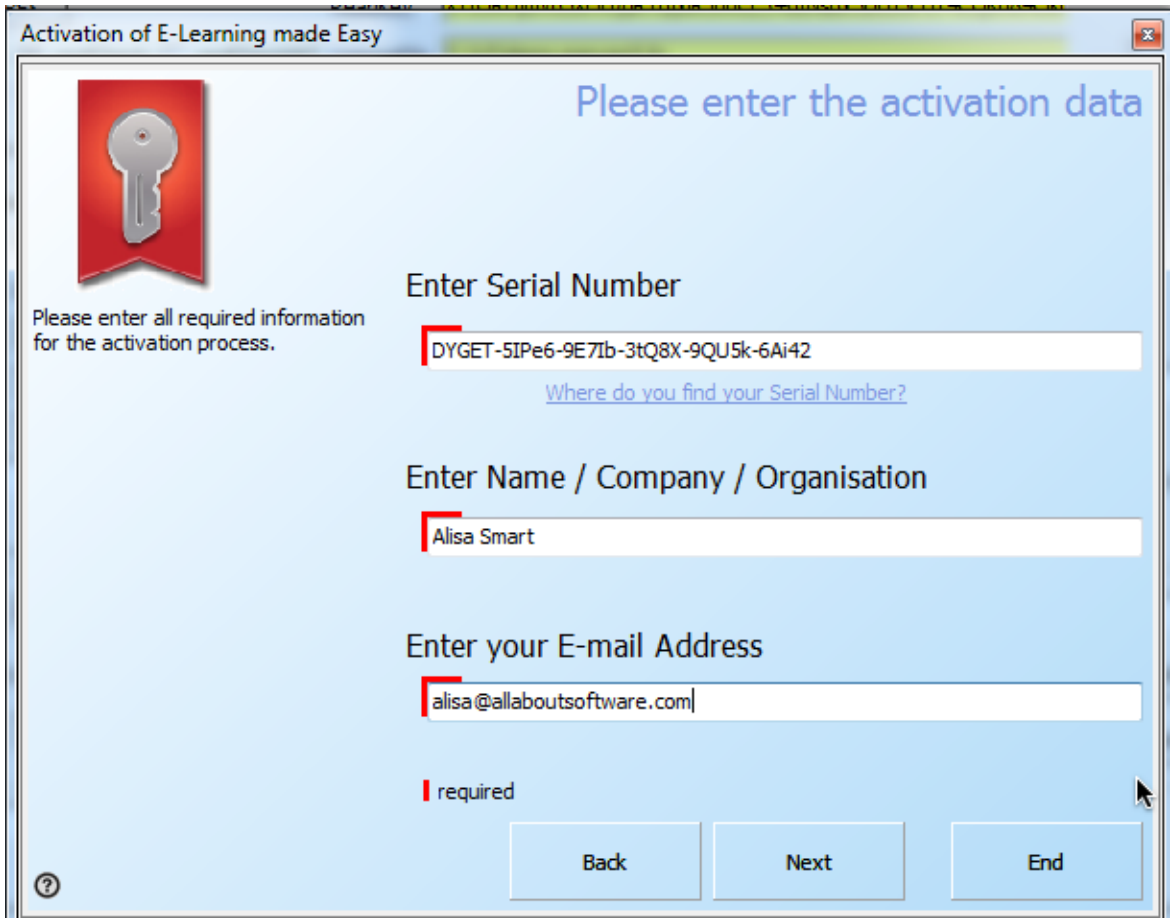
- Activation methods - RegisterOnline, RegisterBye-mail, e-mail_Address, RegisterByFax, Faxnumber, RegisterByPhone, Phonenumber, e-mail_Fax_Text

7.6 Collect Activation Data

It can be configured, how many data should be collected through the activation process:

Standard Activation Data

This screen collects Serial Number, Name/Company name and e-mail address



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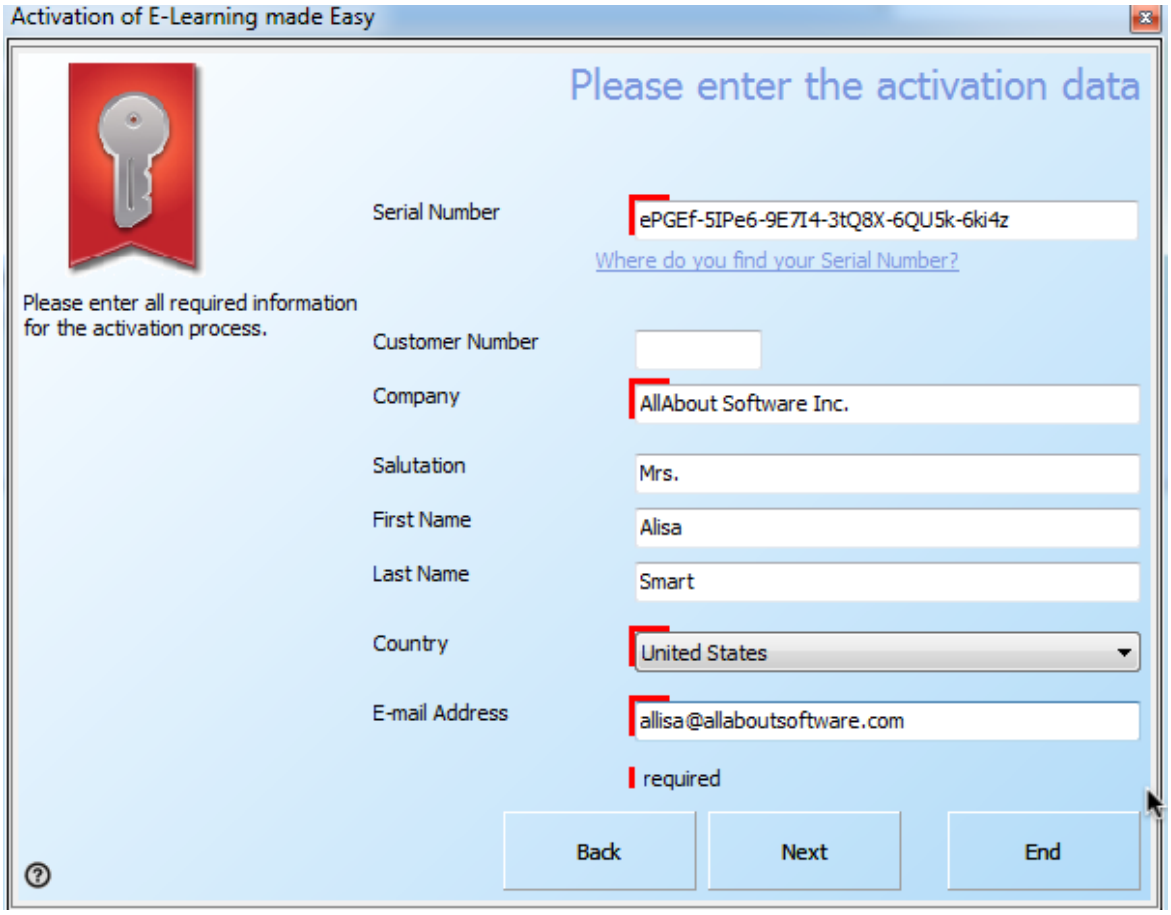
Basic Activation Data

This screen collects Serial Number, Customer Number, Company name, Salutation, First and Last Name, Country (using a picklist which includes all countries of the world) and e-mail address.



Full Activation Data

This screen collects the same data like the basic activation data + detail address data and additional data like website and remarks.

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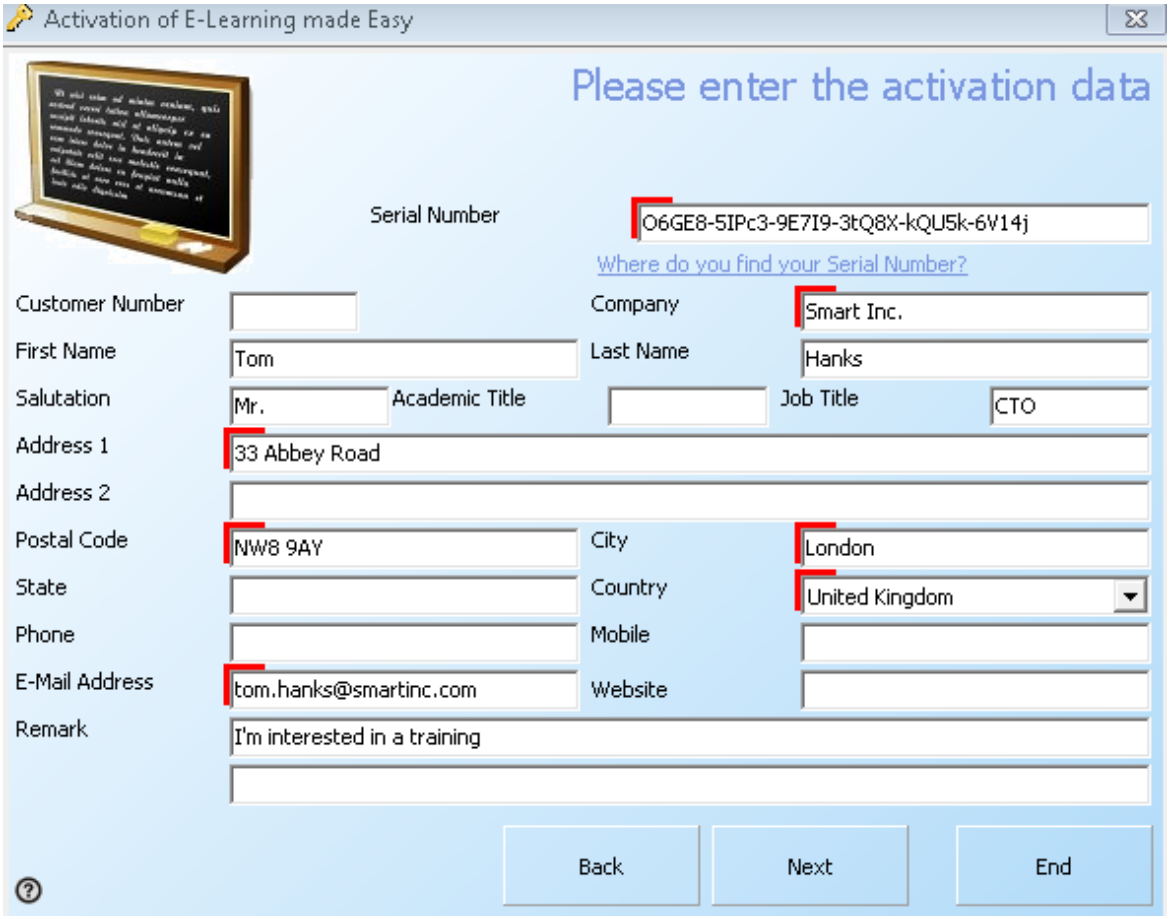
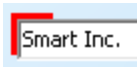


- Required fields are marked with a red line 
- For *activation by phone* only the Standard data is collected

The configuration is done with SetRegisterSettings, option ActivationData 116.

7.7 Subscribe to Newsletter

After the user has typed in the activation data, a screen to subscribe to up to 4 newsletters appear.

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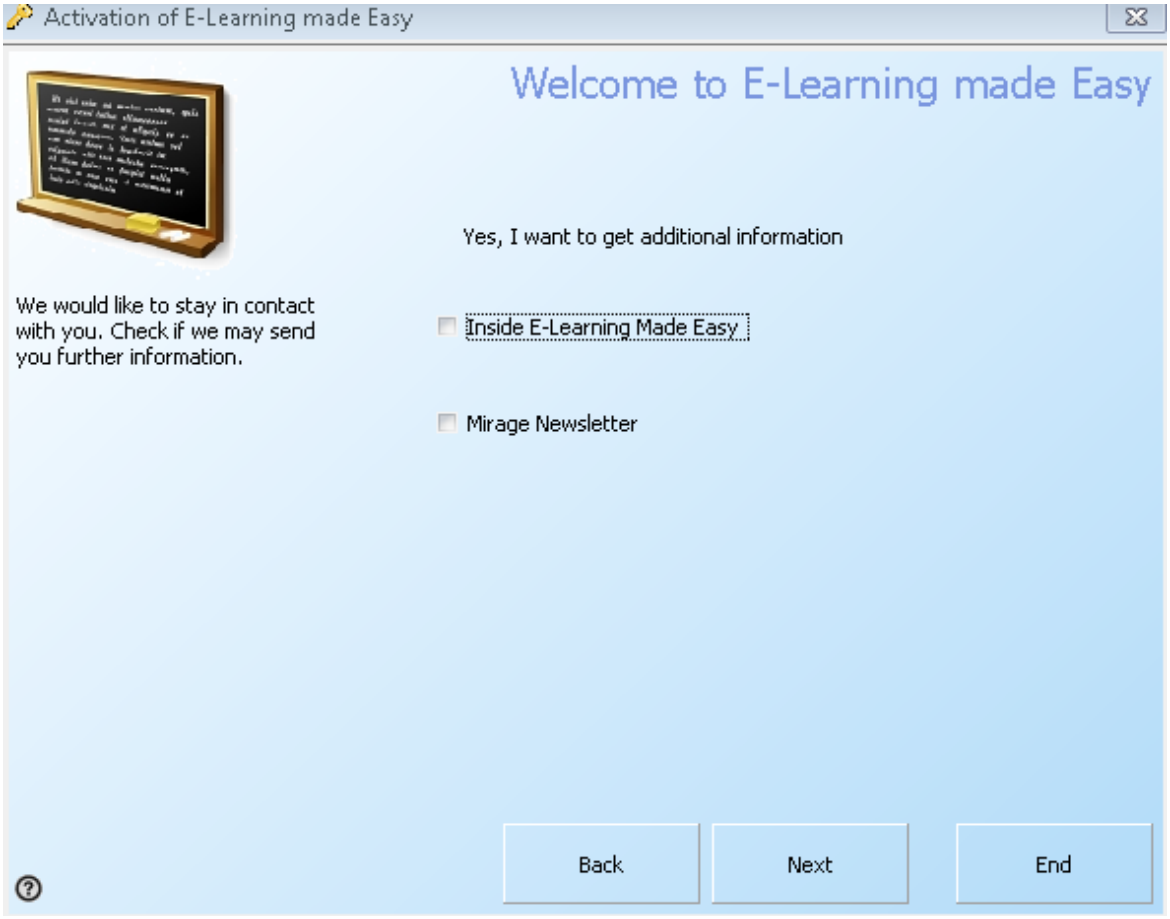

Source Code Settings
The following configuration settings are configured with the command

- SetNewsletter 132 - configure 1 to 4 newsletter in different languages

7.8 Online Activation

The Online Activation needs the Serial Number 301, company name and e-mail address. Press the button ***Next.*** Then the license will be verified online and activated. No additional step will be required. If the Activation is successful, the screen *Activation finished* 251 is displayed. See details of the workflow 591

Screen - Online Activation

Enter activation data

The user first gets a screen to type in the Serial Number, name and depending on the settings for the required activation data 229, more personal data.

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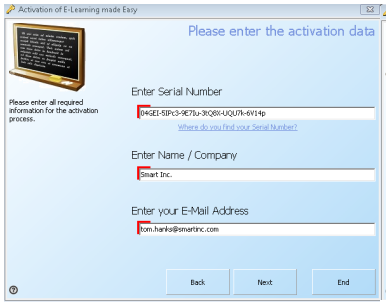
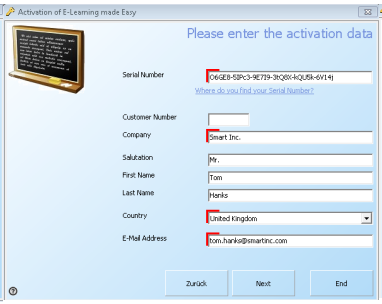
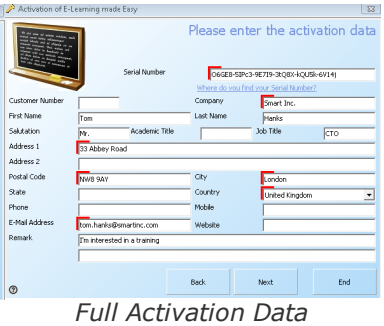


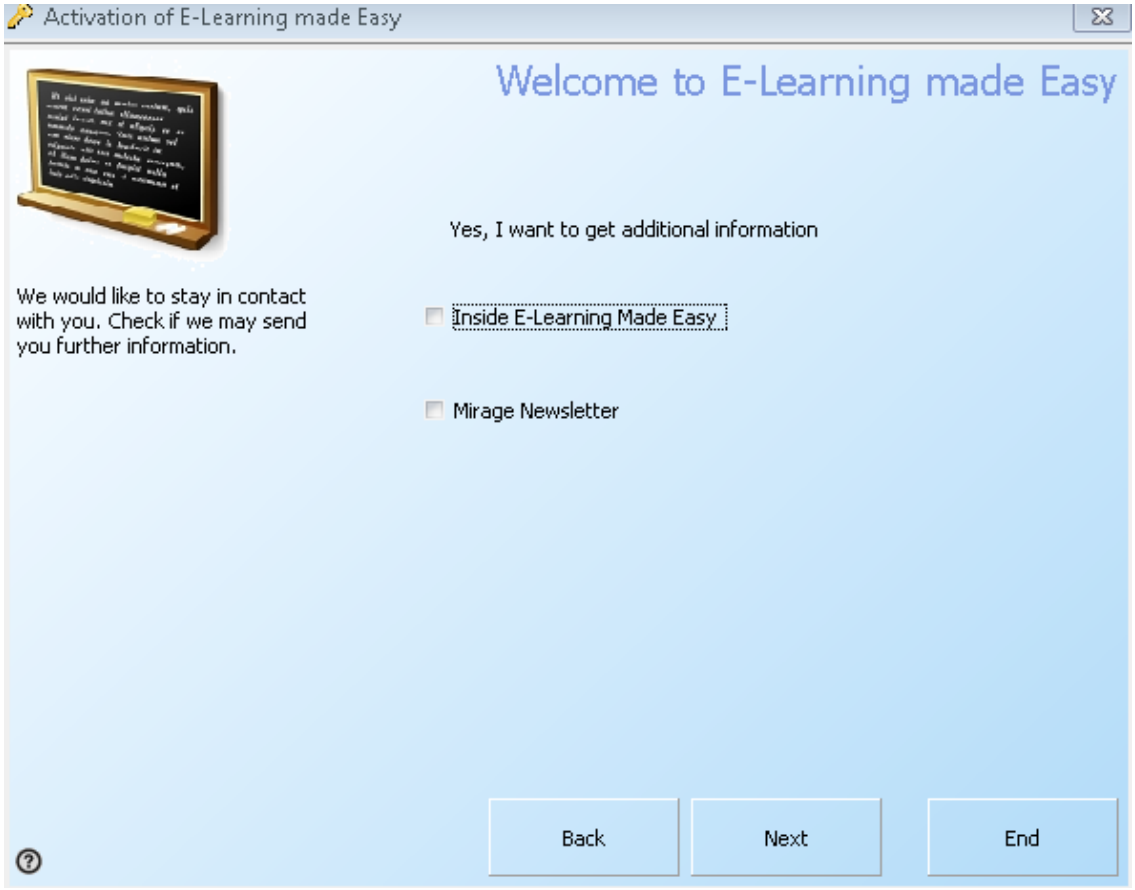
Standard Activation Data



Basic Activation Data



Full Activation Data



Newsletter

Change Proxy server settings

By default, the proxy server settings from the Internet Explorer are retrieved. The user can change the settings.

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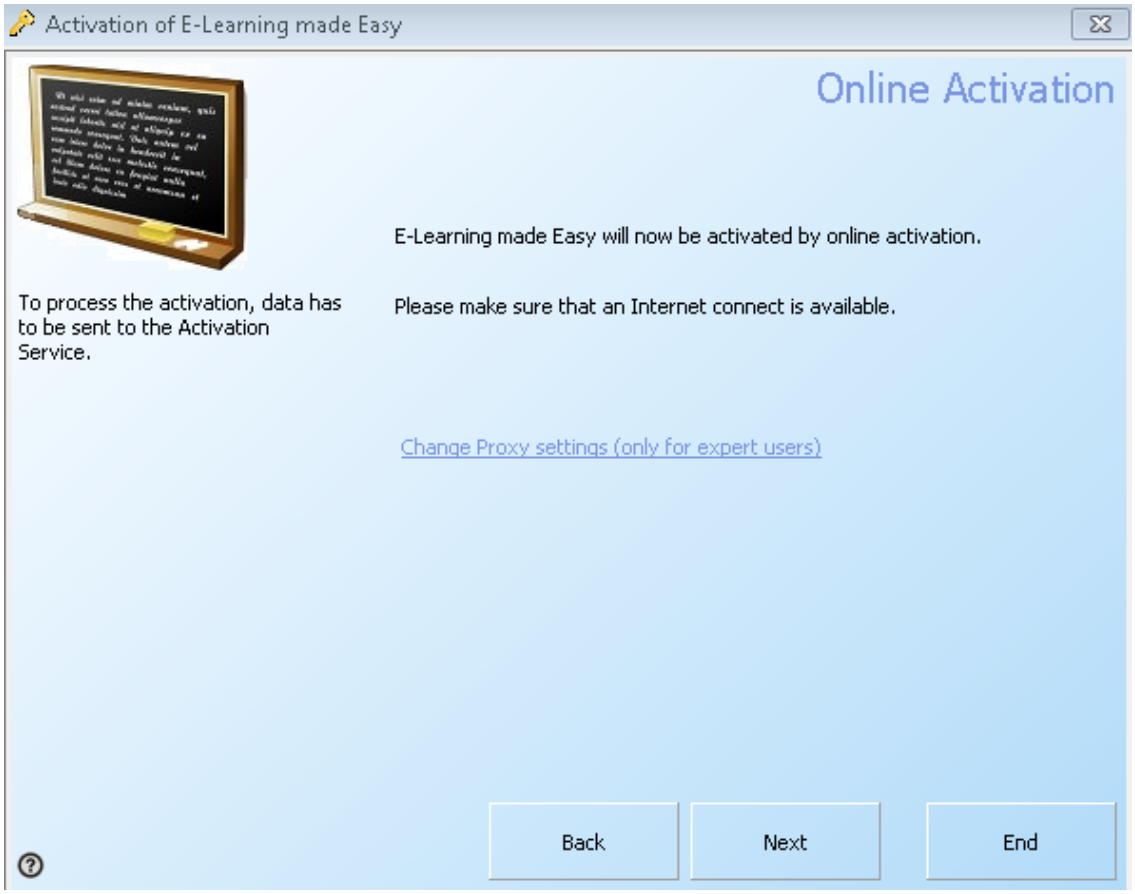

Online Activation - Change Proxy Server

You can disable the option to allow changing the proxy settings using <AllowChangeWASURL> 193 in the project template. The default value is to use NO proxy server.

Online Activation in process

The user sees an animation while the data are sent to the Activation Server 6.

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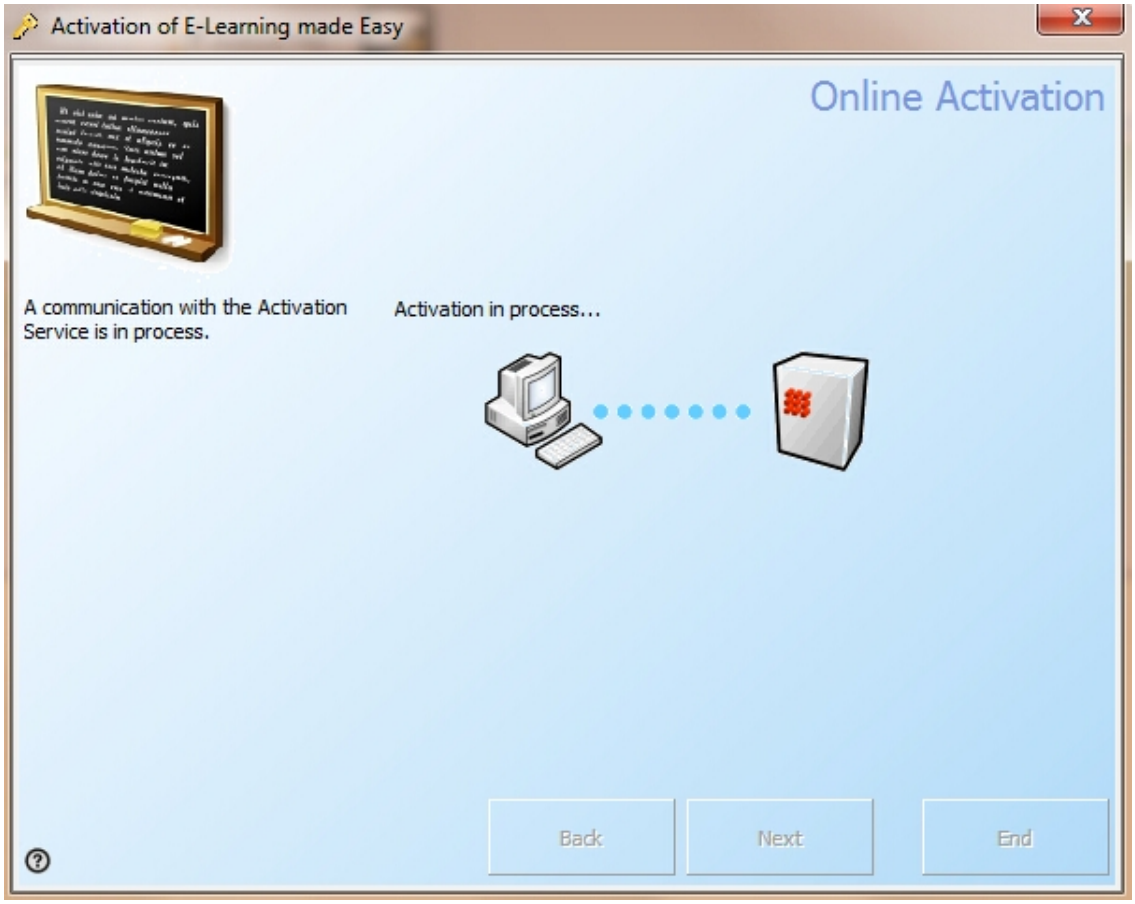

Activation in progress

The dialogs could be deactivated either with the settings <ShowWAStartPage>, <ShowWAProgressPage>, <ShowWAResultpage> in the project template 193 or with the commands ShowWAStartPage 806, ShowWAProgressPage 804, ShowWAResultPage 805 in the source code.

Activation successful

The screen activation completed 251 is displayed.

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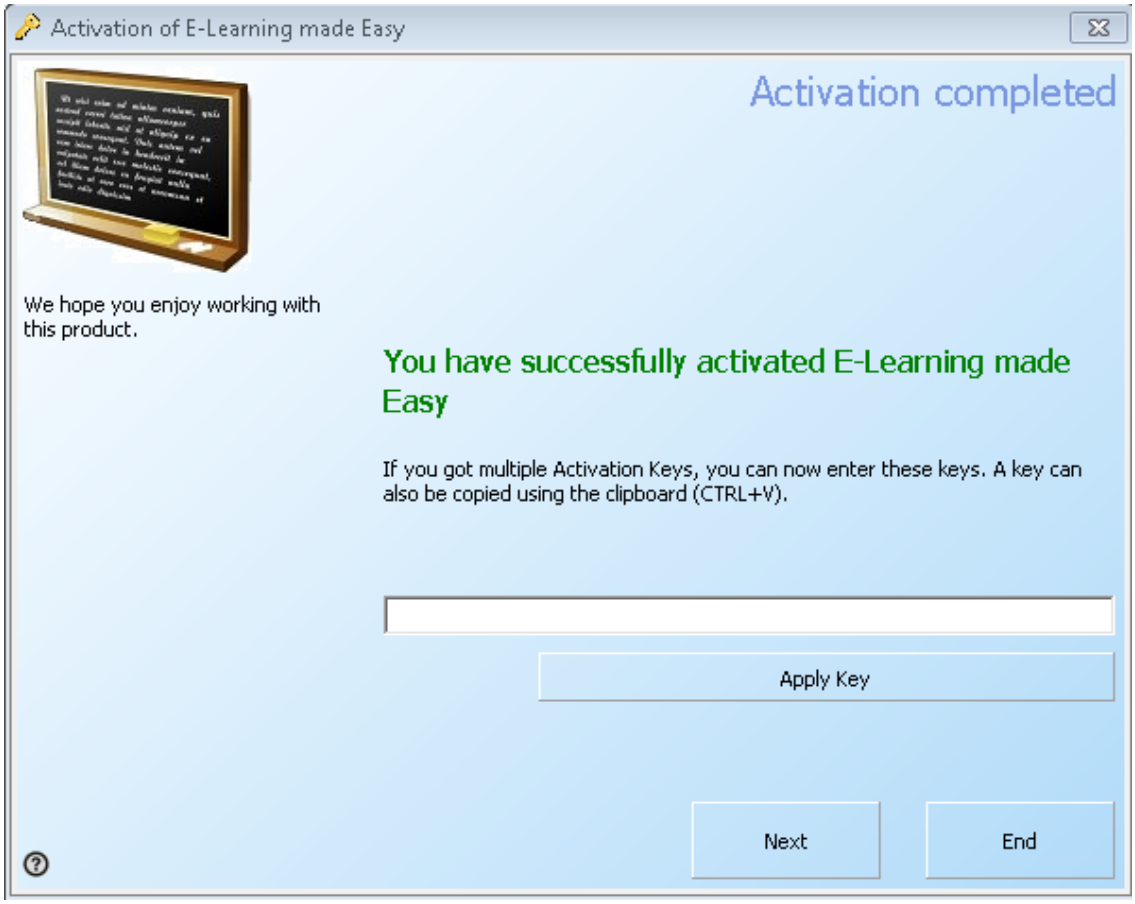

Online Activation - completec

- Source Code Settings
  This activation option is defined with the parameter RegisterOnline 119. The WebServiceURL 185 has to be defined in the project template.

- Ports and Proxy Settings

  The Online Activation uses an http request on Port 80 to communicate with the Activation Server. A router with a standard firewall (IP-Filter) will not detect the difference to a Browser request and let the activation pass. A local personal firewall like McAfee or Norton will pop-up and ask, if the request should be permitted. Only a 'real' application firewall will block the request and an administrator has to open port 80.

  Proxy settings are retrieved from the Browser but can be changed with the commands LocalProxPort 723, LocalProxyServer 723, UseLocalIIEProxy 816, UseLocalProxy 817.

  Only the Licence Protector DLL can communicate to the Activation Server 6

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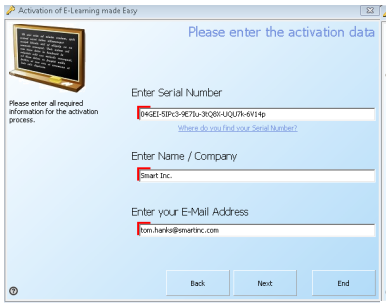
7.9 Activation by E-Mail

The e-mail Activation needs the Serial Number 301, company name and your e-mail address. See details of the workflow. 593

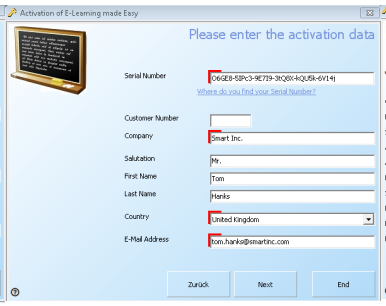
- Screen - Activation by E-Mail

Enter activation data

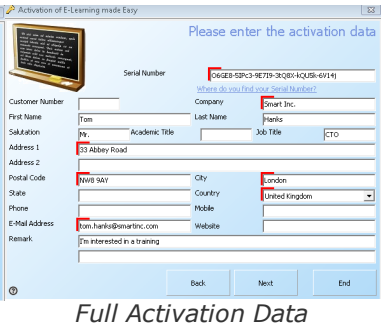
The user first gets a screen to type in the Serial Number, name and depending on the settings for the required activation data 229, more personal data.



Standard Activation Data



Basic Activation Data



Full Activation Data

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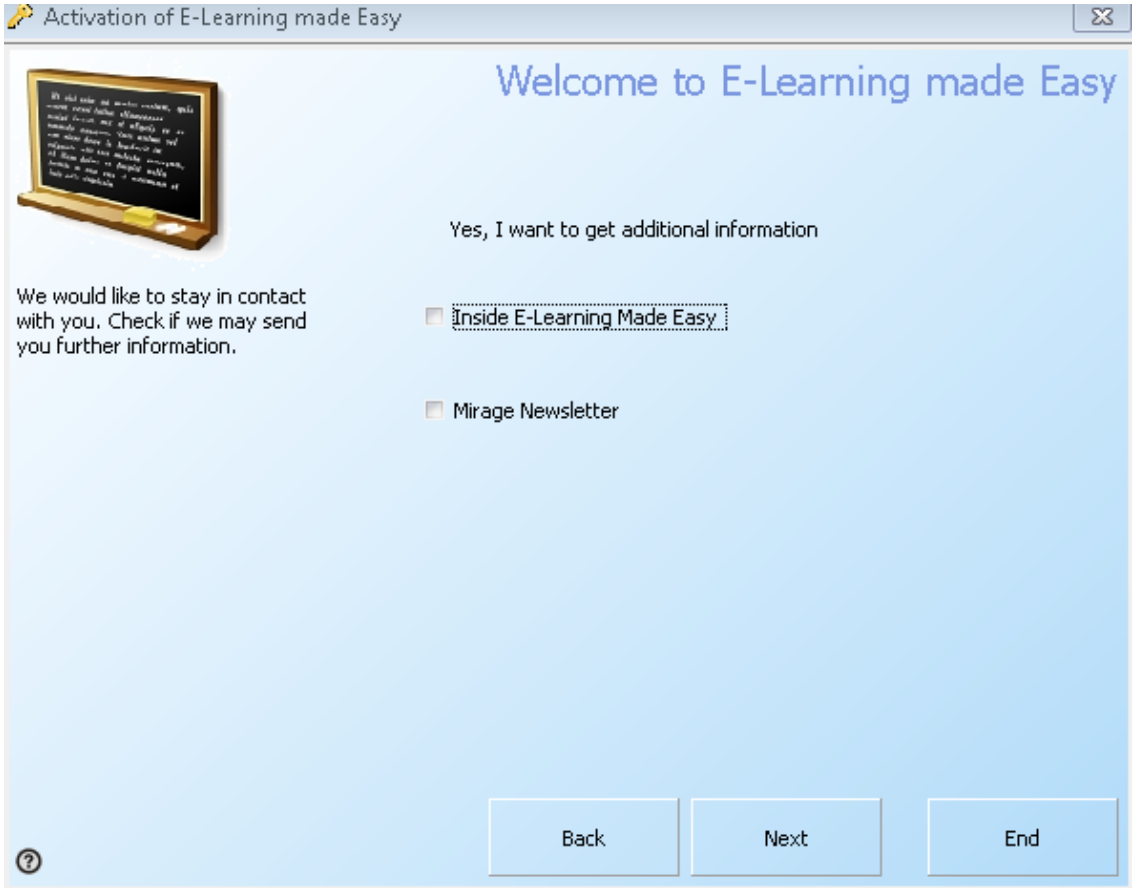

Newsletter

E-Mail application or Browser based E-Mail

If an e-mail application is available, the button ***Next*** will open the e-mail application. In case a Browser based e-mail application (e.g. Outlook Web Access or hotmail) is used, clicking on the button ***End*** will copy the e-mail content **into the clipboard**. The user could then login into his Browser based e-mail application and paste the clipboard content. The e-mail address, where to send the e-mail, is displayed on the screen.

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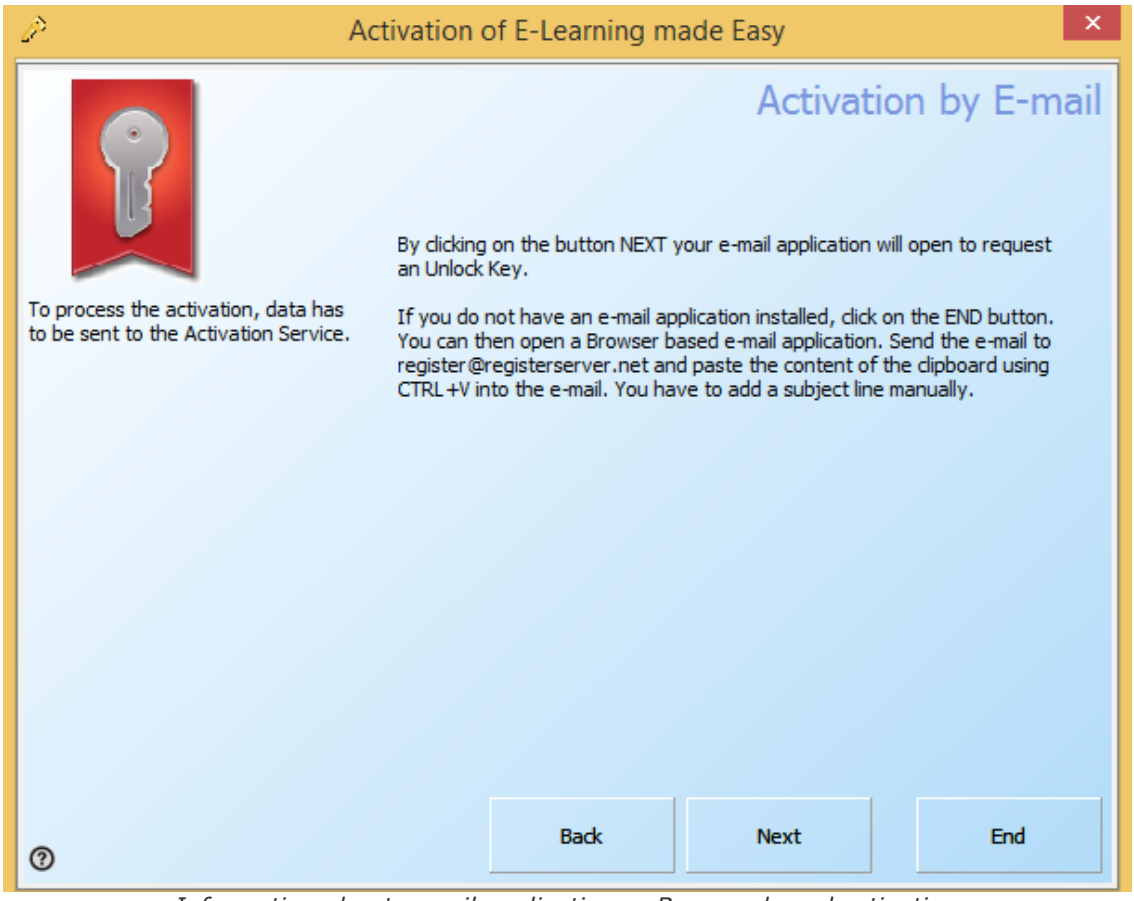

Information about e-mail application or Browser based activation

Request Unlock Key via E-Mail application

After clicking on the button ***Next***, the **default** e-mail client opens. An e-mail with the hardware IDs and license information will be created. Press **send** to send the e-mail to our activation center. You will get an **Unlock Key** back within 2-3 business days.

The e-mail also contains the data in an encrypted form, this allows an **automated response** using the E-Mail Activator Service 327.

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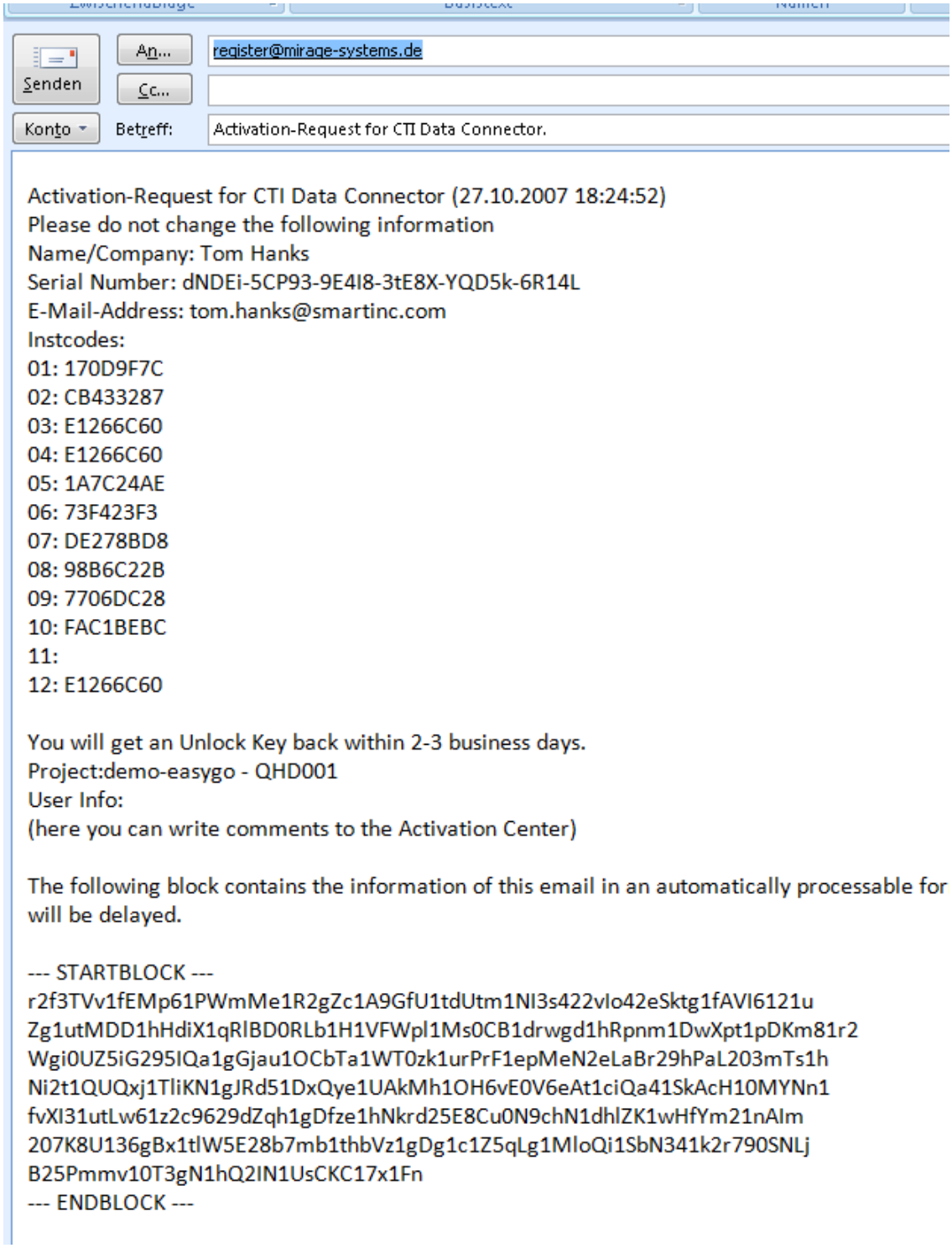

E-Mail Activation - send E-Mail

Activation in process

After the e-mail is sent or the e-mail application did not open, the screen: *activation in process* appears. In case the default e-mail client does not open, because a web e-mail

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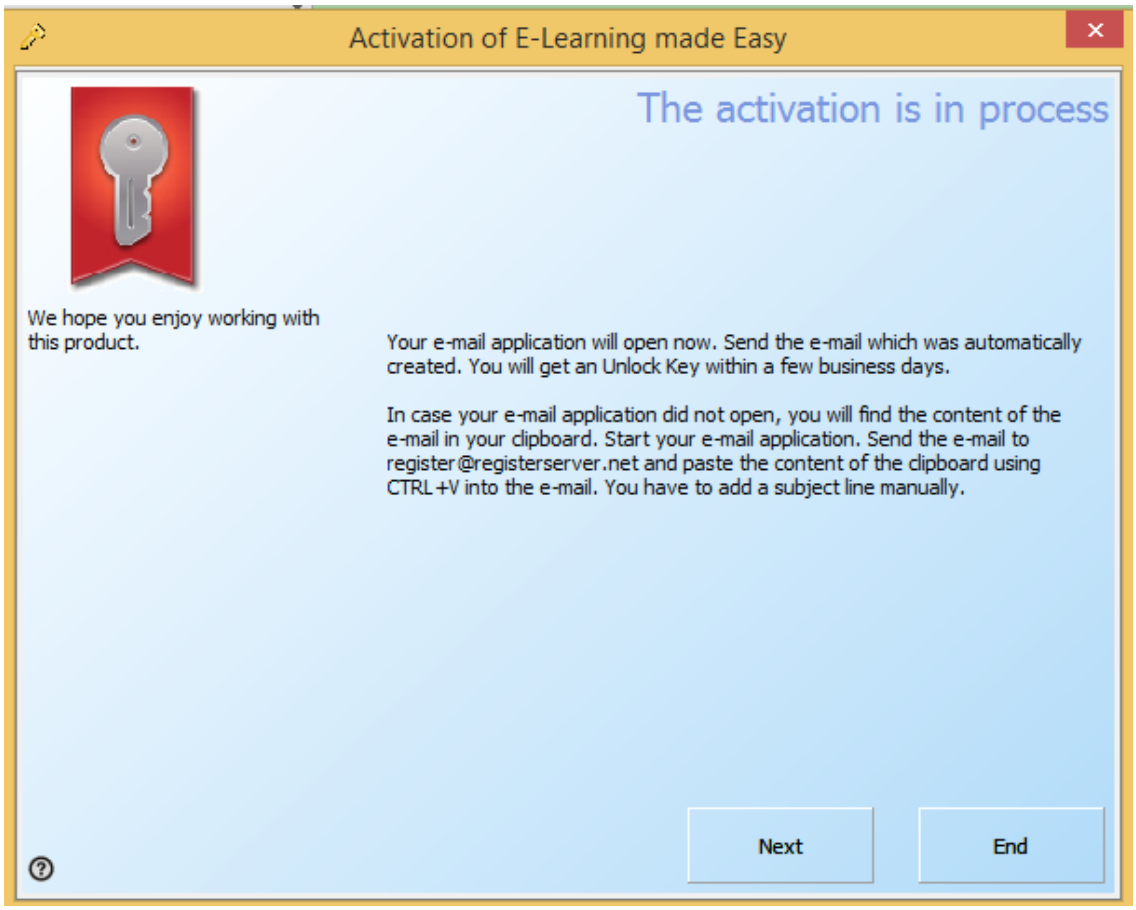
or Lotus Notes is used, the user gets the information, that he can **copy and paste the e-mail content** in his e-mail system.



E-Mail - activation in process

Create Unlock Key

There are multiple options to create an Unlock Key - Overview 320

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Enter Unlock Key

After requesting the Unlock Key by e-mail, the screen shown below will appear during each start of the program. Type in the Unlock Key you got back by e-mail or fax. Press the button *Next.* If the Activation is successful, the screen *Activation finished* 251 is displayed.

Enter Unlock Key

Source Code Settings

This activation option is defined with the parameters RegisterBye-mail 119 and e-mail_Address, e-mail_Fax_Text

See also option: UseMapi 817

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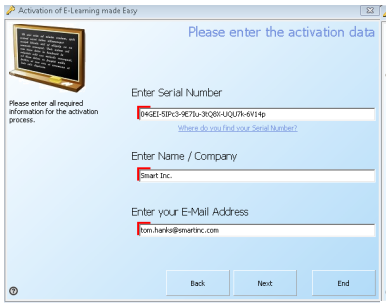
7.10 Activation by Fax

The Fax Activation needs the Serial Number 301, company name and your e-mail address. See details of the workflow 593.

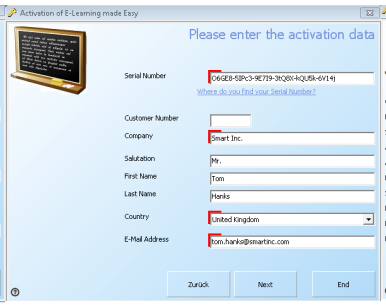
- Screens - Activation by Fax

Enter activation data

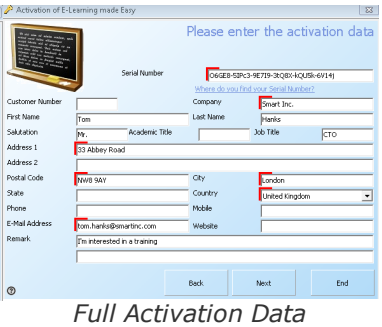
The user first gets a screen to type in the Serial Number, name and depending on the settings for the required activation data 229, more personal data.



Standard Activation Data



Basic Activation Data



Full Activation Data

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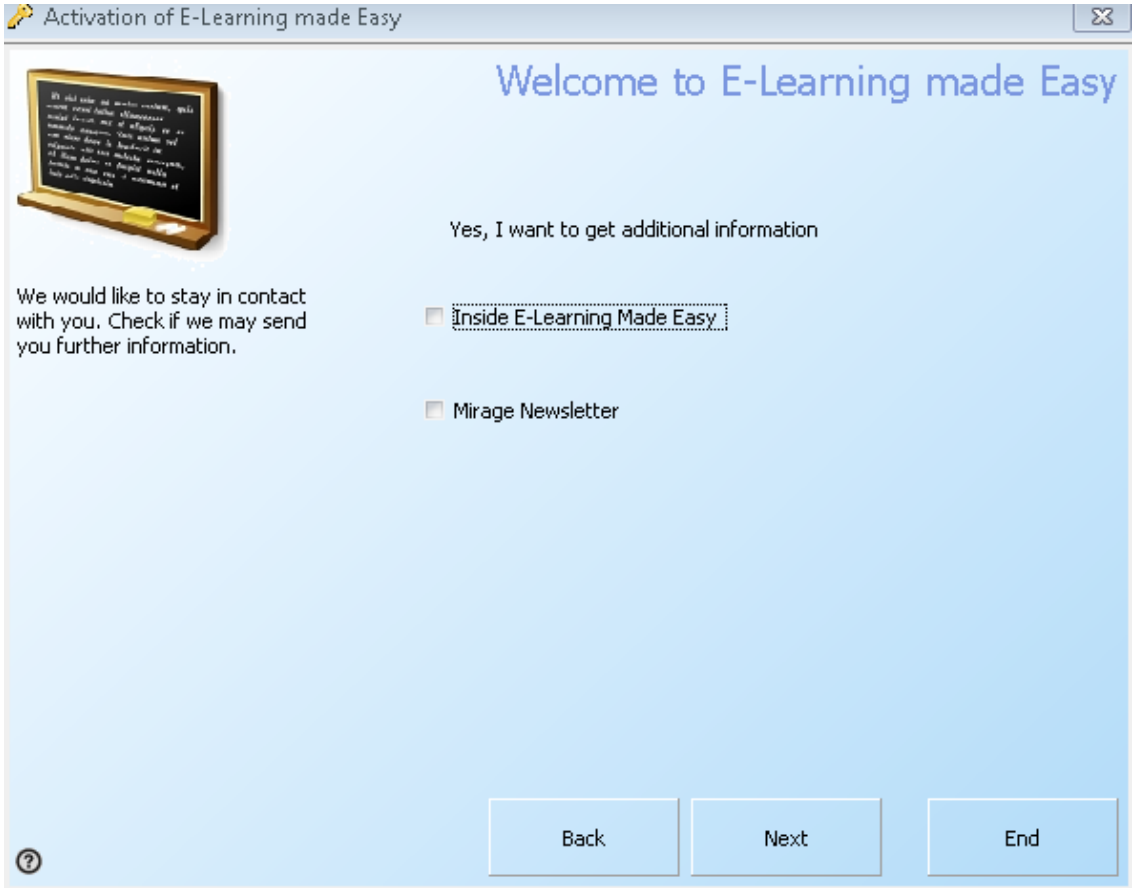

Newsletter

Request Unlock Key

After clicking on the button *Next* a PDF file (requires a PDF reader to view) opens with the hardware IDs and license information. Press **print** to print the report and then fax it to the number provided in the report. You will get an **Unlock Key** back within 2-3 business days.

The fax also contains the data in an encrypted form. This will allow an automatic response and activation in a future version of Licence Protector 5.

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27.10.2007

Fax-Registration for CTI Data Connector

Send this fax to +49 (0)721/151599638

```
Name/Company:  Tom Hanks

Serial Number: dNDEi-5CP93-9E4I8-3tE8X-YQD5k-6R14L

In block 3 at position 4 there is the capital letter I

E-Mail-Address: tom.hanks@smartinc.com

Instcodes:
01: 170D9F7C          02: CB433287
03: E1266C60          04: E1266C60
05: 1A7C24AE          06: 73F423F3
07: DE278BD8          08: 98B6C22B
09: 7706DC28          10: FAC1BEBC
11:                   12: E1266C60


You will get an Unlock Key back within 2-3 business
days.
Project: demo-easygo - QHD001

The following block contains the information of this
fax in an automatically processable form. %0D%0A---
STARTBLOCK ---%0D%0Ar2f3TVv1fEMp61PWmMe1R2gZc1A9GfU1tdU
tm1NI3s422vIo42
eSktg1fAVI6121uZg1utMDD1hHdiX1qRlBD0RLb1H1VFWpl1Ms
0CB1drwgd1hRpnm1DwXpt1pDKm81r2WgiOUZ5iG295IQa1gGja
u1OCbTa1WT0zk1urPrF1epMeN2eLaBr29hPaL203mTs1hNi2t1
QUQxj1TliKN1gJRd51DxQye1UAkMh1OH6vE0V6eAt1ciQa41Sk
AcH10MYNn1fvXI31utLw61z2c9629dZqh1gDfze1hNkrd25E8C
u0N9chN1dh1ZK1wHfYm21nAIm207K8U136gBx1tlW5E28b7mb1
thbVz1gDg1c1Z5qLg1MloQi1SbN341k2r790SNLjB25Pmmv10T
3gN1hQ2IN1UsCKC17x1Fn%0D%0A--- ENDBLOCK ---
```

Fax Activation - Print Fax

Activation in process

After pressing the Next button, the screen: *activation in process* appears. In case the default e-mail client does not open, because a web e-mail or Lotus Notes is used, the user gets the information, that he can copy and paste the e-mail content in his e-mail system.

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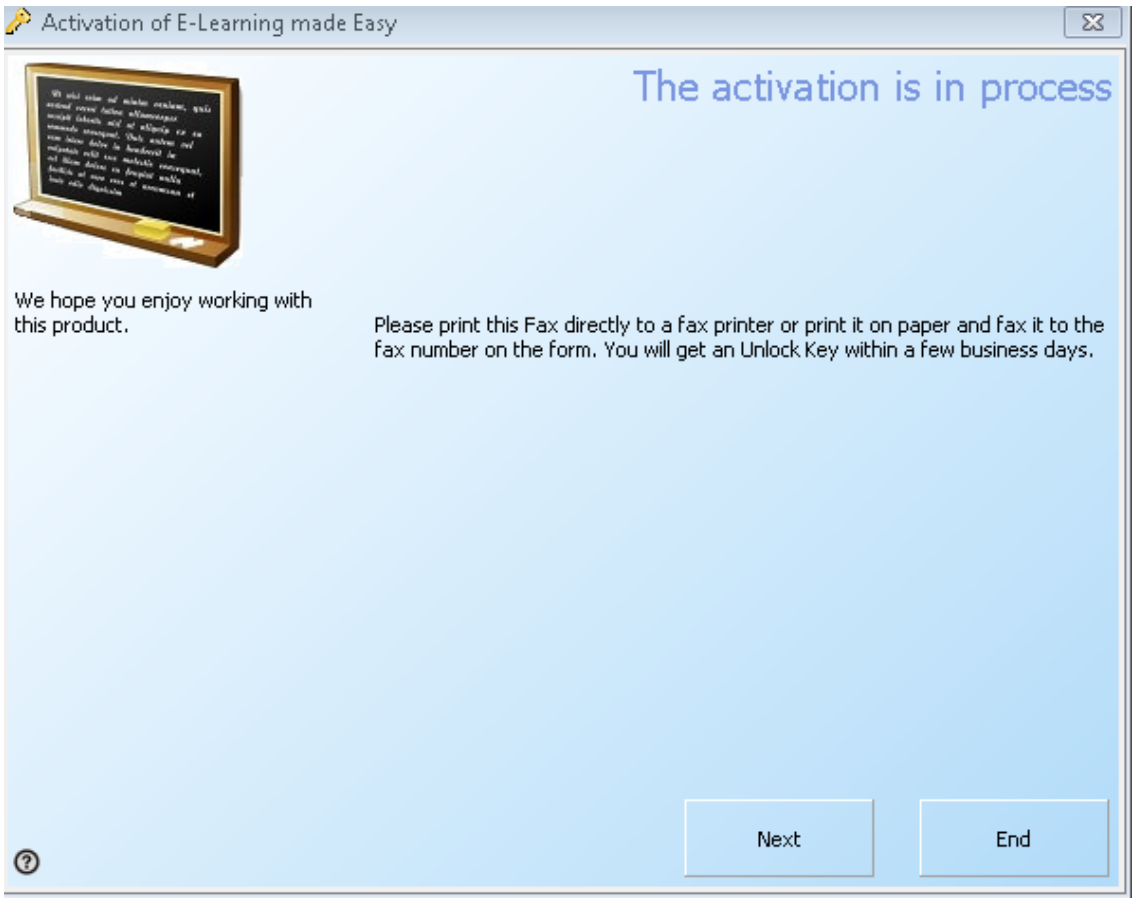

Fax - in process

Create Unlock Key

There are multiple options to create an Unlock Key - Overview 320

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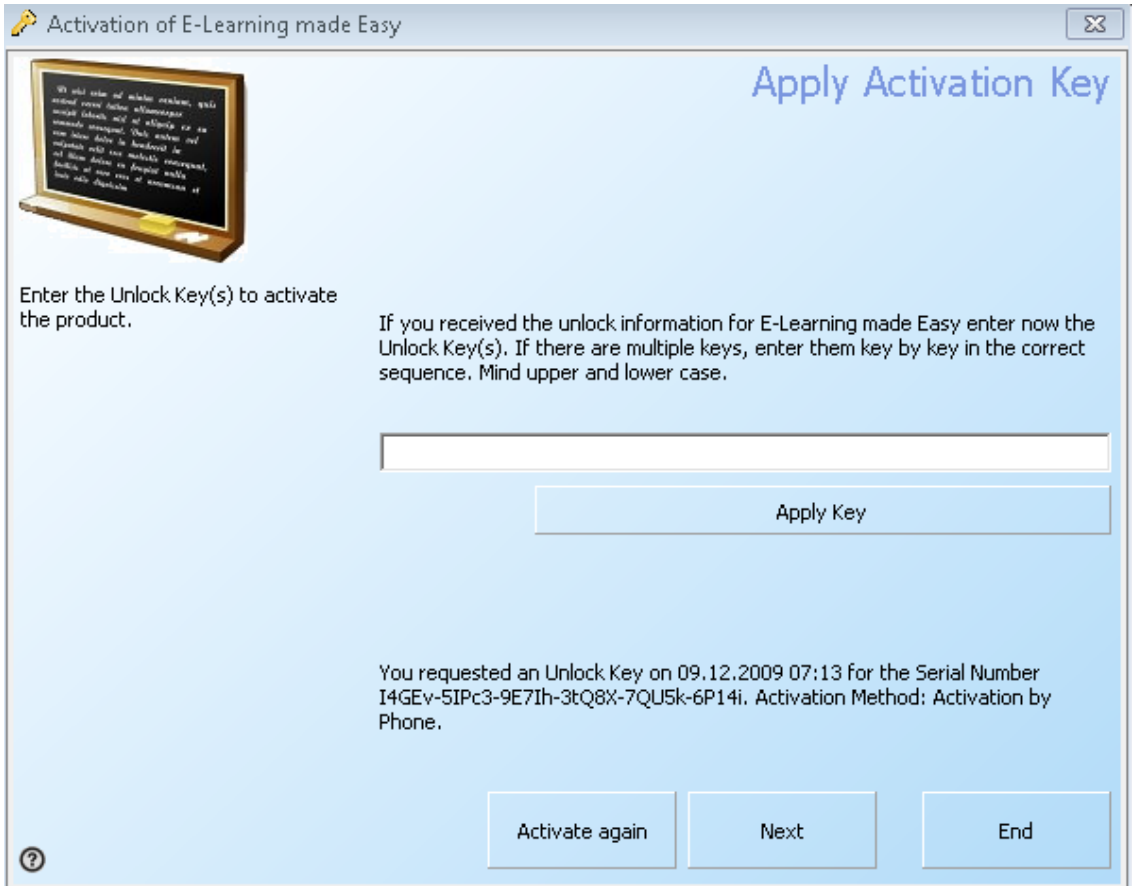
Enter Unlock Key

After requesting the Unlock Key by fax, the screen shown below will appear during each start of the program. Type in the Unlock Key you got back by e-mail or fax. Press the button *Next.* If the Activation is successful, the screen*Activation finished* 251 is displayed.



Enter Unlock Key

Source Code Settings

This activation option is defined with the parameters RegisterByFax 119 and Faxnumber, e-mail_Fax_Text

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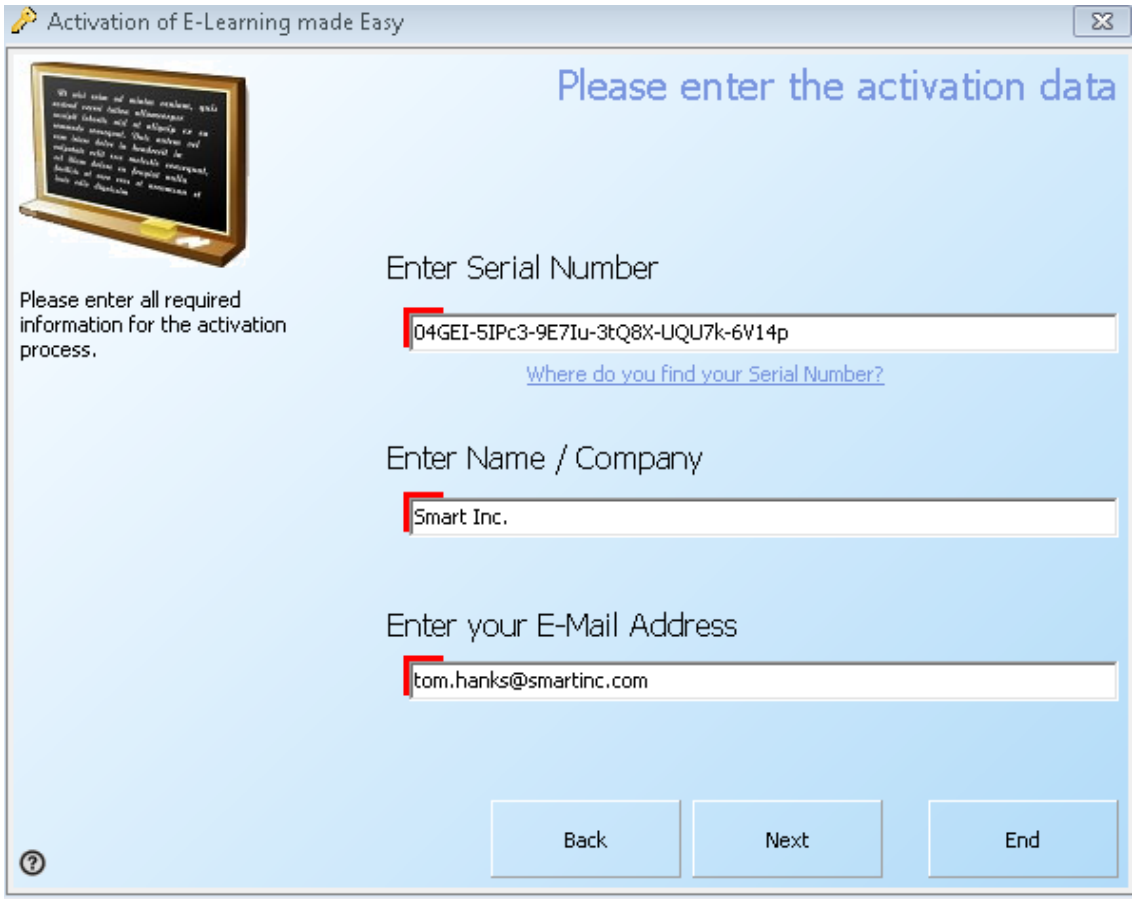
7.11 Activation by Phone

First of all, the activation by phone needs the Serial Number 301 and company name. Then press the button *Next.* See details of the workflow 593.

- *Screens - Activation by Phone*

Enter standard activation data

The user first gets a screen to type in the Serial Number, name and e-mail address. Additional activation data 229 is not available during the activation by phone.



Phone Activation - Step 1

Request Unlock Key

Now call the phone number which is displayed. You will then be asked for the **Serial Number** and **one or more Installation codes**. Press the Next button

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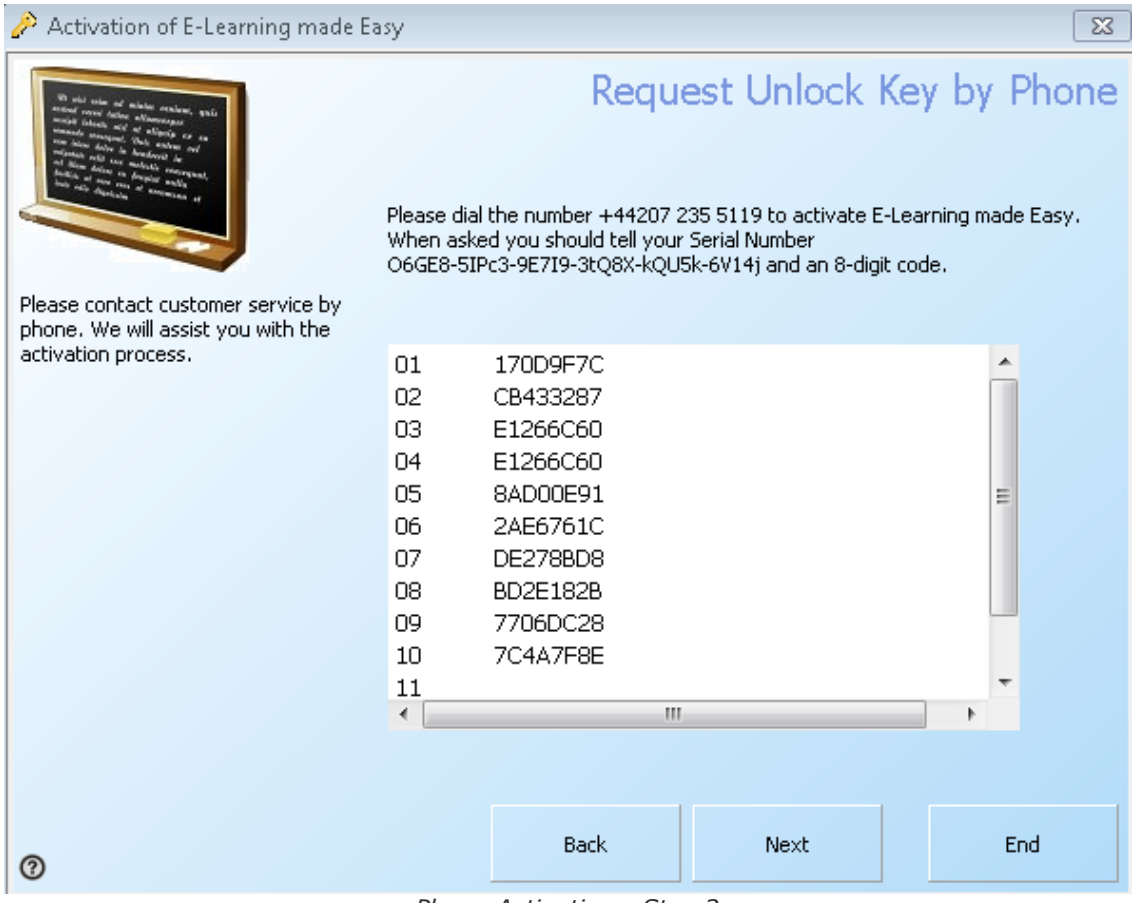

Phone Activation - Step 2

Create Unlock Key

There are multiple options to create an Unlock Key - Overview 320

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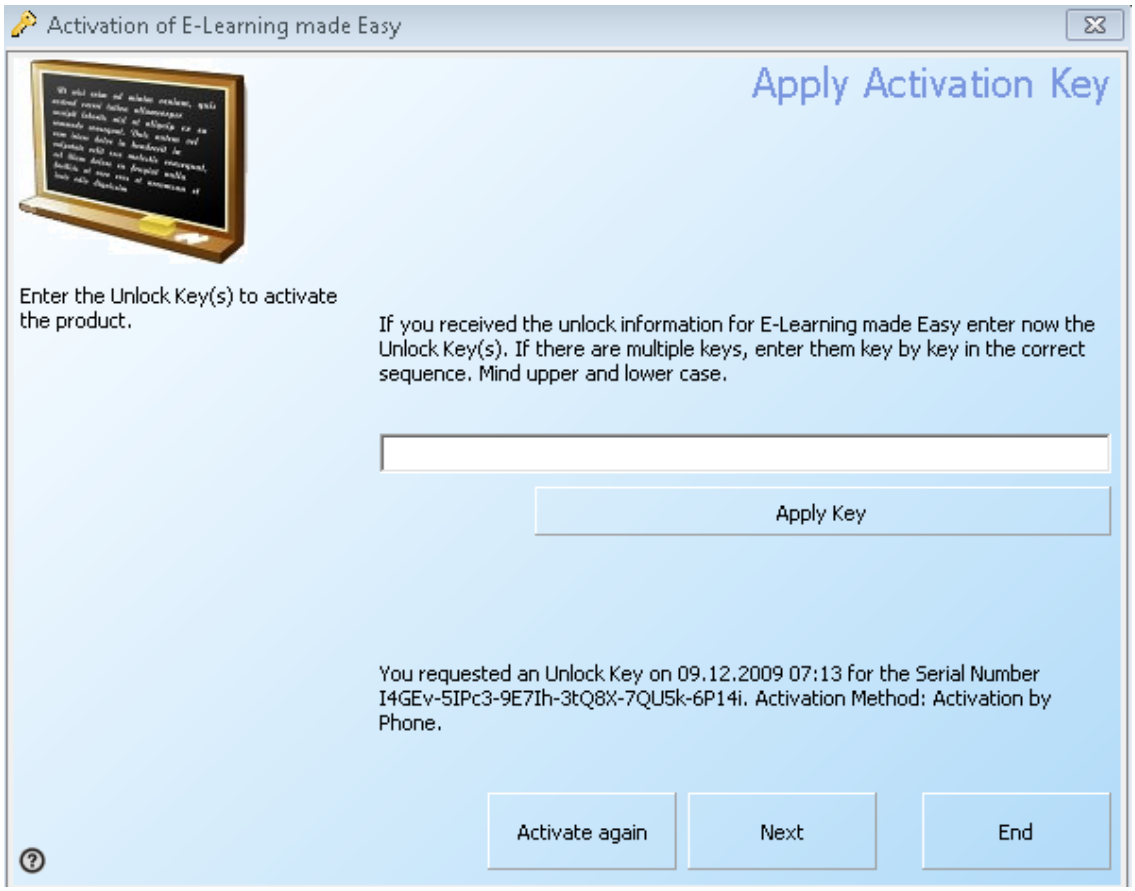
Enter Unlock Key



Enter Unlock Key

Type in the Unlock Key you get and press the button *Apply Key*. If you got multiple keys you can enter it now.

Source Code Settings

This activation option is defined with the parameters RegisterByPhone 120 and Phonenumber

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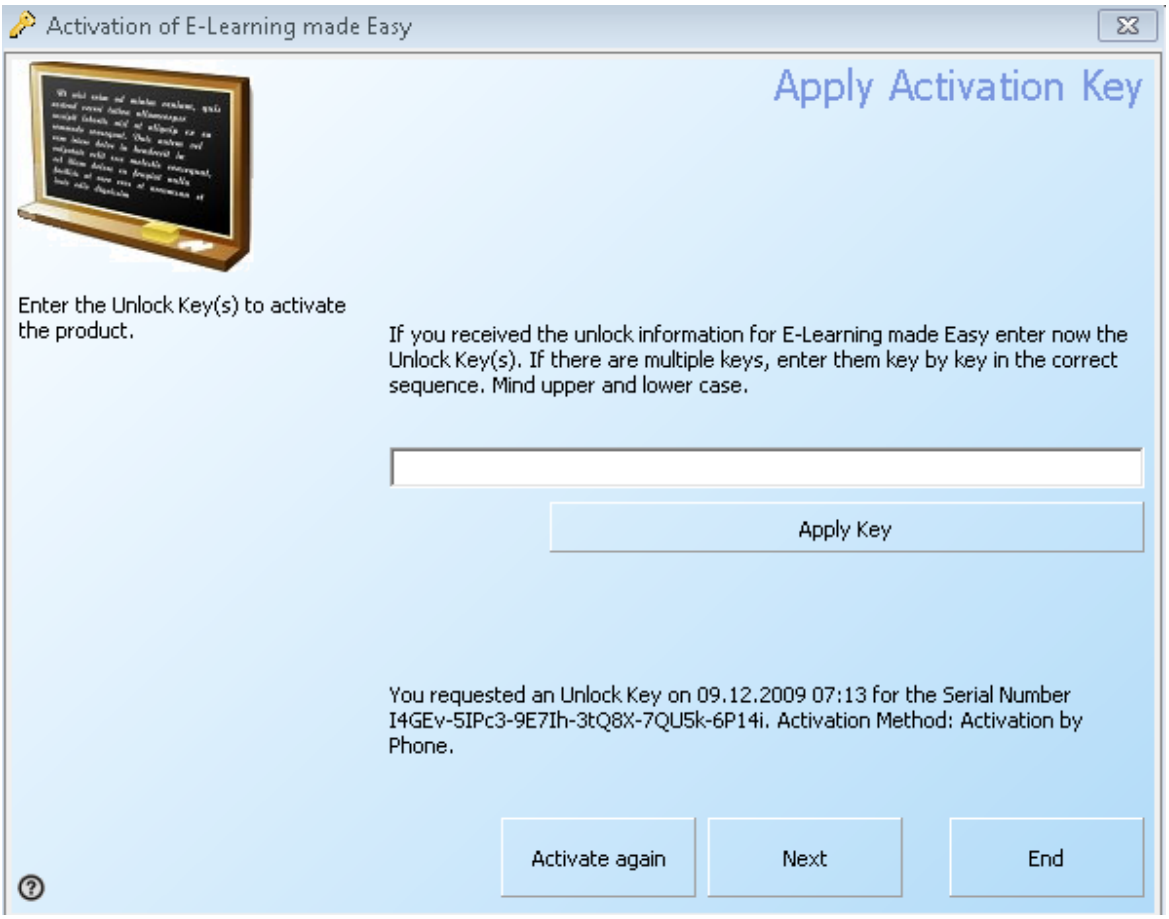
7.12 Enter Unlock Key

After requesting an unlock key via e-mail 237, fax 243 or phone 248 this screen appears with the next program start.

Typing in the unlock key activates the software copy protection. The user can type in only the Unlock Key or in case he got multiple keys with the order, he can type in all keys now.

The registration process is then completed. The screen: Activation Successful 251 is displayed.



7.13 Activation completed

Either after the Online Activation 232 screen or after entering the Unlock Key (see e-mail, 237 fax 243 or phone) 248, the final screen appears to signal that the activation was successful.

This screen allows to type in additional keys. This is a very useful feature as the user can not only type in the Serial Number but also additional Activation Keys for modules during the product activation process.

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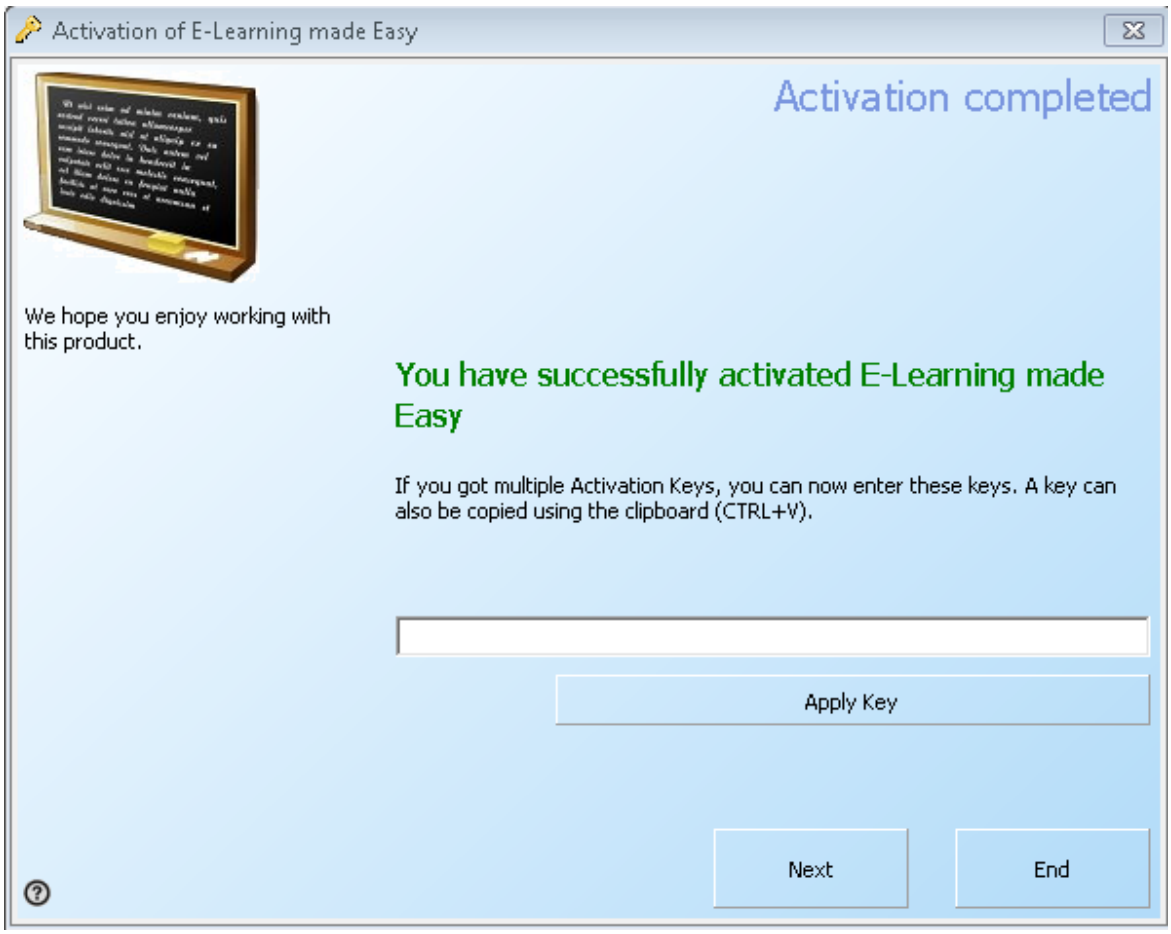

The screen can be changed or completely suppressed using the command [SetEasyGoProperty.](#) 140

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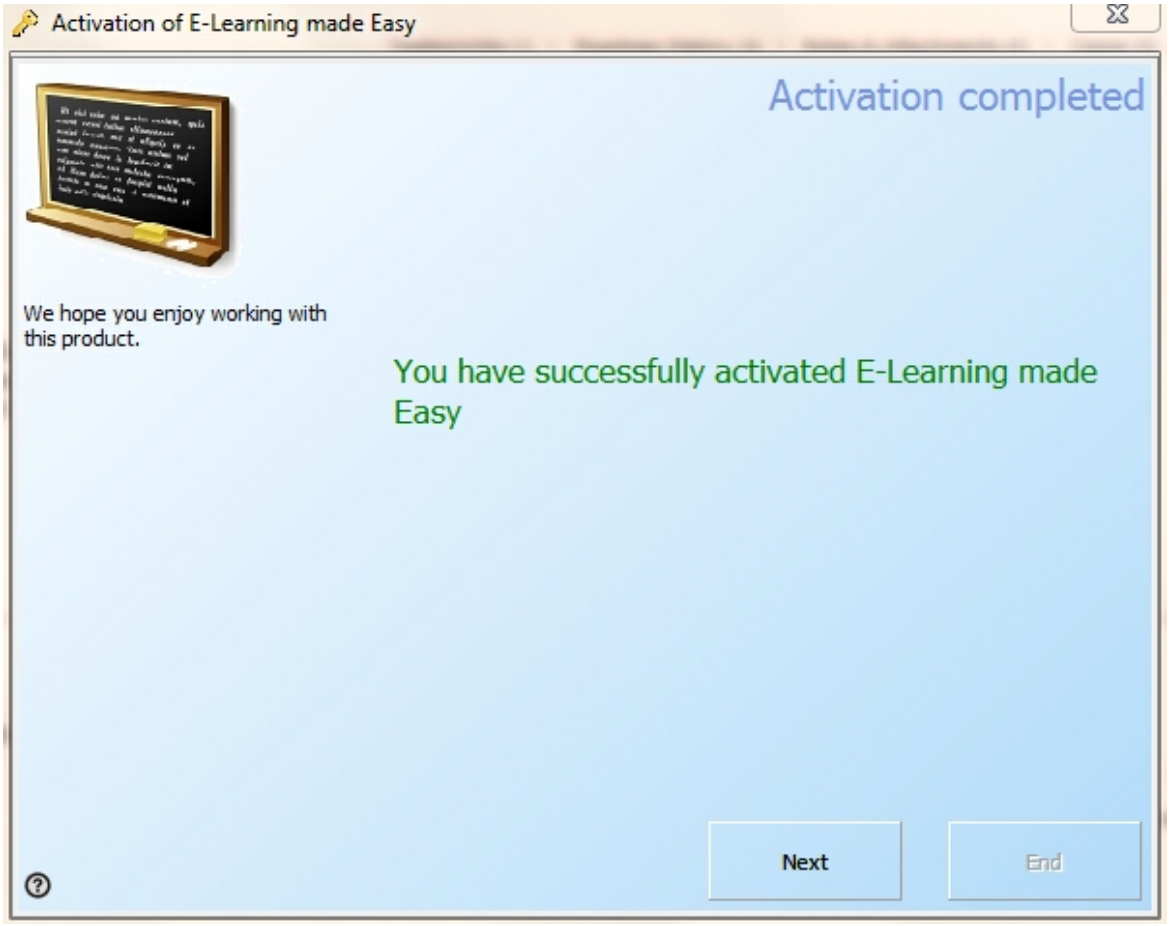

7.14 Evaluation version - expired

If the Serial Number is not entered until the end of the evaluation period, a special message screen with a link AND a button to buy is displayed. It is not possible to continue without activating the product.

Evaluation Screen expired and no Serial Number Key was applied

This screen appears if the trial period expires and no Serial Number Key has been applied.

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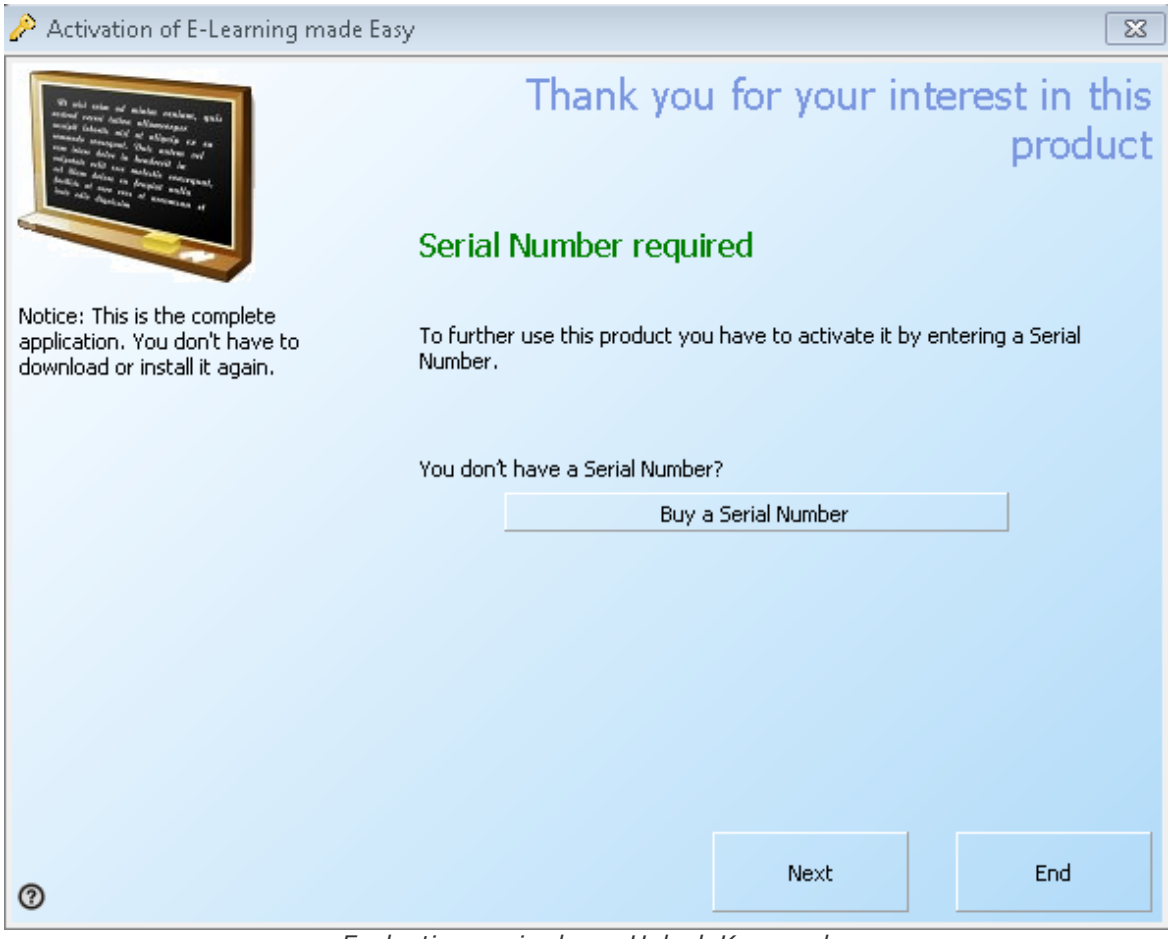

Evaluation expired - no Unlock Key used

Evaluation Screen expired after an Unlock Key was requested by e-mail or Fax

This screen appears if the trial period expires and an unlock key was requested by e-mail 237 or Fax 243

First the screen to enter the Unlock Key 251 appears.

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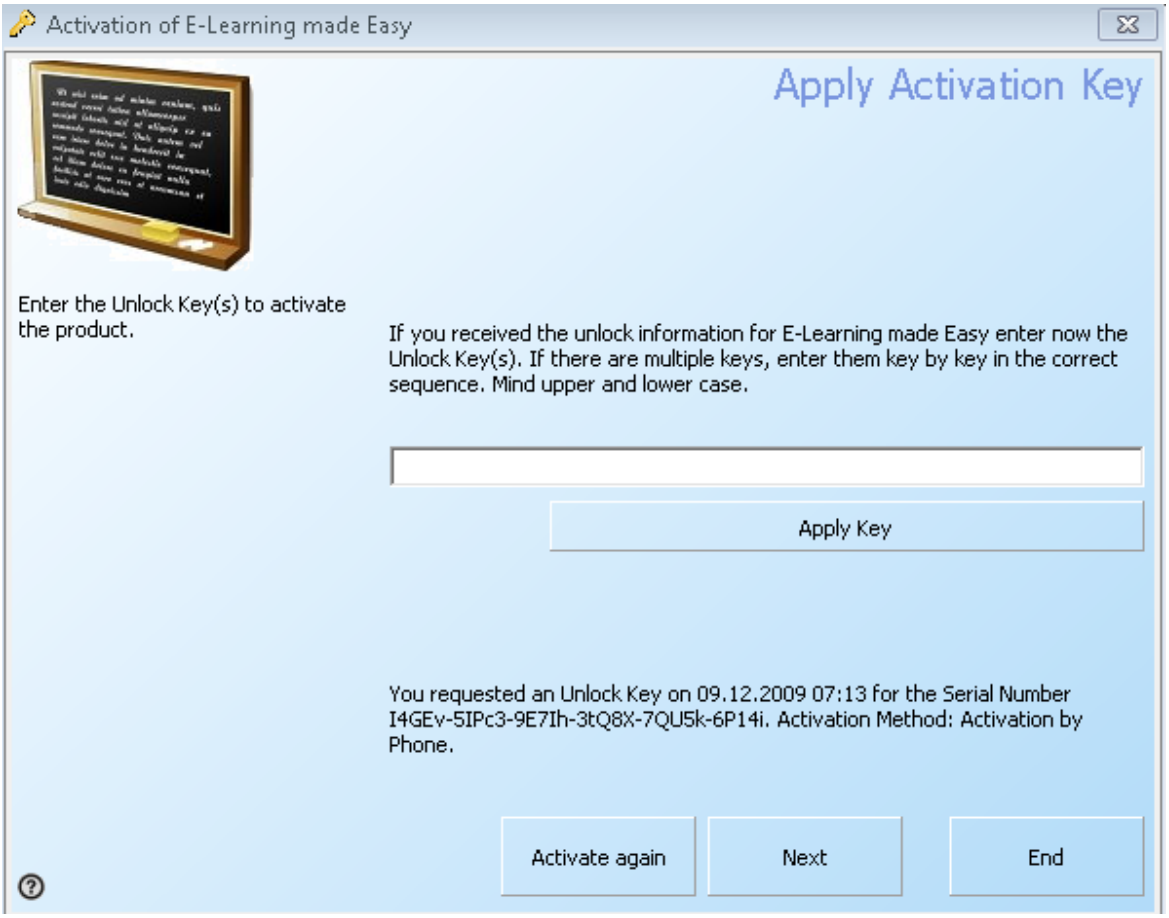

Evaluation expired - enter Unlock Key

If the Unlock Key is not applied, then the next screen appears to indicate, that the version has expired.

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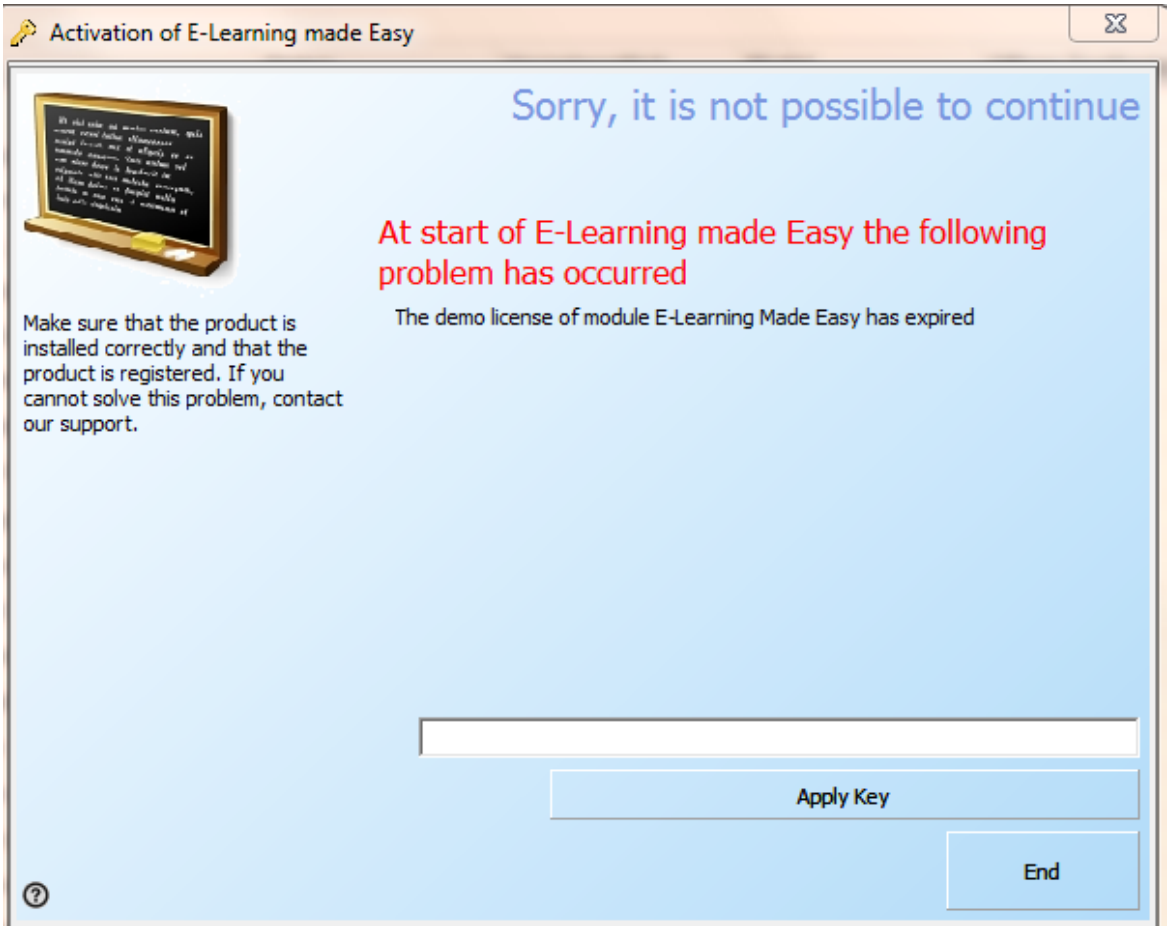

Evaluation expired - Unlock Key is missing

- The error code is 16 636 or 17 636

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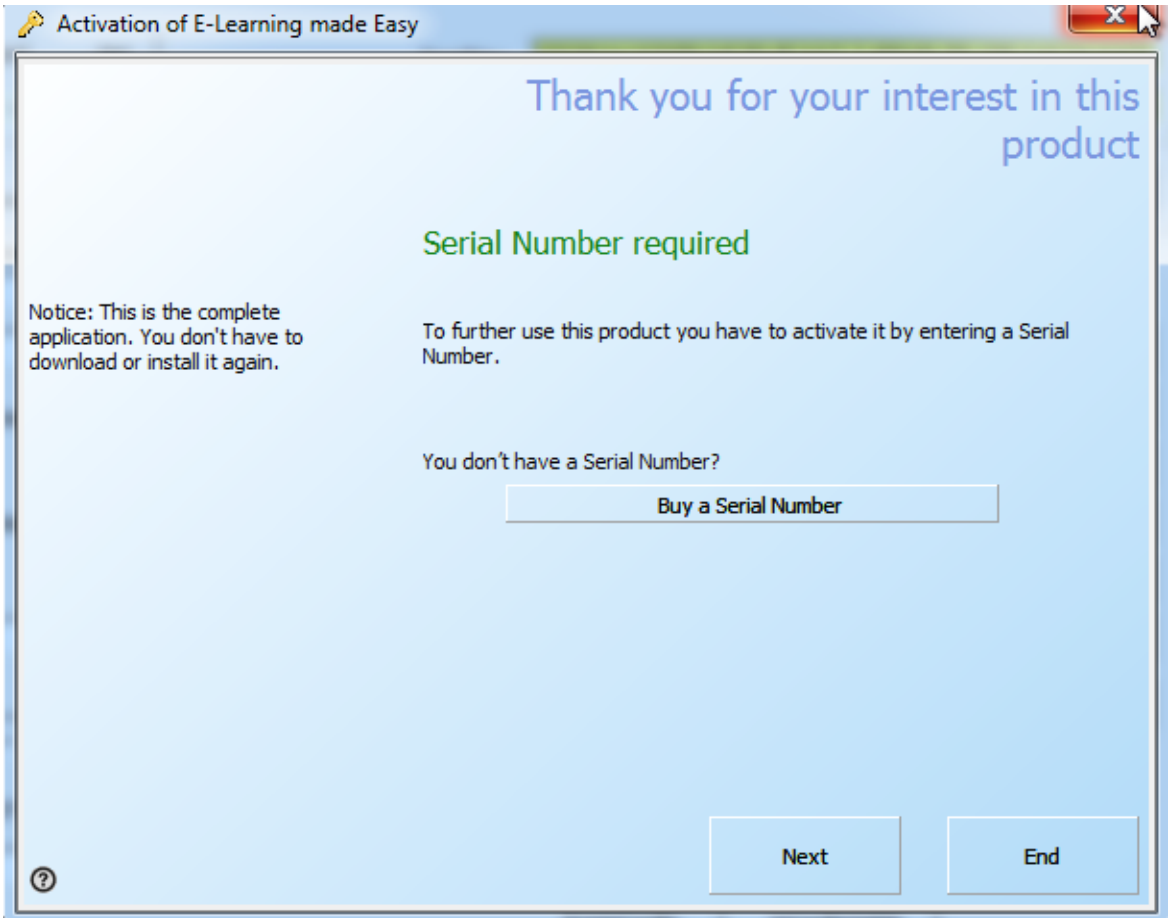
7.15 Full version - expired

If the workflow is set to a time limited full version - see workflow options 150, the following screen appears after the expiry date is reached.



You can send out a new Serial Number to set a new expiry date

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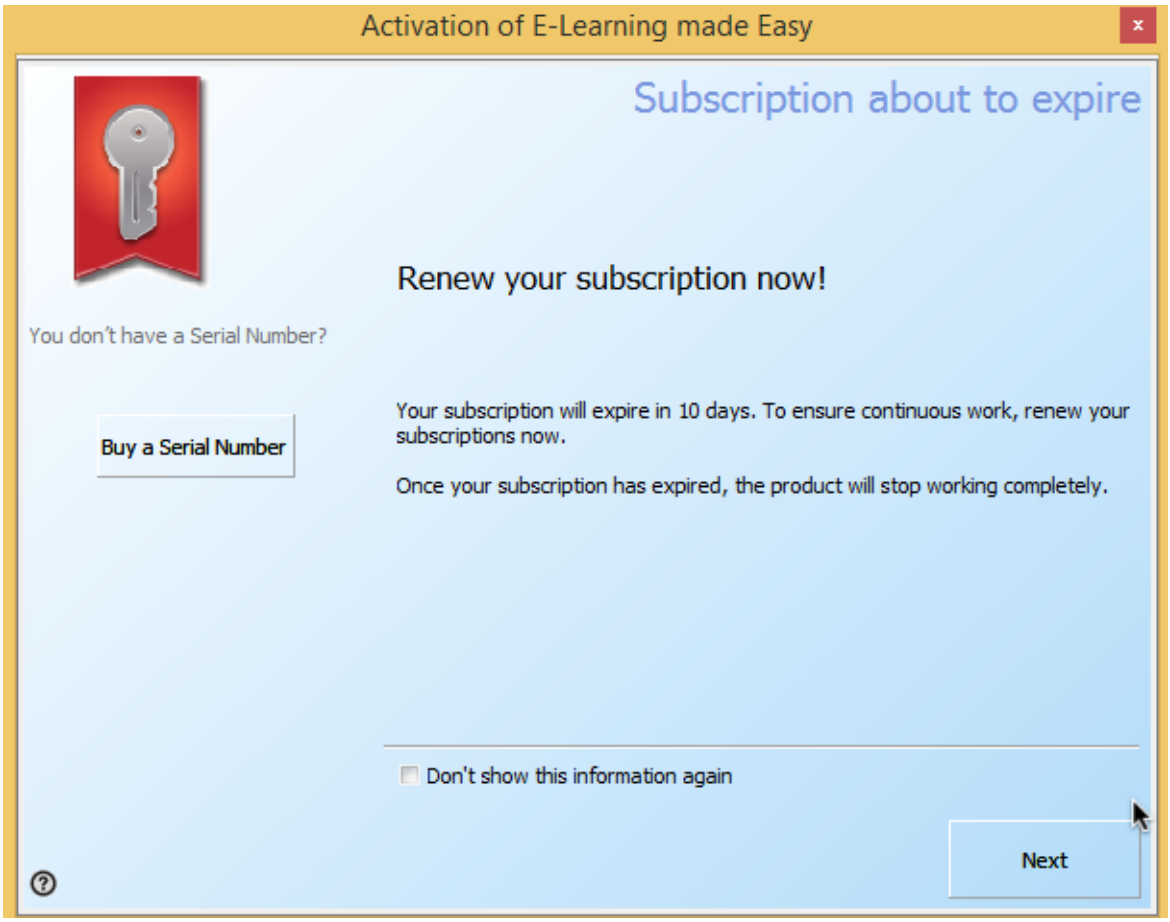
7.16 Event based message

Event based messages, specified with the command SetRegisterExpiryWarning 778.



7.17 License Viewer

The License Viewer is the built in administration tool, which can be accessed from any screen during the activation and registration process with the link *Show license Information*.

How to invoke the Viewer within your application and more details see License Viewer 281.

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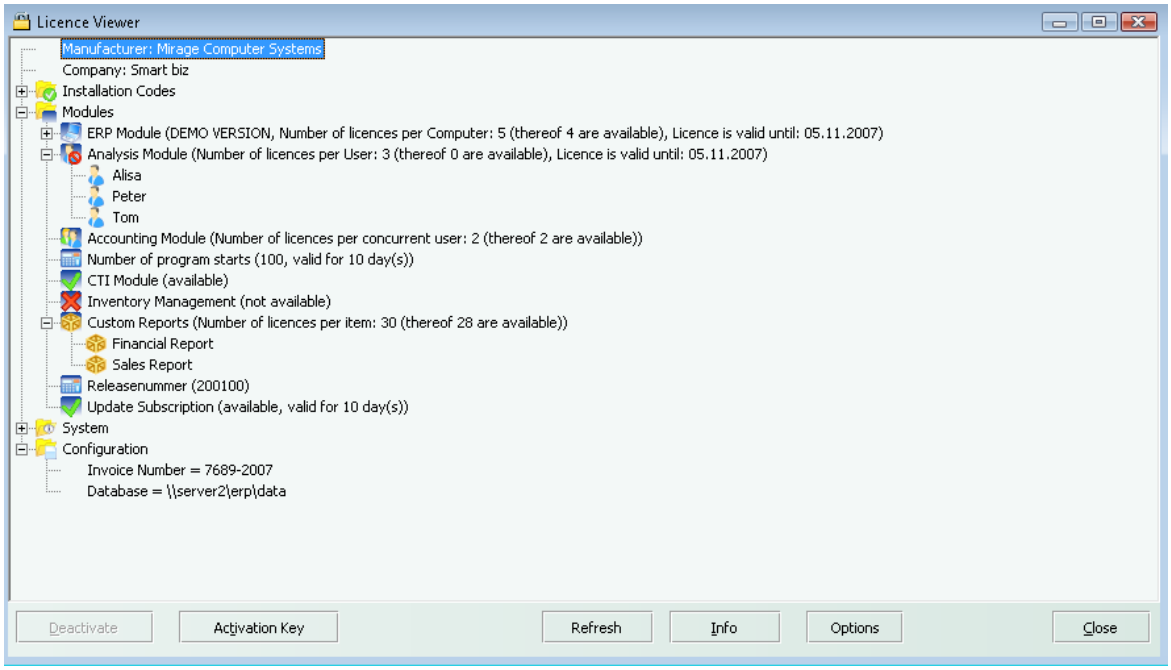

7.18 Online Help für License Screens

If you specify a help URL 120 with SetRegisterSettings 116, a Help Icon is displayed. The link should direct to a website which offers help during the registration process. You could also invoke a local file - e.g. PDF file.

We provide a generic help for the registration process at **http://www.helpserver.biz/onlinehelp/lp/easygo/5.0/activationhelp/index.html**. It also includes a Video Tutorial for the product activation. You can alternatively use your own online help. You are welcome to copy the text and modify it to your needs.

A link to a website must begin with http:// and not with www.

Correct link: http://www.mirage-systems.de
Wrong link: www.mirage-systems.de

This can also be a link to an HTML file or PDF file on the local hard disk

The Video Tutorial offers a live demonstration of each activation method.

Start Video Tutorial

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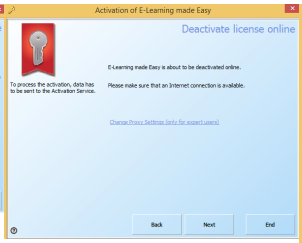
7.19 License Transfer

The license transfer includes several screens

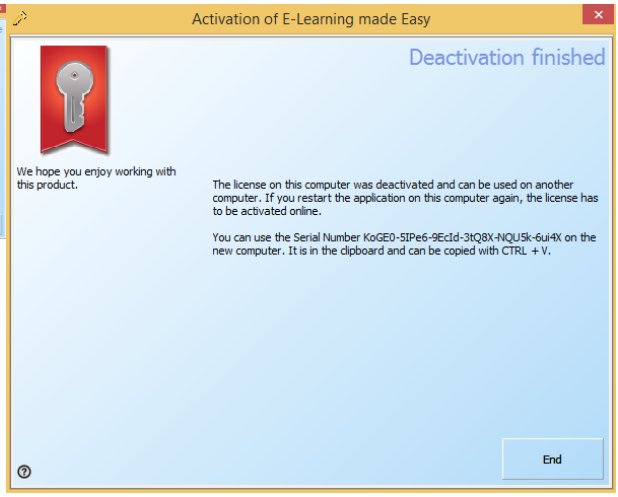
PC A - select license transfer

If the PC A selects the transfer license option, the following screen is displayed

License Transfer - Start



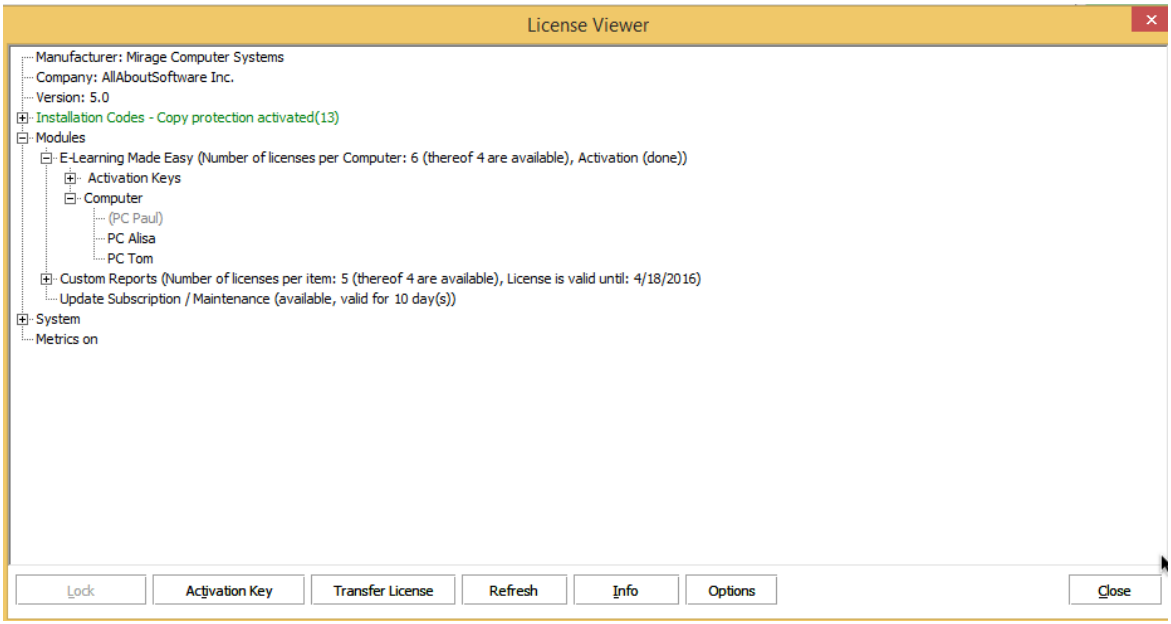
Change Proxy Settings



License is deactivated

There **Serial Number is displayed on the screen and copied into the clipboard**.

The license is now deactivated on PC A. There is a new info: License is locked to indicate, that the license is locked on this machine.



License Viewer - license is locked

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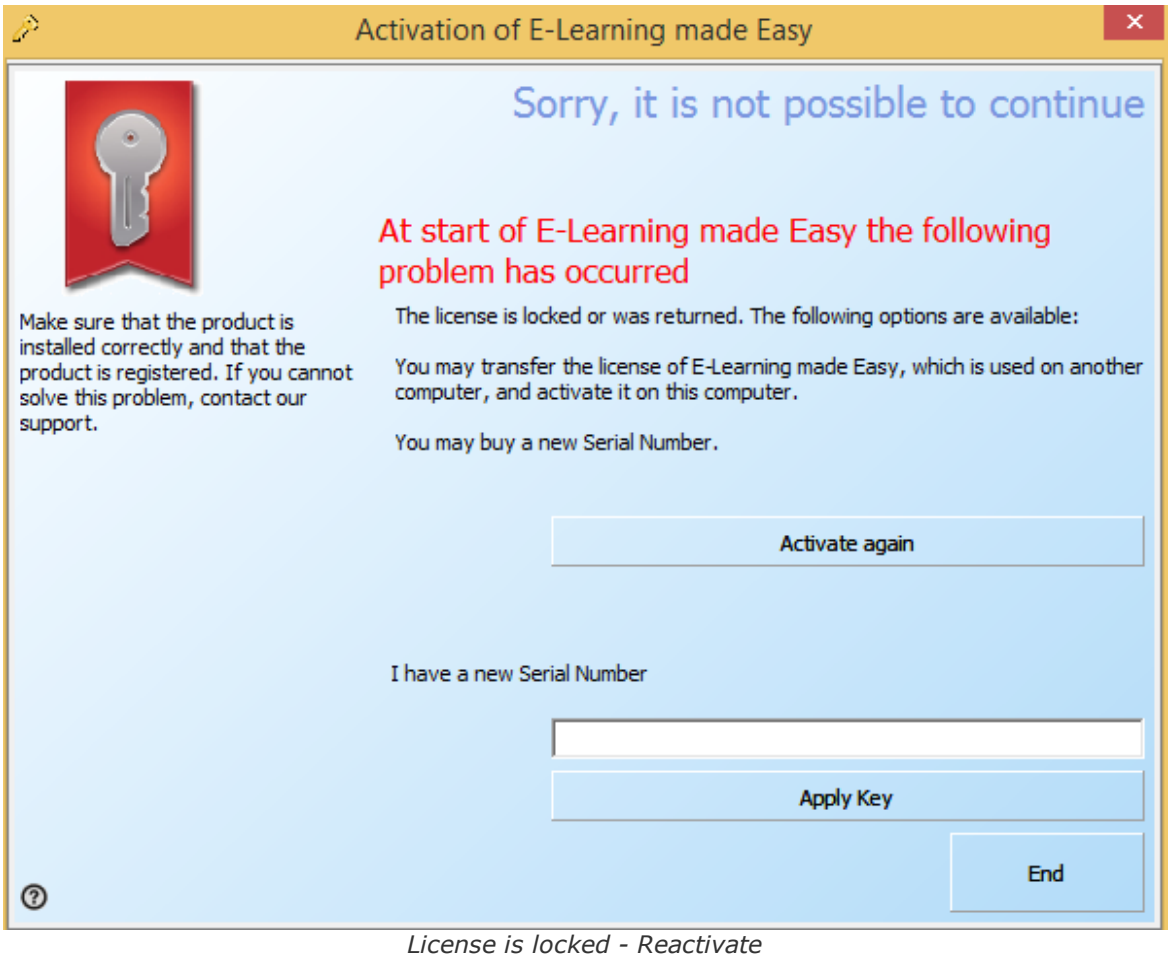
PC A - starts the application again

If the PC A starts the application again a message is displayed that either:

- The user deactivates the license on PC B
- The user buys a new Serial Number
- The user tries to reactivate the license. In case the Serial Number was not used on another PC the license will be reassigned to PC A



License is locked - Reactivate

In case the Serial Number was already used on another PC the user gets an error message.

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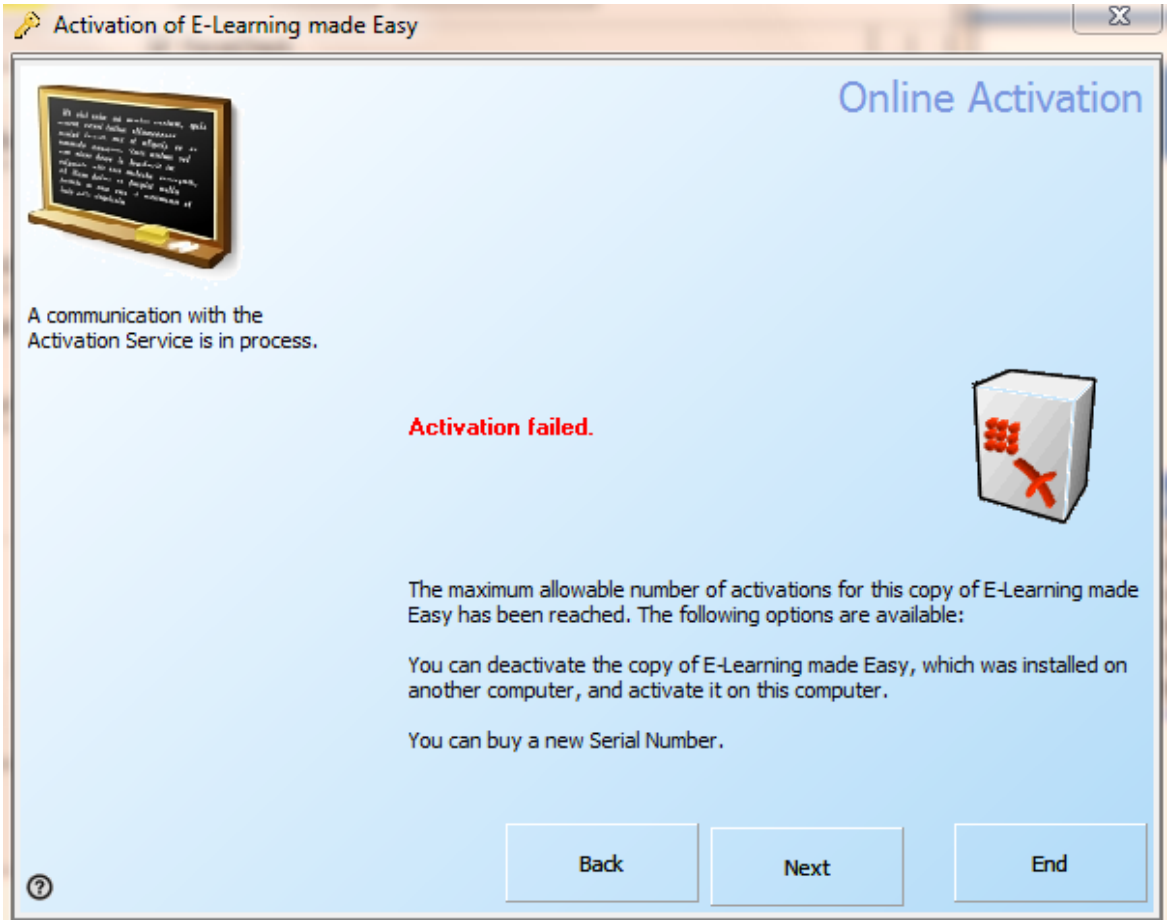

License locked and reactivation not possible

PC B - starts the application

If PC A transferred the license then PC B can used the same Serial Number and activate the product. PC B could also transfer the license back to PC A.

7.20 Covering problems - Error Messages

During program start, typical problems and error situations are tracked. Most common errors are:

- Copy Protection Violation / Reactivation 264
- Evaluation Period Expired 253
- License / Module is deactivated / Reactivation 265
- Online Activation - wrong date/time 269
- Network license deactivated 270
- No free license available 272

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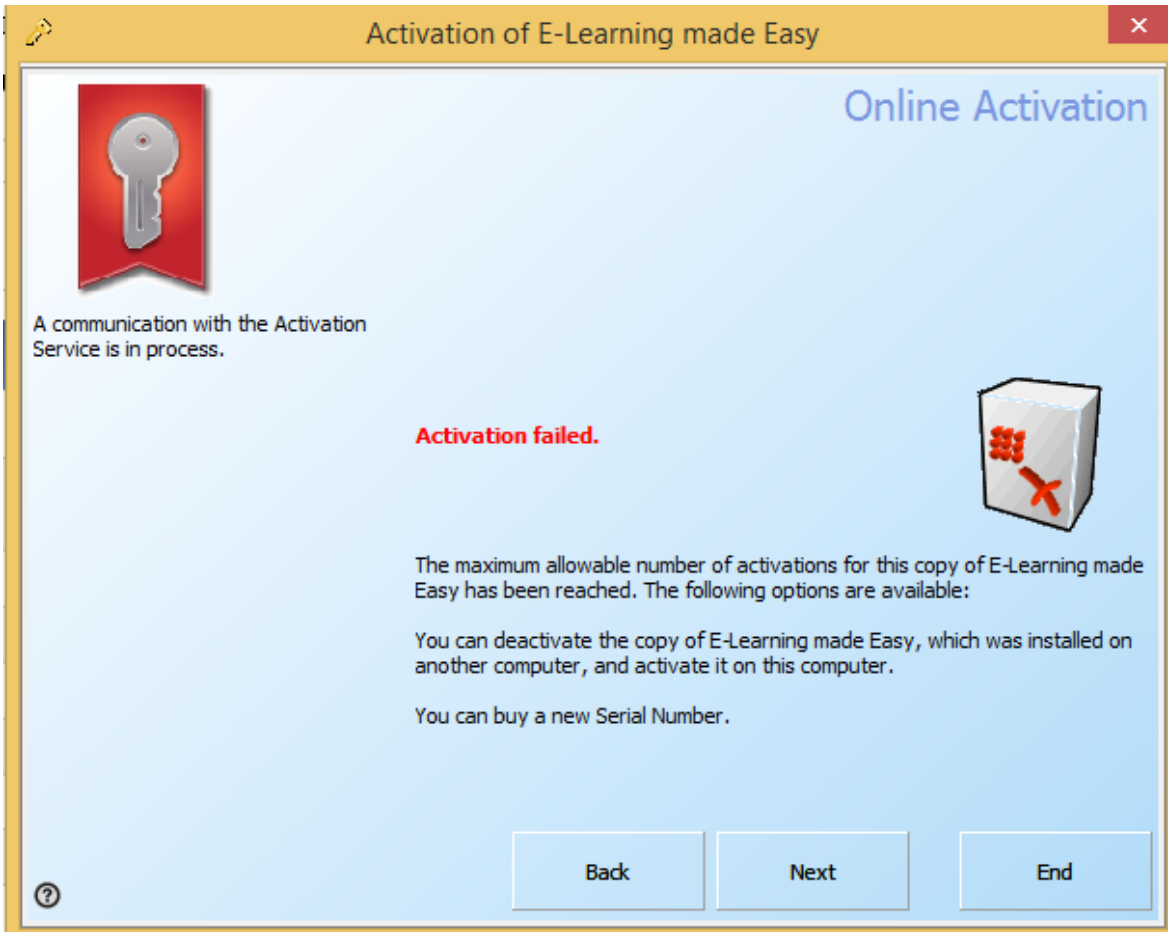
- No Internet connection 272
- System date was tampered 275
- Wrong license file 276

7.20.1 Activation failed - Serial Number already in use

If a Serial Number is used, which was already used on another PC for a successful product activation, this the following error message appears.



License locked and reactivation not possible

The ***Next*** button allows using a new Serial Number and displays the screen to select the activation method 228.

If the ***END*** button is used and the application is restarted, the screen to enter an Unlock Key 251 appears, where the user also can select to reactivate the application with a new Serial Number.

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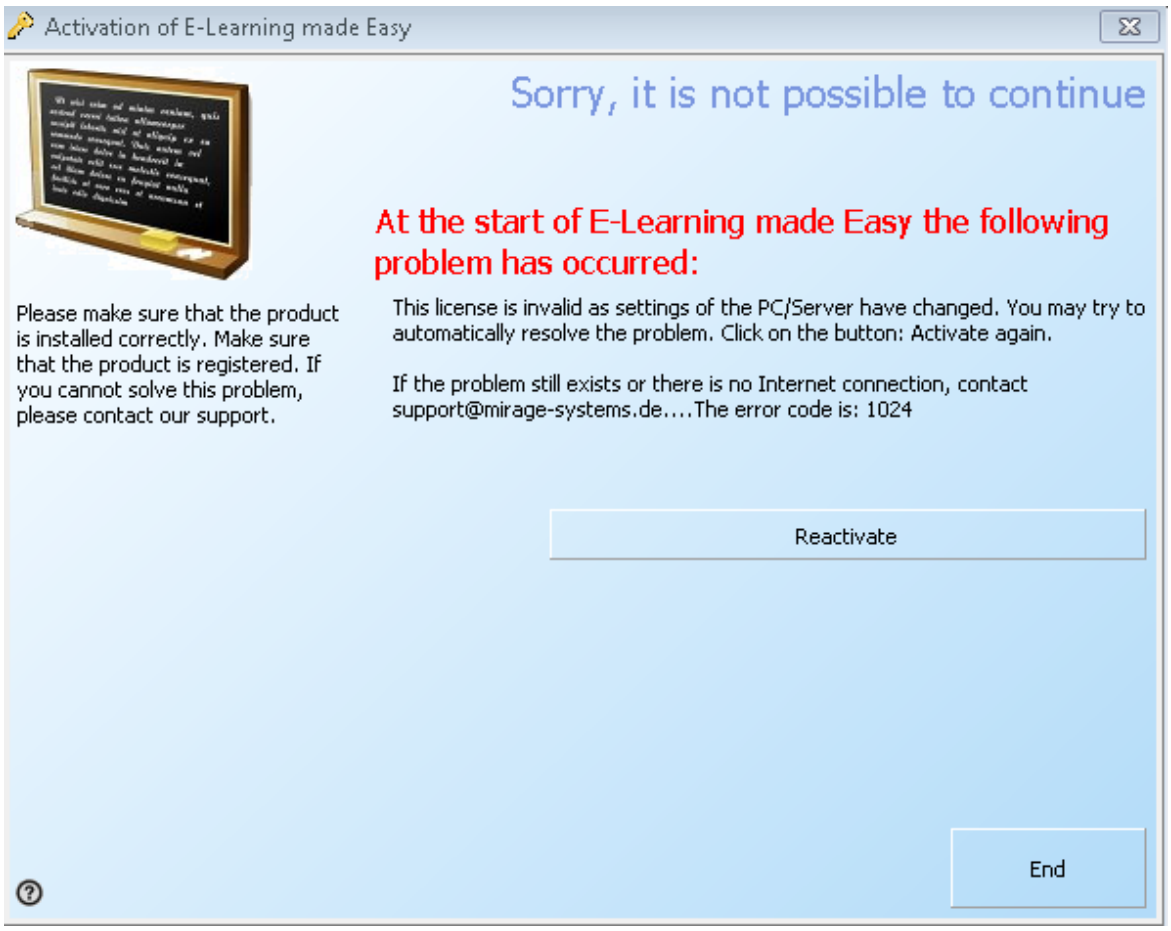
7.20.2 Copy Protection Violation / Reactivation

If the license file is copied to another PC or the hardware of the PC changed, then a copy protection 67 error occurs It is not possible to continue.



It is possible to try a reactivation. This covers the situation when a user has changed hardware settings. The next step is to Select the activation method 228 and then try to reactivate. See details - Reactivation after copy protection violation 454. Ensure that the configuration on the Activation Server 6 is set to allow reactivation.

Source Code Settings
The following configuration settings are configured with the command **SetRegisterSettings** 121:

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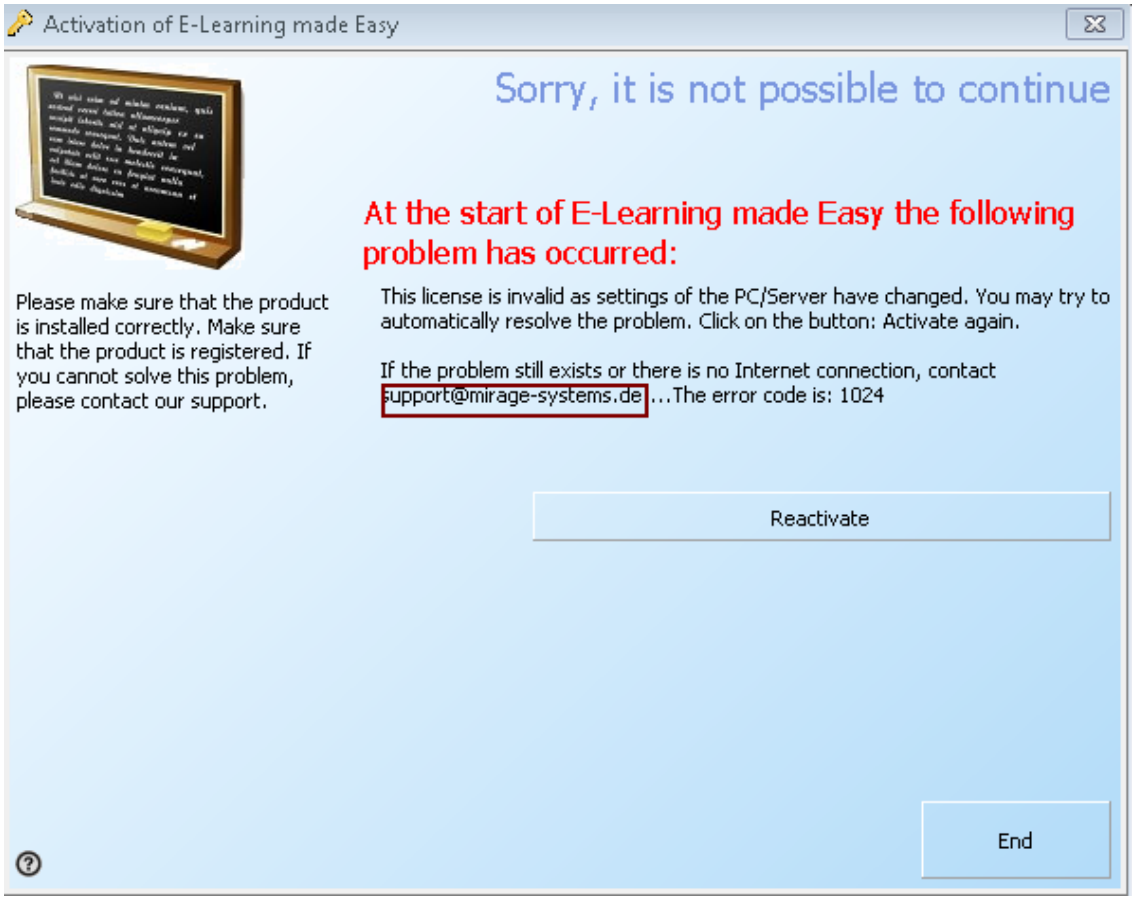
- ContactAddress - display e-mail or phone number in the error screen.



Error code: 1024 635

7.20.3 License deactivated / reactivate license

If a license or module was deactivated, because it was transferred to another PC, this is indicated on the module level with the icon . If the main module 203 was deactivated, then the complete license is deactivated and a program start results in an error.

The same situation would occur if a license was locked on the Activation Server 6 - see lock or revoke a license 541

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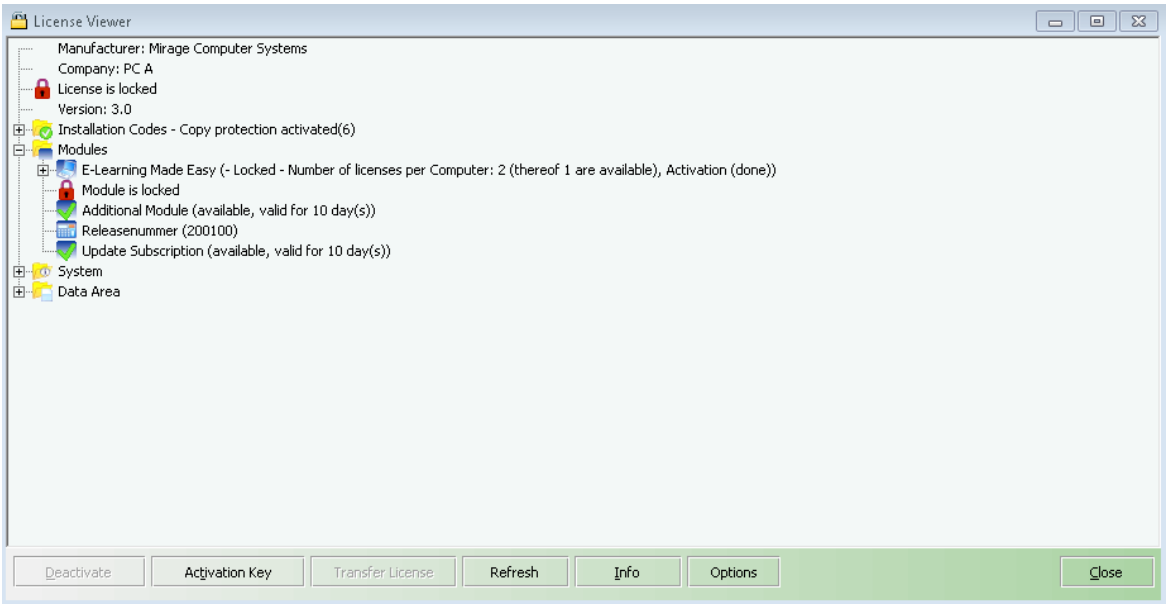

License Viewer - license is locked

Program start - license is locked

If a user starts the application again after the license was already transferred or locked on the Activation Server 6, an error screen appears.

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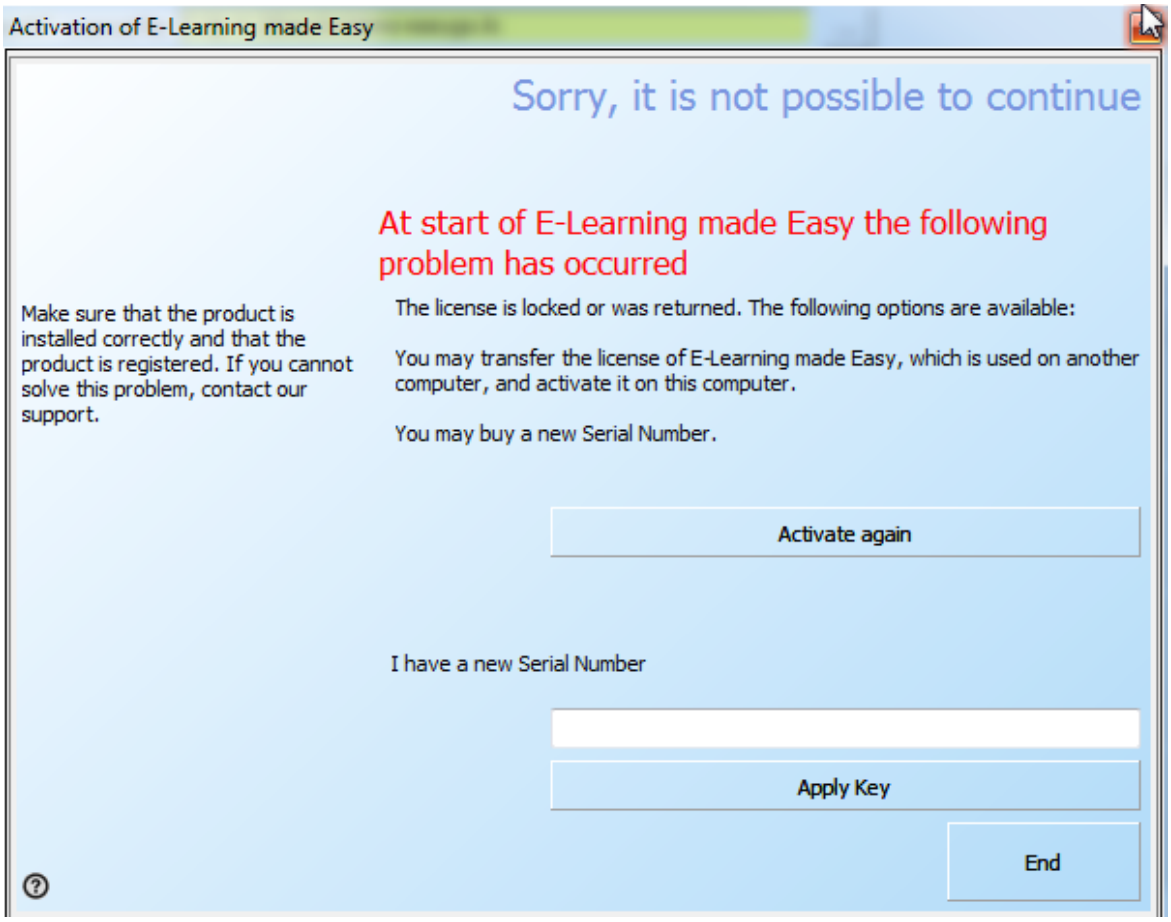

- The user can now try to reactivate the license (button Activate again). **This requires an online connection**. If it is not in use by another PC or the license lock was removed on the server, the license is reactivated.
- The user can also type in a **new Serial Number**

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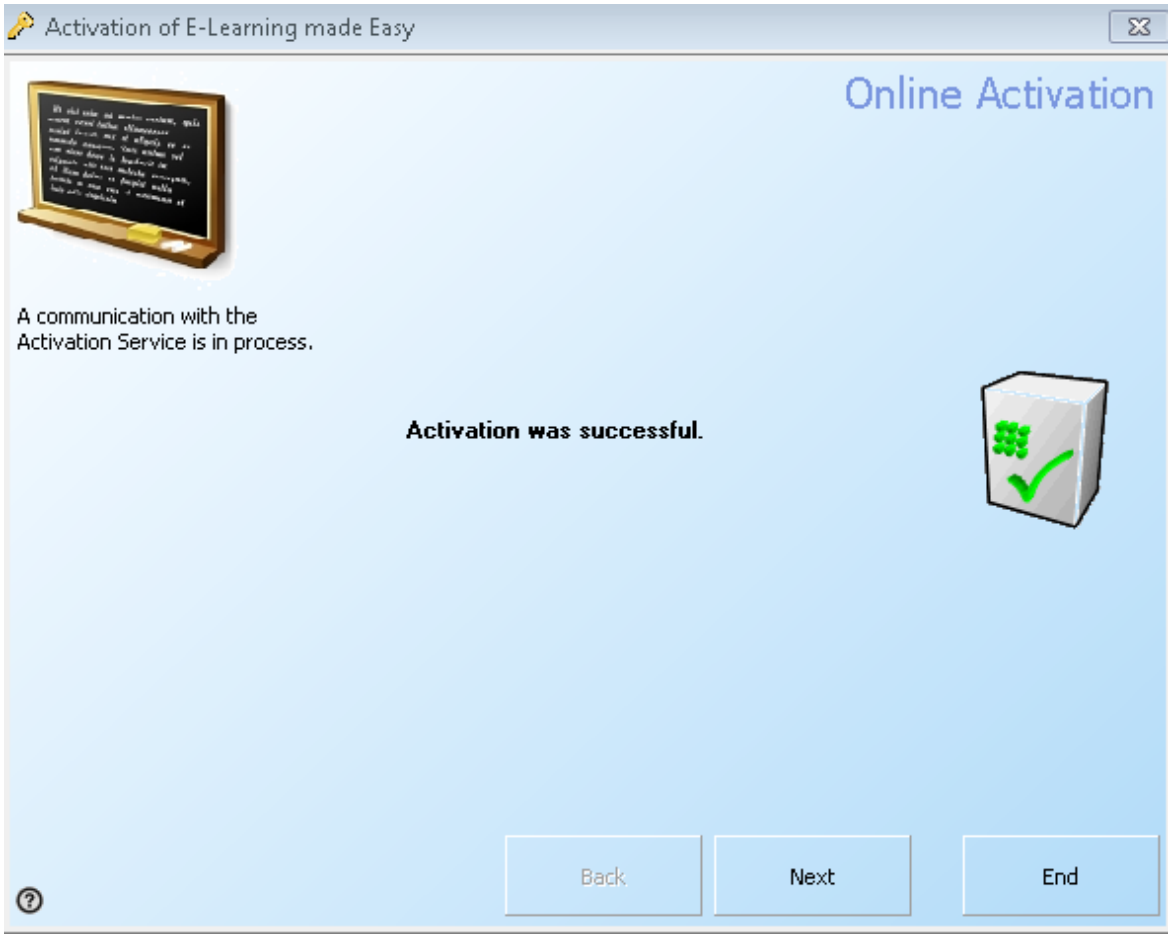

If the reactivation is not successful, the following error message appears:

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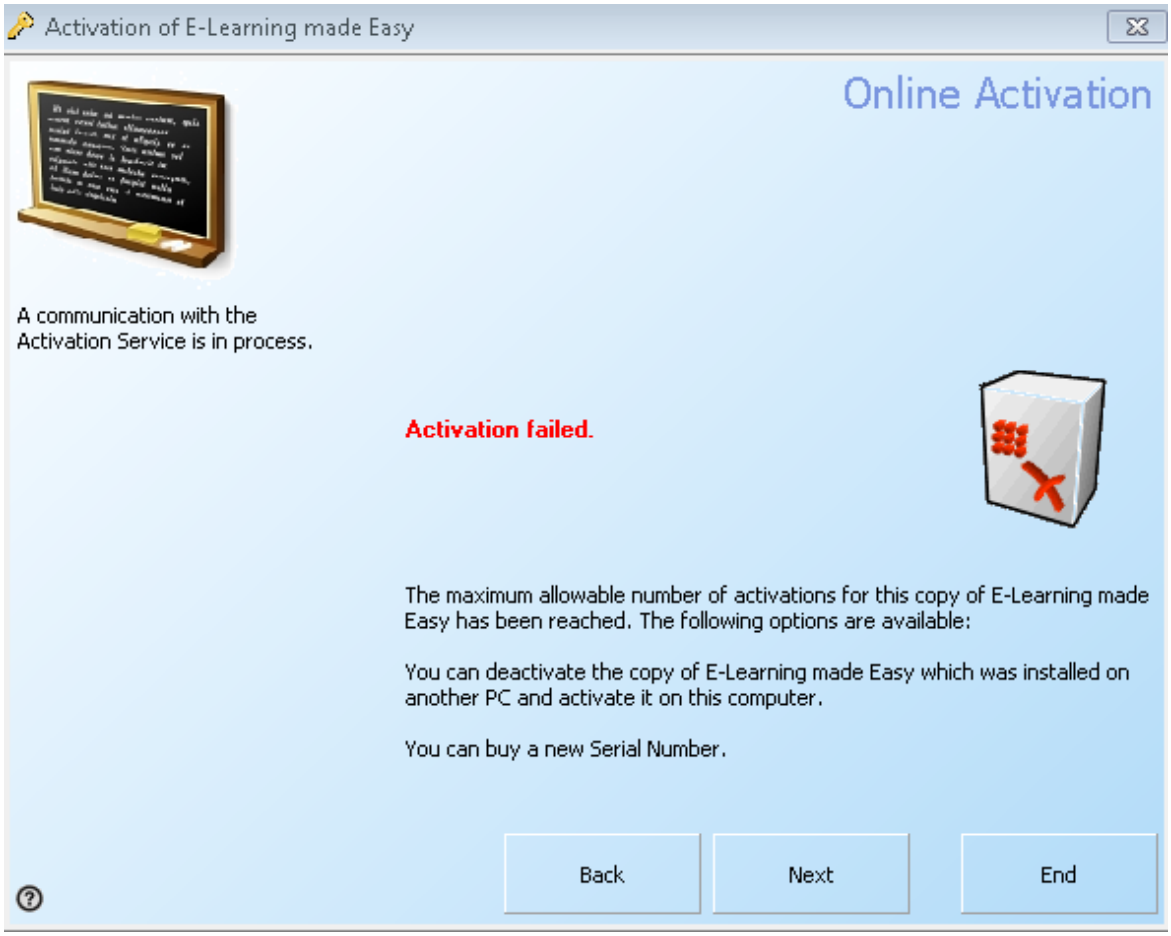

7.20.4 Online Activation - wrong date / time

If the local date / time differs from the time of the Activation Server 6 the following error screen appears. This is necessary to ensure that the date/time on the local PC is not manipulated.

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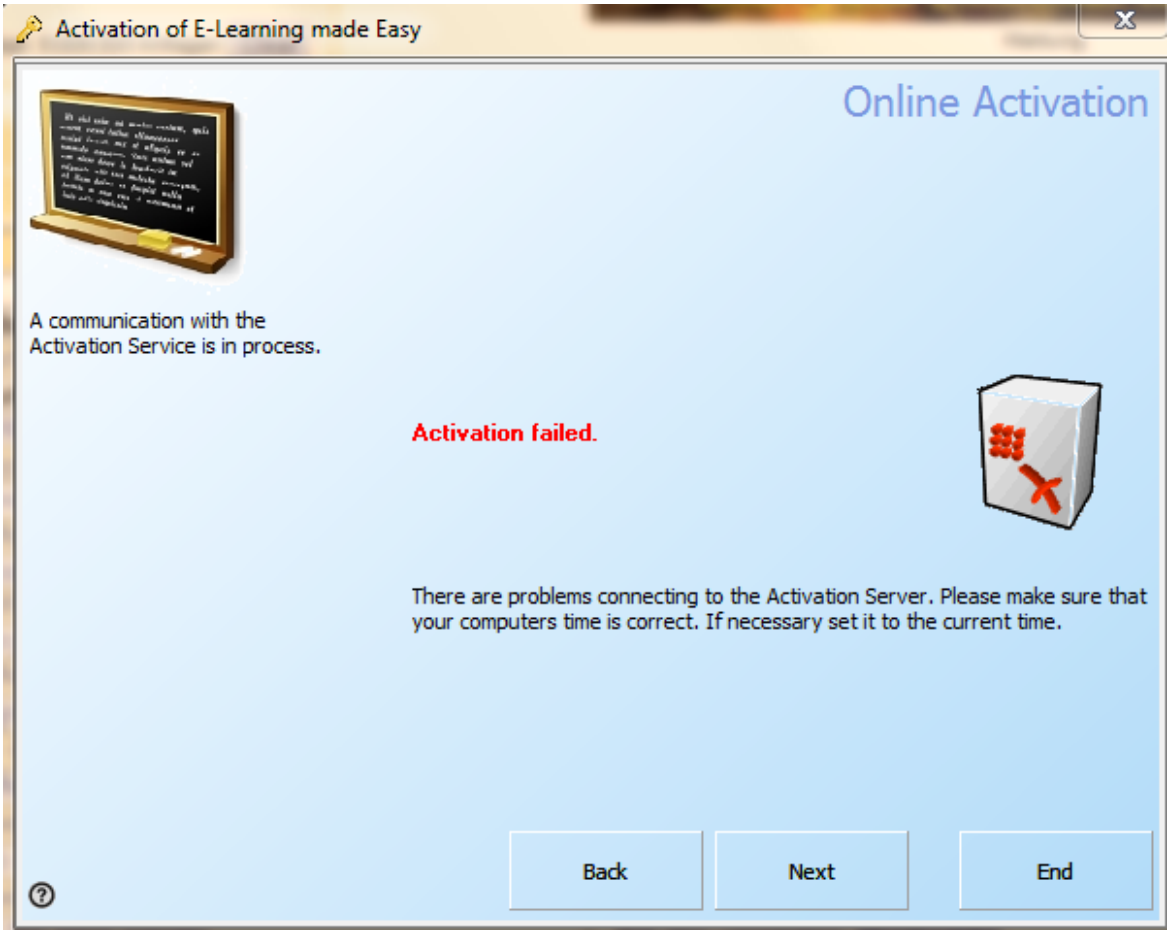

Click here to find out how to change the default configuration setting.

Error code: 3014 635

7.20.5 Network license - deactivated

If a PC or user was deactivated (see Licence Viewer - deactivate a network license 286) the application does not start. The error message helps the user to reactivate his license. This is only possible if a free network license is available.

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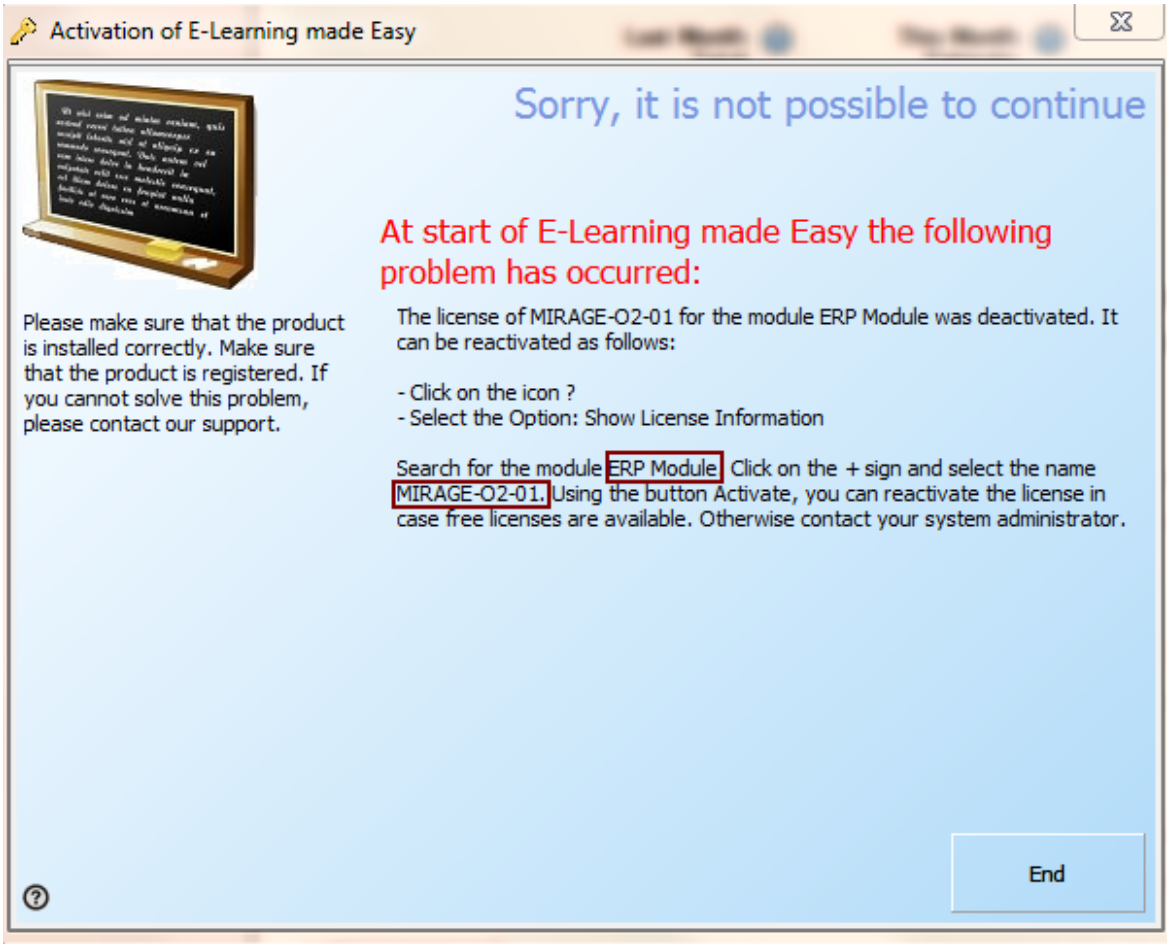

Error code: 64

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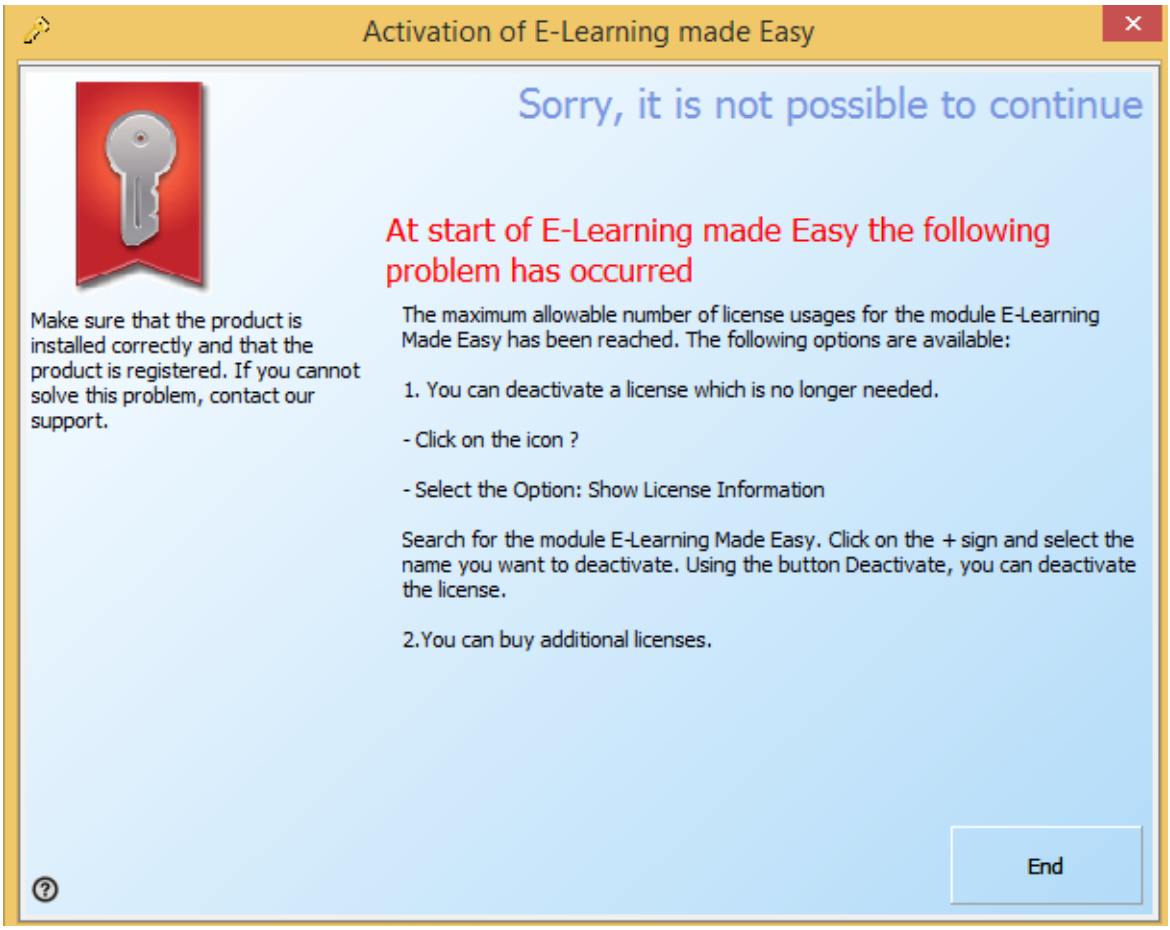
7.20.6 No free license available

If the application is used with a network license, and the users / PCs would be over the defined limit then this error message appears.



A user / computer / concurrent user license can be deactivated from the end user within the License Viewer 286.

If this feature is disabled (<**AllowDeactivate**> set to false in the project template) 196, a concurrent user license is used or the License Viewer option is disabled (SetRegisterSettings, LicViewerAllowed 118 = false) , only the option to buy the license is displayed.

Error Code: 32 - see common reasons for this error.

7.20.7 No Internet Connection

In case that no Internet connection could be established, the following error message appears. The next program start will display the screen to select the activation mode 228, so that e.g. the user can switch to e-mail activation.

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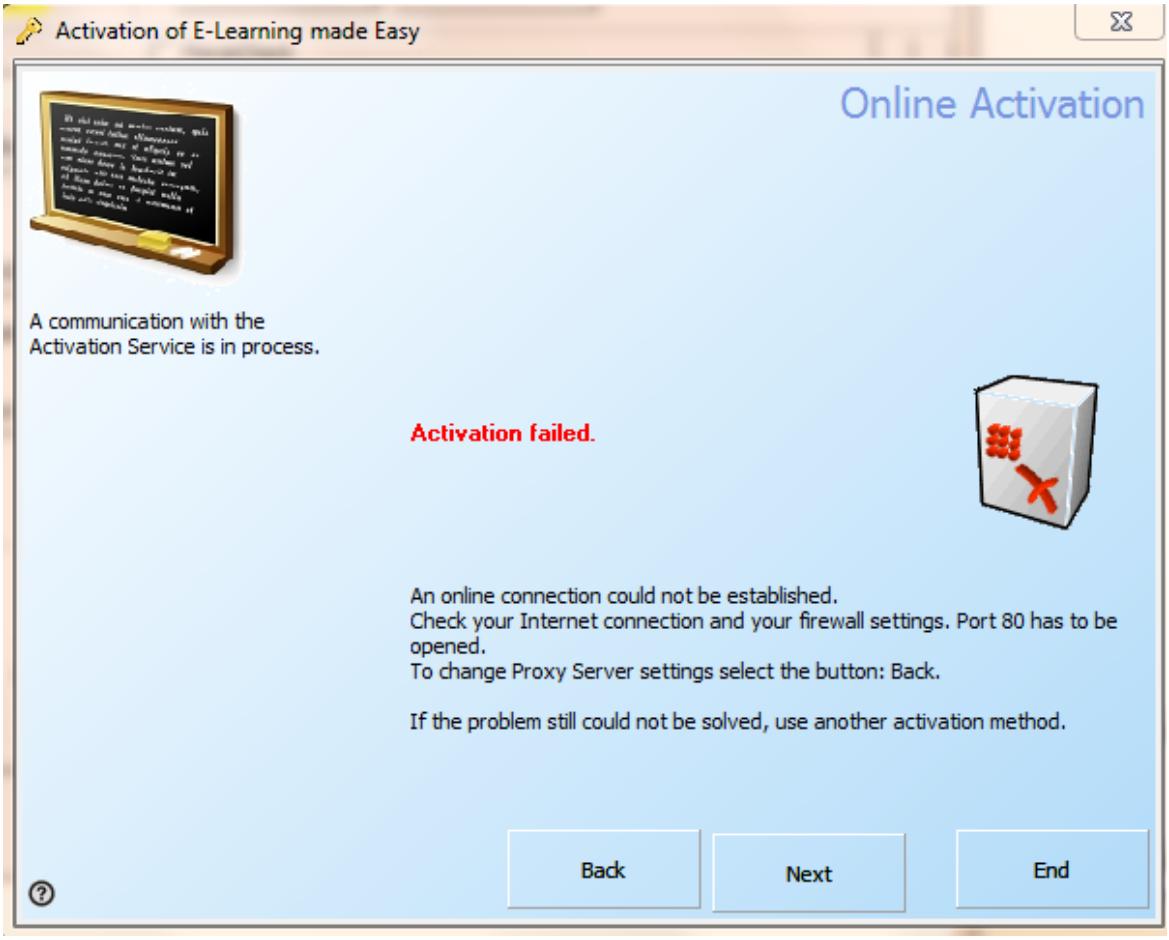

7.20.8 No write permission

In case the license file does not have a write permission, the following error message appears.

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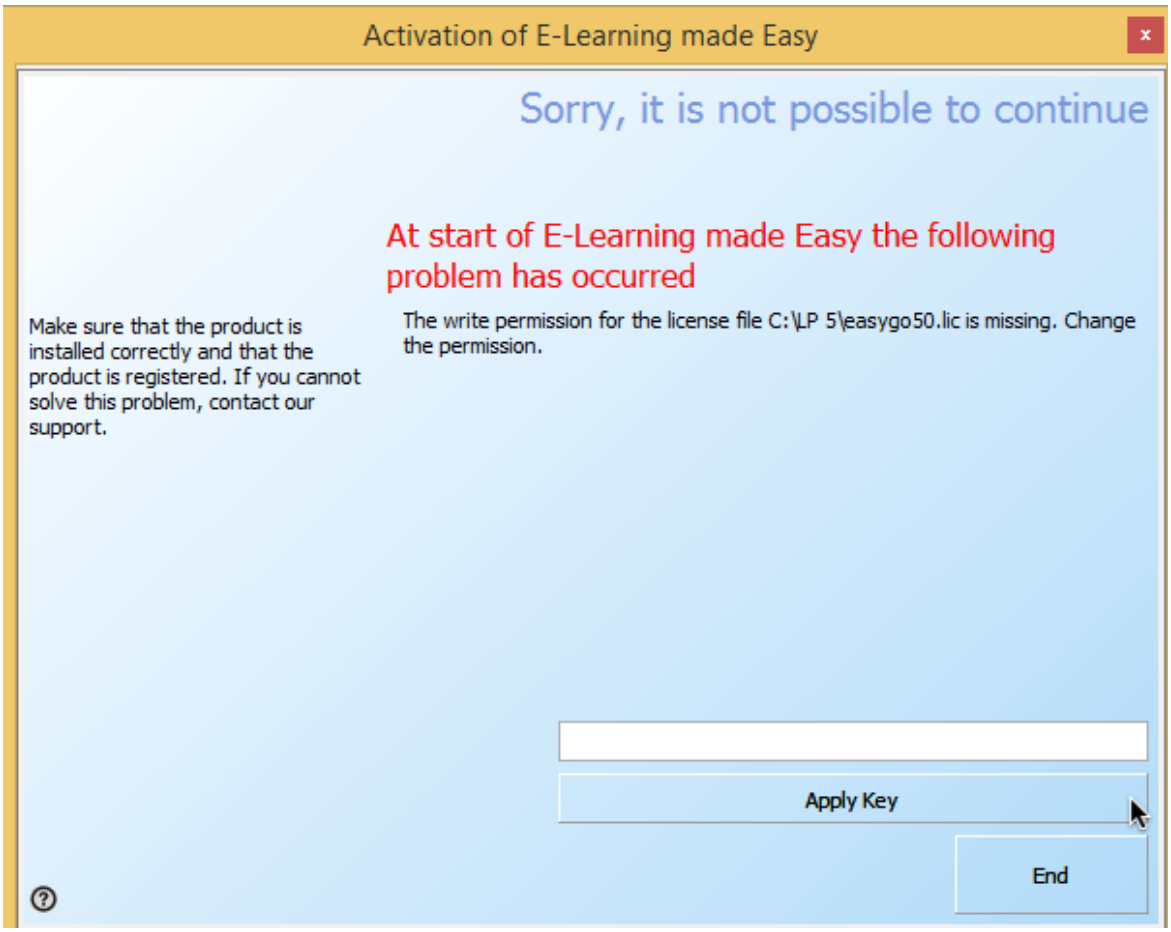

This is a fatal error and the write permission has to be granted to the license file before the application can continue.

Error Code: 128

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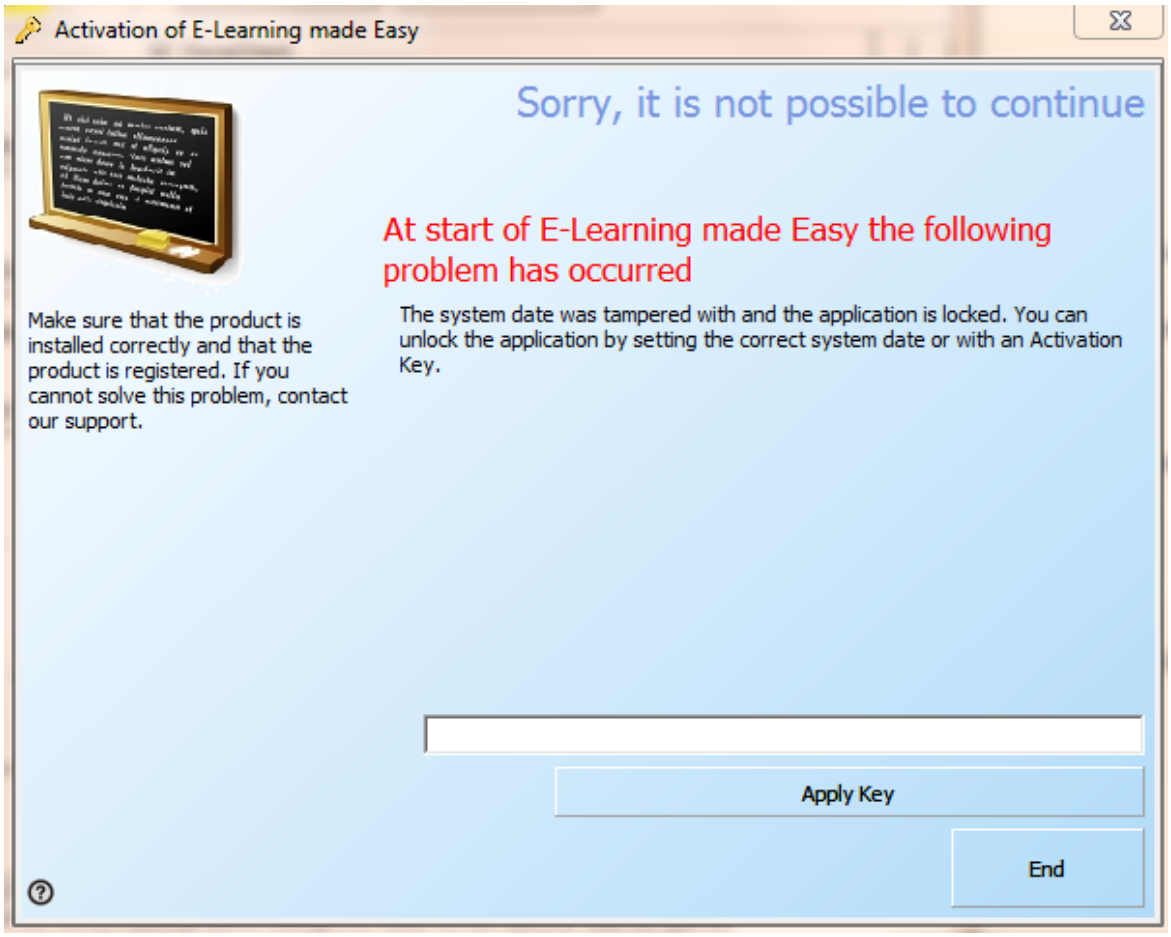
7.20.9 System date was tampered

If the system date was turned back more then one day AND the check for system date modification (CheckSysdateChanged 112) was activated , then this message appears.



To unlock the system date lock, you can use **any Activation Key** - e.g. a key which sets Demoversion to true or a key without any settings.

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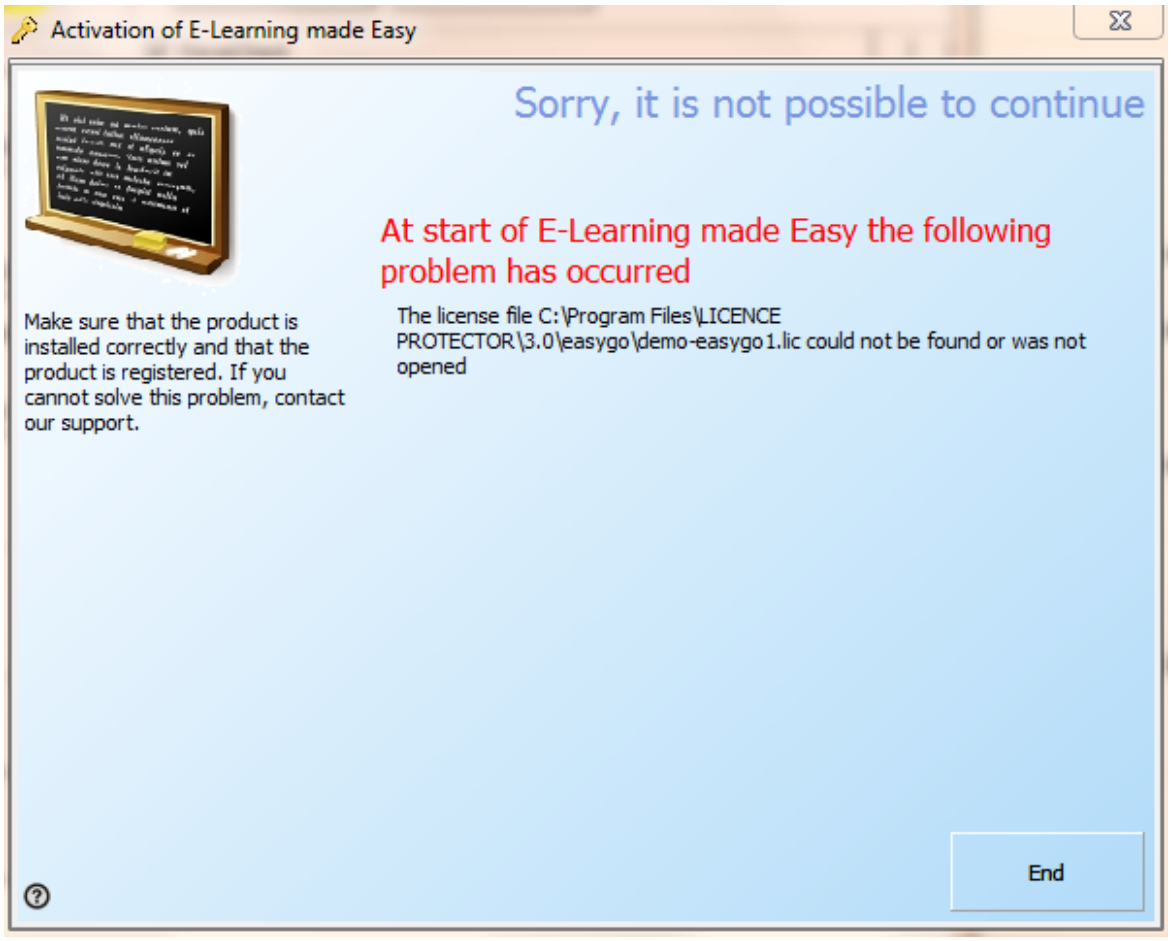
7.20.10 Wrong license file

If a non existing license file is used with one of the Prepare 920 commands, the following screen pops-up.



7.21 Display custom Messages

You can display own messages and error messages using the EasyGo design.

Display custom messages

This command allows to display a message in a screen which uses the same design as EasyGo.

Tips

- Use GetLanguage 700 to retrieve the language the user selected
- Use SetRegisterSettings 116 to define the logo image

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- Use ShowStartErrorPage 802 to display a standard **error** screen
- Use SetCustomerText 136 to change the wording on default screens

<table>
<tr><td>Name</td><td>ShowMessagePage</td></tr>
<tr><td>Purpose</td><td>Shows a message in an EasyGo-like screen</td></tr>
<tr><td>Params</td><td>
<table>
<tr><th>Parameter</th><th>Type</th><th>Example</th><th>Note</th></tr>
<tr><td>Title</td><td>String</td><td>‘Attention’</td><td>The title of the message.</td></tr>
<tr><td>Header</td><td>String</td><td>‘Something happened…’</td><td>The header of the message.</td></tr>
<tr><td>Text</td><td>String</td><td>‘This is a sample text’</td><td>The text of the message.</td></tr>
<tr><td>ShowLicViewer</td><td>Boolean</td><td>True</td><td>A link to open Licence Protector’s licenseViewer 281 can be displayed if true.</td></tr>
</table>
</td></tr>
<tr><td>Returncode</td><td>
<table>
<tr><th>Returncode Type Integer</th><th>Note</th></tr>
<tr><td>0</td><td>Ok</td></tr>
<tr><td>8194</td><td>Function is not implemented</td></tr>
</table>
</td></tr>
<tr><td>Usage</td><td>ShowMessagePage should be used to display messages in an EasyGo environment. SetRegisterSettings 116 should be used to set properties like the image on the side.</td></tr>
<tr><td>Sample</td><td>

```
   << you want to inform the user about something >>
   ShowMessagePage(‘Attention’, ‘Something happened…’, ‘This
happened:…’, false);
   ...
```

</td></tr>
<tr><td>See also</td><td>ShowStartErrorPage 802</td></tr>
</table>

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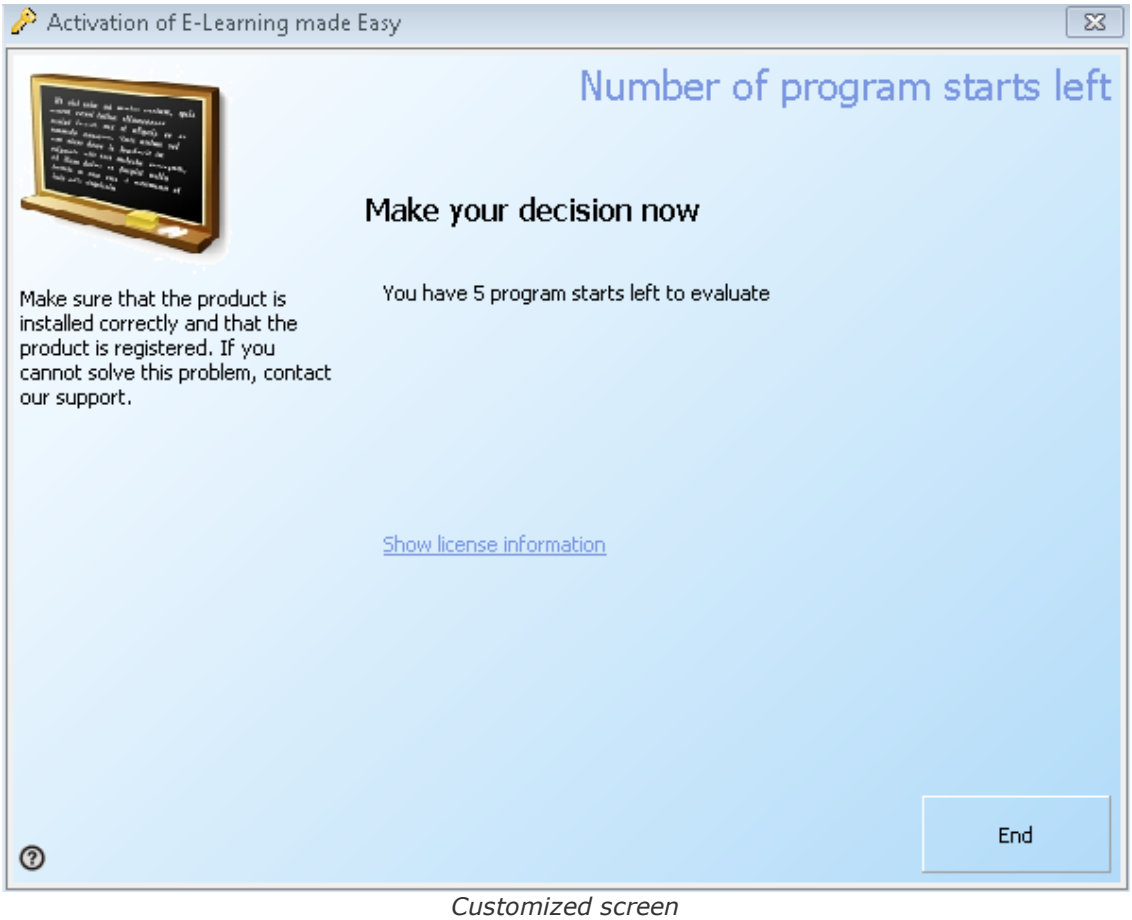

Customized screen

Display Error Message

This command allows displaying an error message in a screen which uses the same design as EasyGo. The error number must be a valid error code - see list of error codes 635.

Use SetCustomerText 136 to change the wording on default screens

Example
Error Code 32 (no free license) would pop-up this error screen 272.

Name	**ShowStartErrorPage**
Purpose	Shows a Licence Protector error message in an EsayGo-like page.

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<table>
<tr><td>Params</td><td>
<table>
<tr><th>Parameter</th><th>Type</th><th>Example</th><th>Note</th></tr>
<tr><td>ErrorNo</td><td>Integer</td><td>16</td><td>Errornumber</td></tr>
</table>
</td></tr>
<tr><td>Returncode</td><td>
<table>
<tr><th>Returncode
Type Integer</th><th>Note</th></tr>
<tr><td>0</td><td>Ok</td></tr>
<tr><td>8194</td><td>Function is not implemented</td></tr>
</table>
</td></tr>
<tr><td>Usage</td><td>ShowStartErrorPage should be used to display error messages in an EasyGo environment. SetRegisterSettings 116 should be used to set properties like the image on the side.</td></tr>
<tr><td>Sample</td><td>

```
iRes := lic.Validate('D1001', '', true);
if iRes > 1 then
begin
   ShowStartErrorPage(iRes);
end
else
begin
   << successfully validated >>
   ...
...
```

</td></tr>
<tr><td>See also</td><td>Error numbers, SetRegisterSettings, PrepareAndCheck (EasyGo)</td></tr>
</table>

Note
The user can terminate the screen only with the END button. The error code is always 0 (and not 4) to indicate, that the message was displayed properly.

Use SetCustomerText 136 to change the wording on **default** screens

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Part VIII

8 License Viewer

The License Viewer is available in 2 different versions

- Full License Viewer 281 - displays all modules and additional license information
- Basic License Viewer 292 - displays a license for one module.

8.1 License Viewer - Full

The License Viewer is part of the DLL and is a **complete administration interface** for the end user. It is much more than just an option to display license information. To use the License Viewer, the license file needs to be **opened** first with one of the Prepare commands. See - open a license file 920.

Features

- Basic license information 283 like manufacturer, company, copy protection status and system information
- License information per module 285 (number of licenses, time limitation, demo version, activation status)
- List of users, PCs and concurrent users for each module. Allows to remove / deactivate 286 a user / PC / item
- Information about stored data 562
- Option to apply Activation Keys (button Activation Keys)
- Option to activate log file (button Options 290)
- Option to transfer a license 289

To invoke the License Viewer see ShowLicViewer 800 or for EasyGo see SetRegisterSettings (LicViewerAllowed 118) 116. After the registration process, the EasyGo screens appear only in error mode. The language information from SetLanguage 108 is used.

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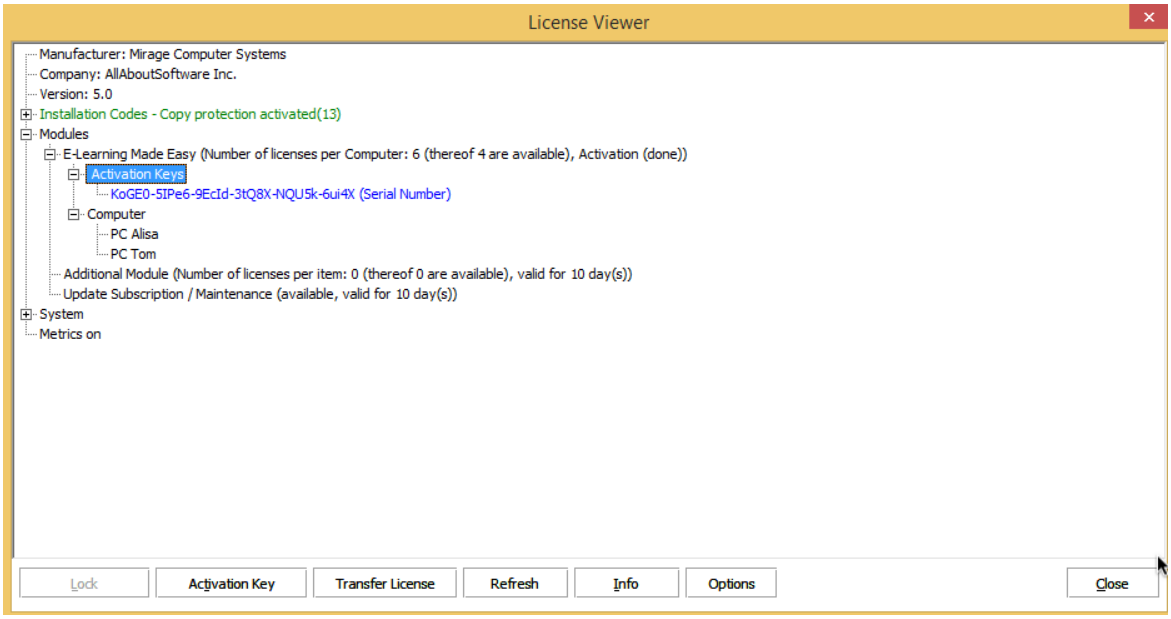

We strongly recommend implementing the License Viewer. You could e.g. make a new menu item, Help - Show License Information. If you want to offer a custom-made viewer, see chapter - Create own License Viewer 505

See also

Basic license information 283
Module Information 285
Deactivate a network license 286
Transfer License button 289
Enable / Disable buttons 291

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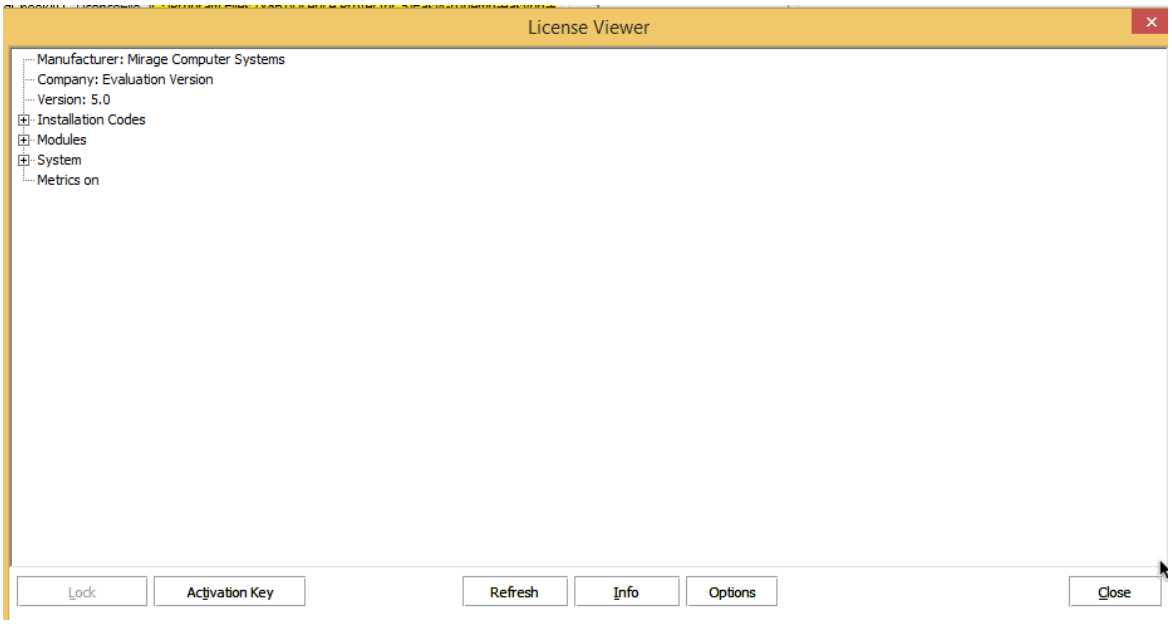
8.1.1 Basic license information

Basic license information is structured in different sections.



Basic license information - Copy Protection turned off

Manufacturer and License Holder

- Manufacturer. The company name, defined in the project template with <manufacturers 191>
- Company: Before applying the Serial Number, this is the Default Customer Name 192 (e.g. Evaluation Version). After applying the Serial Number key, the customer name, entered during the activation (Online 232, e-mail 237, Fax 248, Phone 248) is displayed. This is the license holder

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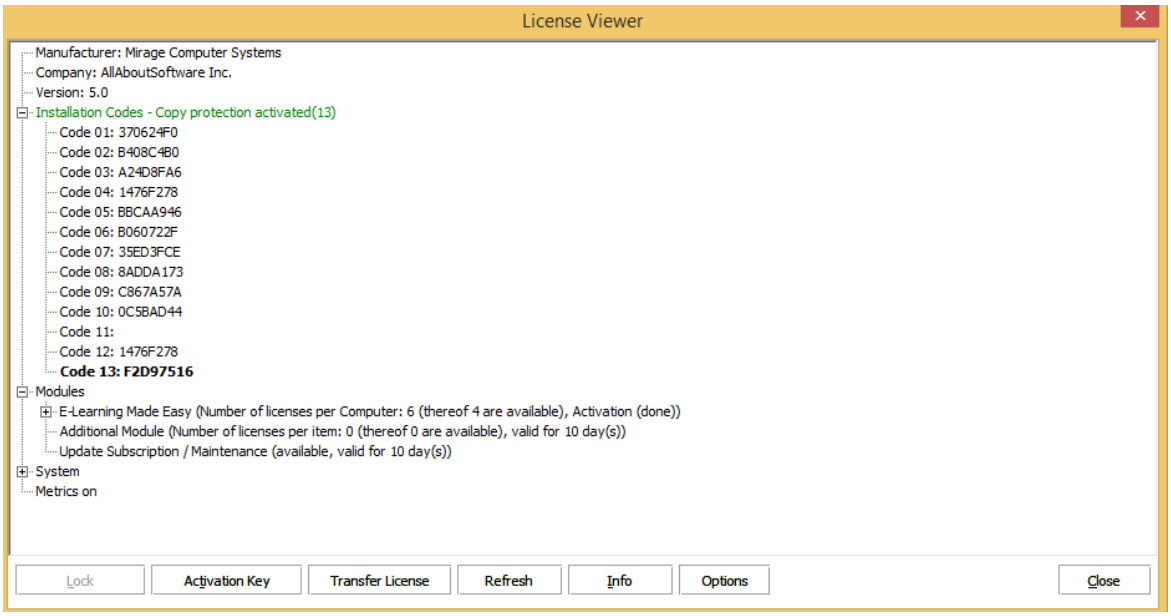
Installation Codes

All available installation codes 67 (hardware IDs) are displayed. If copy protection is not activated then there is just a text: *Installation Codes*. After activation of the copy protection, the text is **green** and the hardware ID used is added in the headline and also displayed in **bold**.



Basic license information - Copy Protection turned on

If a customer has a problem with copy protection, just use another installation code and create a new Unlock Key 320, which can be applied in the License Viewer instead of the EasyGo screen.

System information

This information is helpful for support and depends on selected options.

- License File path and name
- License File - ID: Using EasyGo, it is always the same ID as it is a generic license file. If you make bespoke license files, then the ID is unique - see License File ID 202
- License File Version: Information, which version of the License Generator 372 did create the file. It changes only if the file format changes
- License File Date: Date and time when the license file was created
- Security level define in the license file template - see <SecurityLevel> 207
- Concurrent user option (Heartbeat, Light). Details see chapter: Concurrent user testing 465
- Last online backup 814 of license file.

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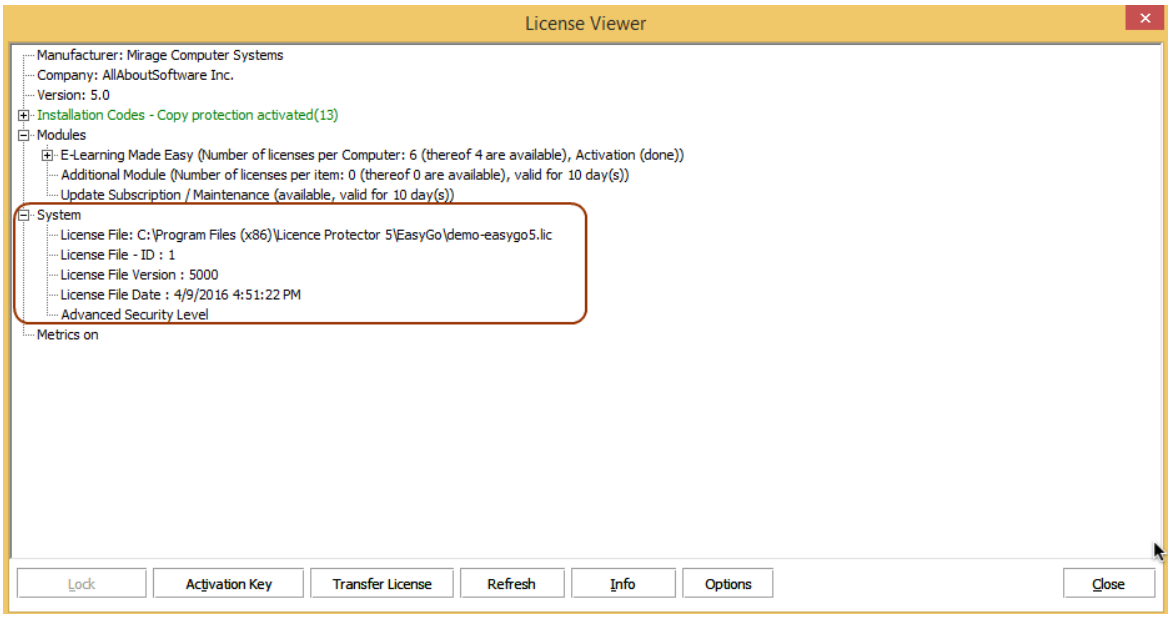

Metrics

Status of metrics usage 215 (on / off)

8.1.2 Module Information

Each module is listed with additional information (depending on the module type 203).

- Demo version
- Expiry date or time limitation
- Activation Status (required, erroneous, done)
- Number of licenses (module type license per user, PC, concurrent or item counter)
- Available (module type Yes / NO)
- Serial Numbers are in blue color
- All other keys are in black in black
- All users, computers or items per module. If a license is locked 286, the user / PC / item is displayed in brackets

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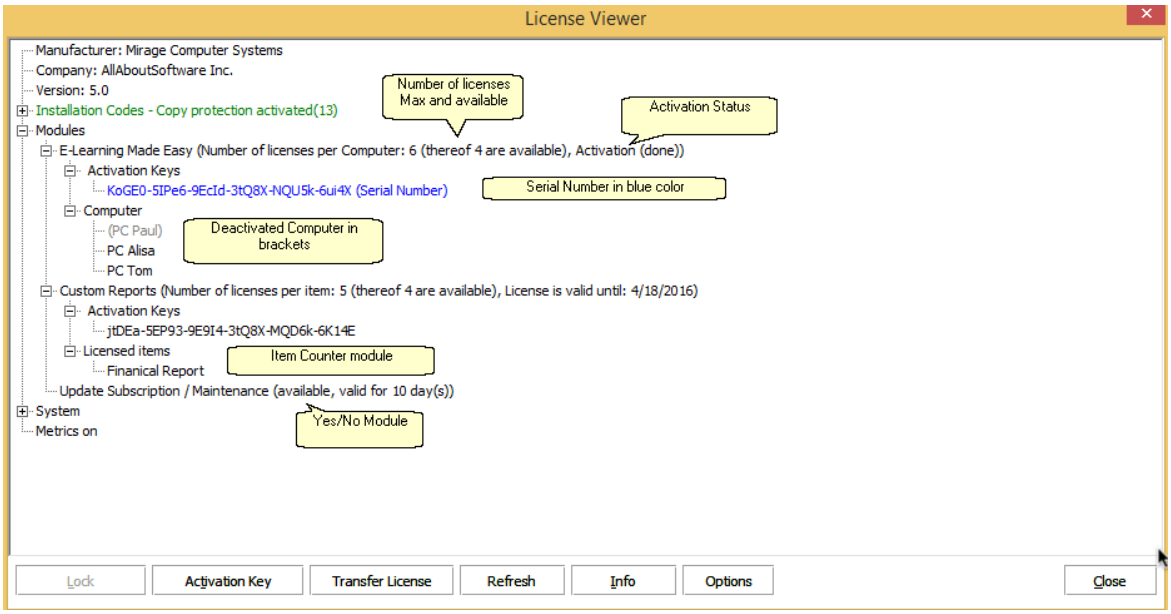

8.1.3 Lock a network license

If an application uses a license **per PC** 549, **per User** 551 or **Item** then a single license can be deactivated within the License Viewer 281. This is not necessary for concurrent user 552 because the license is automatically removed when the application terminates.

To activate this feature you have to set <**AllowDeactivate**> to yes in the project template 196.

- Lock a license within License Viewer

  A license (per PC / User / Item) can be locked by

  - selecting the license
  - press button *Lock*

  The deactivated license is now displayed in brackets and the icon changes to . The license can be used again by another PC / User / Item

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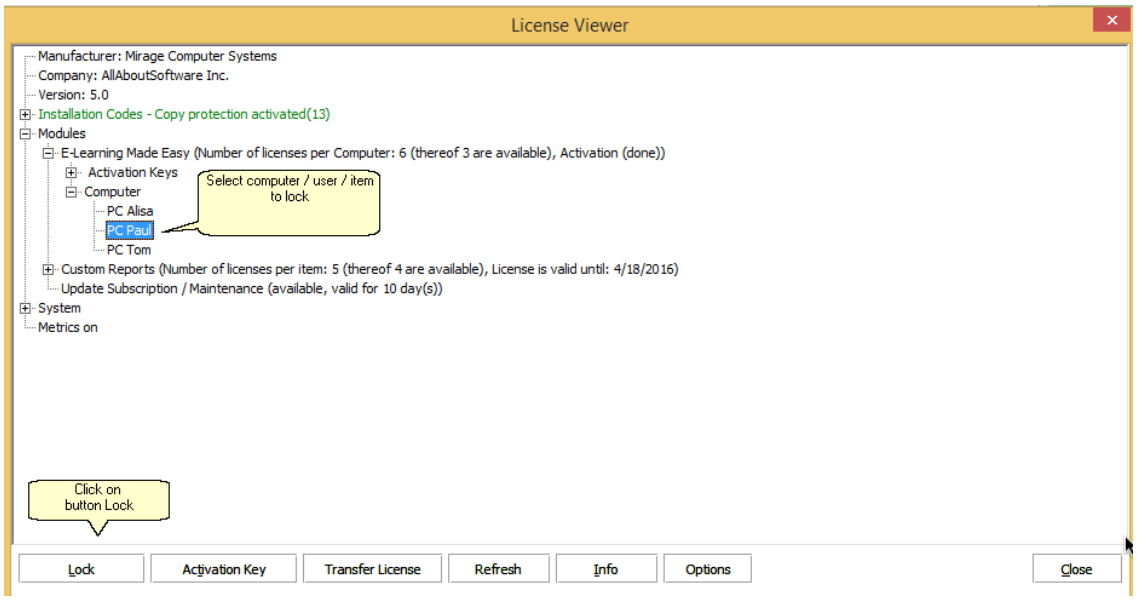
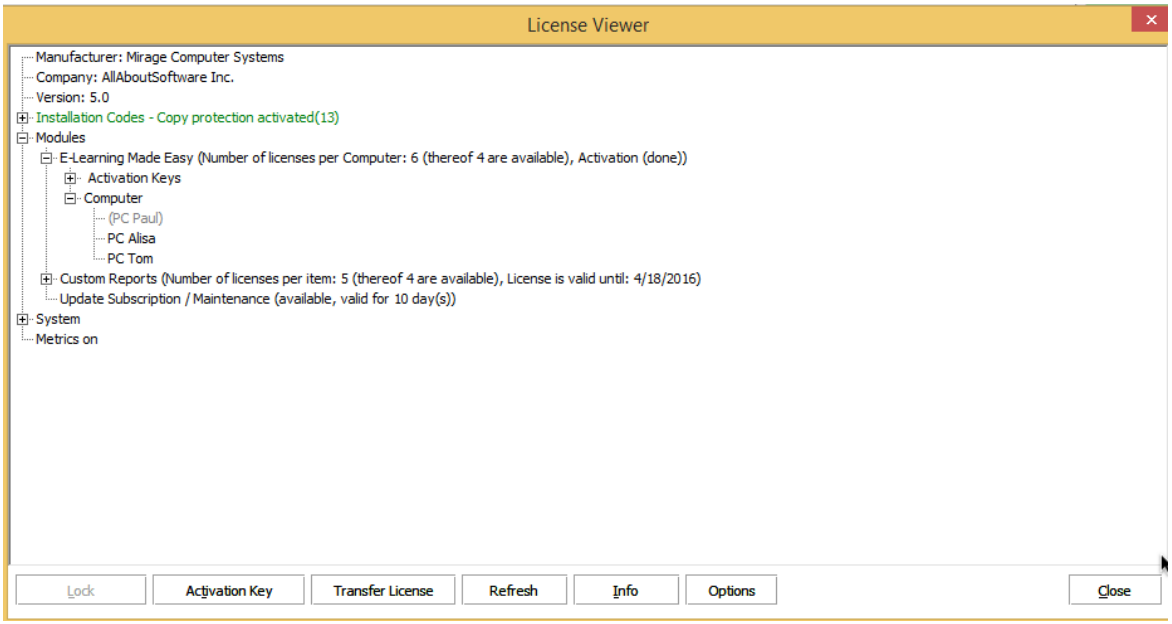


The locked license is displayed in brackets



Release a locked license

A license which was locked, is displaced in brackets. It can be activated again by

- selecting the license
- press button *Release*

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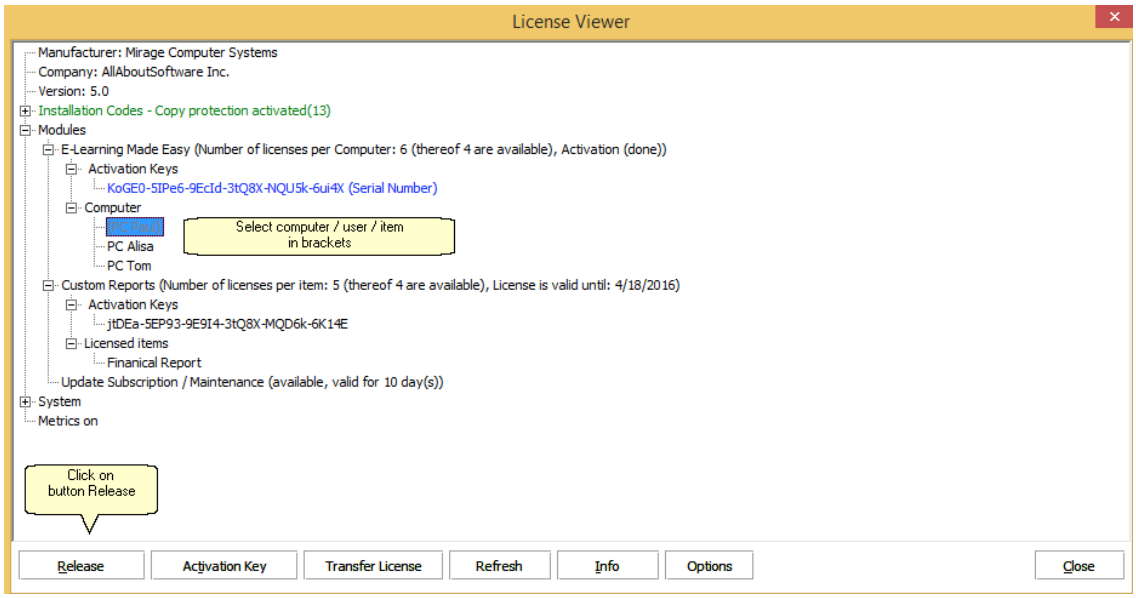

- Deactivation of a concurrent user is only necessary, if the user is not automatically removed. It is not a deactivation of the license - it is a **removing** of the user. The user will get the license again with the next program start again. See also: Concurrent user testing 465.

- The deactivation is done when you press the OK button. If the user has already started the application, the next PrepareAndCheck 162 or Validate will return an error. See error message screen 270.

It is possible to deactivate a network license using DLL commands - see commands GetEntriesOfModule 683, DeactivateEntry 658, RemoveDeactivated 746 and RemoveAllItems 745

Transfer a license

If the server is replaced, a license transfer 571 is necessary.

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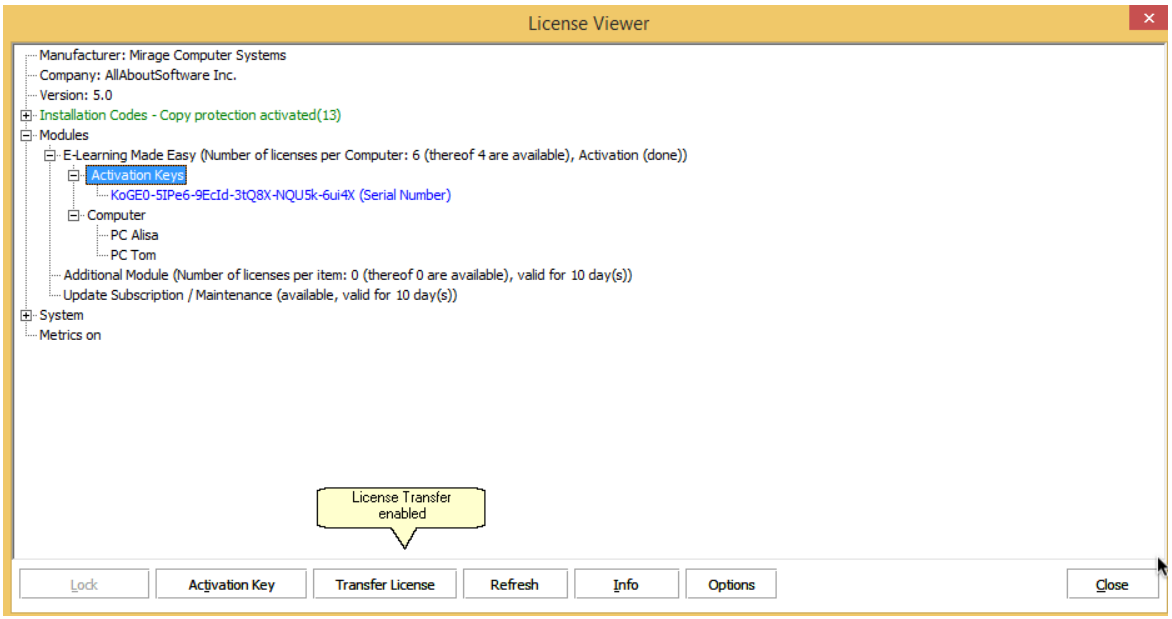
8.1.4 Transfer License button

If you want to implement transferring a license from PC A to PC B, you have to make the button *Transfer License* visible.

For a complete workflow how to transfer a license see chapter: Transfer a license from PC A to PC B 571. It requires SetRegisterLicTransfer 114 to define additional settings if a complete license file should be moved

- Retrieve main module ID with MainModuleID 725
- Retrieve Serial Number / ID with GetSerial 709. If the Serial Number / ID is **empty then the license transfer is not possible** and the button is disabled (only a license, which was activated, can be transferred)
- Define the values for the license transfer with SetVerificationIDOfModule 798
- To enable the button use SetLicViewerButton 768, button number 6.



After the license is transferred, the button *Transfer License* is **disabled** and there is a new info: License is locked to indicate, that the license is locked on this machine. As technically only a module can be locked instead of a complete license, the module is also marked with the text: Module is locked

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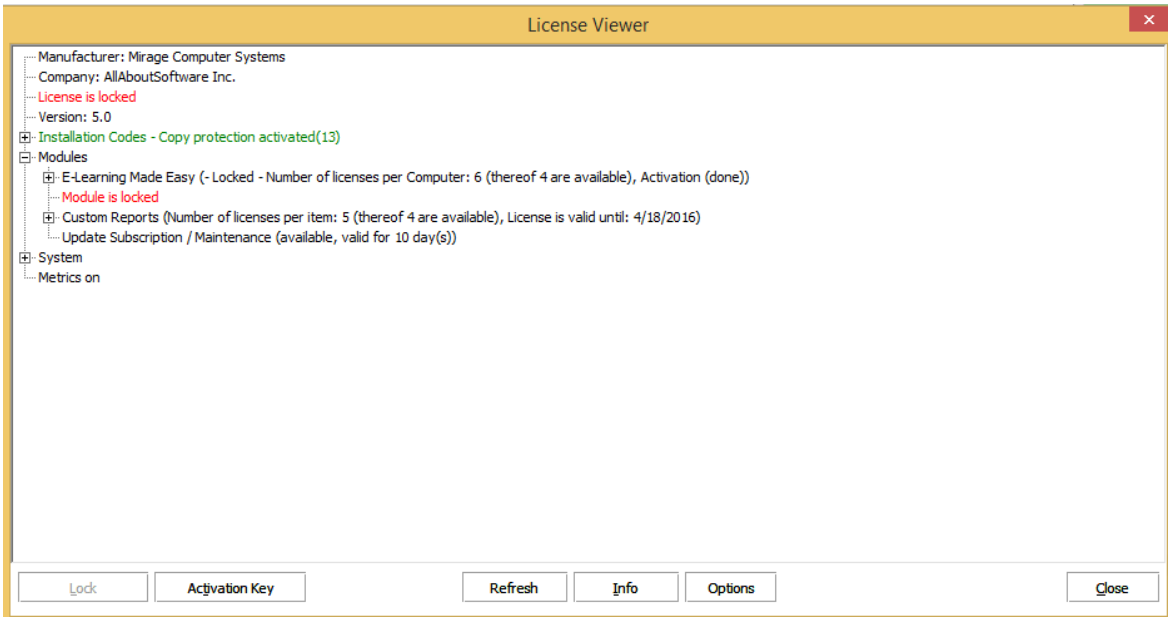

You can also transfer a license using TransferLicense 177.

8.1.5 Button Options - Log File

In case of an error, a log file can be activated. ZIP all files with the extension .log and open a support ticket.

Using the button Options you can:

- enable the log file
- select a path for the log file

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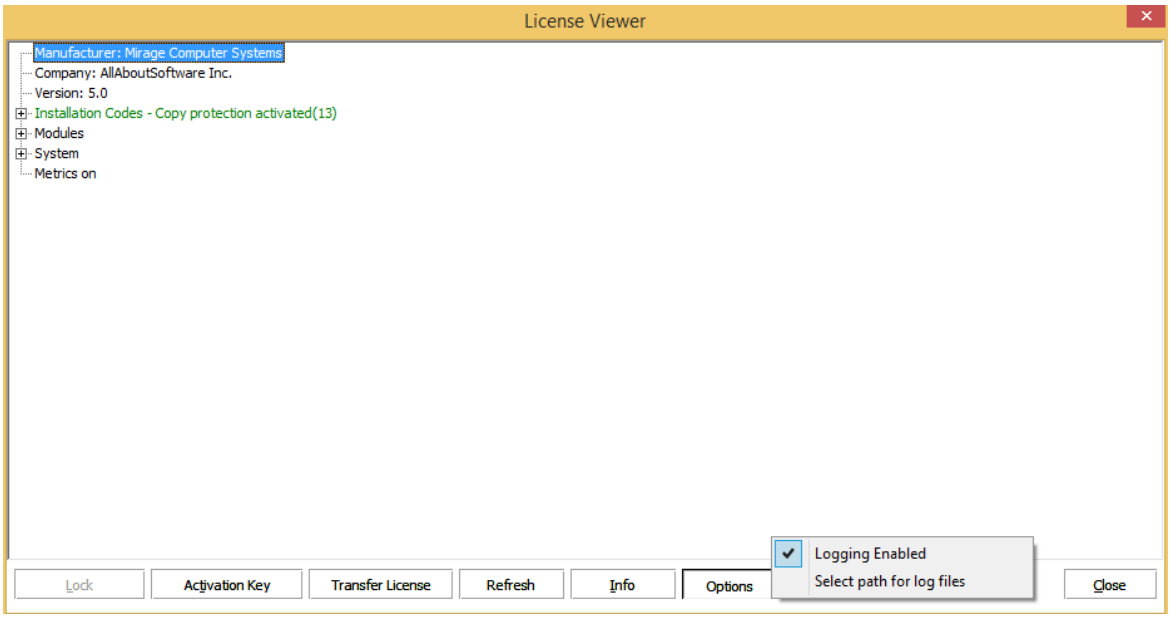

For each program start another log file is created. Disable the log file option when it is not required.

8.1.6 Enable / Disable buttons

You can enable or disable the buttons within the License Viewer. By **default**, the following buttons are enabled:

- Lock / Release
- Activation Key
- Refresh
- Info
- Options
- Close

The command to enable / disable the buttons is SetLicViewerButton 768.

Lock / Release

Allows to lock / release a network license - See chapter: Lock a network license 286

Activation Key

Allows to apply an Activation Key. You should always make this button visible.

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Refresh

Reloads the license information. This is handy in a network environment to update user information.

Info

Displays copyright information about Licence Protection

Options

Allows to enable a log file. We strongly recommend not to disable this button. The log file is the only way to trace an error.

Transfer License

Allows to transfer a license - see chapter: Transfer License button 289

8.2 License Viewer - Basic

This License Viewer displays basic license information and is perfect if the license consists of a single module / feature. The License Viewer is identical to the one in the Licence Protector MAC version.

It includes

- Registered to (customer name)
- Serial Number
- License expiry date
- Buttons to transfer a license or apply an activation key

The License Viewer can be invoked using ShowLicViewerModule. 800

License Viewer - Trial mode

During trial period, the default customer name set in the project template (<CustomerName 183>) is displayed. The field Serial Number is empty.

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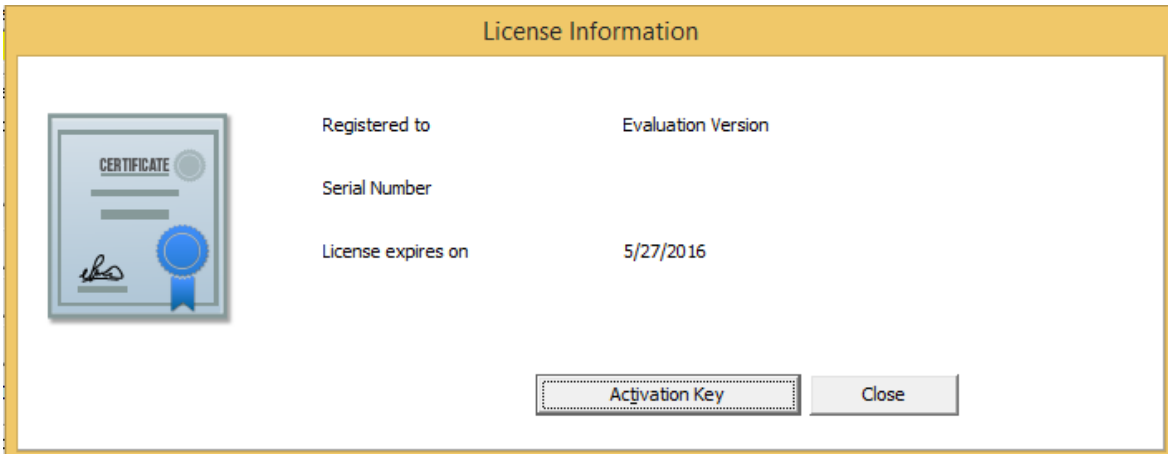
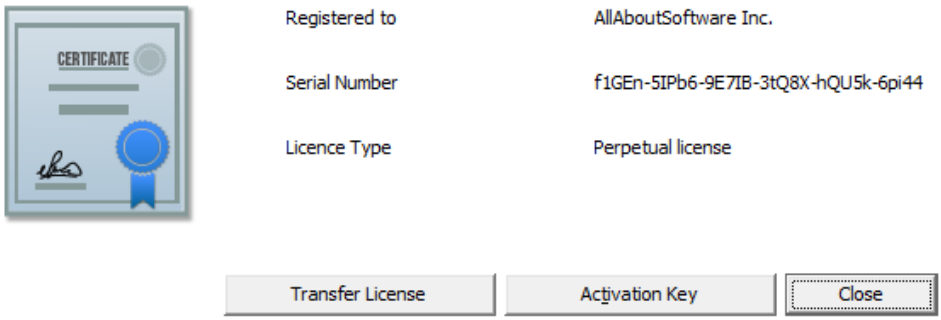


The button: *Activation Key* allows to apply an Activation Key 334, e.g. to prolong the trial version.

License Viewer - product is activated

Once the product is activated, the name of the license holder and the Serial Number is displayed.

Perpetual license (no expiry date)



Subscription license (expiry date)

Only if the full version is a subscription license 148 the expiry date is displayed.

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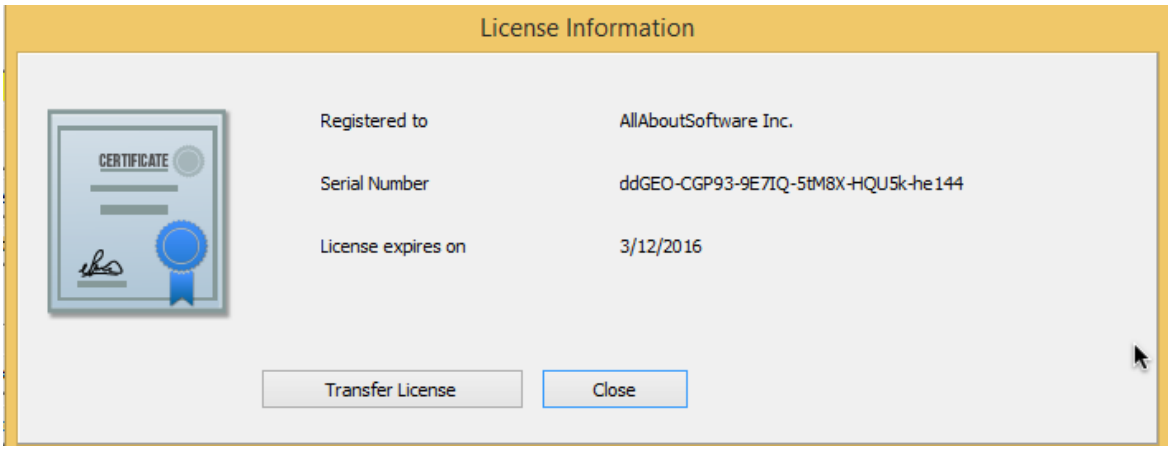
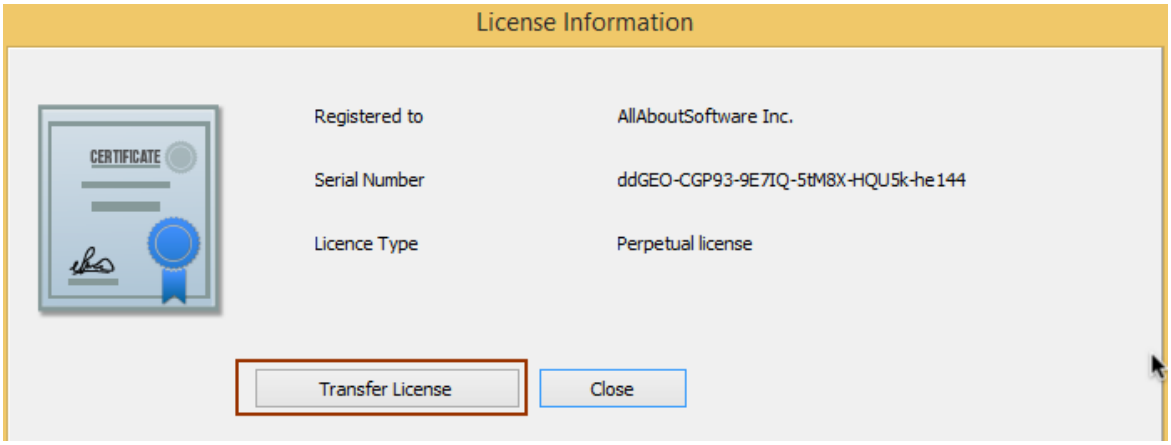


License Viewer - Transfer a license

Once a license is **activated**, a new button ***Transfer License*** appears. The user will be guided through the license transfer. 260



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Part IX

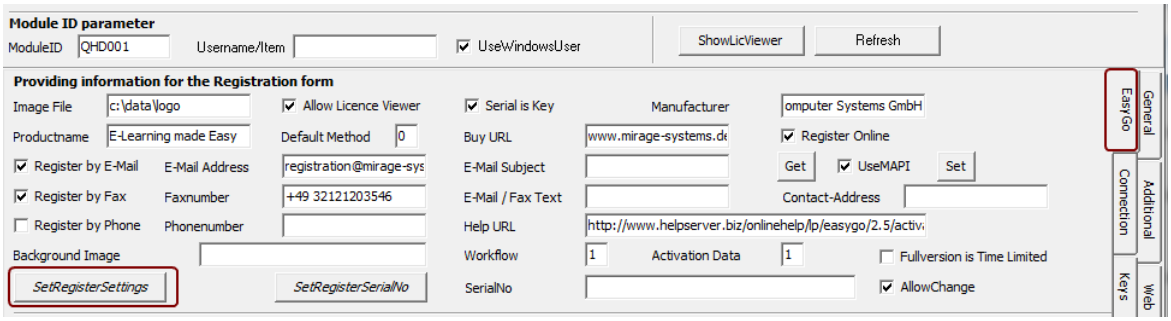
9 Using License Tester

The license Tester is not an application - it is a tool to make 'live' tests. ALL API calls are placed on a button and the button is **exactly labled** as the corresping API call. Each parameter of an API call can be typed in using the fields provided by the license Tester.

If you press the button, the DLL call is processed exactly as it would be processed in the source code. The return values are displayed in a separate window.

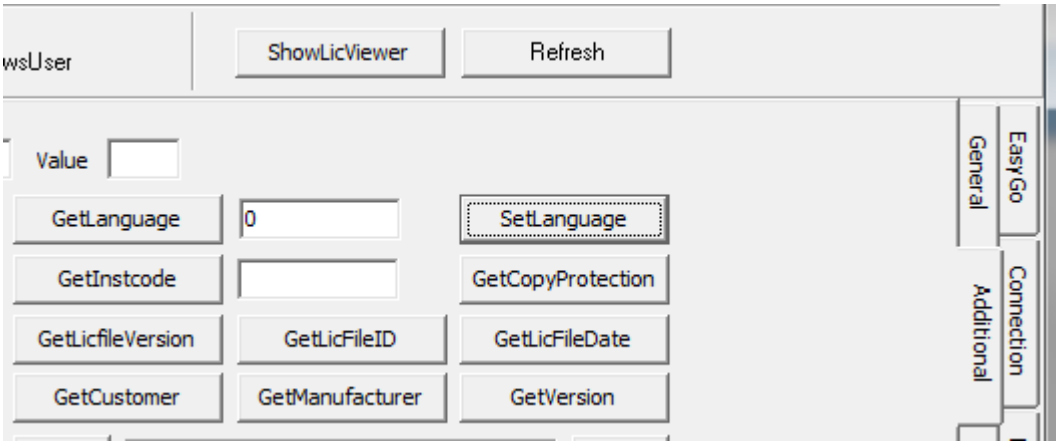
If you use the *demo-EasyGo.xml file* then also the Online Activation can be tested.

Select the EasyGo TAB on the right side and specify your preferred registration methods and options. Then press: **SetRegisterSettings** 116



SetRegisterSettings

The next step is to set the desired language for the user interface. Select the TAB ***Additional***, and set the language with **SetLanguage** 108. Language Code 0 = use language of the operating system.



SetLanguage

Invoke EasyGo

Check the security level **Advanced** 110 and the command **PrepareAndCheck** 162, select the license file (demo-easy.lic) by

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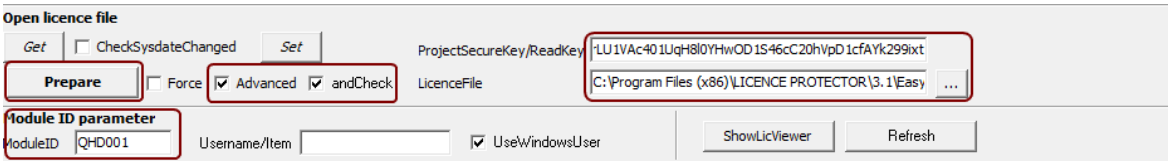
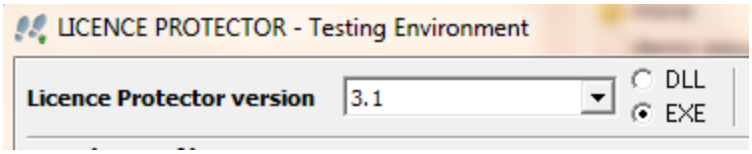
- clicking on the button **...**

,type in your personal Read Key (Demo Read Key is inserted automatically) and type in the module number (QHD001 in the demo project) in the field ModuleID. If you have a user module also check *UseWindowsUser*. Then press **Prepare** 162. The initial screen with EasyGo 222 will appear.



PrepareAndCheck

To use the COM exe 88 (64bit) for testing, select EXE right to the Licence Protector version number.



Save configuration settings

Press the button ***Save*** to save all your settings. Press the button ***Load*** to load the settings again.

If you have multiple configurations, you can specify a name in the ***Content*** picklist - e.g. *configuration e-learning* or *configuration CTI.* To load such a configuration, select it and press the button ***Load***

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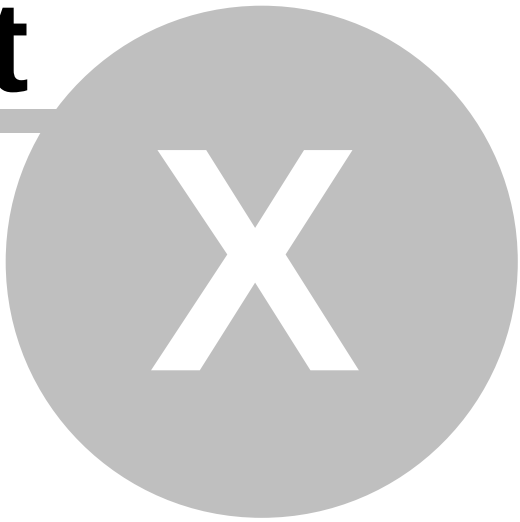
Part



10 Create Keys

Licence Protector 5 comes with different key generators (depending on the Licence Protector editions).

License Generator

This is a standalone Windows application and can be used to create a single license file or key. It is perfect for developers, as you can specify and configure a lot of settings.

Use the License Generator 372

Browser based administration interface

The browser based administration interface comes with the Activation Server 6. If you use the Activation Server 6, the recommended way to create a key is the browser based administration interface of the Activation Server 6. This offers several advantages

- Multiple users can create keys from different locations
- It is simple - just click on the create button. Most of the settings are predefined
- You can store a key with a note or assign a reseller while you create the key
- You can create one key or a complete key list

Only create keys but not files can be created with the Web Administration Interface

Create keys using the Web Administration Interface

Automatic License Generator

This is a batch application, which allows to create a license file or a key in a batch process. It is mainly used for:

- Create a key list, e.g. 1000 keys for a CD production
- Integration in e-commerce systems so that after the order process automatically a key or file is generated
- Integration in a sales system that would allow administration to create keys using the software application they already are familiar with

Create keys and files using the Automatic License Generator 464

Use Activation Server API

This is the recommended way for external applications to create a Serial Number

Create keys using a https connection to the Activation Server 6

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Key format and key creation

You need different keys for different tasks.

- Format of a Key 300
- Other Activation Keys 334
- Serial Number Key 301
- Unlock Key 320
- Other Activation Keys 334

For detail information about Activation Keys see chapter Activation Key - Intro 389.

10.1 Format of a Key

All keys used by Licence Protector 5 are unique and have the same format.

dO8uc-G1iC9-jOGeA-BqgEX-U71lD-0V1VX

There are 6 blocks each with 5 characters. The blocks are separated by a hyphen for better readability.

The option: **Use extended description** adds additional information information to clarify letters which could be misinterpreted (like I and 1 or O and 0). This is only necessary when transmitting a key by fax.

Example:
dO8uc-G1iC9-jOGeA-BqgEX-U71lD-0V1VX
In block 1 at position 2 there is the capital letter O
In block 3 at position 2 there is the capital letter O
In block 5 at position 4 there is the small letter l
In block 6 at position 1 there is the digit 0

All keys are project specific. You have to load the project before you create the keys. It is not possible to create a Serial Number for project A when project B is loaded.

10.2 How can I use an Activation Key

There are different options to use / apply an Activation Key

- License Viewer 281

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- Commands ApplyActivationKey 644, ApplyActivationKeyForProject 645, ApplyInvisibleKey 646
- A Serial Number 301 and Unlock Key 320 can be either used within the product activation dialogues (using PrepareAndCheck 162) or also in the License Viewer

10.3 Serial Number Key

After buying the product, a Serial Number is sent to the customer. It is the 'proof of purchase' and it is unique. To get a better idea of the workflow see Basics about Workflow 585.

The design of a key is described in Format of a Key 300.

The key used as a Serial Number just sets the status of the **Activation to required**. You could modify additional settings with the same key:

- Days: add number of days which the version can be used **after** the Serial Number key is applied. The days are added to the days left from the trial version.
- Expiry date: Sets an expiry date after the Serial Number key is used. Normally you would not use this option because a fix date has to be specified

If you allow e-mail, Fax or Phone activation then 3 to 5 days should be added to cover the time between sending the registration info and sending back the unlock key.

Depending how you handle the order process, there are a lot of different ways to create a Serial Number Key

See also

Create Serial Number using the License Generator 301
Create Serial Number using the administration interface of the Activation Server 6 307
Create a key list with Serial Numbers 308
Create a Serial Number automatically after the Order Process 313
Create a Serial Number using own user interface 316
Other Activation Keys 334

10.3.1 Create Serial Number using License Generator

The Serial Number can be generated for each order manually with the License Generator. This is the best option if only a few orders have to be handled and no Activation Server 6 is used.

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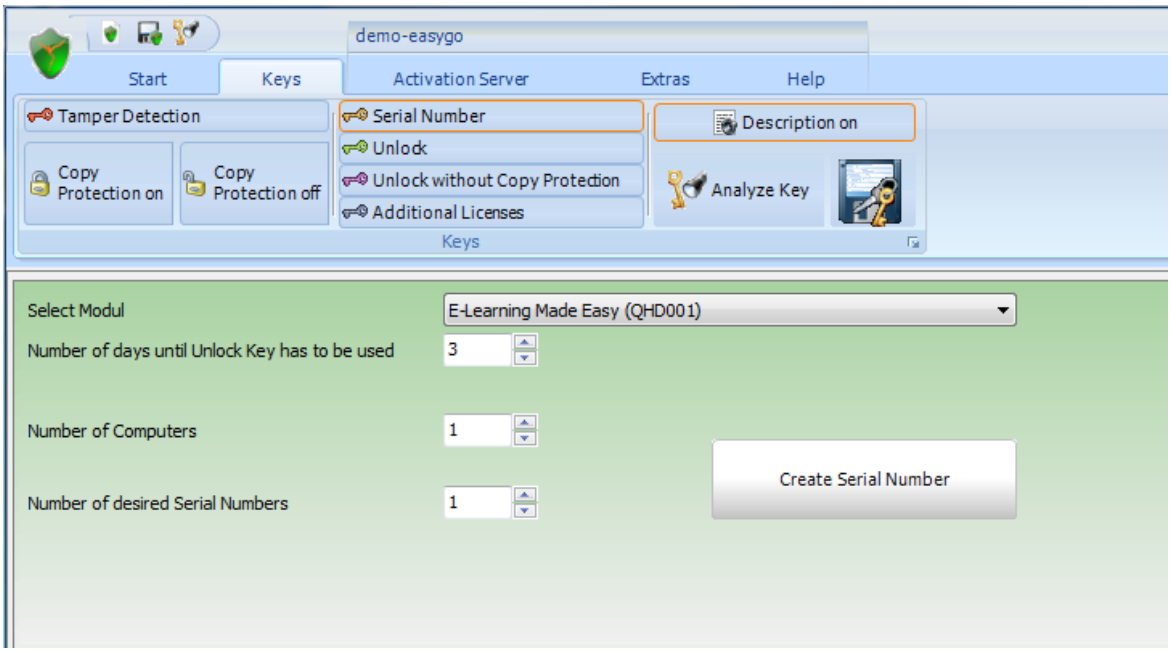
Start the License Generator and load the *demo-EasyGo.xml* or your project template.

In the TAB *Keys* select ***Serial Number***



Select Module

Select the module, for which you want to create a Serial Number. By default, all modules will appear. A good idea is to define in the project template, which module is used as the main module. Then only this module will appear in the pick list. See Define module for Serial Number 201

Number of days until Unlock Key has to be used

If activation by e-mail, fax or phone is used, there is a time difference between applying the Serial Number key and sending the Unlock Key. To allow the customer to use your application after applying the Serial Number, add a few days (typically 2-5 days) which are included in the Serial Number. The **value 0** means that the user cannot start the application before he types in the Unlock Key.

Instead of using number of days, you can also use an Expiry Date

If you deliver a **time limited full version** - see workflow options 150 - then the text changes to: **Number of days until full version expires**

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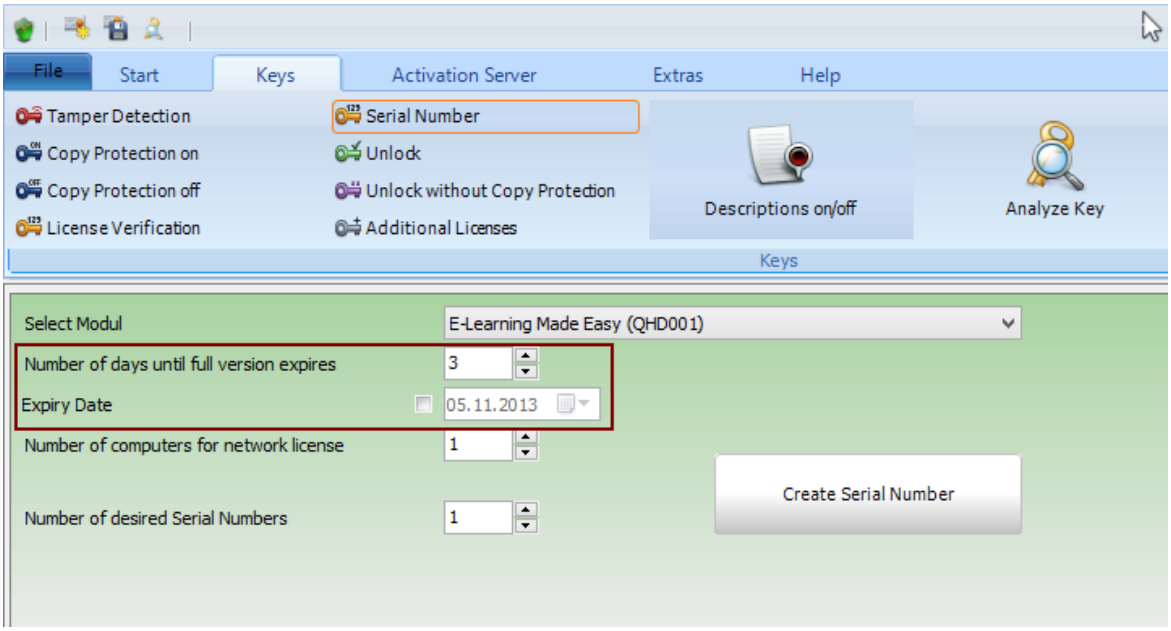
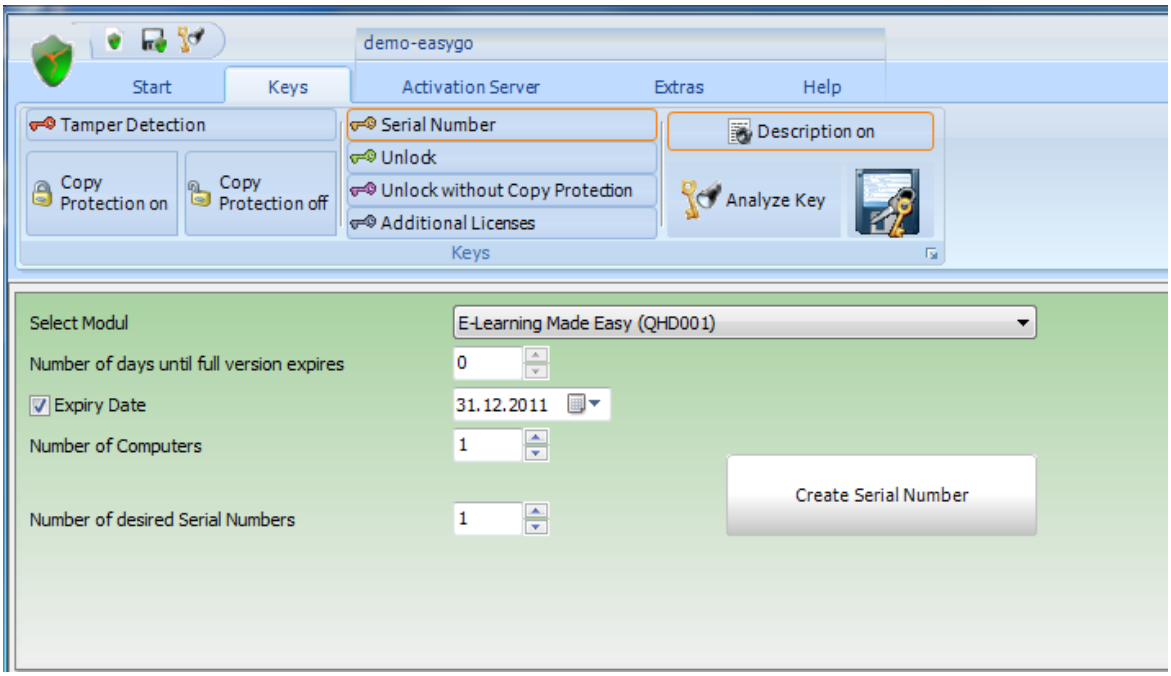


Example screenshot : After typing in the Serial Number the full version would expire in 365 days.

If you check: **Expiry Date**, then the full version would expire at this date. This is useful, if all customer versions should expire at a certain date.



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If the user has an evaluation version installed and the evaluation version has not expired yet (e.g. expiry date is in 12 days), the Serial Number would overwrite this value with the value specified in the Serial Number.

Number of...

If a network license is used (more then 1 license per PC / user / concurrent user), the number of PCs / users / concurrent users can be coded in the Serial Number. If the user buys later more licenses, send him and Additional Key 335.

This value **overwrites** the existing value in the license file. If you have an evaluation version with 5 users and the Serial Number includes 1 user, this results in a license for one user after applying the Serial Number.

For a single user installation always set this value to 1.

You can change the value for a Yes/No module or also set a value for a counter module.

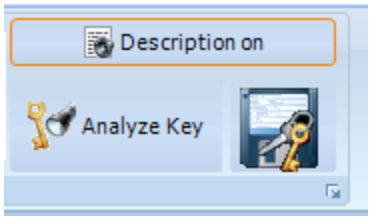
Number of desired Serial Numbers

Either generate one key per customer or generate a complete key list with hundreds of keys. For details see Create a Key List 308.

Create and Save Key

After pressing the button Create *Serial Number*, the key(s) including the extended description is/are copied into the text box. If only one key is generated, it is also copied into the clipboard.
The content of the text box can be saved to a file with the button *Save generated keys to file*.

If you send out a key by mail, turn on the option: **Description**. This will create additional text for each key to ensure, that the user types in the correct letter.



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RCGEH-5EPc3-9E7IL-3tI8X-WQU5k-6v141
In block 3 at position 4 there is the capital letter I
In block 4 at position 3 there is the capital letter I

See also: How often an a key / ID be used? 344

If you need more configuration options for a Serial Number, see Create Serial Number using Activation Keys 305

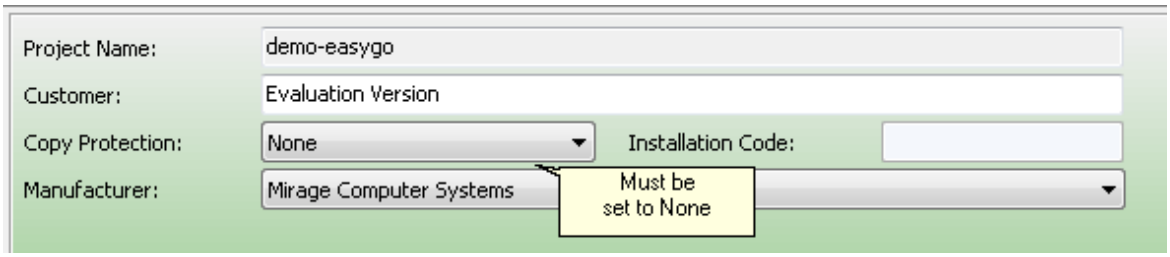
See also

Create Serial Number using Activation Keys 305
Other Activation Keys 334

10.3.1.1 Create Serial Number - using Activation Key

A Serial Number can also be created using the screen to create an Activation Key in expert mode 389. It requires specific settings. Use this option only if you want to create Serial Number Keys with additional options. Otherwise use the screen - Create Serial Number 301

Start the License Generator and load the *demo-EasyGo.xml* or your project template. Double-Click on the dots in the column *Activation Key*.



Set Copy Protection = None

The value *Copy Protection* must be set to **None** (default) as you do not know the hardware information when you generate a Serial Number.

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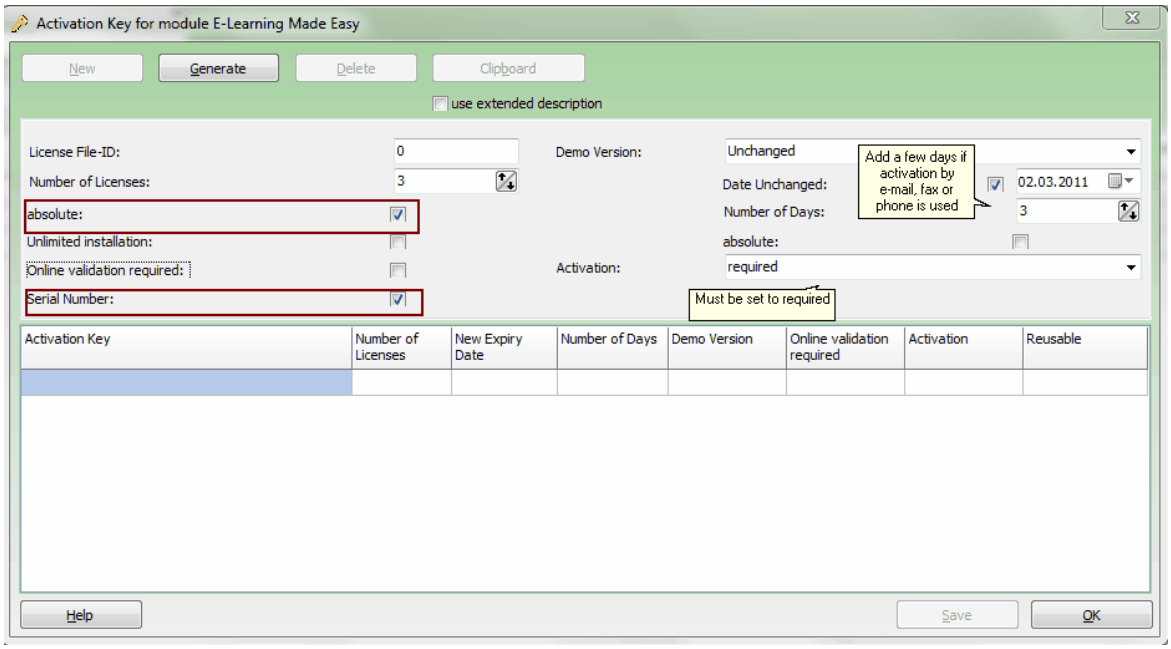
Select your main module and click on the three dots in the column *Activation Key*. You get the screen to generate an Activation Key.

Press the button ***New*** and select the follow settings. Then press: **Generate**. The key is copied into the clipboard.



Important settings are

- ***Serial Number*** must be checked
- ***Activation*** has to be set to **Required**
- ***Online validation*** required must be **unchecked**
- ***License File ID*** has to be **0**
- If you want to allow a reinstallation on the same machine 450, check **Unlimited Installation**
- ***Number of Days*** can be set to allow additional days until the registration is completed

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- If you sell a ***network license*** or use a ***counter*** then you can code the **number of licenses** in the Serial Number. You should check the **absolute** option to ensure, that the value is not added and replaces the value used in the evaluation version

Multiple Usage of Serial Numbers
By default, a key can be used only once but you can allow a reinstallation on the **same PC** (option Unlimited Installation). This is automatically checked by the Activation Server.

Note
Even if you get an activation request by e-mail, Phone or Fax the Activation Server 6 must be used to create the Unlock Key 326.

If you have no Activation Server 6 you have to ensure manually that the Serial Number is not used twice.

Never select **Online Validation required** for a Serial Number Key. The online validation is automatically done if the user selects Online Activation 232 during the activation process.

If a user types in a Serial Number and selects a manual product activation 593, he could start the application if there are still days left from the trial version. If the user should be able to start the application only after typing in the Unlock Key 320, set a date to 01/01/1900 as expiry date when you create the Serial Number. After typing in the Serial Number, the product would expire and the user can continue only when typing in the Unlock Key.

See also

Create a Serial Number using the License Generator 301
Other Activation Keys 334

10.3.2 Create Serial Number on the Activation Server

If you use the Activation Server 6, the recommended way to create a Serial Number is the browser based administration interface of the Activation Server 6. This offers several advantages

- Multiple users can create keys from **different locations**

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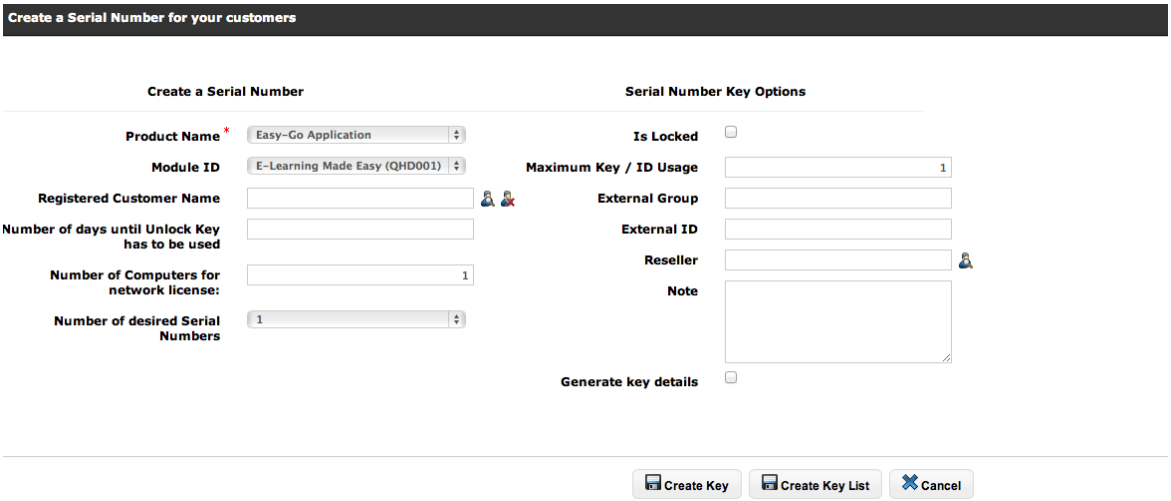
- You can assign a key to a **customer** or a **reseller**
- A **note** can be attached to a key
- The **maximum key usage** can be changed
- The key is already stored and it can be **changed** or **locked**
- You can create one single key or a key list

Log into the Web Administration Interface and select *Keys*, ***Create a Serial Number***.



For more details change to Activation Server 6 help

http://www.helpserver.biz/onlinehelp/lp/was/admin/5.0/help2000/

10.3.3 Create a Key List with Serial Numbers

If you have only a few installations to manage, it is sufficient to generate the Serial Number on a one-by-one basis manually. In case of a large volume delivery like hundreds of CD's, a key list is necessary. The key list file would then be sent to the CD duplication company. Online Shops 596 that do not support an integrated generator often support the upload of a key list.

The key list file can be generated within the screen - **Keys,** *Serial Number*. Enter the desired number of serials, press button *Create Serial Number* and then the button *Save generated keys to file*. The key list is saved as a text file.

Example
gPGEO-5EPc3-9E7Ih-3tI8X-sQU5k-6k14Z
mbGEp-5EPc3-9E7Ip-3tI8X-BQU5k-6y146
b2GEq-5EPc3-9E7Iv-3tI8X-dQU5k-6o14A
QPGEe-5EPc3-9E7IF-3tI8X-7QU5k-6214x
xSGE3-5EPc3-9E7IG-3tI8X-9QU5k-6p141
mnGEp-5EPc3-9E7Ih-3tI8X-XQU5k-69145

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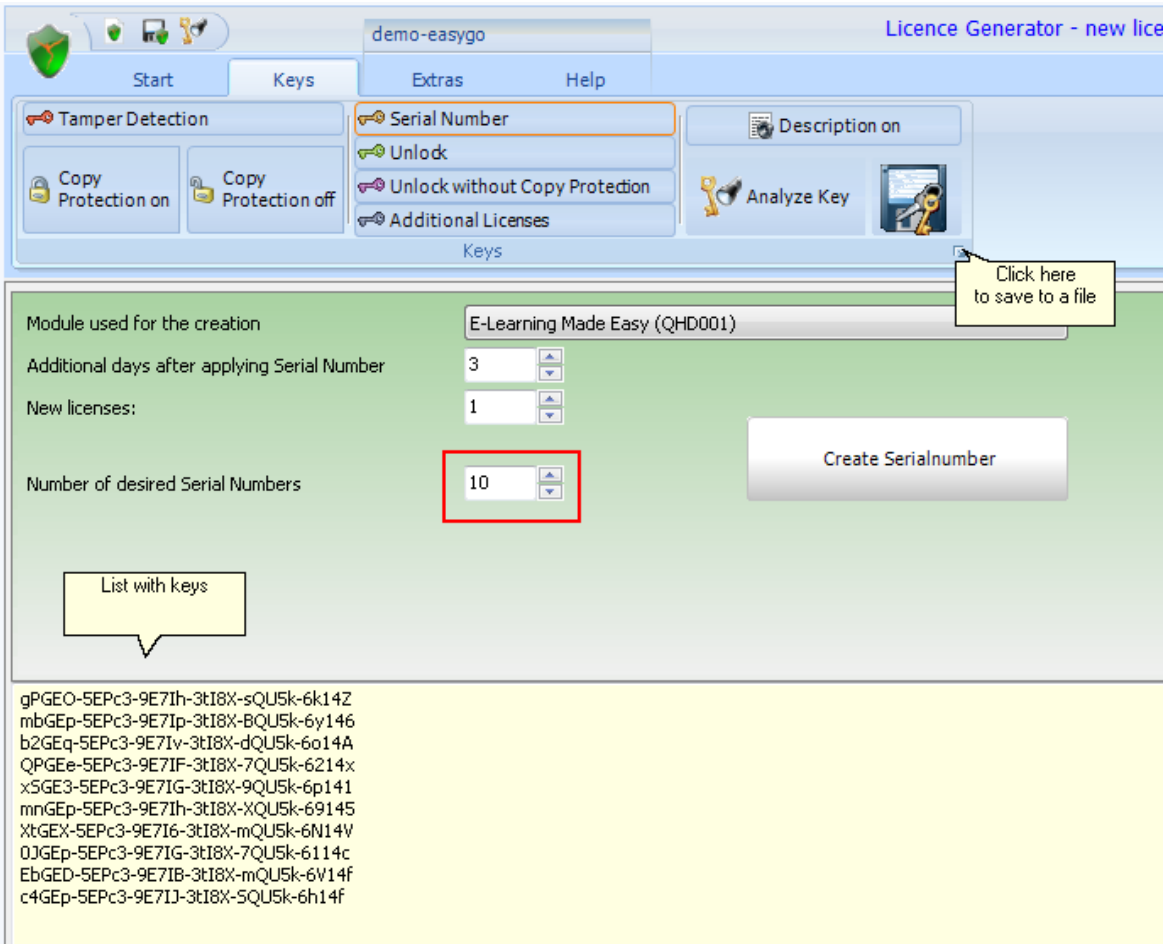
XtGEX-5EPc3-9E7I6-3tI8X-mQU5k-6N14V
0JGEp-5EPc3-9E7IG-3tI8X-7QU5k-6114c
EbGED-5EPc3-9E7IB-3tI8X-mQU5k-6V14f
c4GEp-5EPc3-9E7IJ-3tI8X-SQU5k-6h14f



A key list can also be created in a batch process - see Create a key list with the Automatic License Generator 309

The keylist can be used in Online Shops 596.

10.3.3.1 Create a Key List with the Automatic License Generator

A key list with hundreds of Serial Numbers can be generated in a batch process with the *Automatic License Generator.* 464

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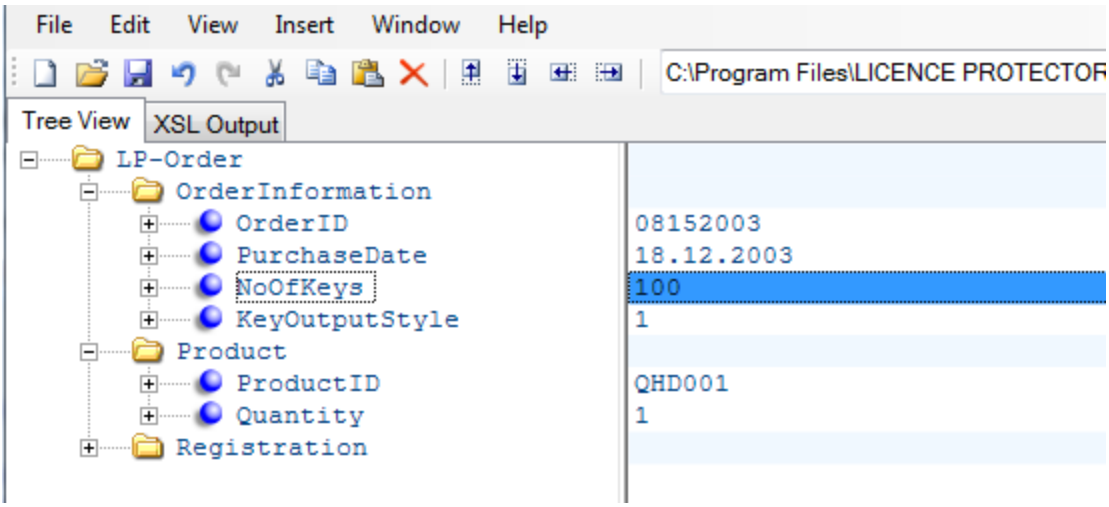
This is required if the application is sold via stores or with a box. It also simplifies the administration because per order just a key from the list can be used.

In the folder ..**\EasyGo\key list** you find sample configuration files. Basically, you have to define exactly the same settings like you would use with the manual generation 301 of a Serial Number.

Myorderkey list.xml

Change **NoOfkeys** (=number of keys you want to generate) and use your module number as ProductID.



Config-key list-EasyGo.xml

This file includes the definition, with which options the Serial Number should be created. Use the same values like you would use within the License Generator and manual generation 301. You have to change in the sample file:

- ProductID to your **product ID used in the shop**
- ProjectFilename
- ModuleNumber
- WebActivation must be set to **required,** ForceOnlineCheck must be set to **no**
- **MakeSerial** must be set to yes to create a Serial Number key
- LocalReuse 453 allows a reinstallation
- **CreateMultipleKeys** = yes creates for the selected quantity in the shopping card multiple single Serial Numbers - e.g. quantity = 10 would result in 10 Serial Numbers

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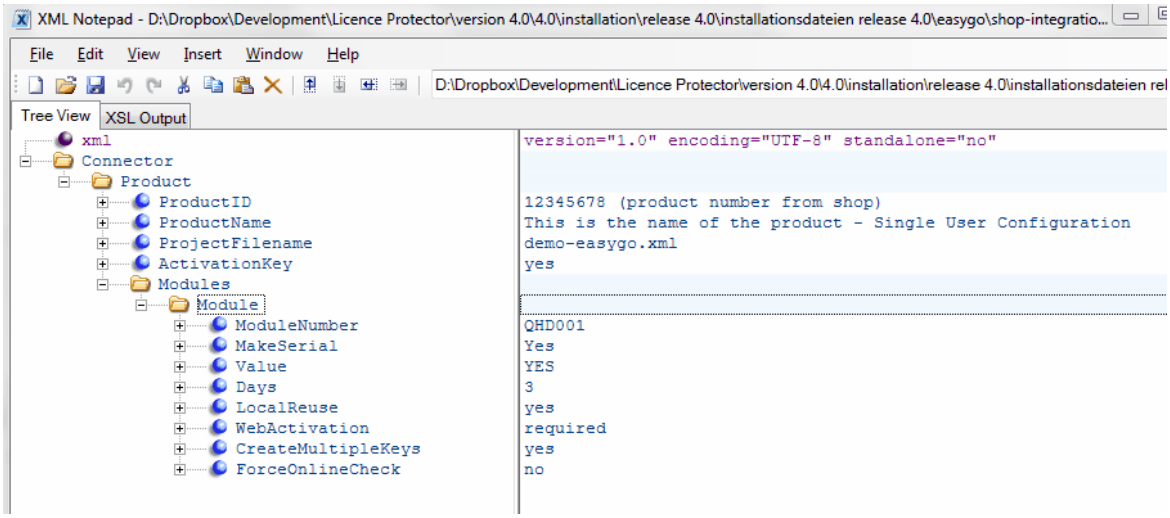
- Days should be set Number of days until Unlock Key has to be used 302 and AbsoluteDays=yes to delete remaining days from a trial version



Start the **process-key list.bat** to create the key list.

Configuration file for a network license

Myorderkey list.xml

Change

- **NoOfKeys** to the number of Serial Numbers you want to generate, e.g. 100 would generate a keylist with 100 Serial Numbers
- **Quantity** - For a Yes/No module 203 it must be 1. For a network license it is the number of network licenses, e.g. 5 = 5 user or 5 PC network license

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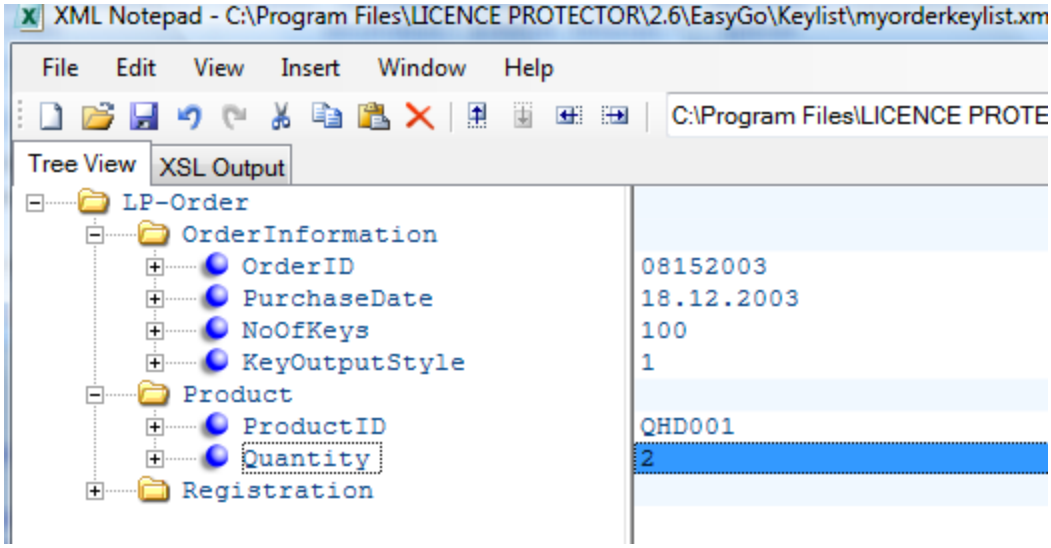
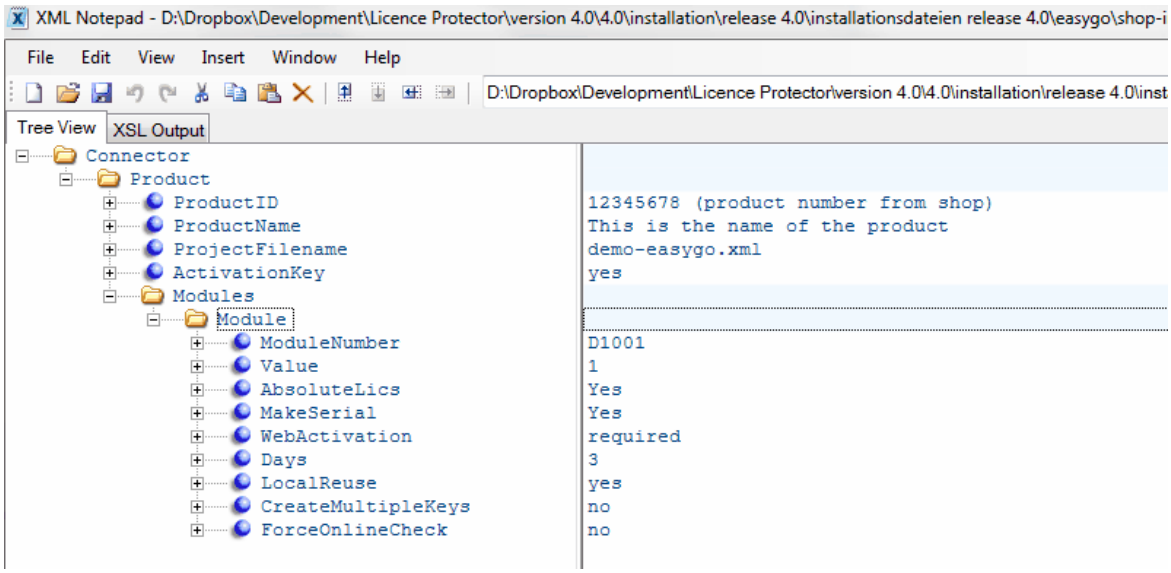


The sample above creates 100 keys with a 2 user/PC network license.

To make a Serial Number for a network license or counter set value to the number of network licenses you want to allow and **AbsoluteLics to Yes**. This replaces the existing value in the license file and does not add the licenses. Find a sample in the file config-key list-easygo-network.xml.

- **CreateMultipleKeys** = no - creates for the selected quantity in the shopping card **one** single Serial Numbers - e.g. quantity = 10 would result in one Serial Number where number of licenses = 10



Never define **ForceOnlineCheck=Yes** for a Serial Number Key. The online validation is automatically done if the user selects Online Activation 232 during the activation process.

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A key list can also be created using the License Generator - see create a key list with Serial Numbers 308

Analyze a key

After making a test, you can analyze a key if it has the correct settings - see: Analyze Activation Key 346

10.3.4 Create a Serial Number automatically

There are 2 ways to create a Serial Number by an external application

- Use Activation Server API 313
- Use Automatic License Generator 313

See also
Integration in Online Shops / E-Commerce systems 596

10.3.4.1 Use Activation Server API

This is the recommended way for external applications to create a Serial Number

Create keys using a https connection to the Activation Server 6

10.3.4.2 Use Automatic License Generator

You need the *Automatic License Generator* 464 for this type of integration

This is the best choice to automate the order process

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In the folder ..**\EasyGo\shop-integration** you find sample configuration files. Basically, you have to define exactly the same settings like you would use with the manual generation 301 of a Serial Number.

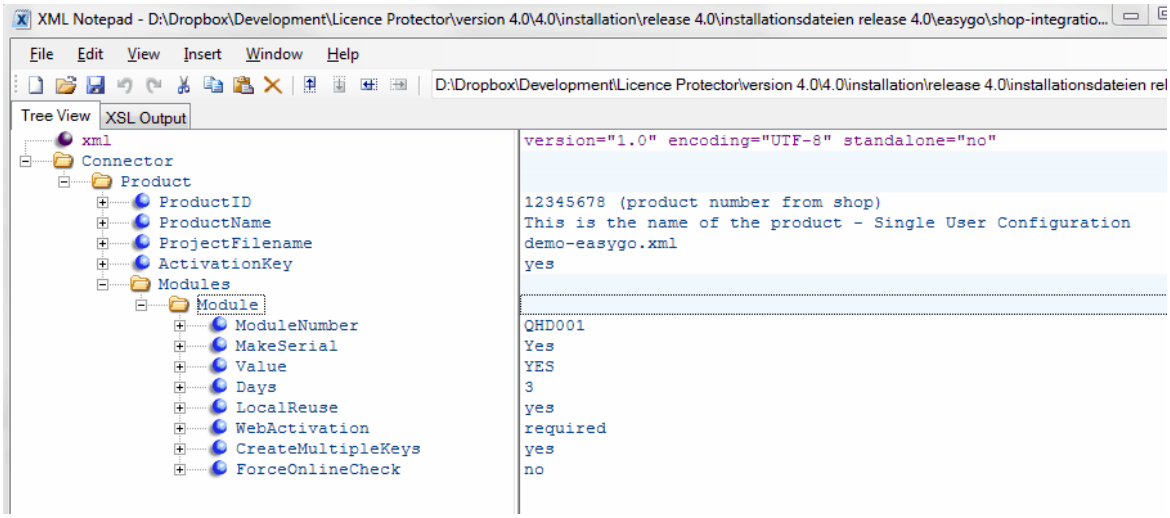
The samples are ready to go samples for the shops of www.cleverbridge.com, www.shareit.com and www.element5.com but can be used also for a generic shop integration.

Config-Autogenerator.xml

This file includes the definition, with which options the Serial Number should be created. Use the same values like you would use within the License Generator and manual generation 301. You have to change in the sample file:

- ProductID to your **product ID used in the shop**
- ProjectFilename
- ModuleNumber
- WebActivation must be set to **required,** ForceOnlineCheck must be set to **no**
- **MakeSerial** must be set to yes to create a Serial Number key
- LocalReuse 453 allows a reinstallation
- **CreateMultipleKeys** = yes creates for the selected quantity in the shopping card multiple single Serial Numbers - e.g. quantity = 10 would result in 10 Serial Numbers
- Days should be set Number of days until Unlock Key has to be used 302 and AbsoluteDays=yes to delete remaining days from a trial version

The name config-autogenerator.xml may not be changed. It can contain **any number of product definitions**.



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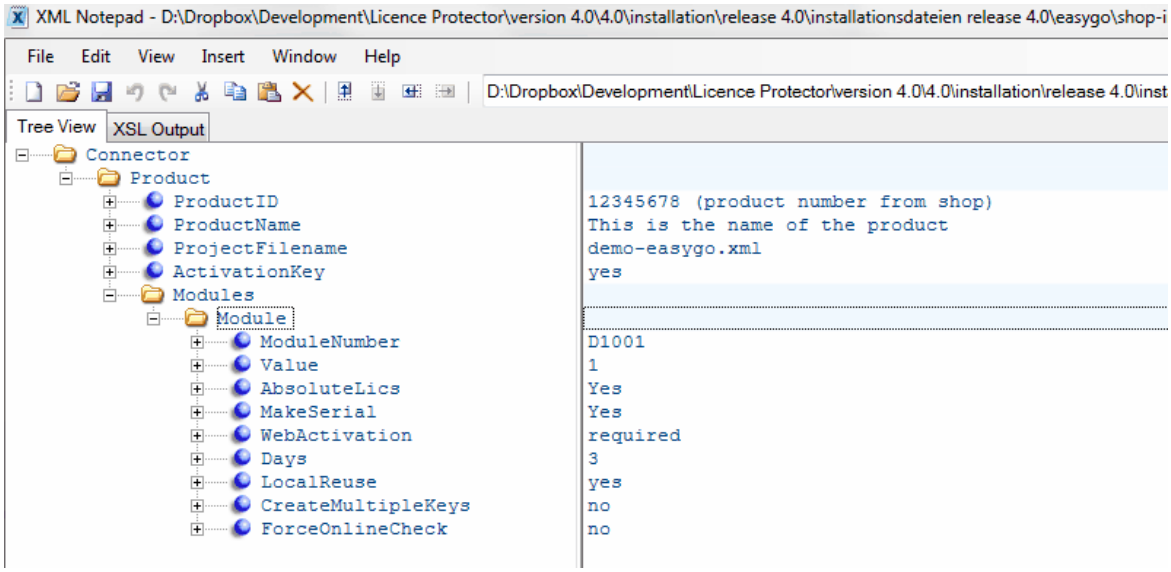
To create a Serial Number, the project template must have the definition <IsSerial> 201

Configuration file for a network license

To make a Serial Number for a network license or counter set value to the number of network licenses you want to allow and **AbsoluteLics to Yes**. This replaces the existing value in the license file and does not add the licenses. Which files you have to send to your e-commerce provider see chapter Integration in Online Shops 596.

- **CreateMultipleKeys** = no - creates for the selected quantity in the shopping card **one** single Serial Numbers - e.g. quantity = 10 would result in one Serial Number where number of licenses = 10



Never define **ForceOnlineCheck=Yes** for a Serial Number Key. The online validation is automatically done if the user selects Online Activation 232 during the activation process.

Analyze a key

After making a test, you can analyze a key if it has the correct settings - see: Analyze Activation Key 346

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10.3.5 Create Serial Number using own user interface

If you want to provide an own user interface (e.g. a browser based interface or CRM system) to create a Serial Number, you can create the Serial Number in a batch mode process. This requires the Automatic License Generator 464.

The workflow would be as follows:

- Your application writes the number of licenses (e.g. 5 user network license) and number of keys in an xml file (customerdata.xml)
- The Automatic License Generator is invoked
- The result (Serial Number Key) is provided in a text file (serialnumber-key.txt)

To create the Serial Number, you need 3 configuration files:

- the project template 182
- a configuration file for the Automatic License Generator
- a file with the customer data

All files are XML files.

Download sample configuration

Download the sample files and unzip all files into the folder of the Automatic License Generator (default is ..\Licence Protector\5.1\Automatic Generator).

Configuration File

The configuration file contains all the instructions for the Automatic License Generator. The name in the sample is *config-autogenerator-serialnumber.xml* and *config-autogenerator-serialnumber-network.xml* for a network license.

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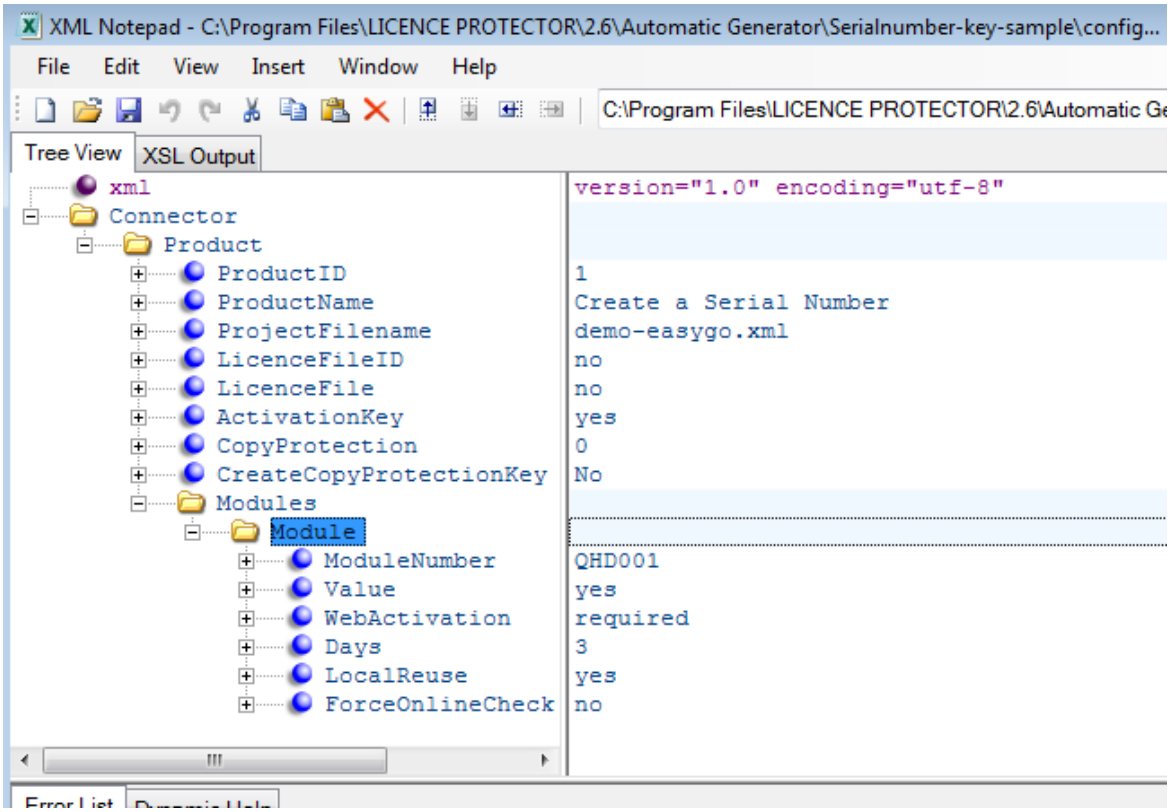

Change

- **ProjectFilename** = your project filename
- **ModuleNumber** = module number of the main module.

All other settings need not be changed.

If your main module is a network license, use the file *config-autogenerator-serialnumber-network.xml.*

File with customer data

Your application has to create this file. The name in the sample is *customerdata.xml.*

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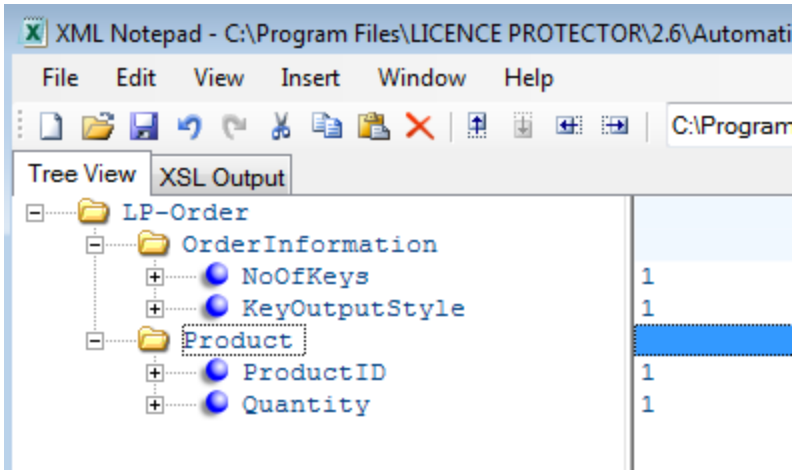

The product ID must match the product ID in the configuration file *config-autogenerator-serialnumber.xml.* Use 1.

Change

- **NoOfKeys** to the number of Serial Numbers you want to generate, e.g. 100 would generate a keylist with 100 Serial Numbers
- **Quantity** - For a Yes/No module it must be 1. For a network license it is the number of network licenses, e.g. 5 = 5 user or 5 PC network license

By default the key is written with additional text to explain some characters. If you do not need this text set **KeyOutputStyle** = 0.

Invoke Automatic License Generator

Your application can invoke the Automatic License Generator using parameters for the filenames. The sample includes a batch file with the name *create-serialnumber-key.bat* to start the batch process.

Command Line

autolicgenerator510.exe -o customerdata.xml -c config-autogenerator-serialnumber.xml -xk serialnumber-key.txt

where

- **autolicgenerator510.exe** is the latest Automatic License Generator
- **-o customerdata.xml** specifies the file with the customer data
- **-c config-autogenerator-serialnumber.xml** specifies the configuration file
- **-xk serialnumber-key.txt** specifies the result file with the Serial Number (if the result file should be in xml format then just add the parameter **-XML**)

The Serial Number is written into the text file **serialnumber-key.txt** and your application has to read this file.

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A full documentation of all configuration options and additional settings is provided in the chapter Automatic License Generator 464.

Analyze a key

After making a test, you can analyze a key if it has the correct settings - see: Analyze Activation Key 346

See also

Create Unlock Key using own user interface 328
Create a Key List with Serial Numbers 308

10.3.6 Use own IDs as a Serial Number

A Serial Number contains a lot of information like:

- Number of network licenses
- Expiry date
- Module Number
- Encryption to ensure that the Serial Number only can be used for the license it was made for
- CRC value to ensure that it was not modified

To hold this information every Serial Number has this format

ldGEl-5IPc3-9E8lq-3tQ8X-PQU5k-6m14D

There are situations, especially with CD distribution, where a short number with only upper case letters would be ideal.

If the following situation fits, you can use **any ID** as a Serial Number:

- Singe user license
- Network license but you additionally deliver a license file 172
- Full version has no time limitations after the product activation

If you create the IDs you have to just ensure, that they are unique.

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Source Code Settings

In the command SetRegisterSettings set the parameter SerialIsAK 119 to **false**.

In case you use your own screens.

- Save the ID using SetVal, Token SNR 715
- After saving, change the Activation State using SetVal, Token WST 715, Value = 1

The commands ApplyActivationKey 644, ApplyActivationKeyForProject 645 and ApplyInvisibleKey 646 do not work with own IDs

Activation Server

To ensure, that only IDs are accepted, which belong to this product, you have to upload the IDs to the Activation Server 6 and you have to configure the project, that **only uploaded IDs are accepted**.

See product configuration setting: Serial Number has to be saved before it can be used

10.4 Unlock Key

Generating an Unlock Key is only necessary if the customer registers via e-mail, 237 fax 243 or phone 248. The 8 digit installation code (hardware ID) is transferred and you have to send back the Unlock Key (copy protection key). It unlocks the version by activating the copy protection. To get a better idea of the workflow see Basics about Workflow 585.

The Unlock Key is either generated

- Using the License Generator 325

  or if the Activation Server 6 is used

- Using the Web Administration Interface 326

If copy protection is not necessary select Unlocking 330 **without** 330 Copy Protection 330 instead.

You either get an e-mail, fax or the customer calls to activate by phone.

Requesting Unlock Key by e-mail, Fax or Phone

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The customer fills out the screen for e-mail activation 237 or Fax Activation 243 and sends you an e-mail or Fax with the activation request or calls to activate by phone. You use the installation codes provided to generate an Unlock Key.

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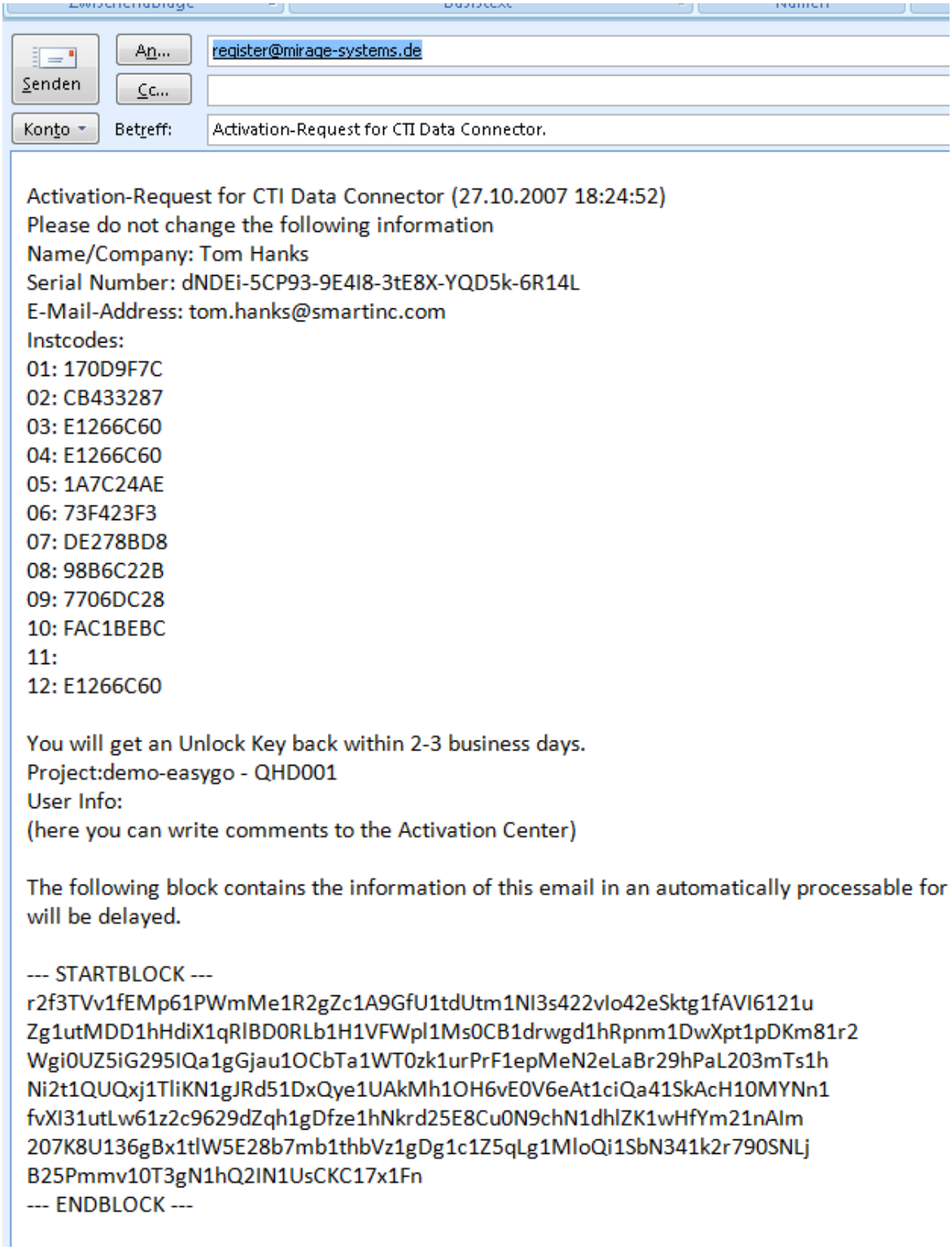

E-Mail Activation Request

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27.10.2007

Fax-Registration for CTI Data Connector

Send this fax to +49 (0)721/151599638

Name/Company: Tom Hanks

Serial Number: dNDEi-5CP93-9E4I8-3tE8X-YQD5k-6R14L

In block 3 at position 4 there is the capital letter I

E-Mail-Address: tom.hanks@smartinc.com

Instcodes:

01: 170D9F7C	02: CB433287
03: E1266C60	04: E1266C60
05: 1A7C24AE	06: 73F423F3
07: DE278BD8	08: 98B6C22B
09: 7706DC28	10: FAC1BEBC
11:	12: E1266C60

You will get an Unlock Key back within 2-3 business days.
Project: demo-easygo - QHD001

The following block contains the information of this fax in an automatically processable form. %0D%0A---
STARTBLOCK ---%0D%0Ar2f3TVv1fEMp61PWmMe1R2gZc1A9GfU1tdU
tm1NI3s422vIo42
eSktg1fAVI6121uZg1utMDD1hHdiX1qRlBD0RLb1H1VFWpl1Ms
0CB1drwgd1hRpnm1DwXpt1pDKm81r2Wgi0UZ5iG295IQa1gGja
u1OCbTa1WT0zk1urPrF1epMeN2eLaBr29hPaL203mTs1hNi2t1
QUQxj1TliKN1gJRd51DxQye1UAkMh1OH6vE0V6eAt1ciQa41Sk
AcH10MYNn1fvXI31utLw61z2c9629dZqh1gDfze1hNkrd25E8C
u0N9chN1dh1ZK1wHfYm21nAIm207K8U136gBx1t1W5E28b7mb1
thbVz1gDg1c1Z5qLg1MloQi1SbN341k2r790SNLjB25Pmmv10T
3gN1hQ2IN1UsCKC17x1Fn%0D%0A--- ENDBLOCK ---

Fax Activation Request

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Phone Activation Request

For details see workflow - Activation by e-mail, Phone, Fax 593

If a hardware ID can not be retrieved (e.g. there is no network adapter) then the code is empty.

Create Unlock Key using a Web Page

If the user has no Internet connection on his PC, he could use another PC to create an Unlock Key.

Details 332

- An Unlock Key can only be used **once**. There is no online validation but it is stored in the license file. If the user reinstalls the application and the license file is replaced with the reinstallation, the Unlock Key can be used again.
- An Unlock Key only **unlocks one module**. If multiple Serial Numbers in combination with activation by e-mail, fax or phone have been used, for each single Serial Number an Unlock Key is needed

10.4.1 Create Unlock Key using License Generator

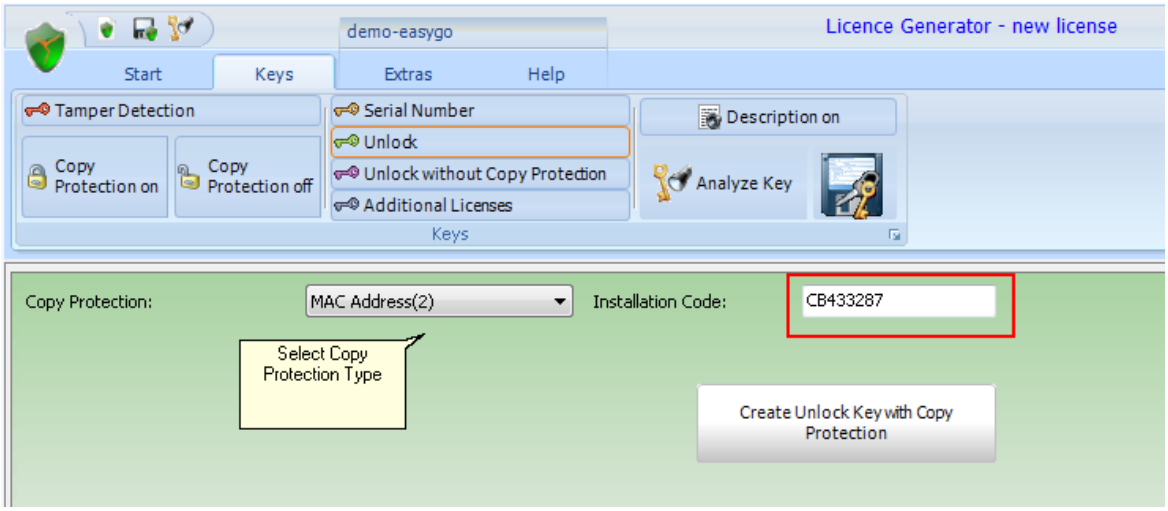
Start the License Generator and load the *demo-EasyGo.xml* project template or your application template.

In the TAB *Keys* select ***Unlock Key***

Enter the Installation Code 475 (Hardware ID) which was transmitted from the customer and select the type of copy protection (Volume ID, MAC Address, Hostname etc.) you want to use. You have to enter only **one** hardware ID.

Use CTRL + V to paste the installation code.

After pressing the button *Create Unlock Key with Copy Protection*, the key including the extended description is copied into the text box. It is also copied into the clipboard. The content of the text box can be saved to a file with the button *Save generated keys to file*.



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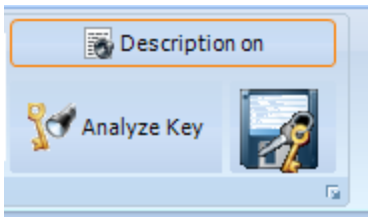
Send the Unlock Key to the user, which would use the key in the screen Enter Unlock Key 251.

If you send out a key by mail, turn on the option: **Description**. This will create additional text for each key to ensure, that the user types in the correct letter.



RCGEH-5EPc3-9E7IL-3tI8X-WQU5k-6v141
In block 3 at position 4 there is the capital letter I
In block 4 at position 3 there is the capital letter I

See also

Create Unlock Key without Copy Protection 330
Unlock Key - all options 320
Other Activation Keys 334
Explanation of all installation codes 475

10.4.2 Create Unlock Key on the Activation Server

Using the Activation Server 6 to create the Unlock Key ensures, that the Serial Number can not be used twice (e.g. customers sends the Serial Number key by fax and uses the key on another PC with Online activation).

Log into the Web Administration Interface and select Keys, ***Manual Product Activation***.

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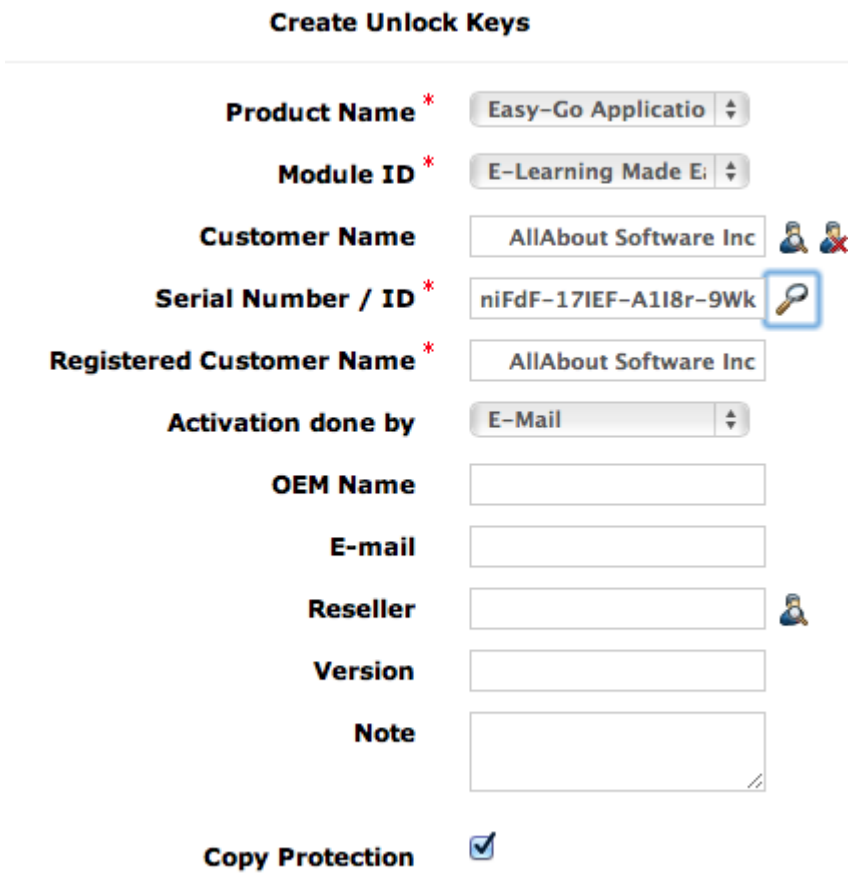

For more details change to Activation Server 6 help

See also

Explanation of all installation codes 475
Unlock Key - all options 320

10.4.3 Create Unlock Key using E-Mail Activator Service

The e-mail Activator Service is a service, which scans an e-mail account for activation requests and **automatically performs the product activation**. The end user will instantly get an Unlock Key back.

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The main features are:

- Scan an e-mail
- Decide, if it is an e-mail for product activation or another type of e-mail
- Perform an **activation or reactivation** using the Activation Server 6 server
- Send back an e-mail to the end user with different e-mail content for: *successful activation*, *denied activation* (in case the Serial Number / ID was already used or locked, *Erroneous Activations*)
- Reply messages can be defined in all languages supported by Licence Protector 5
- Notification message for every successful or erroneous e-mail
- Send all e-mails to an archive e-mail account

Click here for more information about the service.

10.4.4 Create Unlock Key using own user interface

If you want to provide an own user interface (e.g. a browser based interface or CRM system) to create an Unlock Key, you can create the Unlock Key in a batch mode process. This requires the Automatic License Generator 464.

The workflow would be as follows:

- Your application writes the installation code in an xml file (customerdata.xml)
- The Automatic License Generator is invoked
- The result (Unlock Key) is provided in a text file (unlock-key.txt)

To create the Unlock Key, you need 3 configuration files:

- the project template 182
- a configuration file for the Automatic License Generator
- a file with the customer data

All files are XML files.

Download sample configuration

Download the sample files and unzip all files into the folder of the Automatic License Generator (default is ..\Licence Protector\5.1\Automatic Generator).

Configuration File

The configuration file contains all the instructions for the Automatic License Generator. The name in the sample is *config-autogenerator-unlockkey.xml.*

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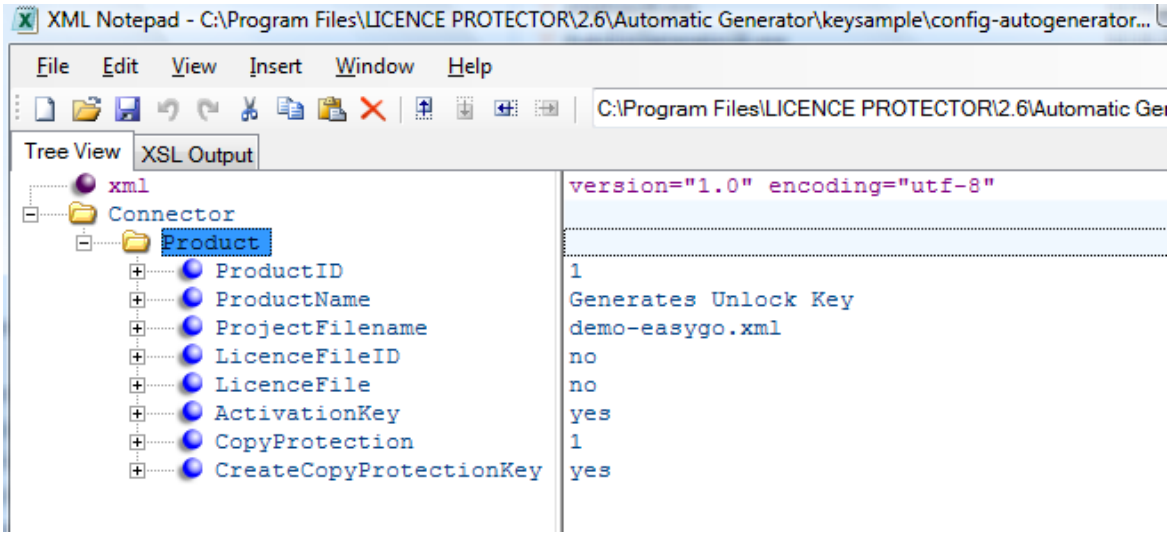


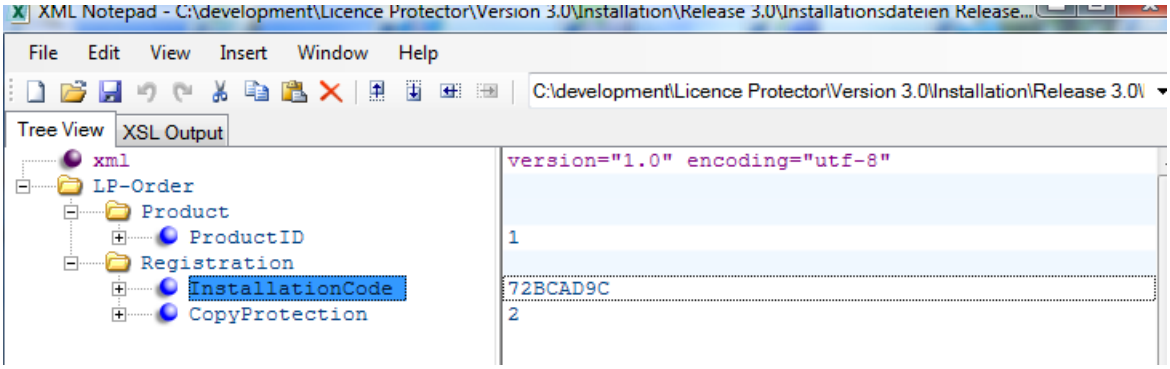
Change

- **ProjectFilename** = your project filename

All other settings need not be changed.

File with customer data

Your application has to create this file. It just contains the installation code you got by e-mail, fax or phone. The name in the sample is *customerdata.xml.*



The product ID must match the product ID in the configuration file *config-autogenerator-unlockkey.xml.* Use 1.

Change

- **InstallationCode** to the installation code of the customer

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- **CopyProtection** = the copy protection type 474 (.e.g 1= Volume ID, 2 = MAC address) you want to use. The 8 digit installation code has to be the code for this copy protection type

Invoke Automatic License Generator

Your application can invoke the Automatic License Generator using parameters for the filenames. The sample includes a batch file with the name *create-unlock-key.bat* to start the batch process.

Command Line

autolicgenerator510.exe -o customerdata.xml -c config-autogenerator-unlockkey.xml -xk unlock-key.txt

where

- **autolicgenerator510.exe** is the latest Automatic License Generator
- **-o customerdata.xml** specifies the file with the customer data
- **-c config-autogenerator-unlockkey.xml** specifies the configuration file
- **-xk unlock-key.txt** specifies the result file with the Unlock Key (if the result file should be in xml format then just add the parameter **-XML**)

The Unlock Key is written into the text file **unlock-key.txt** and your application has to read this file.

A full documentation of all configuration options and additional settings is provided in the chapter Automatic License Generator 464.

See also

Unlock Key - all options 320
Explanation of all installation codes 475

10.4.5 Create Unlock Key without Copy Protection

If the product should be unlocked with copy protection, select Create Unlock Key using License Generator 325 instead. Unlocking **without** Copy Protection will just remove the time limitation of the evaluation version, but the user could copy the product and use it on multiple PCs.

Start the License Generator and load the *demo-EasyGo.xml* project template or your application template.

In the TAB ***Keys*** select ***Unlock Key without Copy Protection.***

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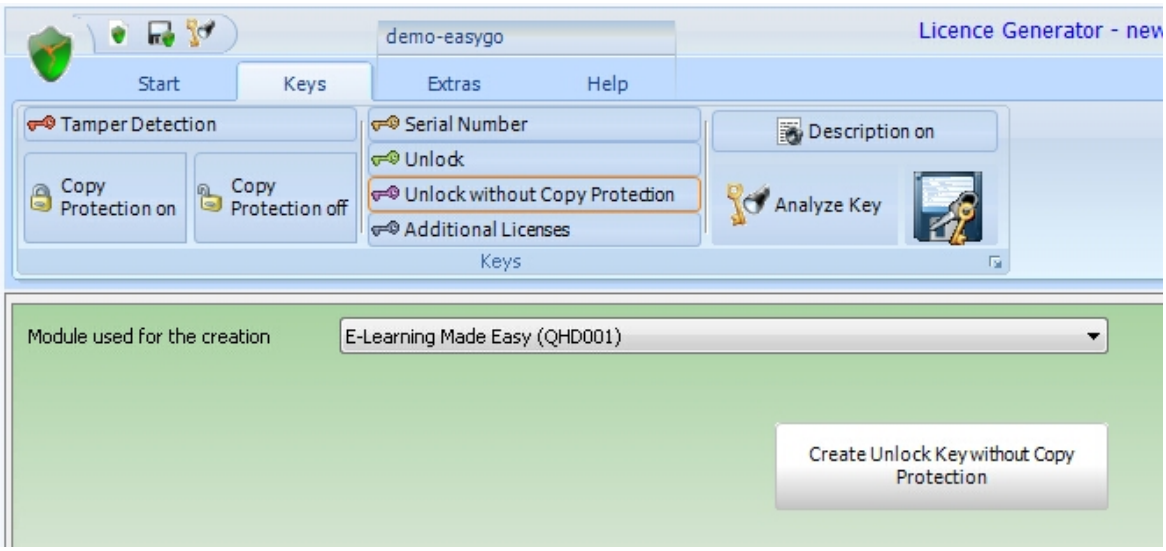
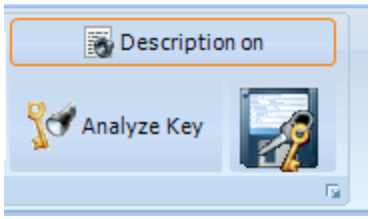
Select Module

Select the module, for which you want to create a Serial Number. By default, all modules will appear. A good idea is to define in the project template, which module is used as the main module. Then only this module will appear in the pick list. See Define module for Serial Number 201

After pressing the button *Create Unlock Key without Copy Protection*, including the extended description is copied into the text box. It is also copied into the clipboard. The content of the text box can be saved to a file with the button *Save generated keys to file*.



If you send out a key by mail, turn on the option: **Description**. This will create additional text for each key to ensure, that the user types in the correct letter.



RCGEH-5EPc3-9E7IL-3tI8X-WQU5k-6v141
In block 3 at position 4 there is the capital letter I
In block 4 at position 3 there is the capital letter I

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See also

Unlock Key - all options 320
Unlock Key with Copy Protection 325

10.4.6 Create Unlock Key using a Web Page

If the user has no Internet connection on his PC, he could use another PC to create an Unlock Key.

Configuration settings

To use this feature you have to:

- Upload the Serial Numbers to the Activation Server 6. Either import a complete key list with own Serial Numbers / ID or create Serial Numbers using the Activation Server 6
- Configure the Activation Server 6 that only keys are accepted, which are already stored in the database. See *Serial Number has to be saved before it can be used* in the product configuration how to configure this feature
- Configure the security settings so that the key generator can only be used from a specific IP address or use a password
- Configure how many requests per minute are allowed to block a possible SPAM attack

Source Code integration

There is no standard screen available. Just display the hardware ID(s) on the screen including an explanation, how the user can retrieve the Unlock Key on another PC. Use GetInstcode 684 to retrieve the hardware ID(s).

Web Page

Create a Web Page where the user can type in at least the following information:

- Serial Number / ID
- Name
- e-mail address
- Installation Code / Hardware ID

If you want to allow a reinstallation on the same PC, the user would have to type in several installation codes

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Use the following https command to create the Unlock Key and display the key on your web page

https://servername/lpweb/**KeyGenerator.aspx**?	
projectname=demo-easygo&	'project name 207 defined in the project template
entrykey=LNGEG-5IPc6-9E7Im-3tQ8X-MQU5k-6ii4W&	'Serial Number / ID
instcodetype=3&	'Installation Code / Hardware ID used for copy protection. This has to match with Selected IDs for initial activation in the product configuration (product template: InstCodeTypex)
instcode=170D9F7C&	'8 digit hardware ID
requesttype=2&	'must be 2
moduleid=QHD001&	'module ID defined in the project template. Normally this is the main module ID 203.
customername=Smart Inc.&	'name of the user
email=tom.hanks@smartinc.com	'e-mail address of the user (optional)
oemname=mycompany&	'name of the manufacturer 378 of the product. This information is stored on the Activation Server 6 (optional)
allkeys=true&	'If multiple Unlock Keys are generated, you can display only the first or all. For Easy-Go use true (optional)
password=ycnsjldsd78z9h	'password - see security settings. The IP address is automatically sent with the request to the Activation Server 6

Click on the link below to create an Unlock Key for the Serial / ID *LNGEG-5IPc6-9E7Im-3tQ8X-MQU5k-6ii4W* using the demo Activation Server 6. It will accept the same Serial Number multiple times as the hardware ID is always the same. The Unlock Key will work only on the PC with this hardware ID.

https://registerserver.net/lptest/lpweb/KeyGenerator.aspx?projectname=demo-easygo-40&entrykey=LNGEG-5IPc6-9E7Im-3tQ8X-MQU5k-6ii4W&instcodetype=13&instcode=170D9F7C&requesttype=2&moduleid=QHD001&customername=Smart Inc.&email=tom.hanks@smartinc.com&oemname=mycompany&allkeys=true&password=ycnsjldsd78z9h

Multiple Installation Codes

If reinstallation on the same PC 450 should be supported, then the user has to type in multiple installation codes. The number of installation codes required depend on the settings defined in product configuration - Selected IDs for reactivation - (product template: CheckInstCodeTypex).

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If you want to pass multiple installation codes, you have to send ALL possible codes. This version of Licence Protector 5 supports 13 different codes.

You have to omit the value instcodetype and provide **all** 13 installation codes separated with a **semicolon.** If for the reinstallation e.g. only 3 hardware IDs are required, the others can be left blank.

https://registerserver.net/lptest/lpweb/KeyGenerator.aspx?projectname=demo-easygo-40&entrykey=LNGEG-5IPc6-9E7Im-3tQ8X-MQU5k-6ii4S&instcode=170D9F7C;E1266C60;;CB433287;;;;;;;;;&requesttype=2&moduleid=QHD001&customername=Smart Inc.&email=tom.hanks@smartinc.com&oemname=mycompany&allkeys=true&password=ycnsjldsd78z9h

- You have to use the method GET (not POST) for the http request
- For a complete list of all parameters including the changing of the security parameters like password see Create Keys by external applications

10.5 Other Activation Keys

After the product is delivered, you can **change** license information using an Activation Key. A key can change all relevant license information like:

- Add number of network licenses
- Change expiry date
- Set a module to available = yes

All details about Activation Keys and how they are built with the License Generator can be found in the Chapter Activation Key - Intro 389

You can create an Activation Key using different generators - see create keys 299.

- Create additional keys using License Generator 335
- Create additional keys on the Activation Server 6 339

The Activation Key can be applied:

- During the trial period or when an error occurs, using the option Show License Information 222
- After the product is activated using the License Viewer 281

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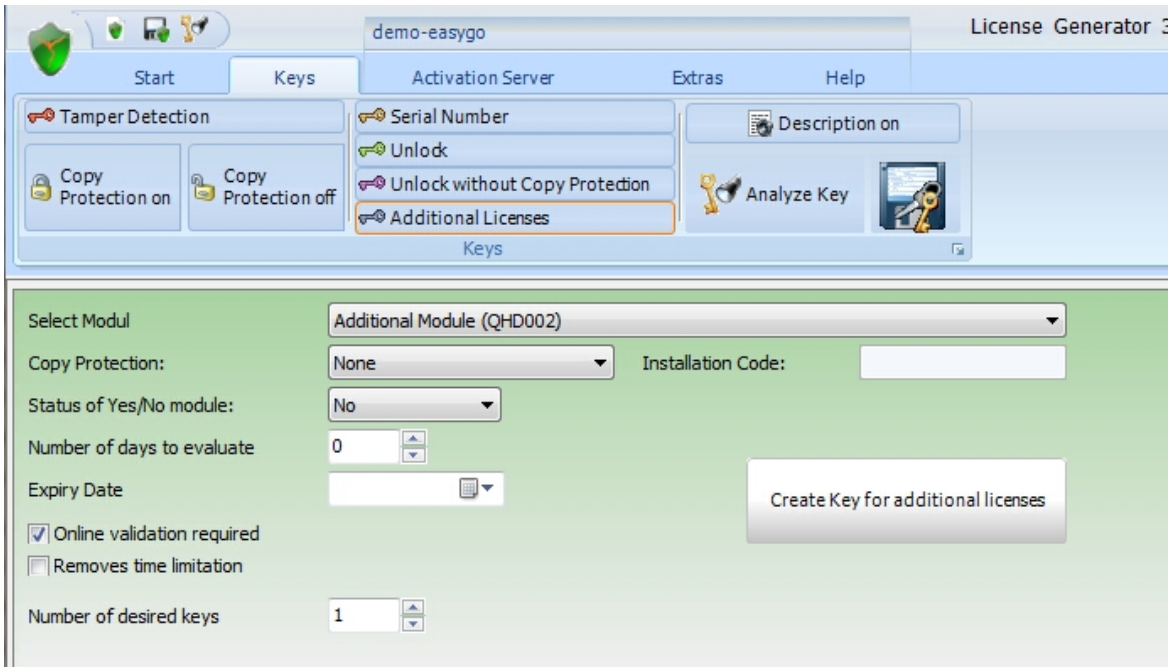
See also

Create an Activation Key on the Activation Server 339
Activation Key - Intro 389
Create Activation Key using License Generator 392

10.5.1 Create Additional Keys using License Generator

Start the License Generator and load the *demo-EasyGo.xml* project template or your application template.

In the TAB ***Keys*** select *Additional Licenses*



Select Module

Select the module, for which you want to create a key. **All modules** will appear.

Number of...

If a network license is used (more then 1 license per PC / user / concurrent user), the number of PCs / users / concurrent users can be increased or decreased by sending an Activation Key to the customer.

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This key **adds** the selected number of licenses to the existing value in the license file. If you have an existing license with 5 users and the additional license includes 2 users, this results in a license for 7 users after applying the key. Select: *Overwrite value in license file* if you want to **overwrite** the existing value.

You can change the value for a Yes/No module or also set a value for a counter module.

A value with 0 will not change the existing value in the license file. For a Yes/No module select: *Unchanged*

Number of days to evaluate

This option is to **prolong an existing trial period**. Make an Activation Key with:

- Number of .. = 0 or for a Yes/No Module = Unchanged
- either select: "Number of days" to evaluate or "Expiry Date"

Online Validation - Requires Activaton Server

If you choose the option **Online validation required**, the workflow for applying a key is as follows:

- The user needs an Internet connection to apply a key
- The key is transferred to the Activation server and is stored in the database
- If the key was already used, the key can not be applied
- If the key was already used on the same machine and reinstallation is allowed, then the key can be applied

Using this option you can create Activation Keys without knowing the license file ID or the installation code from the user and it is ensured that the key can only be used once.

Activation Screen which pops-up when the user types in the key

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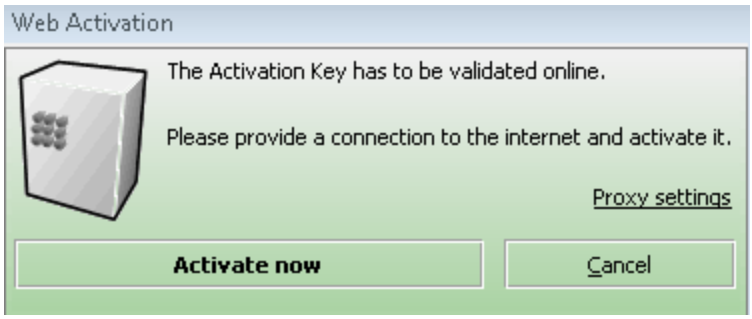

Note

- You can allow using the Activation Key multiple times on **different machines** by changing the maximum key usage on the Activation Server Administration Interface - see How can I change how often a key / ID can be used?

- You can allow to using the Activation Key multiple times on the **same machine** - see chapter Allow Reinstallation / multiple usage of an Activation Key 450

This feature requires the Activation Server 6

Using an installation code / hardware ID

If Copy Protection = None is selected, the key can be used on any machine.

You can bind an Activation Key to the Installation Code 475 (Copy Protection) of a license file. The Activation Key can then be used only on the PC / Server when the hardware ID in the key matches the hardware ID used for copy protection in the license file.

You can retrieve the Installation Code from the customer with the License Viewer. 281

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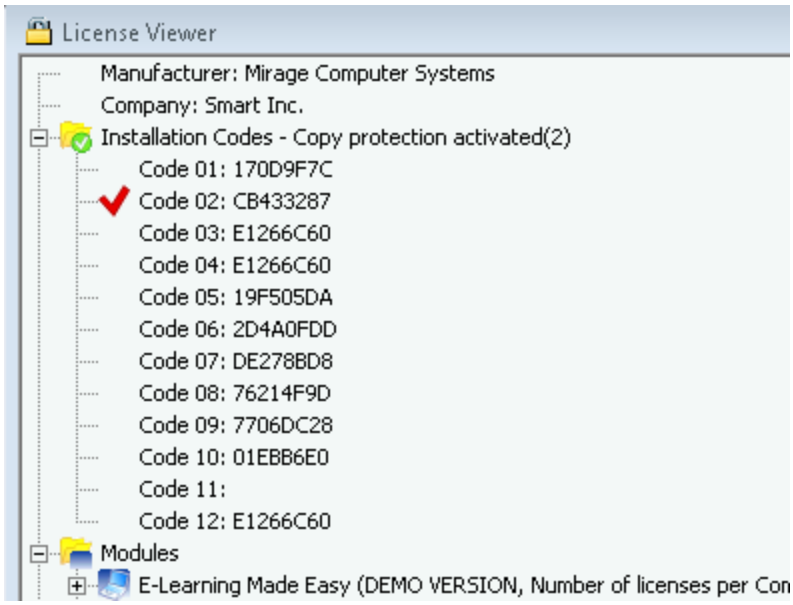

You have to use the installation code which is marked with ✔

Removes time limitation

The option **removes the expiry date** of a license.

To ensure, that a key can not be used on multiple machines, there are 2 options available:

Number of desired keys

Either generate one key per customer or generate a complete key list with hundreds of keys. For details see Create a Key List 340

After pressing the button *Create Key for additional licenses*, the key including the extended description is copied into the text box. It is also copied into the clipboard. The content of the text box can be saved to a file with the button *Save generated keys to file*.

If you send out a key by mail, turn on the option: **Description**. This will create additional text for each key to ensure, that the user types in the correct letter.

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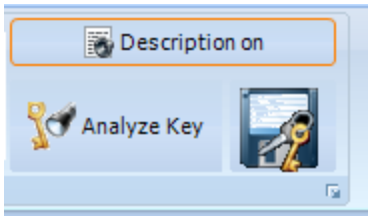


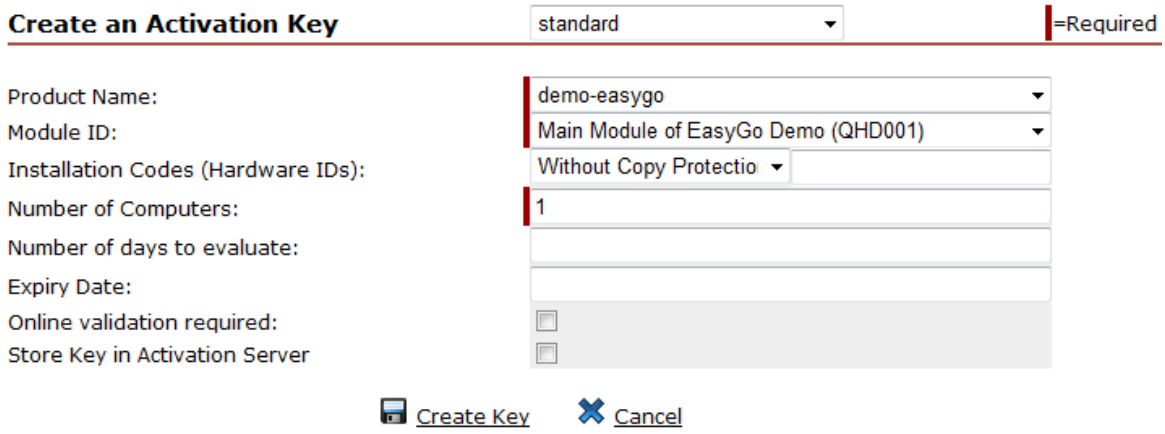
RCGEH-5EPc3-9E7IL-3tI8X-WQU5k-6v141
In block 3 at position 4 there is the capital letter I
In block 4 at position 3 there is the capital letter I

If you need more configuration options for a key, see Create Activation Key 392

10.5.2 Create Additional Keys on the Activation Server

If you use the Activation Server 6, the recommended way to create an Activation Key is the browser based administration interface of the Activation Server 6.

Select *Keys*, **Create an Activation Key**.



Create an Activation Key

.

Complete description - Create an Activation Key using Activation Server 6

See also

Activation Key - Intro 389
Create Activation Key using License Generator 392

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10.5.3 Create a Key List with Activation Keys

If you have only a few installations to manage, it is sufficient to generate the Activation Key on a one-by-one basis manually. In case of a large volume delivery like hundreds of CD's, a key list is necessary. The key list file would then be sent to the CD duplication company. Online Shops 596 that do not support an integrated generator often support the upload of a key list.

The key list file can be generated within the screen - **Keys, Additional Licenses**. Enter the desired number of keys, press button *Create Key for additional licenses* and then the button *Save generated keys to file*. The key list is saved as a text file.

Example
Cv9E0-5EP93-9EBIO-3t68X-yQL6k-6o14g
6D9ES-5EP93-9EBIo-3t68X-tQL6k-6Z14D
2z9Eg-5EP93-9EBIr-3t68X-AQL6k-6z148
eG9E4-5EP93-9EBIS-3t68X-FQL6k-6U14a
mj9Ep-5EP93-9EBI2-3t68X-1QL6k-6V14A
z29E1-5EP93-9EBI6-3t68X-xQL6k-6g14t
mx9Et-5EP93-9EBI1-3t68X-9QL6k-6g145
qt9EQ-5EP93-9EBIh-3t68X-SQL6k-6W14A
e19Eu-5EP93-9EBI0-3t68X-dQL6k-6F14i
N09Eg-5EP93-9EBIC-3t68X-vQL6k-6n149

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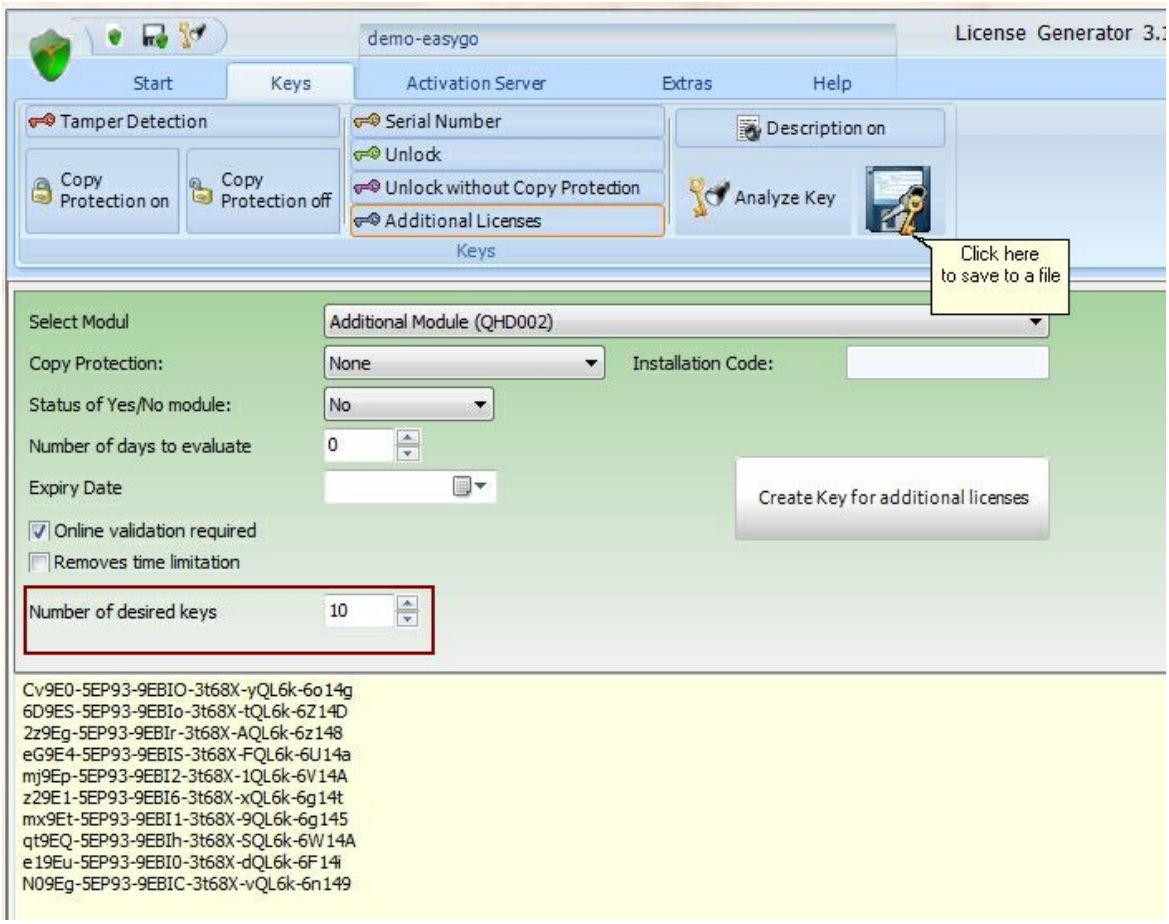

A key list can also be created in a batch process - see Create a key list with the Automatic License Generator 464

10.5.4 Prolong a trial / evaluation version

To prolong a trial version, create a key to change the expiry date.

Number of days to evaluate

Specify the number of days the trial version should be extended. The day count starts **when the user applies** the Activation Key

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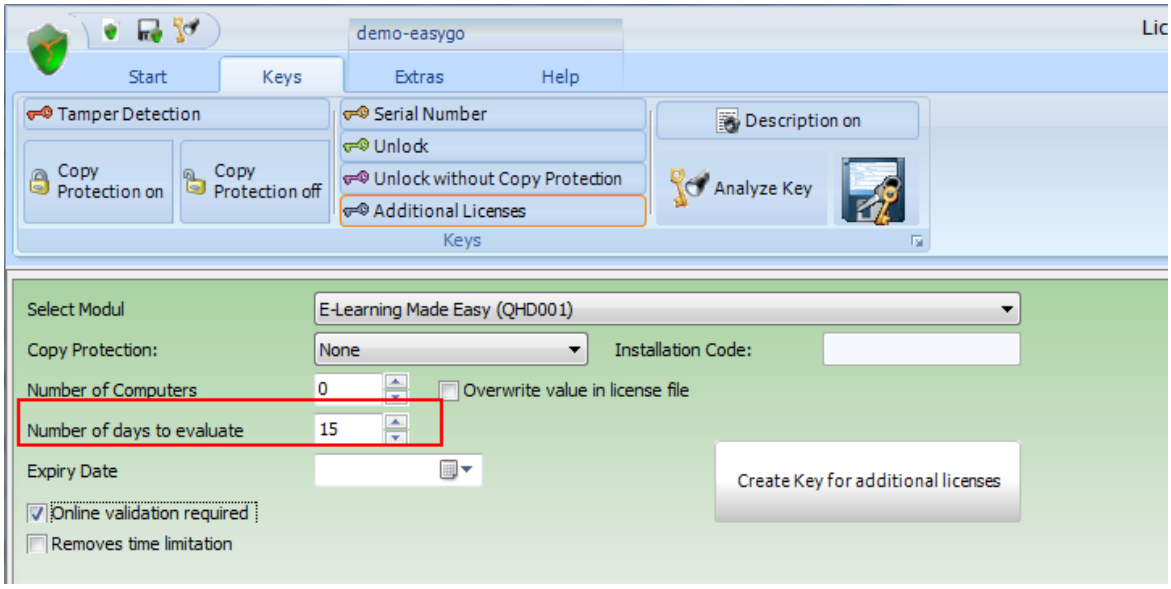
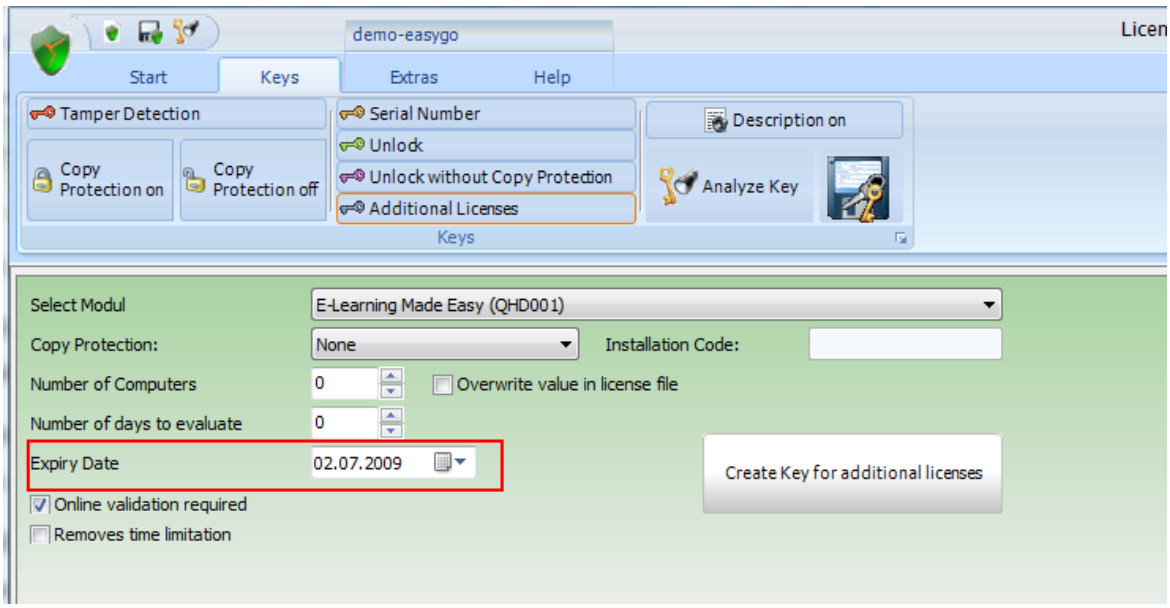


Expiry Date

The Activation Key would change the expiry date to this date in the license file.



You could check *Online Validation required* to ensure, that the key cannot be used twice.

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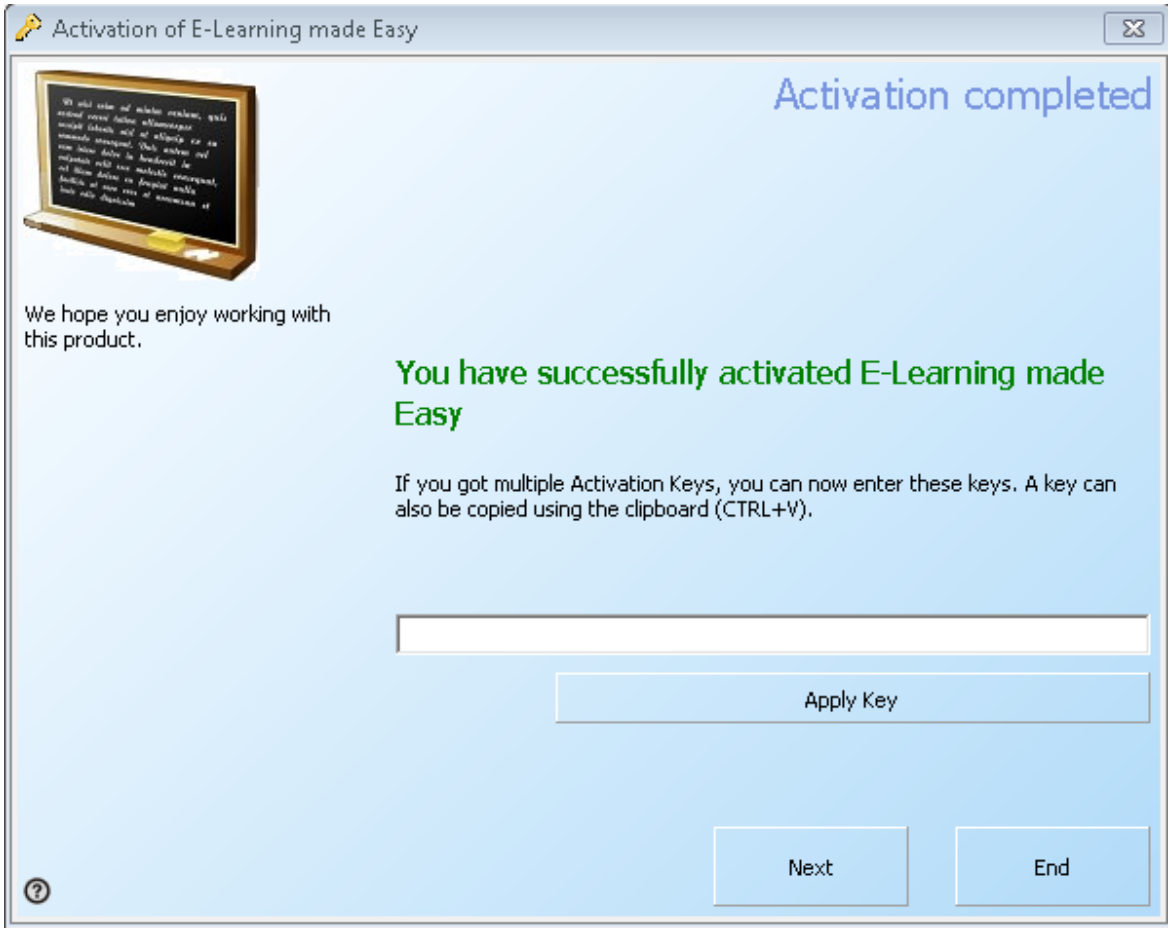
The field: *Number of....* must be set to 0. Otherwise the number of licenses would be increased

10.6 Serial Number with additional keys

By default, the user has to type in the Serial Number and after the activation is done, he can type in additional keys.



It is possible, to deliver the Serial Number + **all additional keys**, separated with a semicolon. All keys can then be used as a *'key chain'* where the **first key must be the Serial Number**.

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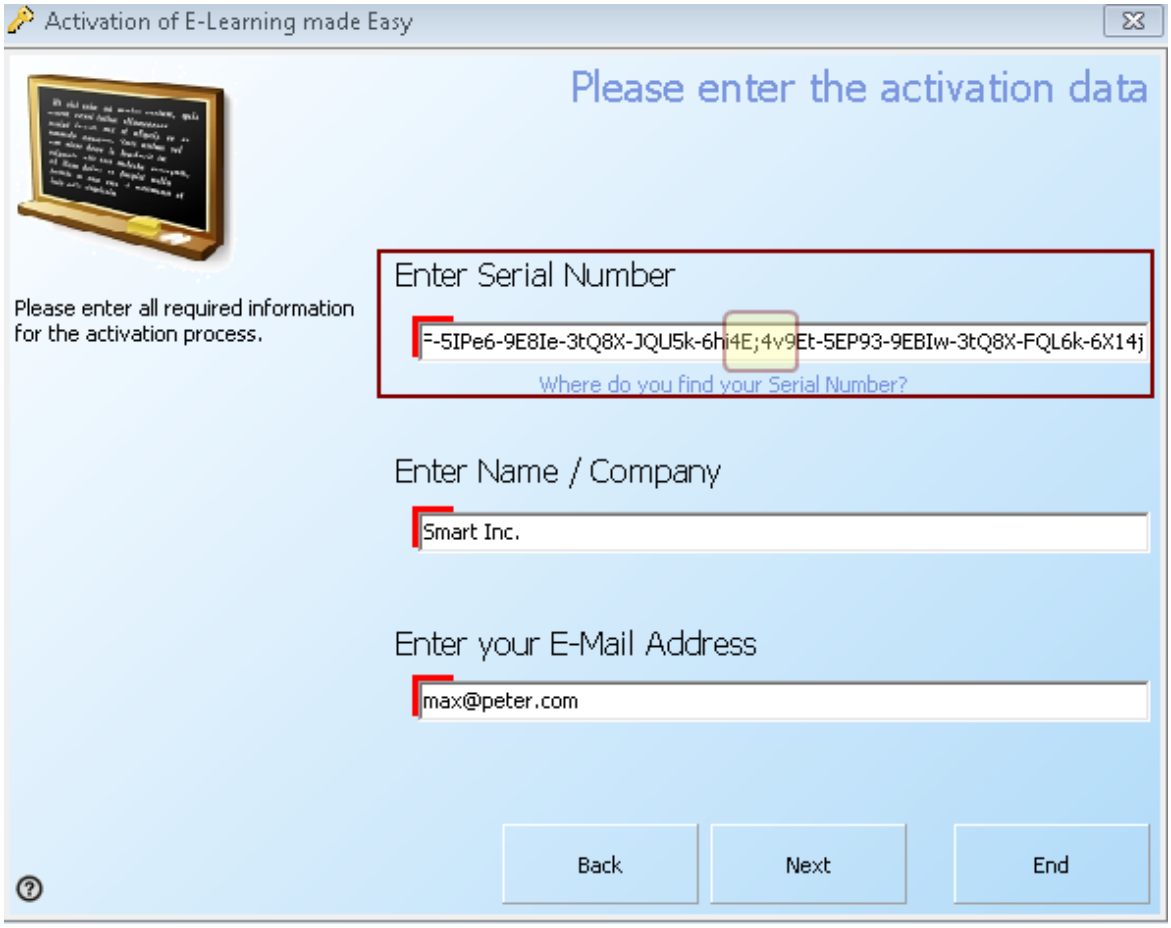

10.7 How often can a key / ID be used?

The default usage of a key / ID is **1**. This can be changed in different ways.

Change the maximum key usage only for ONE SINGLE key

Create a new Key

When a key is created using the Web Administration Interface, the maximum Key / ID usage can be defined. You also have to check the option: *Store key in Activation Server*

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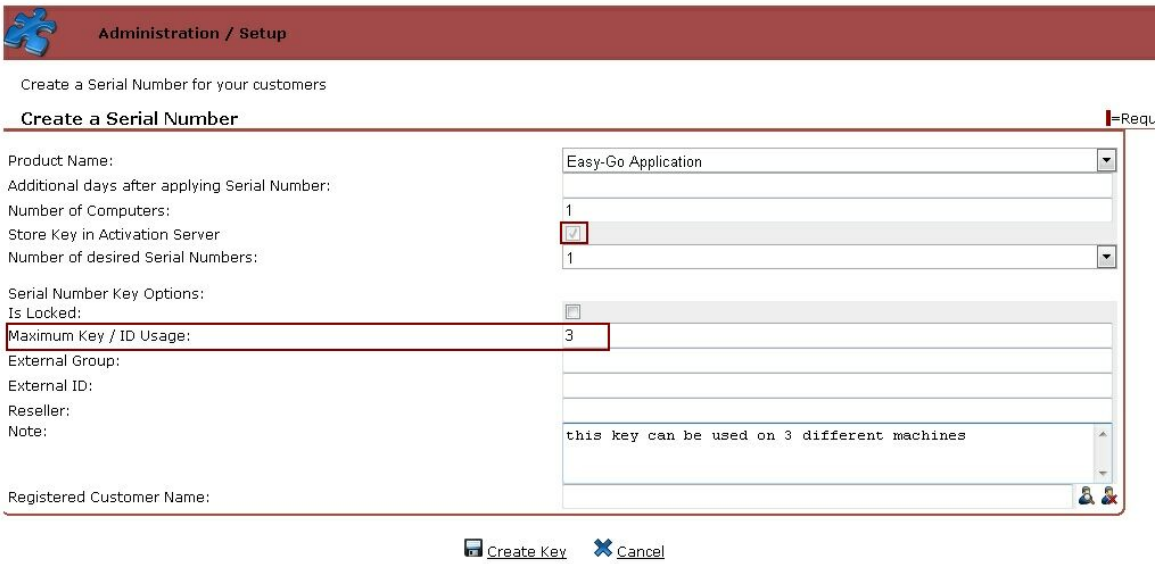
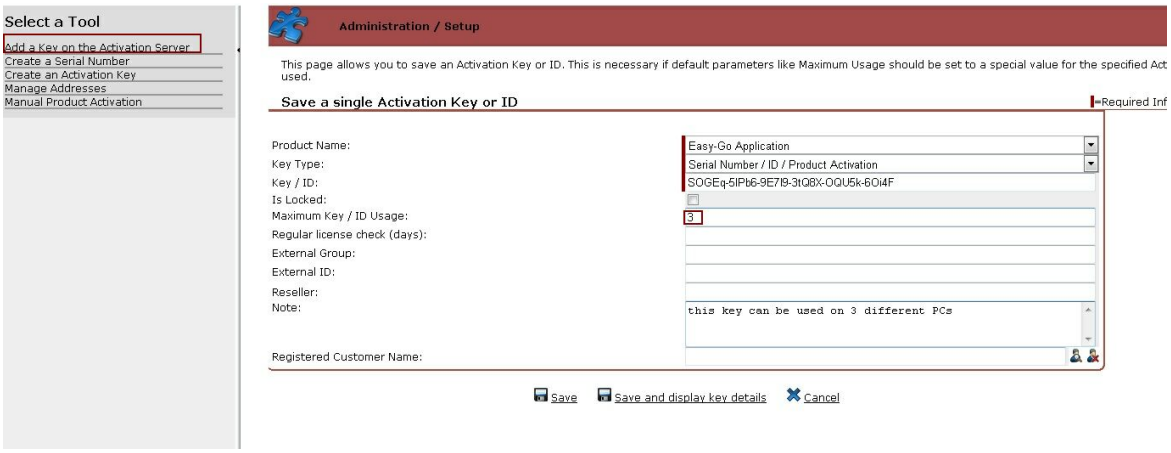


Create Key - change Maximum Key / ID Usage

Change a key / ID which is unused

In case a key was already created but never used, you can add this key on the Activation Server 6.

Select: *Add a Key on the Activation Server* , add the key and define the maximum Key / ID usage



Add Key - change Maximum Key / ID Usage

Change a key / ID which was already used

If a key / ID was already used, you search for the key and modify it (TAB Manage Activations, Key List or Transactions)

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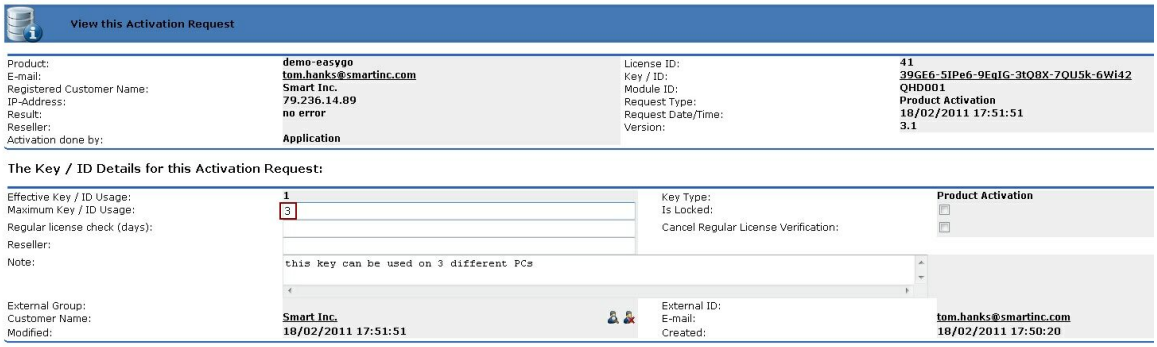

Change Maximum Key / ID usage

Change the maximum key / ID usage for ALL keys / IDs of one project

This is done in the product configurationon the Activation Server 6. It is valid for all future key / ID usages (even if a key was already used) of a project.

Field: *Maximum Key / ID usage* for Serial Numbers and *Maximum Activation Key* usage for Activation Keys

Multiple usage of a key on the same PC

If a Serial Number / ID / Key is used again on the same PC, it does **not** count as a new key usage.

The details are explained in the chapter: Allow Reinstallation / Product Reactivation 450

10.8 Analyze Activation Key

All Activation Keys have the same format 300 and you cannot even guess, which settings a key would change.

The License Generator allows to analyse an Activation Key. Either select the icon in the title bar or in the Tab **Keys.**

The clipboard content is automatically inserted. Press the button *Analyze Key*. You get a complete list of all the settings of the Activation Key.

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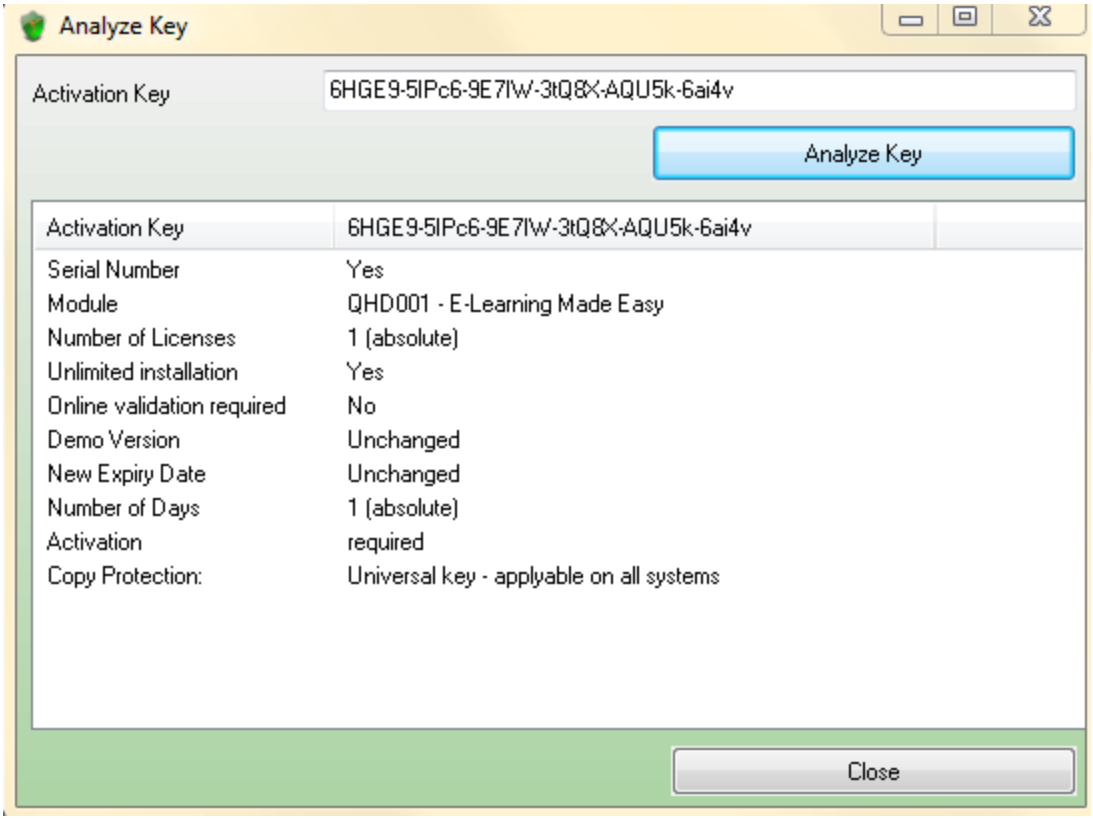

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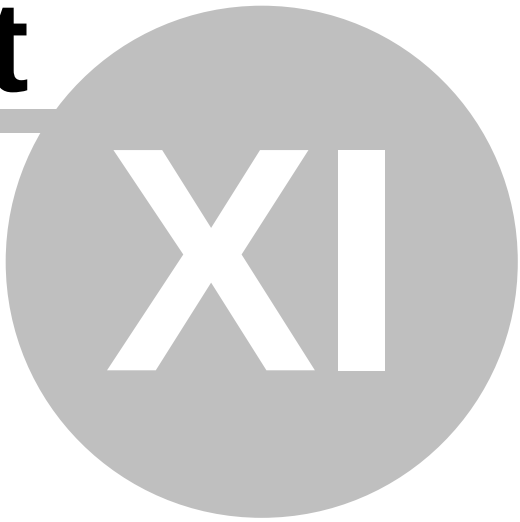
Part



11 Installation and Distribution

You may distribute the Licence Protector 5 DLL to any number of customers. To create your installation package you need to know more about

- Required Files 349
- Installation and System Requirements 350

11.1 Required files

To distribute Licence Protector 5 you need:

- The Licence Protector 5 DLL 349
- The license File 349

11.1.1 Licence Protector DLL / COM EXE

You must distribute one of the **LicProtector.DLL** files or the COM Exe 88.

See - Add the LicProtectorEasyG.dll to your project 76 which DLLs are available.

All available DLLs can be found in the folder **..\files for distribution.**

11.1.2 Licence File

In addition to these files you need to distribute your license file. **You may never distribute a license file which you already have opened with one of Prepare commands because then it is modified**. Copy the license file directly after creation to you installation folder. You can name this file like you want.

For EasyGo you need a generic license File - see: how to create a generic license File 588 .

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11.2 Installation and Distribution

System Requirements

Licence Protector 5 runs on **Windows Vista to Windows 10**. Every Windows System needs the latest service pack. .NET applications are supported as long as they run on the specified Windows systems.

64 bit applications are supported using the COM exe.

Depending on the installation type there are different installation procedures:

- Installation on a single PC 350
- Network Installation 354
- Register DLL / COM exe without admin rights 356
- Use DLL without registering 358
- Unregister DLL / COM exe 361
- Uninstall an application 361

11.2.1 Installation on a single PC

Installation Requirements

Until Vista, it was possible to copy the license file to the program directory. To ensure that a installation is working on all platforms including Vista / Windows 8 we recommend not using the program directory.

Necessary Rights

During Installation

- Depending on the registration tool (see below) admin or non admin rights

During Runtime of the Application

- **read and write permission to the license file**
- read and write permission to the registry (hkey_current_user)

If Licence Protector is used within a .NET server application, check if the .NET server user has the necessary rights.

Installation of the DLL

The folder **..\files for distribution** contains all Licence Protector DLLs. There is an folder with a **compressed version** and uncompressed version. We recommend using the

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uncompressed version because it works with all compilers and operating systems.

Licence Protector offers different ways to register the DLL / COM exe:

- Using LPRegister510.exe 356 - it **registers** the DLL / COM exe **without** needing administrator rights
- Do **not register** the DLL if you use a manifest file 358. Administrator rights are not needed. Manifest files are not supported for the COM exe
- Register the DLL / COM exe with the windows tool regsvr32.exe or the inbuilt option of an installer. This **requires** administrator rights

You should copy the licprotector510.dll to the \windows**system32** folder although it could also be installed in your program directory. As each DLL version of Licence Protector has an own ProgID, multiple different versions can be installed on the same machine.

Best Practice

- If your installer needs administrator rights, use the inbuilt option of the installer or regsvr32.exe. To use regsvr32.exe add a shell execute command in the installer which invokes regsvr32.exe
  - Register the DLL: Execute "c:\windows\system32\regsvr32.exe" " .... \pathname\LicProtector510.dll" (note: this requires administrator rights)
  - Register the COM exe: LicProtector510.exe **/regserver** (note: this does not require administrator rights)

- If your installer does not need administrator rights then use LPRegister510.exe 356
- If you do not have an installer and you only copy files to a folder, use a manifest file 358
- If you just want to register the DLL manually on one system, use LPRegister510.exe 356. Using regsvr32.exe would work as follows:

  - right click on “Command Prompt” in Accessories and click “**Run as Administrator**”
  - run regsvr32 "....\pathname\LicProtector510.dll” in the command window

If multiple users on one computer or services use the COM exe, then you have to register it using administration rights and the command:
LicProtector510.exe **/regserver /NOREDIRECT**

Vista / Windows 7 / Windows 8 and MSI files
Some installers generate a message HRESULT -2147220472 or -2147023898. This is due to missing rights during installation. Use LPRegister510.exe 356 to register the DLL and not the installer built in dll register function.

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Installation of the license file

Each user needs a read and write access to the license file.

Windows Vista / Windows 7 / Windows 8 / Windows 10

Considerations

The installation has to be done in administrator mode. A user with a standard account will automatically be prompted to provide administrator credentials.

If User Account Control is enabled (default) the following installation scenario is **NOT** working.

- install the licence file to **C:\Program Files**\YourApp\app.lic

If the standard user starts your application, Licence Protector 5 will write back information in the licence file (depending on the features your are using). The file would be **virtualized** to the folder *C:\Users\username\AppData\Local\VirtualStore\Program Files\YourApp\app.lic.*

Although your application would open the licence file on *C:\Program Files\YourApp\app.lic*, the file would be opened in *c:\Users\username\AppData\Local\VirtualStore\Program Files\YourApp\app.lic*. **The result would be that each user has a different licence file.**

Recommendation

Although we found no recommended procedure from Microsoft how to share a file on one PC for all users, the following installation process will work.

- Install the licence file to **C:\ProgramData***yourcompany name\appname\app.lic*

By default, standard users have only Read access and the folder is not visible. See below how to set write access to this folder.

Retrieve folder names

You can retrieve the folder name via the registry.

HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\explorer\Shell Folders

Common AppData	**C:\ProgramData**
Common Programs	C:\ProgramData\Microsoft\Windows\Start Menu\Programs
Common Documents	C:\Users\Public\Documents
Common Desktop	C:\Users\Public\Desktop
Common Start Menu	C:\ProgramData\Microsoft\Windows\Start Menu
CommonPictures	C:\Users\Public\Pictures

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CommonMusic	C:\Users\Public\Music
CommonVideo	C:\Users\Public\Videos
Common Favorites	none
Common Startup	C:\ProgramData\Microsoft\Windows\Start Menu\Programs\Startup
Common Templates	C:\ProgramData\Microsoft\Windows\Templates
Common Administrative Tools	C:\ProgramData\Microsoft\Windows\Start Menu\Programs\Administrative Tools
Personal	none

- Set write access to a folder during installation.

  Some installers have built in options to change rights on folders. You cannot use the standard Windows tool *cacls.exe* or *icacls* (Vista) because you have to address the user / group name you want to change in the language of the operation system - e.g. 'users' or 'Benutzer'.

  There is a tool ***SetAcl.exe*** which allows using SID to change the permission. The tool can be downloaded here: http://setacl.sourceforge.net/html/examples.html . Documentation for the SID can be found here (only German): http://www.grurili.de/index.html?/Grundlagen/WellKnown_SIDs.htm

  Your installer could use the following sequence

  - Copy setacl.exe to the installation directory
  - Execute **Setacl.exe e.g. "maindir\SetAcl.exe" -on "maindir" -ot file -actn ace -ace "n:S-1-5-32-545;p:full;s:y"** - This will set full rights to the group *users*. The SID S-1-5-32-545 is used instead of the name *users*

    (note: maindir is the folder name like c:\ProgramData\yourcompany name\appname)
  - Delete setacl.exe

Sign your Installer file

Although you could deliver an unsigned installer file, we recommend adding your digital signature. You can buy a code-signing certificate from one of the accredited providers like www.verisign.com, www.thawte or www.comodo.com.

With the digital signed installer file your users do not get warning messages when they download the file or launch the application.

First check your installation tool if it supports to add a digital signature. As installers often add their own CRC checks a digital signature would destroy the installer file. Therefore the installer tool has to add the signature first before the CRC check is added.

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11.2.2 Network Installation

The network installation needs a shared folder on the server for the license file - for details see Network license - how it works 548. A 'Server' is not necessary. The shared folder could also be on an external hardware drive like NAS drive.

Necessary Rights

During Installation
- Depending on the registration tool (see below) admin or non admin rights

During Runtime of the Application
- **read and write permission to the license file on the server**
- read and write permission to the registry (hkey_current_user)

If Licence Protector 5 is used within a .NET server application, check if the .NET server user has the necessary rights.

Installation of the DLL

The folder **..\files for distribution** contains all Licence Protector DLLs. There is an folder with a **compressed version** and uncompressed version. We recommend using the uncompressed version because it works with all compilers and operating systems.

Licence Protector offers different ways to register the DLL / COM exe:

- Using LPRegister510.exe 356 - it **registers** the DLL / COM exe **without** needing administrator rights
- Do **not register** the DLL if you use a manifest file 358. Administrator rights are not needed. Manifest files are not supported for the COM exe
- Register the DLL / COM exe with the windows tool regsvr32.exe or the inbuilt option of an installer. This **requires** administrator rights

You should copy the licprotector510.dll to the \windows**system32** folder although it could also be installed in your program directory. As each DLL version of Licence Protector has an own ProgID, multiple different versions can be installed on the same machine.

Best Practice

- If your installer needs administrator rights, use the inbuilt option of the installer or regsvr32.exe. To use regsvr32.exe add a shell execute command in the installer which invokes regsvr32.exe
  - Register the DLL: Execute "c:\windows\system32\regsvr32.exe" " .... \pathname\LicProtector510.dll" (note: this requires administrator rights)
  - Register the COM exe: LicProtector510.exe **/regserver** (note: this does not require administrator rights)

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- If your installer does not need administrator rights then use LPRegister510.exe 356
- If you do not have an installer and you only copy files to a folder, use a manifest file 358
- If you just want to register the DLL manually on one system, use LPRegister510.exe 356. Using regsvr32.exe would work as follows:

  - right click on “Command Prompt” in Accessories and click “**Run as Administrator**”
  - run regsvr32 "....\pathname\LicProtector510.dll” in the command window

If multiple users on one computer or services use the COM exe, then you have to register it using administration rights and the command:
LicProtector510.exe **/regserver /NOREDIRECT**

Vista / Windows 7 / Windows 8 and MSI files
Some installers generate a message HRESULT -2147220472 or -2147023898. This is due to missing rights during installation. Use LPRegister510.exe 356 to register the DLL and not the installer built in dll register function.

Installation of the license file

Each user needs a read and write access to the license file. There is no special consideration for Vista / Windows 7 / Windows 8.

Copy the license file to a **folder on the server** and assign the license file a **read and write permission** for all users.

If you want to change the permission with an installer see below.

- Set write access to a folder during installation.

  Some installers have built in options to change rights on folders. You cannot use the standard Windows tool *cacls.exe* or *icacls* (Vista) because you have to address the user / group name you want to change in the language of the operation system - e.g. 'users' or 'Benutzer'.

  There is a tool ***SetAcl.exe*** which allows using SID to change the permission. The tool can be downloaded here: http://setacl.sourceforge.net/html/examples.html .
  Documentation for the SID can be found here (only German):
  http://www.grurili.de/index.html?/Grundlagen/WellKnown_SIDs.htm

  Your installer could use the following sequence

  - Copy setacl.exe to the installation directory
  - Execute **Setacl.exe e.g. "maindir\SetAcl.exe" -on "maindir" -ot file -actn ace -ace "n:S-1-5-32-545;p:full;s:y"** - This will set full rights to the group *users*. The SID S-1-

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5-32-545 is used instead of the name *users*

(note: maindir is the folder name like c:\ProgramData\yourcompany name\appname)

- Delete setacl.exe

Sign your Installer file

Although you could deliver an unsigned installer file, we recommend adding your digital signature. You can buy a code-signing certificate from one of the accredited providers like www.verisign.com, www.thawte or www.comodo.com.

With the digital signed installer file your users do not get warning messages when they download the file or launch the application.

First check your installation tool if it supports to add a digital signature. As installers often add their own CRC checks a digital signature would destroy the installer file. Therefore the installer tool has to add the signature first before the CRC check is added.

11.2.3 Register DLL / COM exe

The DLL / COM exe has to be registered. Typically an installer has an inbuilt feature to register a DLL or EXE file. In case the installer does not have this option or you want to manually register the file use the following command line.

- regsvr32.exe "..path to DLL\ LicProtector510.DLL"
- LicProtector510.EXE /regserver

You need admin rights to register the component

See also: Register DLL / COM exe without admin rights 356

11.2.4 Register DLL / COM exe without admin rights

Licence Protector 5 comes with an own tool to register the DLL - **lpregister510.exe**. You can use it as as standalone application or within your installer.
The tool offers a unique feature. It registers the DLL and the COM exe **without needing administrator rights**.

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How is it working?

LPregister bypasses the operating system when a registration is done. If a user has no administration rights, it registers the DLL / COM exe only for this user. If a user has administrator rights, the DLL / COM exe is registered like using Windows regsvr32.exe for all users.

Example

- User A has no administrator rights. The DLL / COM exe is registered for this user. If user B logs into the same machine the DLL / COM exe is not available and has to be registered again for user B
- User A has administrator rights. The DLL / COM exe is registered on machine level. If user B logs into the same machine the DLL / COM exe is also registered for user B

Installation

You find **lpregister510.exe** in the folder *Licence Protector\5.1*files for distribution**Registration Tools**

Copy the file to the **same directory**, where the DLL (LicProtector510.DLL) or COM exe (LicProtector510.EXE) is located. Start lpregister510.exe. It will search for the Licence Protector files and register it.

If the DLL / COM exe is on another folder, you can specify the path and filename with a command line parameter. Only the names LicProtector510.dll and LicProtector510.exe are supported. Other DLLs cannot be registered.

Example
lpregister510.exe - registers the DLL or the EXE if the file is on the **same folder** like lpregister510.exe
lpregister510.exe "c:\program files\myapp\LicProtector510.dll"
lpregister510.exe "LicProtector510.exe"
lpregister510.exe /? - displays a help text

The name LicProtector510.dll and LicProtector510.exe when used as a command line parameter is case sensitive and must be exactly written with upper and lower case letters like in the example above

RegSvr32User.exe

This tool can be used to register **any DLL for the current user** without the need of admin permissions. It can only be used if you have a valid Licence Protector license.

RegSvr32User.exe <dllname> [/s]

/s = silent, do not display dialogue boxes

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Example
RegSvr32User.exe c:\program files\myapp\LicProtector510.dll"
RegSvr32User.exe c:\program files\myapp\LicProtector510.dll" /s

There is another option to use the DLL without administrator rights by using manifest files 358.

11.2.5 Use DLL without registering

You can install the Licence Protector 5 DLL (not COM exe) without registering it. The DLL is loaded during runtime. This allows an installation process which does **not require administration rights**.

All compilers - use a manifest file

You need a manifest file with the same name as the EXE file - e.g if the application file name is demo-easygo.exe the manifest filename must be demo-easygo.exe.manifest. Find below a sample manifest file for the License Tester 296 which can also be downloaded here (sample is for version 510).

You have to change

- Name - name of the EXE file
- Version - version number of the EXE file
- File name = name of the Licence Protector DLL
- Size = size of the LIcence Protector DLL
- LIBID - can be found for each DLL version in the chapter Add the LicProtector 76 510.dll 76
- CLSID - can be found for each DLL version in the chapter Add the LicProtector 76 510.dll 76
- ProgID - can be found for each DLL version in the chapter Add the LicProtector 76 510.dll 76

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<assembly xmlns="urn:schemas-microsoft-com:asm.v1" manifestVersion="1.0">

<assemblyIdentity name="licence-tester.exe" version="3.1.0.261" type="win32"
processorArchitecture="x86"/>
<file name="LicProtector510.dll" hashalg="SHA1">
 <comClass
    clsid="{1B391193-ADFD-4611-AACB-2191F2856551}"
```

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```
    description="LicProtector Object"
    tlbid="{DA322443-FFD3-4727-B624-FF46E16268E5}"
    threadingModel="apartment"
    progid="LicProtector.LicProtectorDLL510"/>
 <typelib
    tlbid="{DA322443-FFD3-4727-B624-FF46E16268E5}"
    version="5.1"
    helpdir=""
    flags="hasdiskimage"/>
</file>

</assembly>
```

Some development tools like C++ compile a manifest file in the EXE file. Windows XP uses the external manifest file but Windows 2003, Vista or Windows 8 would use this **internal manifest file** and ignore the external manifest file. You can edit the internal manifest file in the source code and change it (recommended) or remove the internal manifest file. Removing the file could cause problems, e.g. missing skinning support.

.NET - use DLL without registering

Visual Studio allows an installation **without** registering the DLL. The flag **Isolated must be set to true.**

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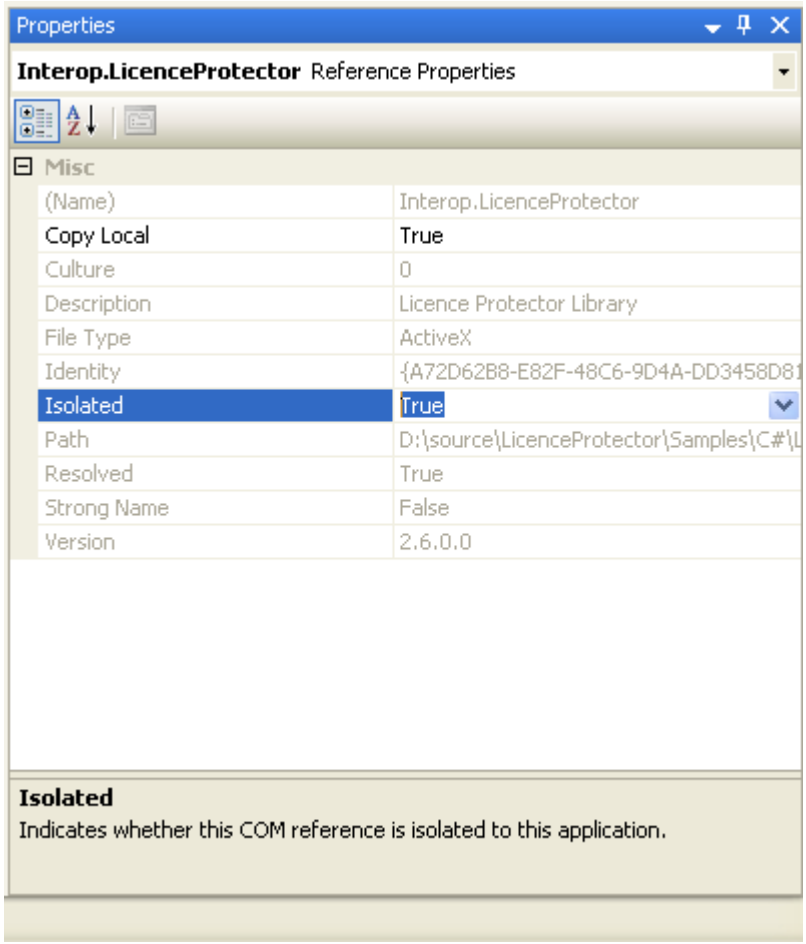

Article about the isolated COM
http://qualapps.blogspot.com/2007/06/isolated-com.html

- Java - use DLL without registering

To use the DLL without registering, you have to build a standalone EXE file and the manifest file like described above.

Using .JAR files are not supported. They need to register the DLL.

See also article regarding supported operating systems
http://msdn.microsoft.com/en-us/library/f8h7012w.aspx

Tool to create manifest files and background information
http://www.mazecomputer.com/index.htm

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There is another option to use the DLL without administrator rights by using LPregister510.exe 356

11.2.6 Unregister DLL / COM exe

Unregister DLL

Unregister the DLL using regsvr32.exe:

- right click on “Command Prompt” in Accessories and click “**Run as Administrator**”
- run regsvr32 **/u** "....\pathname\LicProtector510.dll” in the command window

Unregister COM exe

To unregister the COM exe using the following command line:

- right click on “Command Prompt” in Accessories and click “**Run as Administrator**”
- run "....\pathname\LicProtector510.exe” **/unregserver** in the command window

11.2.7 Uninstall an application

When you uninstall a product, you should unregister the DLL / COM exe and transfer the license.

Unregister the DLL / COM exe

If your application is installed using an installer application, the unregister process of the DLL / COM exe is done automatically by the installer. How to manually unregister see Unregister / DLL / COM exe 361

License Transfer

Typically users don't bother to transfer the license 571 before they uninstall an application. A good idea is to do the license transfer automatically during the uninstall process. This requires only a few API commands.

Invoke your application with a command line like /uninstall. Then process the following API commands

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- PrepareFoce 738
- Only if the product is already activated, do a license transfer (GetWebActivation 717 = 2)
- Disable screen messages using ShowWASStartPage 806, ShowWAProgressPage 804, ShowWAResultPage 805
- Retrieve main module ID using MainModuleID 725
- Retrieve the Serial Number using GetSeria 709l. Only if the result string is not empty (a Serial Number is available) do the license transfer
- DeactivateModule 661 - this deactivates the license and does the license transfer. Ensure that you transfer the complete license file (SendLicData = true)
- Quit your application

When the user installs the application on a new computer, you have to activate the license transfer functionality with SetRegisterLicTransfer 114 using the **exact same values** (File Description,Encryption Code) you used in DeactivateModule. During product activation with PrepareAndCheck, the old license file will be automatically downloaded.

Do the license transfer only for a single user installation. A network license should be manually transferred by the admin using the workflow explained in Transfer a license from PC A to PC B 571

11.3 Checklist for product delivery

After you have done the code integration and you are ready to start with the product delivery, you could use this checklist to ensure, that you have completed all necessary steps:

- Create a Read/Write key 211 and Project Secure Key to get a personal encryption for your product. Use TAB File, Copy Project 405
- Define a unique project name 207
- If you use online activation, add the URL to the activation server 210 in the project template
- In case you use a CRC check 456, make sure you use the correct CRC values for the DLL used 76
- Create a **brand new** license file 99, using the License Generator. Never deliver a file which was used for testing! **Every time** you want to make a new test on the same machine, you have to create a new license file. Only a new license file guarantees to have the same situation like a user would have, after he installed your software
- Copy the latest project template and also the definition files on the Activation Server 6 - see configure a project
- Make a full test using online activation and also manual product activation by e-mail. If is very important to test the **manual** product activation to ensure, that the setting TAG <ActivationStateAfterCPon 197> is correct. Create the Unlock Key for the manual product

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activation on the Activation Server 6 326 or if you don't use the server, use the License Generator 325
- In case you want to check if the keys you generated have the expected values,analyze the Activation Key 346
- Make a reinstallation on the **same** machine using the **same** Serial Number in case you configured to allow a reinstallation 450. The reinstallation should work.
- Make the same test on a **different** machine using the **same** Serial Number. The Activation Server 6 should reject the Serial Number
- In case you implemented to transfer a license 571, make a license transfer test
- In case you use a shop system 596, place a test order and use the Serial Number from the shop for an additional activation test

Now you are ready to package your software. Create a new license file and use this file in the installation package. Check the chapter: Installation and Distribution issues 349 to get detail information about the installation process.

11.4 Windows Vista / Win 7 / Win 8 Guide

As a licensing and copy protection system hooks deeply into the Windows operating system, it often requires modifications.

Licence Protector is fully Windows Vista / Win 7 / Win 8 / Win 10 compatible:

- Considers registry limitations
- Runs with limited user rights
- Offers a signed DLL / COM exe

To use your application with Licence Protector 5 only a few modifications are necessary:

- Use the COM exe 76 for 64bit applications
- Install the license file to **C:\ProgramData***yourcompany name\appname\app.lic* - see details
  How to retrieve the correct folder name

Considerations

The installation has to be done in administrator mode. A user with a standard account will automatically be prompted to provide administrator credentials.

If User Account Control is enabled (default) the following installation scenario is **NOT** working.

- install the licence file to **C:\Program Files**\YourApp\app.lic

If the standard user starts your application, Licence Protector 5 will write back information in the licence file (depending on the features your are using). The file would be **virtualized** to the folder *C:\Users\username\AppData\Local\VirtualStore\Program Files\YourApp\app.lic.*

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Although your application would open the licence file on *C:\Program Files\YourApp\app.lic*, the file would be opened in *c:\Users\username\AppData\Local\VirtualStore\Program Files\YourApp\app.lic*. **The result would be that each user has a different licence file.**

Recommendation

Although we found no recommended procedure from Microsoft how to share a file on one PC for all users, the following installation process will work.

- Install the licence file to **C:\ProgramData***yourcompany name\appname\app.lic*

By default, standard users have only Read access and the folder is not visible. See below how to set write access to this folder.

Retrieve folder names

You can retrieve the folder name via the registry.

HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\explorer\Shell Folders

Common AppData	**C:\ProgramData**
Common Programs	C:\ProgramData\Microsoft\Windows\Start Menu\Programs
Common Documents	C:\Users\Public\Documents
Common Desktop	C:\Users\Public\Desktop
Common Start Menu	C:\ProgramData\Microsoft\Windows\Start Menu
CommonPictures	C:\Users\Public\Pictures
CommonMusic	C:\Users\Public\Music
CommonVideo	C:\Users\Public\Videos
Common Favorites	none
Common Startup	C:\ProgramData\Microsoft\Windows\Start Menu\Programs\Startup
Common Templates	C:\ProgramData\Microsoft\Windows\Templates
Common Administrative Tools	C:\ProgramData\Microsoft\Windows\Start Menu\Programs\Administrative Tools
Personal	none

- Set write access for the group 'users' to this folder - see details
  - Set write access to a folder during installation.

    Some installers have built in options to change rights on folders. You cannot use the standard Windows tool *cacls.exe* or *icacls* (Vista) because you have to address the user / group name you want to change in the language of the operation system - e.g. 'users' or 'Benutzer'.

    There is a tool ***SetAcl.exe*** which allows using SID to change the permission. The tool can be downloaded here: http://setacl.sourceforge.net/html/examples.html . Documentation for the SID can be found here (only German): http://www.grurili.de/index.html?/Grundlagen/WellKnown_SIDs.htm

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Your installer could use the following sequence

- Copy setacl.exe to the installation directory
- Execute **Setacl.exe e.g. "maindir\SetAcl.exe" -on "maindir" -ot file -actn ace -ace "n:S-1-5-32-545;p:full;s:y"** - This will set full rights to the group *users*. The SID S-1-5-32-545 is used instead of the name *users*

  (note: maindir is the folder name like c:\ProgramData\yourcompany name\appname)
- Delete setacl.exe

- Problems to register a DLL in Vista / Windows 7 / Windows 8
  - Check comments how to register a DLL and which problems may occur

Installation of the DLL

The folder **..\files for distribution** contains all Licence Protector DLLs. There is an folder with a **compressed version** and uncompressed version. We recommend using the uncompressed version because it works with all compilers and operating systems.

Licence Protector offers different ways to register the DLL / COM exe:

- Using LPRegister510.exe 356 - it **registers** the DLL / COM exe **without** needing administrator rights
- Do **not register** the DLL if you use a manifest file 358. Administrator rights are not needed. Manifest files are not supported for the COM exe
- Register the DLL / COM exe with the windows tool regsvr32.exe or the inbuilt option of an installer. This **requires** administrator rights

You should copy the licprotector510.dll to the \windows**system32** folder although it could also be installed in your program directory. As each DLL version of Licence Protector has an own ProgID, multiple different versions can be installed on the same machine.

Best Practice

- If your installer needs administrator rights, use the inbuilt option of the installer or regsvr32.exe. To use regsvr32.exe add a shell execute command in the installer which invokes regsvr32.exe
  - Register the DLL: Execute "c:\windows\system32\regsvr32.exe" " .... \pathname\LicProtector510.dll" (note: this requires administrator rights)
  - Register the COM exe: LicProtector510.exe **/regserver** (note: this does not require administrator rights)

- If your installer does not need administrator rights then use LPRegister510.exe 356
- If you do not have an installer and you only copy files to a folder, use a manifest file 358

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- If you just want to register the DLL manually on one system, use LPRegister510.exe 356. Using regsvr32.exe would work as follows:

  - right click on “Command Prompt” in Accessories and click “**Run as Administrator**”
  - run regsvr32 "....\pathname\LicProtector510.dll” in the command window

If multiple users on one computer or services use the COM exe, then you have to register it using administration rights and the command:
LicProtector510.exe **/regserver /NOREDIRECT**

Vista / Windows 7 / Windows 8 and MSI files
Some installers generate a message HRESULT -2147220472 or -2147023898. This is due to missing rights during installation. Use LPRegister510.exe 356 to register the DLL and not the installer built in dll register function.

- Sign your installer file to avoid error messages after download or after starting the installer see details
  How to sign installation file

Sign your Installer file

Although you could deliver an unsigned installer file, we recommend adding your digital signature. You can buy a code-signing certificate from one of the accredited providers like www.verisign.com, www.thawte or www.comodo.com.

With the digital signed installer file your users do not get warning messages when they download the file or launch the application.

First check your installation tool if it supports to add a digital signature. As installers often add their own CRC checks a digital signature would destroy the installer file. Therefore the installer tool has to add the signature first before the CRC check is added.

Vista / Windows 7 / Windows 8 64bit
Licence Protector 5 is a 32bit DLL. It runs on 64bit operating systems like Vista / Windows 7 / Windows 8 64bit or Windows 2008 / 2012 Server 64bit as long as the main application is compiled for **32bit**.

If you need a **64bit compile** or you compile a .NET application for any CPU or for .NET4, you have to use the COM exe version of Licence Protector - **LicProtector510.EXE.** It is a DCOM component which can be used by a wide range of compilers. It can be found in the folder The folder *Licence Protector\5.1**files for distribution\COM exe***

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The COM EXE supports 32bit and 64bit operating systems as well as 32bit and 64bit compiles.

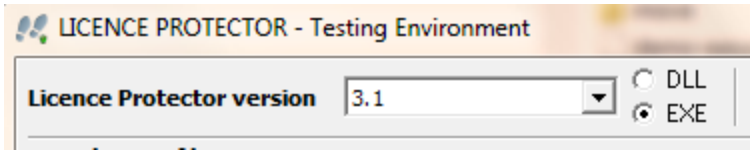
There is no need to change the source code (only to change the ProgID 76) to switch from a 32bit compile to a 64bit compile. Even applications, compiled with 32bit and 64bit within a network can access the same license file.

Depending on the development tool you add the COM exe (like a DLL) with a command like

Private objlic As Object
Set objlic = CreateObject("LicProtector.LicProtector**EXE510**")

The LicProtector510.exe in version 5.1 has the ProgID " LicProtector.LicProtector**EXE510**" This allows using an older LicProtector.exe in combination with older versions of LicProtector.exe on the same system. The **ProgID changes with every main release**. The file name of the exe is different from the ProgID (file name: LicProtector510.exe - ProgID: LicProtectorEXE510).

- As the COM exe works with 32bit AND 64bit compiles, you can exclusively use the LicProtector510.EXE instead of the DLL.
- To use the COM exe (64bit) for testing with the License Tester 296, select EXE right to the Licence Protector version number.



Registration

- The COM exe has to be registered with **LicProtector510.EXE /regserver**. If the user does not have admin credentials, it will register for **this user only**. There are some situations where you need to register on machine level (e.g. your application is a service). Then use **LicProtector510.EXE /regserver /NOREDIRECT.** This requires administrator rights
- Alternatively you can use the Licence Protector 5 registration tool 356 to register without admin rights

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Permissions

Some applications may require special permissions for the COM exe (e.g. if they are a **service**). You can change the permission:

- From the **Start** menu, click **Run** and type **MMC -32**
- Then **add** the *Component Services* snap-in from there (File / Add Snap-in)
- In **Component Services**, click **Console root**, expand **Component Services**, expand **Computers**, and then click **My Computer**
- Expand **DCOM Config** and search for **LicProtector Obj**
- Right click - select **properties** and then the **Security** TAB
- Add the users from your service

Errors

A compile setting for **any CPU** will generate an error 80040154 at runtime. Either use the COM exe (recommended) or change your compile settings to compile for compiled for **x86 CPU**.

Details

Find below how to change the settings for Visual Basic 2008. Other .NET compilers have a similar option.

To change the platform open the project properties and click under the submenu "*Compile*" on the button "*Advanced Compile Options...*":

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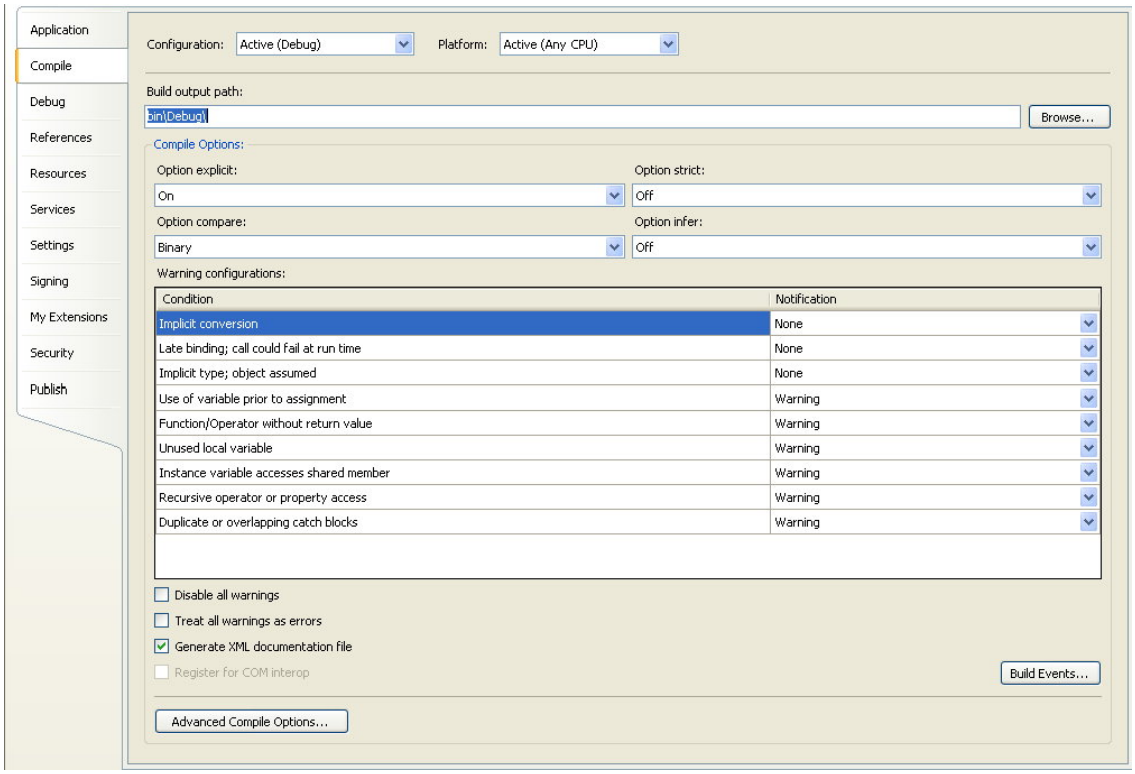

Advanced Compile Options

Now you can change Target CPU from "Any CPU" to "**x86**".

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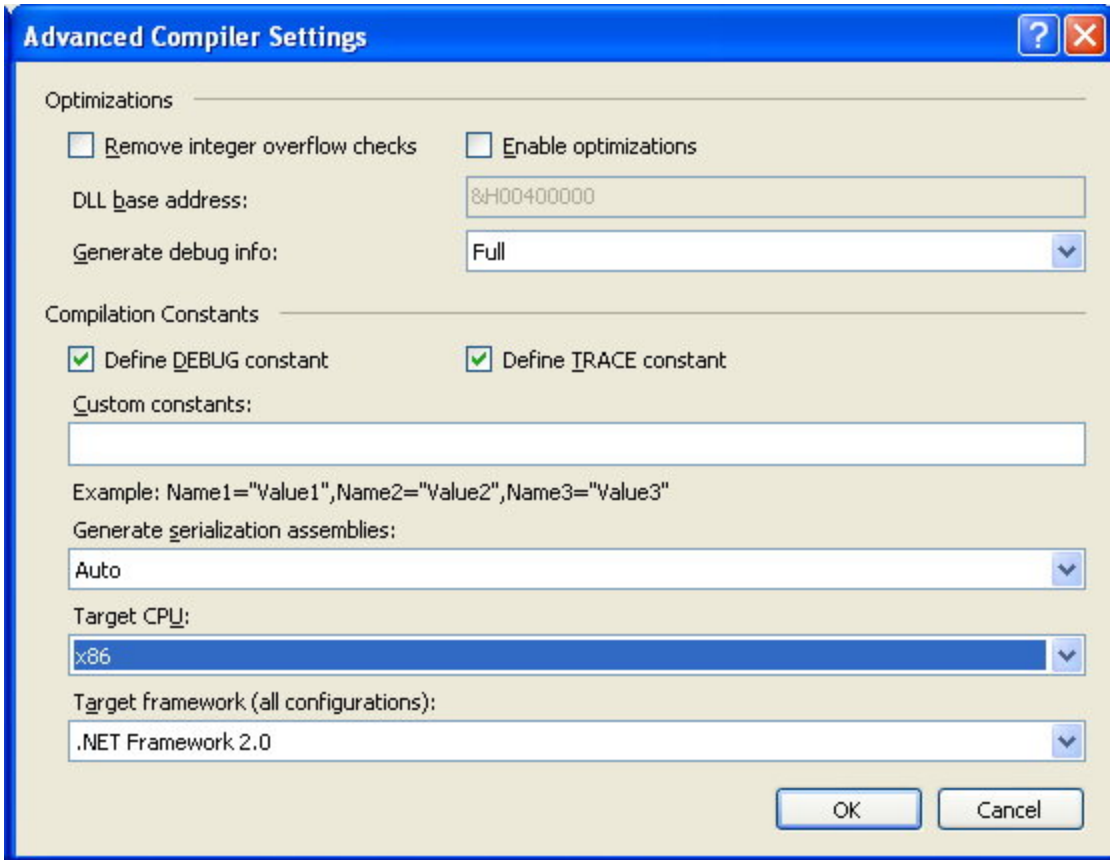

- Filenames in Vista / Windows 7 / Windows 8

  A file name, which has words like *setup* or *install* in the name, would have as a result, that the file **needs administration rights**. In Vista / Windows 7 / Windows 8, the UAC (user account control) would pop-up. For more details about EXE names and Vista read this blog.

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Part XII

12 License Generator

Licence Protector 5 comes with different key generators (depending on the Licence Protector 5 editions). Information about all generators.

Manual license generation - License Generator

- Create a license file 372
- Create an Activation Key 389
- USB Stick protection 433
- Additional Settings 382
- Special Functions 446 within the License Generator
- Licence Protector 5 license information 439

To analyze the usage of the License Generator, metrics data 215 is sent during each application start.

See also
Activate License Protector 27
Create license file for EasyGo 99
Important Activation Keys with EasyGo 301

12.1 Start Application - Main Screen

Start License Generator

License Generator can be found in the program group *Licence Protector 5* with the ICON

.

The last project file 182 is loaded automatically and the main screen of License Generator appears.

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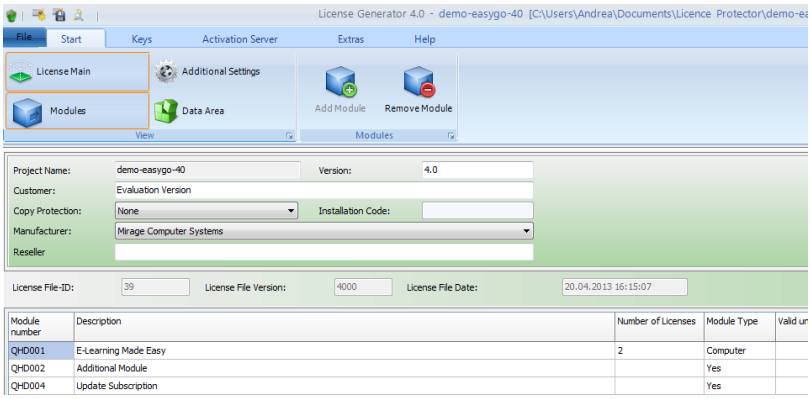
Name of the Project File 182 (Extension XML) and the name of the license file 99 (Extension LIC)

Title Bar

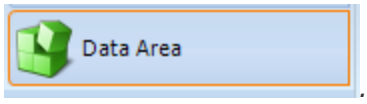
Ribbon Toolbar

Additional information



Selected Modules

You can use shortcuts to access the menu by pressing the key **ALT** + Shortcut. Which key you have to press is displayed by an underlined character (press key ALT, then the character is underlined).

A orange frame indicates that a option is selected 

.

File Tab

This button replaces the file menu option button of earlier releases. The Licence Protector Button should only blink when you have not clicked the button to view the commands. The blinking is a "look at me/click here" feature, because many people think that the button looks like a decorative logo, rather than a button to click to see commands. If you click the Licence Protector Button one time, it should stop blinking.

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	Open Project File 376	Opens project file. Also displays a recent project file list
	Open license File 380	Opens a license file. Also displays a recent license file list
	New license File 379	Create new license file
	Save 380	Saves the license file
	Save As	Saves the license file with another name
	Create a project 403	Create a new project
	Copy a project 405	Copy an existing project
	Exit	Exits License Generator

Start Tab

Click on this tab to access the main functions of the generator.

Toggle between License Main page 377 and Additional Settings 382 page

Toggle between Module View 386 and Data Area 387 View

Keys Tab

Click on this tab to access key generation functions

	Tamper Detection	Create Keys to enable or disable Tamper Detection
	Copy Protection On	Create a key to enable copy protection
	Copy Protection Off	Create a key to disable copy protection
	Serial Number 301	Create a Serial Number key
	License validation on / off	Enable or disable license verification
	Unlock 325	Create an Unlock Key
	Unlock without Copy Protection 330	Create an Unlock Key without copy protection
	Additional Licenses 335	Create a key to change license information

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	Description On / Off	Turn on and off additional text description for a key. After each key an additional text description is displayed
	Analyze Key	Analyze an Activation Key and get all the settings, the Activation Key will change
	Save Key List	Save the generated Activation Keys in a file

Activation Server Tab

Configure and upload projects to the Activation Server 6

	Upload license file	Type in the project master key (password). This is required only if the project encryption needs a master key
	Settings	Configure basic settings for product activation
	Configure own server	Configure your own Activation Server 6
	Configure hosting server	Configure hosting server
	Administration	Connect to the Web Administration Interface
	Upload project configuration	Upload your project to the Activation Server 6

Extras Tab

Click on this tab to access special functions like USB protection.

	Logging 433	Enable or disable Logging. Select the folder for the log files.
	Language 432	elect a language for the License Generator. The program has to be restarted to have the changes take effect
	Confirmation prompt 432	In the case that some questions have been deactivated, using this function they can be switched on again
	USB Protection on 433	Turn on copy protection on an USB flash drive. The license file must already be on the USB flash drive
	USB Protection off 433	Turn off copy protection on an USB flash drive. The license file must already be on the USB flash drive
	Backup license file	Backup your license file on the Activation Server 6
	Restore license file	Restore your license file on the <%WAS%

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Help Tab

Click on this tab to access multiple help options

	Online Help 444	Display the Online Help and Software Development Kit
	Quick Introduction Help 24	Display the Help and Welcome Screen during program start. This screen provides you with links to the most popular FAQs to get started and link to the Online Knowledge Base
	Updates 437	Checks if a new update is available and downloads it
	Licence Protector on the Web 438	Opens the Licence Protector Home page
	Buy Licence Protector 437	Order Licence Protector online and instantly get a Serial Number
	About 437	About Licence Protector and release information
	License Viewer 439	Display your license information and enter Activation Keys

Quick Access toolbar

Often used commands can be accessed through a toolbar with small icons right to the Licence Protector Button. Right now, the toolbar can not be configured and comes with predefined icons.

12.2 Create License File

12.2.1 Open Project File

To open a project file 182, select the option **Open Project File** in the TAB ***File.***

All modules and their properties are stored in the project file. You need a project file for each software application you want to protect. .

All modules set to **Yes** in the node LoadAsDefault 196 will be loaded when the project is loaded.

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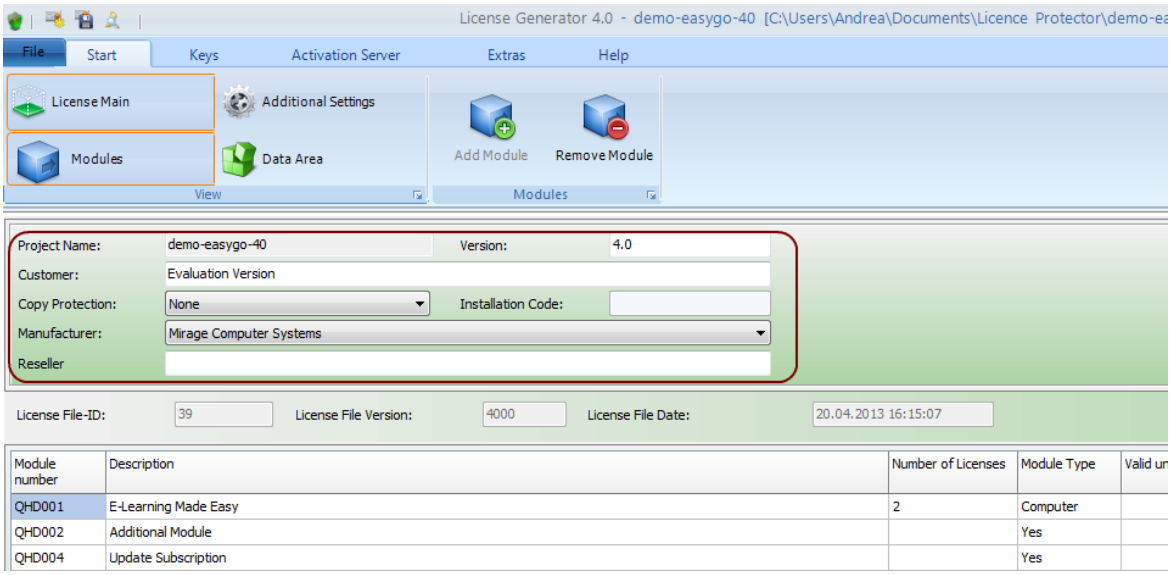
If the project file is invalid no modules will be shown and the icon bar will be disabled.

See also

Create new License File 379
Open License File 380
Save License File 380

12.2.2 License Main

Click on License Main to access the main license information



	Short Description	Note
Project name	Name of the project	The project name is defined in the project file. 183 Is the project name not defined in the project file, then the file name of the project file is used. The project name can not be modified in the Generator.
Version	Version number of the application	Information is sent to the Activation Server 6. The field is defined in the project file with AppVersion 200. See: How can I test a release number? 517

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Customer	Name or company name of the customer	If you create a customer specific license file 172, then type in the customer name. If the file is a generic file for the demo / evaluation version, then use as customer name *Evaluation Version*
Copy Protection	None, Volume ID or other copy protection option	For details see chapter Copy Protection 474.
Installation Code	Installation Code 475 of the customer, which has to be entered when Copy Protection is selected.	The Installation Code is stored in the license file. The license file can be used only on that customer system from which the Installation Code originates
Manufacturer	Normally the name of your company is displayed here. When more manufactures are defined in the project file, you can select more companies with a click on	You can select different companies when you distribute your software as an OEM Software. This is defined in the project file 190
Reseller	Name of a reseller	Information is sent to the Activation Server 6
Values which cannot be changed		
Security Level	Security Level of the license file (Basic / Advanced)	Security Level. Can not be changed within the Generator.
license file ID	Unique number of a license file, which is assigned consecutively	The last assigned number is stored in the field *NextLicFileKey* 202 in the project file. This information is displayed after saving the license file
license file version	Version of the license file	Internal version number. Currently 2xxx. This information is displayed after saving the license file
license file date	Date and time when the license file was created	This information is displayed after saving the license file

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12.2.3 Create new License File

After opening the project file 376, you can create a new license file. Select the icon (in the quick access toolbar) or click on the TAB *File*, then select .

The default values from the project file are loaded.

See also
Open Project File 376
Open License File 380
Save License File 380

12.2.4 Choose Module/Licence Types

You can add any modules you like to a license file. When you open a project all modules will be loaded having YES specified for the definition *LoadAsDefault* 196 in the project file.

There are different **kind of modules -** see details: Module Type 203

Each module can have **additional properties**:

	Valid until day - the module can be used until this expiry date
	Valid number of days - the module can be used for the number of days **after** installation
	Demo version - the module is a Demo version
	TAG value - can be used for to check if software was patched / cracked 459 or to store any ASCII value
	Activation 397 - defines whether the license has to be activated or not

You can remove a module with the button and add a module with . The add module button is deactivated if all modules are assigned. You can also click on the

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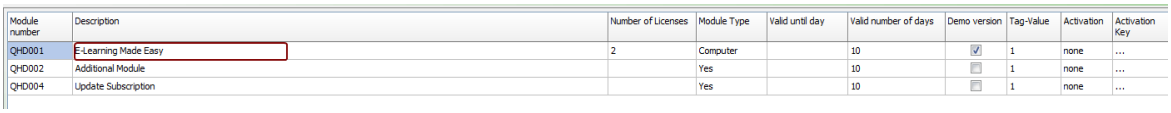
module description to select another module. To define, if a module is visible by default in the License Generator, use the definition LoadAsDefault 196 in the project template.

Click here to change the module



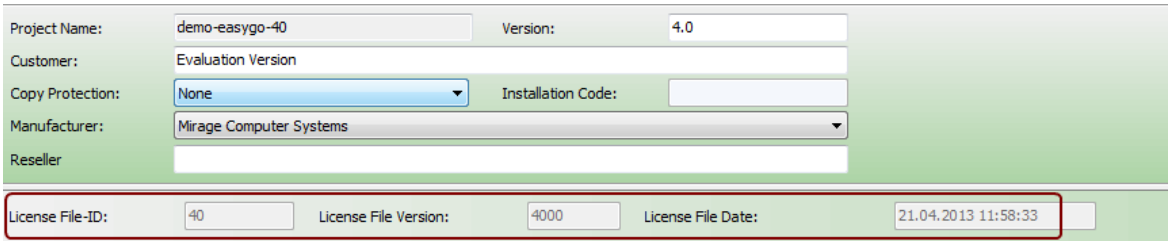
Module number	Description	Number of Licenses	Module Type	Valid until day	Valid number of days	Demo version	Tag-Value	Activation	Activation Key
QHD001	E-Learning Made Easy	2	Computer		10	☑	1	none	...
QHD002	Additional Module		Yes		10	☐	1	none	...
QHD004	Update Subscription		Yes		10	☐	1	none	...

12.2.5 Save License File

After editing the Main Data 377 of a module and selecting the modules 379, you can create the license file. Select the icon (in the quick access toolbar) or click on the TAB *File*, then select (to save with the default name) or (Save As) to save with a different name.

The file name receives the extension **LIC**. The license file name, defined in the project file as default file name, is suggested.

The license file ID is generated (unique number), the license file version and the license file date (creation date) is displayed. The name of the license file is shown in the title bar.



12.2.6 Open License File

To open a license file, select the option **Open License File** in the TAB ***File.*** The name of the license file (extension .LIC) is displayed in the title bar.

You can make any modifications after storing and reloading a license file. Save the license file with the icon .

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When Activation Keys are stored in the license file, all the keys are listed in the screen Activation Key 392.

Before you open the license file, you have to load the project file 376.

See also
Open Project File 376
Create new License File 379
Save License File 380

12.3 TAB Start

This is the main screen to change license information.

The icons highlighted with orange lines indicate that this option is selected. You can toggle between 2 options:

- Toggle between License Main screen and Additional Settings 382
- Toggle between Module View 386 and Data Area 387 View

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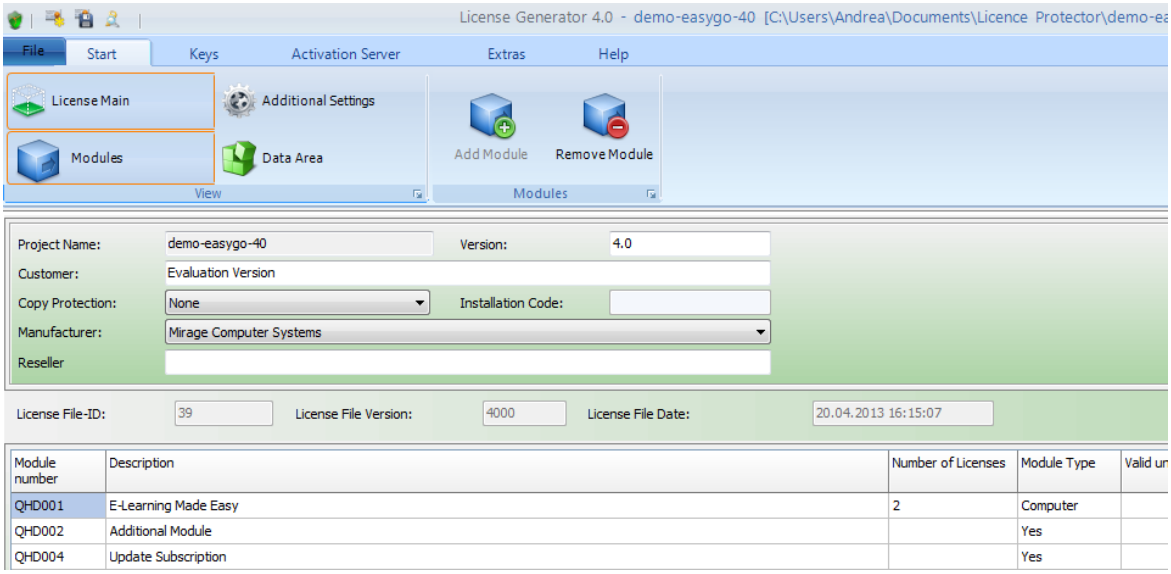
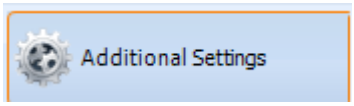


12.3.1 Additional Settings

Select **Additional Settings** in the main screen.

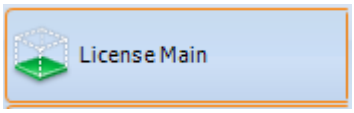


You can switch to a detail page, where you can configure a lot of additional options for the license file. The detail page is designed only for experienced users to modify default settings which effect security behaviour and Activation Server 6 features.

- Activation Server Settings 383
- Concurrent User Settings 385
- Security Settings 386

Only change these settings after consulting development. Changing these values may have a major influence on application.

You can switch back to the main screen by selecting **License Main**.



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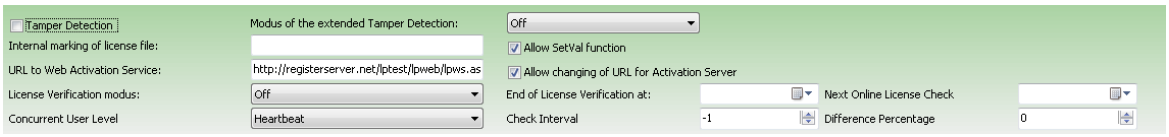
12.3.1.1 Activation Server Settings



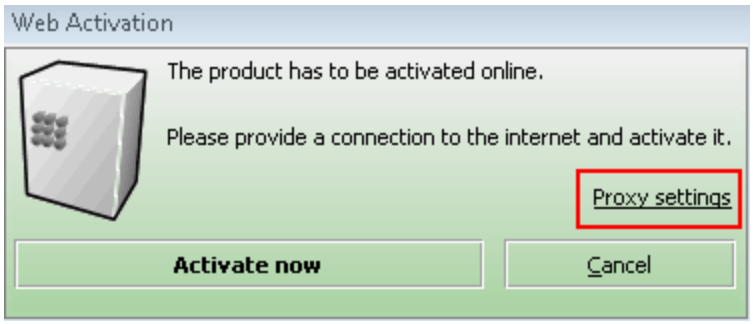
URL to Web Activation Service

Link to the Activation Server 6. If you are using the hosting service you get the link from Mirage.

Template setting: <WebServiceUR 210 L>

Allow changing of URL to Activation Server 6

The user can modify the URL to the Activation Server 6 and proxy server settings within the start start screen (see also ShowStartPage 806). A link: *Proxy Settings* is added in the dialog.



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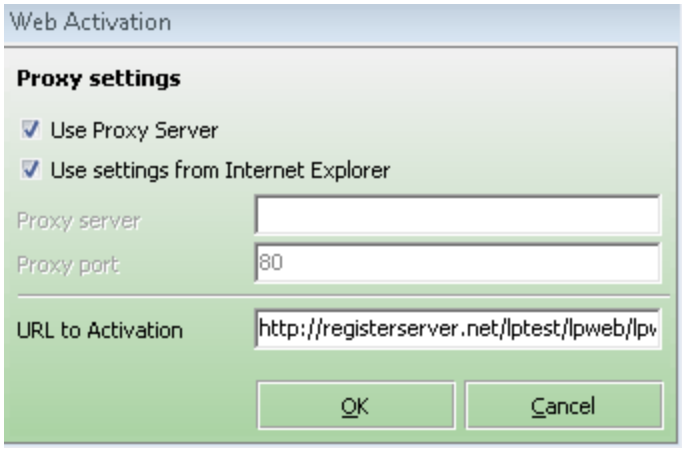

Template setting: <AllowChangeWASURL 183>

License Verification Mode

The verification mode allows you to regularly check 541 a license online

- Off - no checks are performed
- Ongoing Verification - regular verification. The interval is defined on the Activation Server 6
- License Locked - Status set by Activation Server 6 to lock a license
- Verification Deactivated - Status set by Activation Server 6

Template setting: <LicenceVerificatio 183 n>

For more details see the chapter: Regular Online checks 541

End of License Verification

Specifies the date when the verification ends. Check interval is configured on the Activation Server 6

Template setting: <EndVerification 183>

Next Online License Check

Specifies the date when the next check is due. Calculated by the Activation Server 6

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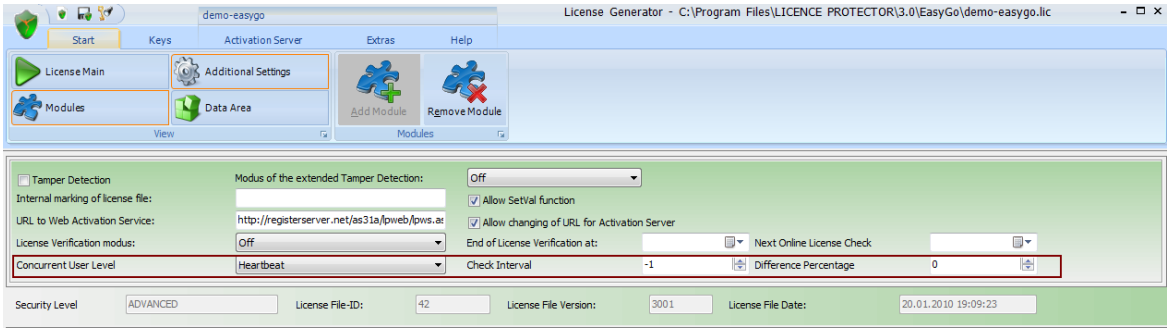
12.3.1.2 Concurrent User Settings

You can change concurrent user settings for one license file.

- Concurrent User Level 467 - switch between *Heartbeat* and *Light*
- Define the interval for heartbeat checks - see command CheckInterval 649. **The value -1 activates the automatic mode which is recommended to use**
- Define percentage for interval - see command DiffPct 664

Only change these settings after consulting development. The default values will work in most situations and changing the value will change the behaviour of the concurrent user testing.



If you don't specify the values in the project template, then the default values are used. Otherwise you can define the values in the project template using

- <ConcurrentUserLevel 192>
- <CheckInterval 192>
- <DefaultDiffPct 192>

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12.3.1.3 Security Settings

Tamper Detection

- Check to enable basic tamper detection

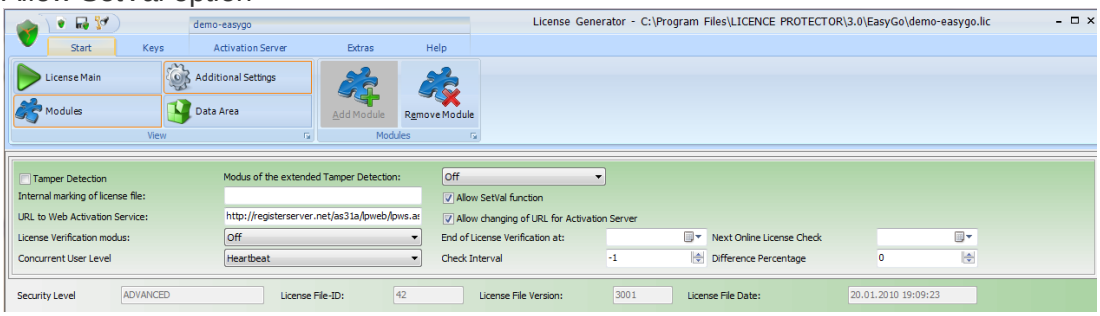
Add additional security by setting the Mode of Manipulation Detection

- Off - only uses basic tamper detection if checked
- Automatic - uses automated mode - recommended
- Manual - uses manual mode

Other Security Settings

- Allow SetVal function 791 - only deselect, if you never change a license file via DLL calls - see Anti Hacker Strategies 207

Allow SetVal option



- Internal marking of license file - TAG value of the license file. Should only be changed if your application supports this feature

12.3.2 Module View

Toggle between Module View and Data Area 387 View . The module view displays a list of all modules.

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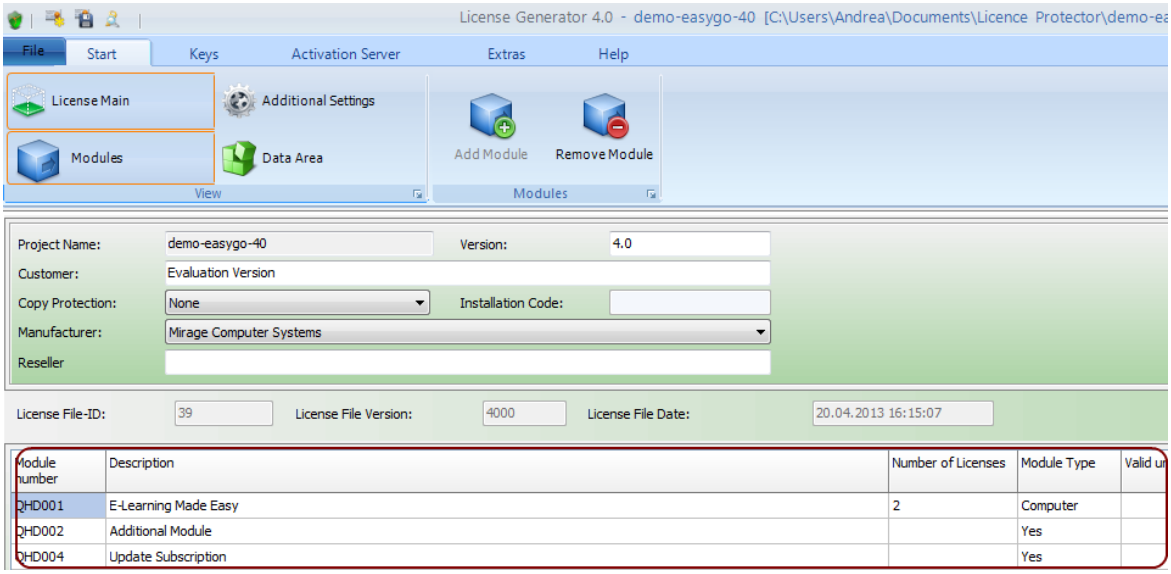

You can remove a module with the button and add a module with . The add module button is deactivated if all modules are assigned. You can also click on the module description to select another module. To define, if a module is visible by default in the License Generator, use the definition LoadAsDefault 196 in the project template.

12.3.3 Data Area - store data in license file

Select **Data Area** in the main screen. It allows to edit and modify data, which is stored in the data area of the license file. For full details see chapter Store data in the license file. 562

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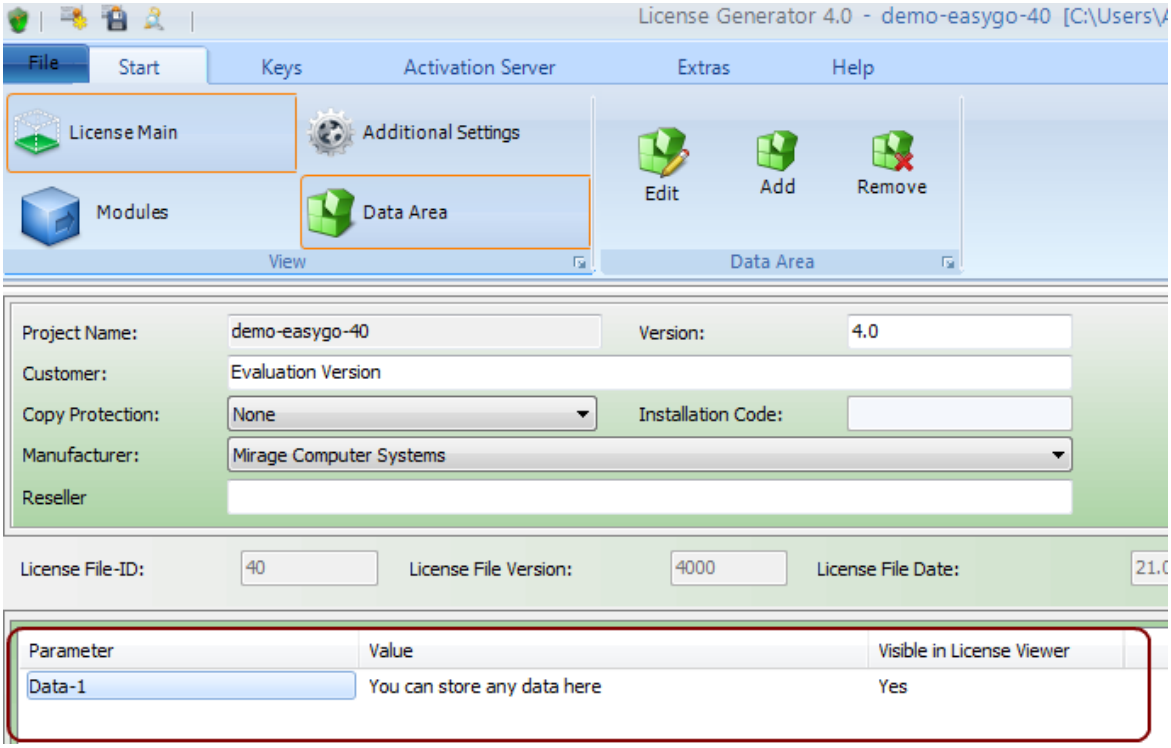
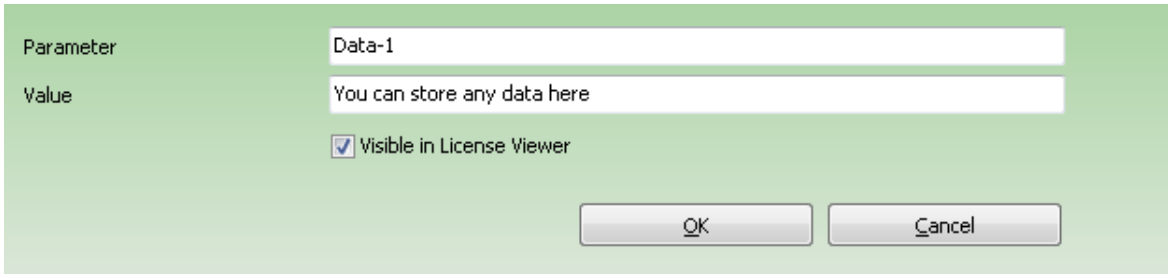


Select **Add** to add a new data entry or highlight an existing entry to **Edit** or **Remove** it.



Either store the values invisible in the file or select, if the data should be visible in the License Viewer 281.

The modification is written back in the license file when you press save and not when you close this window.

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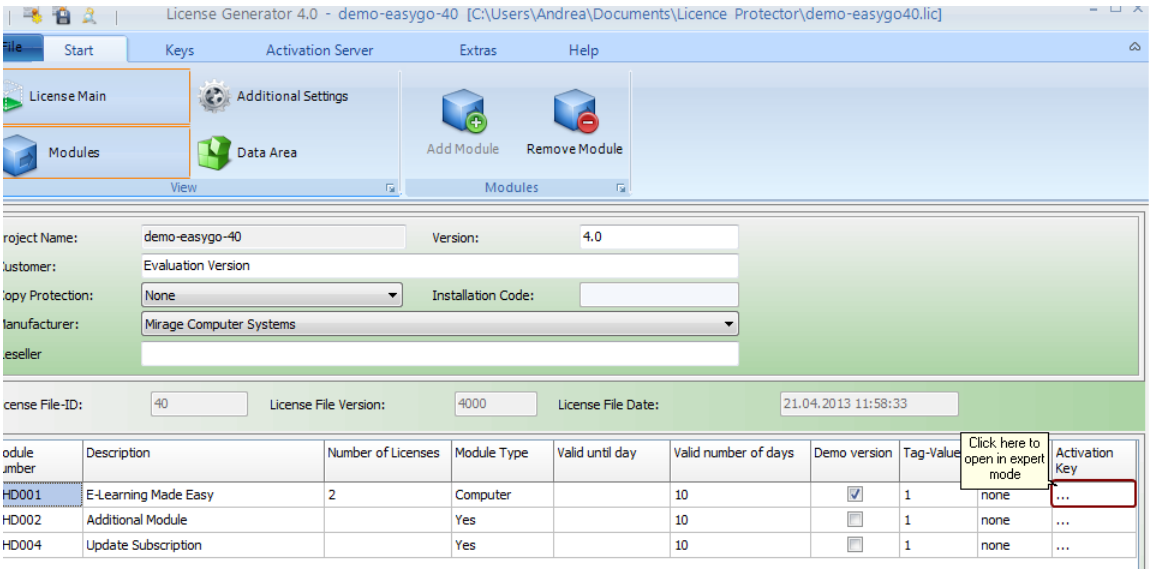
This feature is only available in the *Professional Edition.*

12.3.4 Activation Key - Expert Mode

The expert mode allows you to create Activation Keys with more options like using the Additional Keys screen 335. Only use this mode if you really need to use the special settings provided with the expert mode.

You can open the Expert Mode key generation by clicking on the **.... in the column Activation Key** within the module list.



This will open the following screen

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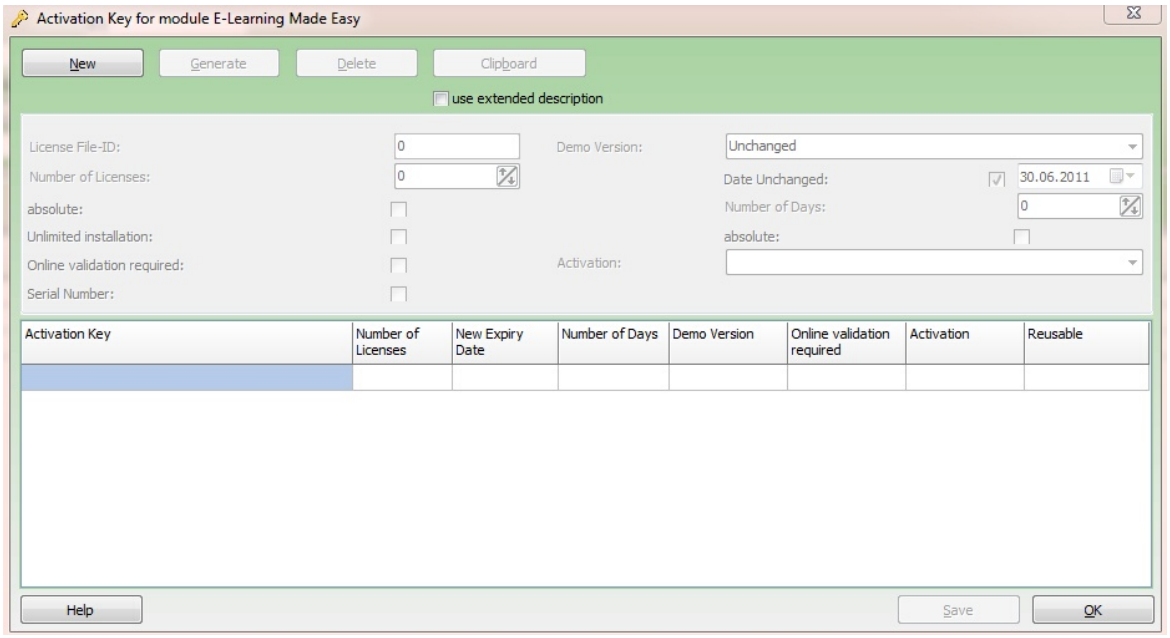

12.3.4.1 Information about the Activation Key

The Activation Key

Using an **Activation Key** you can send your users a complete license file or activate/deactivate their modules giving you the possibility to change a license per

▸	Phone
▸	Fax
▸	Email
▸	SMS
▸	'Snail' Mail

The users register the Activation Key via the License Viewer. It is a precondition that the users must have a valid license file before they can apply an Activation Key.

You can change multiple properties of a module or only one (e.g. add 3 users or deactivate the demo version). All properties can be changed except for:

▸	Name of the manufacturer
▸	Name of the customer

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▸	Name of the module
▸	Changing a module type – e.g. from counter to user
▸	Adding a new module
▸	Deleting a module

You cannot add a new module to an already existing license file with an Activation Key. This is only possible with a DLL method.

The Activation Keys of Licence Protector 5 are secure:

▸	They can only be used **once** for a license file (a complete history of all Activation Keys is stored in the license file and can be displayed with the License Viewer)
▸	If a license file uses the Installation Code (e.g. Volume ID) as Copy Protection, the Installation Code will be included in the Activation Key. This key can be used only with that specific license file
▸	You can combine the Activation Key with the license file ID. This key can be used only with that specific license file
▸	If you don't combine the Activation Key with the installation Id or the license ID, it can be used with every license file.

This mechanism ensures that an Activation Key (e.g. adding 3 users) can be used only once AND only with one specific license file.

If you choose the option Online validation required 399, the Activation Key is sent to the Activation Server, before it can be applied. The key is stored there and it is ensured that the Activation Key can be used only once.

Note: The user must have an Internet connection to apply the key.

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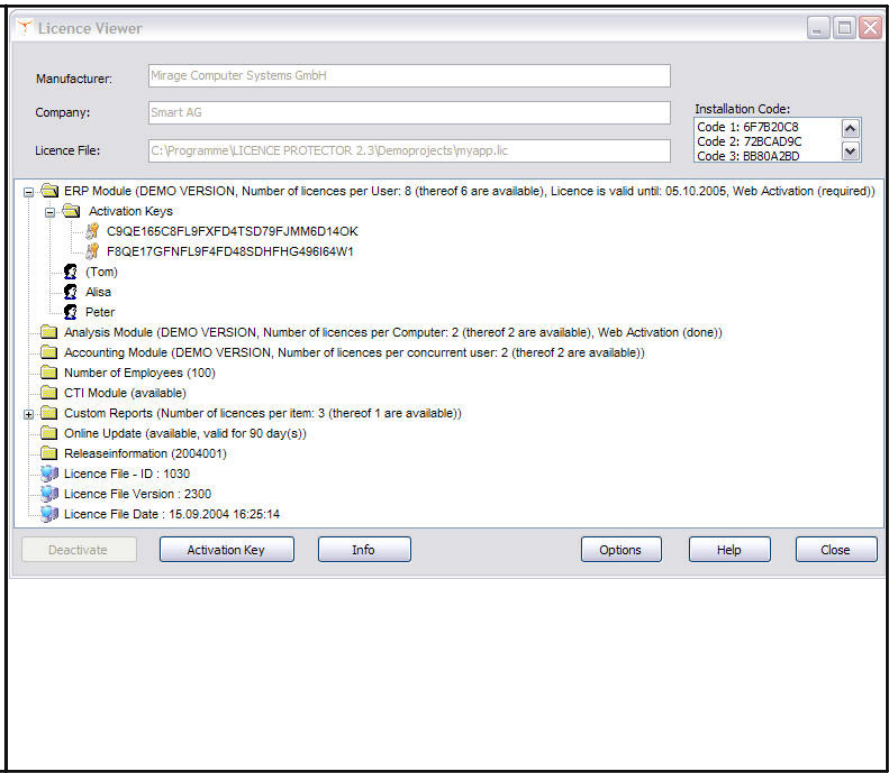
All Activation Keys are listed for each module	

12.3.4.2 Create Activation Key

Create Activation Key

An Activation Key stores the information for just **one** module. If more modules have to be changed, you have to create a corresponding number of Activation Keys.

Within the module line 379 **Double-Click** in the field *Activation Key* on the right. A window will open for creating one or more keys.

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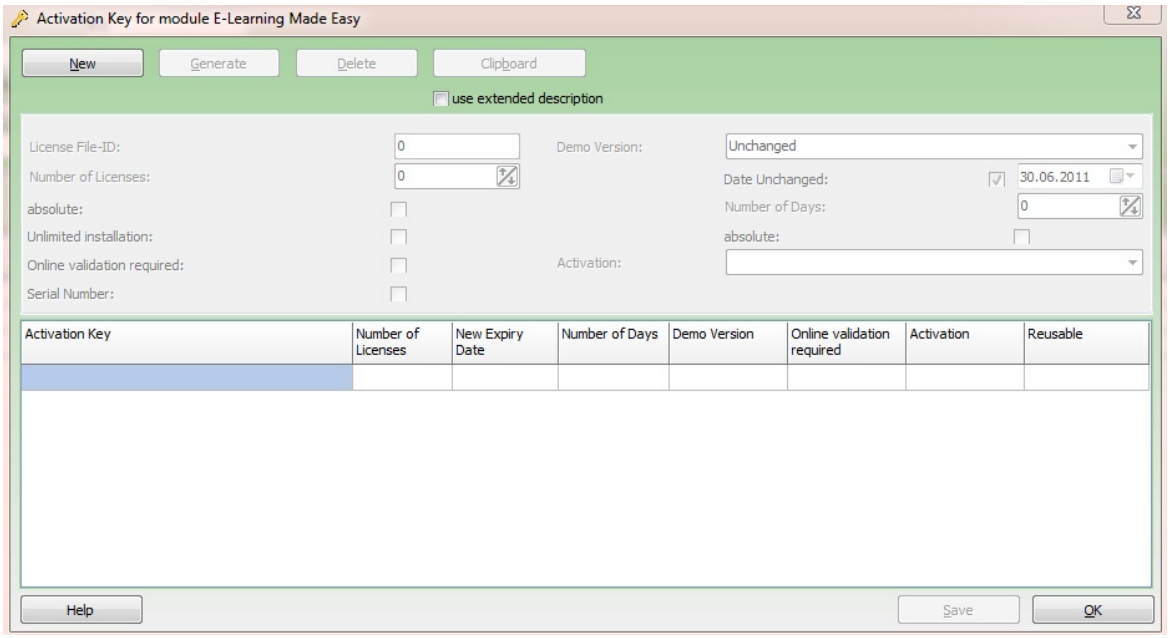

Use the Button *New* to change into the entry mode where you can:

▶	Increase or decrease the number of licenses of a module or set the license to an absolute value
▶	Change the status of the demo version (Unchanged, No = Full Version, Yes = Demo version)
▶	Set a new expiry date (not possible in the Demo version of Licence Protector 5)
▶	Increase or decrease the number of days that a license is valid (not possible in the Demo version of Licence Protector 5)
▶	Define, if an Online validation 399 is required
▶	Define if the Activation Key can be used multiple times on one machine 397 (unlimited installation)
▶	Change the status of the Activation

Press the Button ***Generate*** to generate and display the Activation Key.

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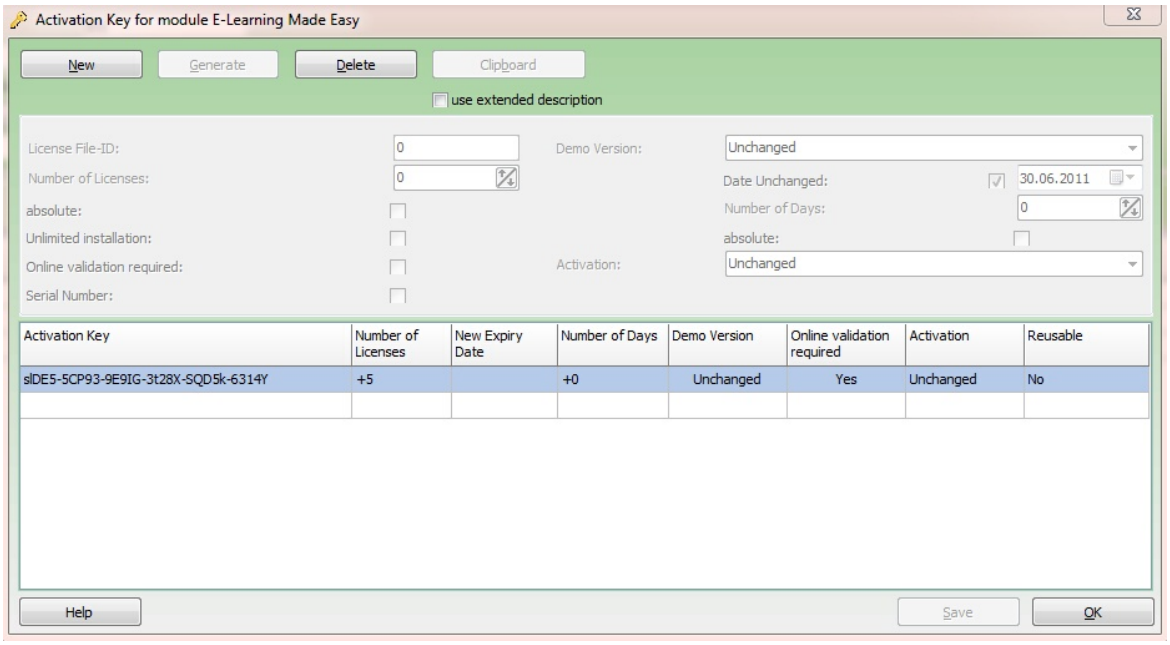

The Activation Key is automatically copied to the clipboard, e.g. to e-mail the key. You can copy a **selected key** into the Clipboard using the button *Clipboard*.

Choose the option: **use advanced description and** the button Clipboard, then additional information information to clarify letters which could be misinterpreted (like I and 1 or O and 0) is used.

Example:

GPwau-18PD6-4DaDj-1WfAl-xMhCO-4iBCJ

In block 4 at position 5 there is the small letter l
In block 5 at position 5 there is the capital letter O

If an Activation Key is generated while a license file is opened, then the Activation Key is stored additionally in the license file. There is a security request and the storage of the key can alternatively be prevented.

If you have a license file loaded, the button: Save is available. This would save the Activation Key directly in the license file. This is only required if you want to save a copy of this key in a customer file.

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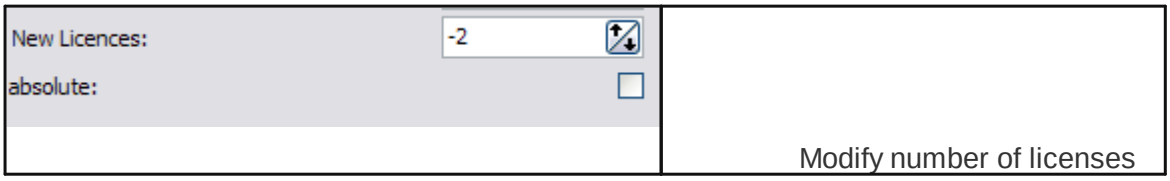
12.3.4.2.1 Change number of Licences

Change Number of licenses

After pressing the button *New* you can change the properties of a module.

You can **increase** and **decrease** the number of licenses of a module. Use the arrow keys - up to increase or down to decrease the number of licenses.



The range of values is from -23327 to 23328. The range of values is smaller then during the creation of a license file, because the length of the Activation Key would be too huge.

If you check the option **absolute value**, the license in the license file is set exactly to this value. Otherwise the value in the licensefile is increased or decreased by the new value.

If the module is a Yes/No module, the status can be changed

- Unchanged - module is not changed
- No - module is set to No
- Yes - module is set to Yes

Note! If you apply a negative number of licenses and there are - after applying the Activation Key - less licenses then users registered in the license file, then all users are deleted in the license file.

Example: The license file has 6 user licenses and 6 users are registered in the license file. An Activation Key with -2 user licenses is applied. Then all active (not the deactivated) users are deleted. After that, 4 users can be registered again.

12.3.4.2.2 Change status of Demo version

Change Status of the Demo Version

After pressing the button *New* you can change the properties of a module.

The property **Demo version** can be changed via the Activation Key as follows:

- unchanged - the status in the license file is not changed
- Yes - the license is set to Demo version

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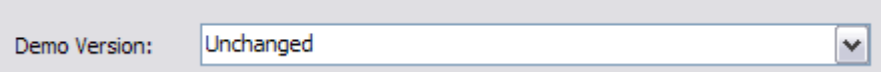
- No - the license is not set to Demo version (Full version)



Note! If the status of the Demo version is changed to YES/NO, then the expiry date is deleted (number of days and expiry date).

12.3.4.2.3 Change number of days / valid until

Change Number of Days / Expiry Date

After pressing the button *New* you can change the properties of a module.

You can either set a new expiry date or change the number of days or change both. To modify the date you have to deselect the check box *Date unchanged.*

Use the arrow keys - up to increase or down to decrease the number of days.

Deselect check box	
Date Unchanged: ☐ 24.03.2005 Number of Days: 2 absolute: ☐	

If you check the option **absolute value**, then the **number of days** in the license file is exactly set to this value. Otherwise the value in the license file is increased or decreased with the new value.

To **delete the expiry date**, you have to change the status of the demo version 395.

Note
If you add a specific number of days with an Activation Key and the module has **already expired**, then the number of days is added to **today's date**.

Example:

- Module expired at 01/25/2007
- Today's date is 02/02/2007
- The key adds 2 days to the module

The new expiry date is set to 02/04/2007 and not to 01/27/2007

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While using a demo version of Licence Protector 5 you can not change the date.

12.3.4.2.4 Activation Status

The activation status of a module can be changed using an Activation Key.

- unchanged - the status in the license file is not changed
- none - the module does not require a Web Activation
- required - the module has to be activated
- done - the module is set to the status activated (same status like after online Web Activation)

This status is used by EasyGo

- Serial Number 301 - needs status set to required

12.3.4.2.5 Multiple Usage of an Activation Key

If an Activation Key should be used on the **same machine** multiple times, select the option: **Unlimited installation.**

Details, which configuration settings are necessary on the Web Activation Server and how you configure EasyGo to allow a reinstallation, can be found in the chapter Allow Reinstallation / multiple usage of an Activation Key 450.

12.3.4.2.6 Protection with the Licence ID

You can bind an Activation Key to a license File ID 377 (unique number) of a license file. The Activation Key can then be used **solely** with this specific license file.

If the **license File ID = 0**, the Activation Key can be used with **any** license file. It is like a general key.

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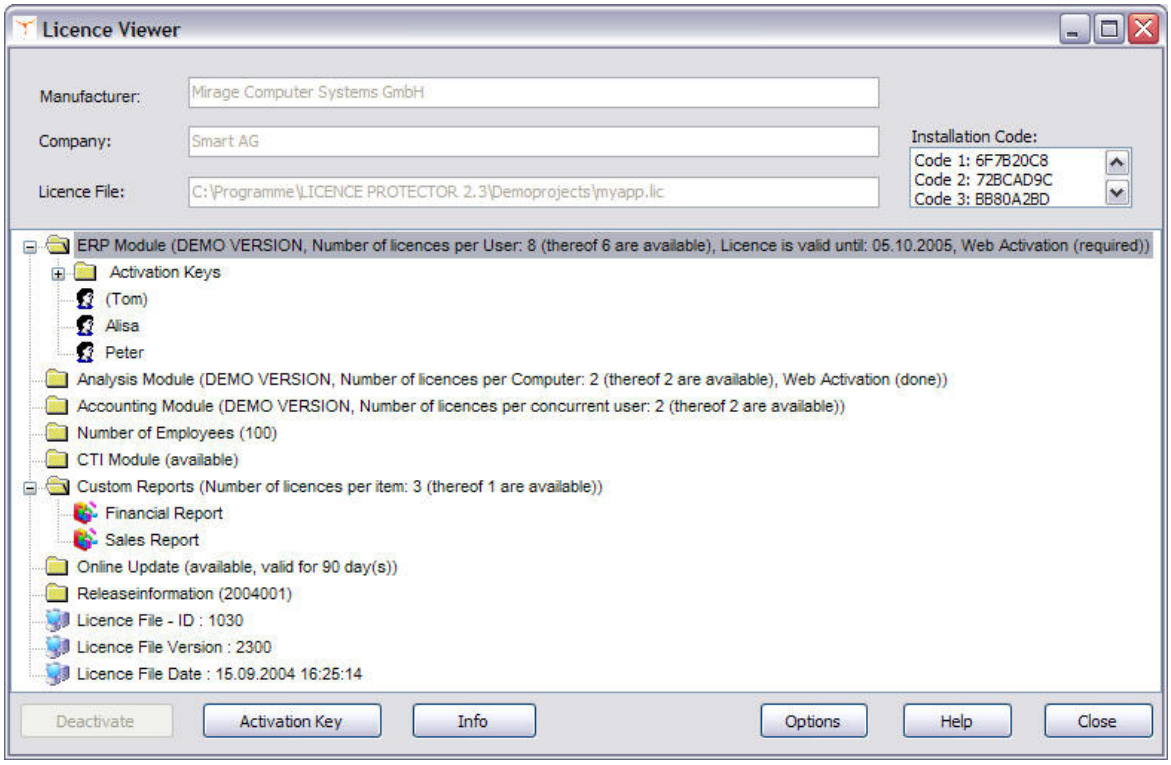
You can retrieve the Installation Code of the customer with the License Viewer. 296



12.3.4.2.7 Protection with the Installation Code

If Copy Protection = None is selected, the key can be used on any machine.

You can bind an Activation Key to the Installation Code 475 (Copy Protection) of a license file. The Activation Key can then be used only on the PC / Server when the hardware ID in the key matches the hardware ID used for copy protection in the license file.

You can retrieve the Installation Code from the customer with the License Viewer. 281

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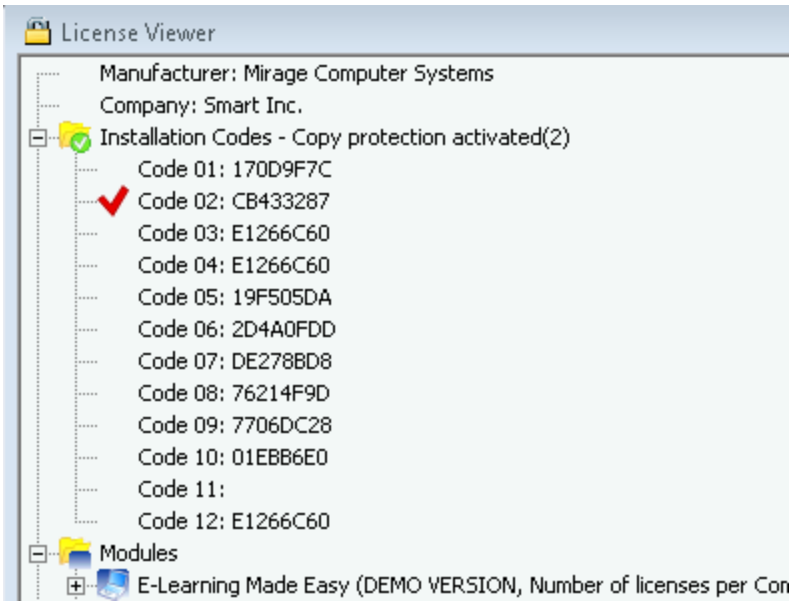

You have to use the installation code which is marked with ✔

12.3.4.2.8 Protection via Online Validation

If you choose the option **Online validation required**, the workflow for applying a key is as follows:

- The user needs an Internet connection to apply a key
- The key is transferred to the Activation server and is stored in the database
- If the key was already used, the key can not be applied
- If the key was already used on the same machine and reinstallation is allowed, then the key can be applied

Using this option you can create Activation Keys without knowing the license file ID or the installation code from the user and it is ensured that the key can only be used once.

Activation Screen which pops-up when the user types in the key

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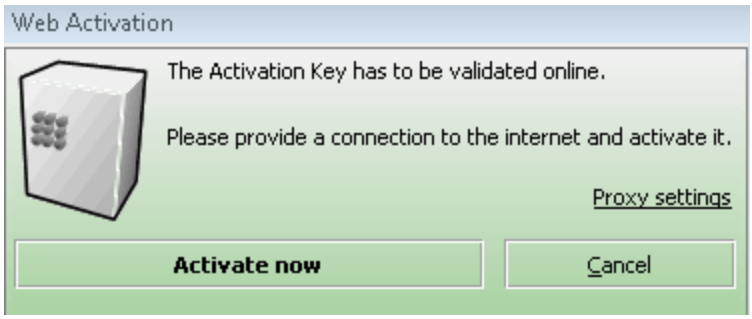


Note

- You can allow using the Activation Key multiple times on **different machines** by changing the maximum key usage on the Activation Server Administration Interface - see How can I change how often a key / ID can be used?

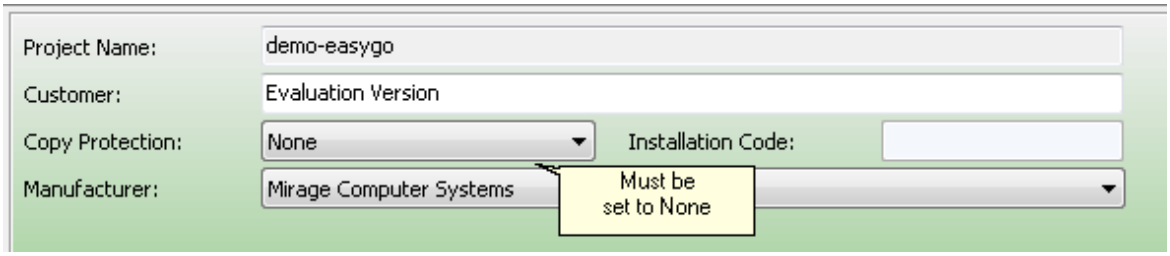
- You can allow to using the Activation Key multiple times on the **same machine** - see chapter Allow Reinstallation / multiple usage of an Activation Key 450

This feature requires the Activation Server 6

12.3.4.2.9 Create a Serial Number

A Serial Number can also be created using the screen to create an Activation Key in expert mode 389. It requires specific settings. Use this option only if you want to create Serial Number Keys with additional options. Otherwise use the screen - Create Serial Number 301

Start the License Generator and load the *demo-EasyGo.xml* or your project template. Double-Click on the dots in the column *Activation Key*.



Set Copy Protection = None

The value *Copy Protection* must be set to **None** (default) as you do not know the hardware information when you generate a Serial Number.

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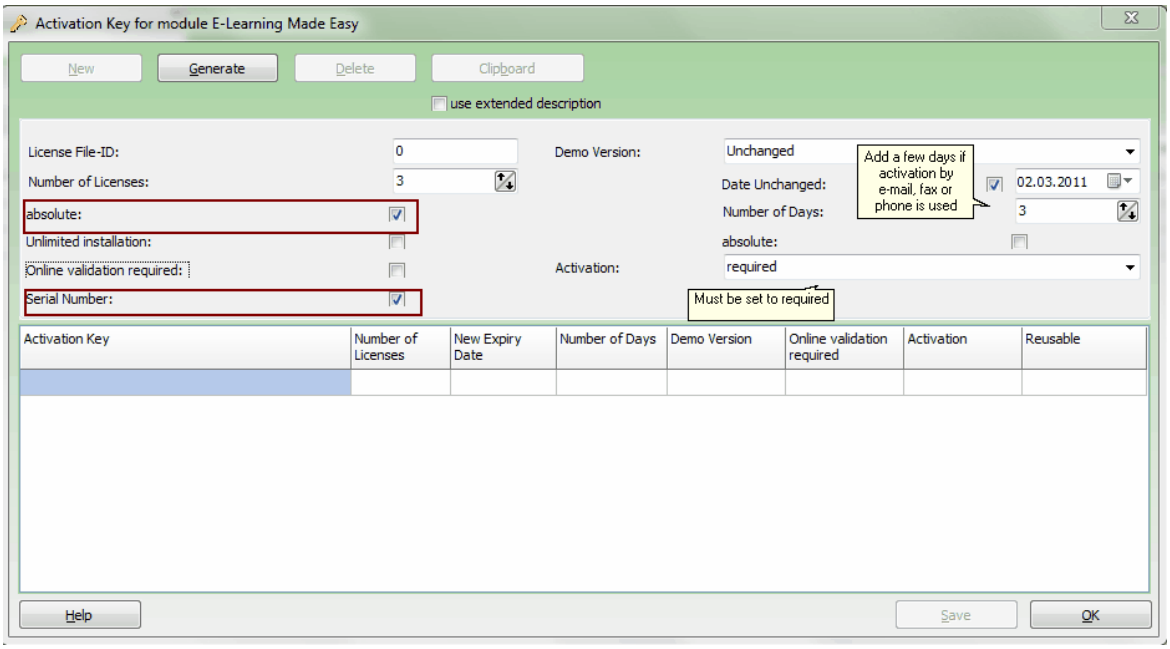
Select your main module and click on the three dots in the column *Activation Key*. You get the screen to generate an Activation Key.

Press the button ***New*** and select the follow settings. Then press: **Generate**. The key is copied into the clipboard.



Important settings are

- ***Serial Number*** must be checked
- ***Activation*** has to be set to **Required**
- ***Online validation*** required must be **unchecked**
- ***License File ID*** has to be **0**
- If you want to allow a reinstallation on the same machine 450, check **Unlimited Installation**

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- ***Number of Days*** can be set to allow additional days until the registration is completed
- If you sell a ***network license*** or use a ***counter*** then you can code the **number of licenses** in the Serial Number. You should check the **absolute** option to ensure, that the value is not added and replaces the value used in the evaluation version

Multiple Usage of Serial Numbers
By default, a key can be used only once but you can allow a reinstallation on the **same PC** (option Unlimited Installation). This is automatically checked by the Activation Server.

Note
Even if you get an activation request by e-mail, Phone or Fax the Activation Server 6 must be used to create the Unlock Key 326.

If you have no Activation Server 6 you have to ensure manually that the Serial Number is not used twice.

Never select **Online Validation required** for a Serial Number Key. The online validation is automatically done if the user selects Online Activation 232 during the activation process.

If a user types in a Serial Number and selects a manual product activation 593, he could start the application if there are still days left from the trial version. If the user should be able to start the application only after typing in the Unlock Key 320, set a date to 01/01/1900 as expiry date when you create the Serial Number. After typing in the Serial Number, the product would expire and the user can continue only when typing in the Unlock Key.

See also

Create a Serial Number using the License Generator 301
Other Activation Keys 334

12.4 TAB - File

You can open a project, create a new project. 403 copy a project 405 or just select a project from the list of recently used projects.

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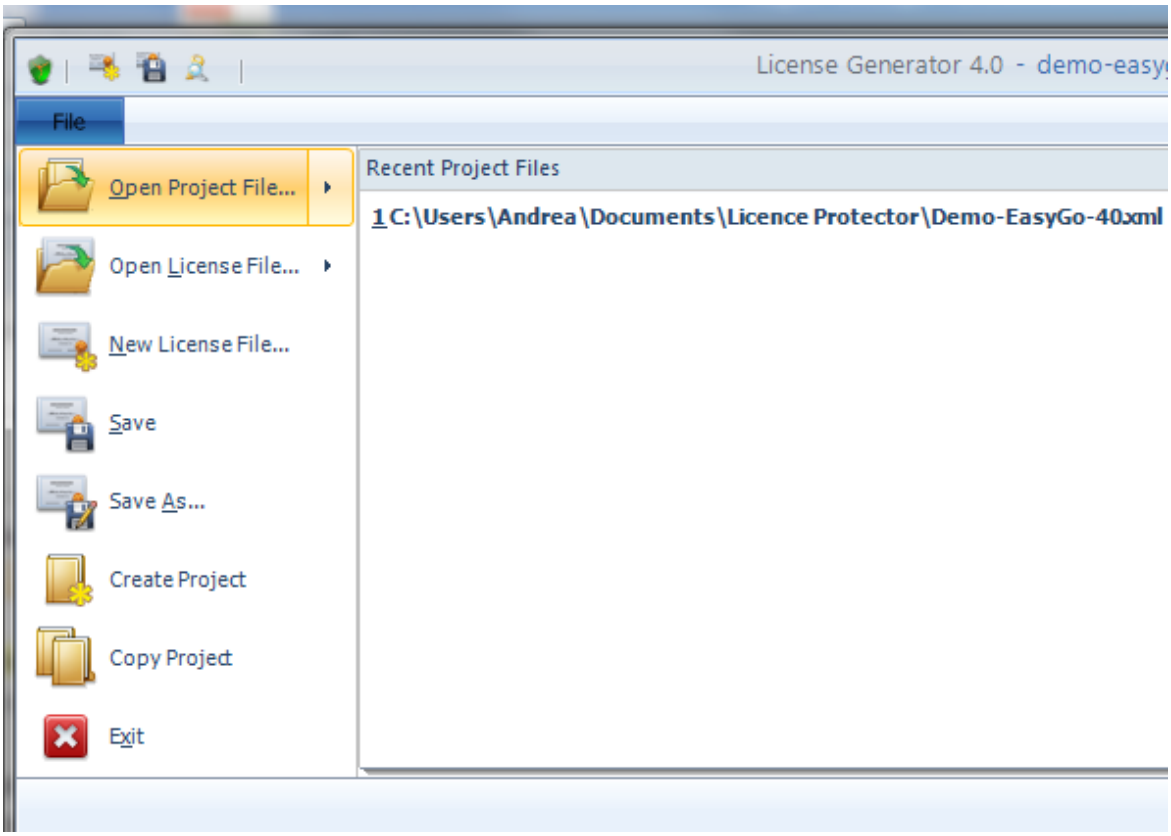
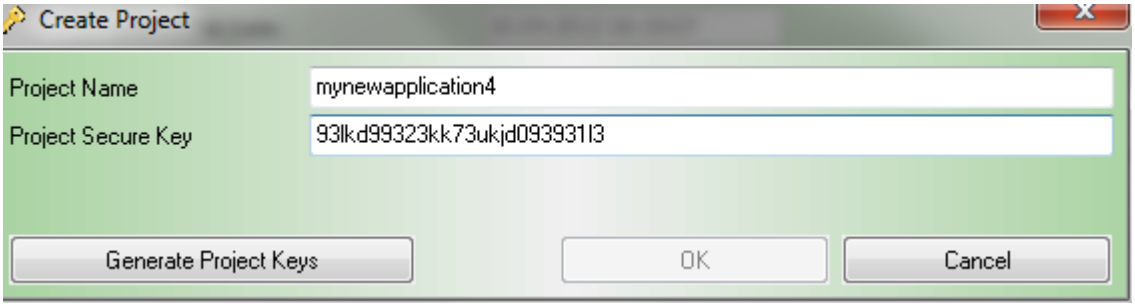


12.4.1 Create a new Project

Select the option **Create Project** in the TAB ***File*** in the start screen to create a new project.



Project Name

This is an internal name. The project name must not contain any special characters like . &%$§" , space or umlauts like äöü. You can later assign a full product name on the Activation Server 6 within the product configuration.

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Project Secure Key

The Project Secure Key should be a string which includes upper and lower case letters and numbers. **It may not contain any special characters like äöü.**
The project secure key defines the encryption of the Serial Number and additional Activation Keys. It has to be unique to ensure that a Serial Number form product A can never be used on product B.

Press the Button: *Generate Project Keys*. The generation of the keys may take a while depending on the machine speed. Save the keys and the project file by pressing the button OK and selecting a directory. The project file is saved as projectname.xml. You will not need this project file because you already have made you own.

The project template includes the project specific encryption keys 211. All encryption keys are saved into a RTF file on the selected folder. **You should copy this file to a save place**. Make sure not to lose this information and protect it against unauthorized access. There is no way to restore a lost key.

- You can change project options or modules / features by editing the project template 182
- After creating a new project or changing the project template, you have to select update the project on the Activation Server 429 again (only necessary if the Activation Server 6 is used)

Change existing template

If you already have an existing template and you only want to change the encryption then copy the **Write Key, Read Key** and **Project Secure Key** from the RTF file into your project template 183. The Read Key also has to be replaced in the **source code** of the application in the PrepareAndCheck 162 command.

You could also copy an existing project 405 with all settings.

See also
Security considerations 212

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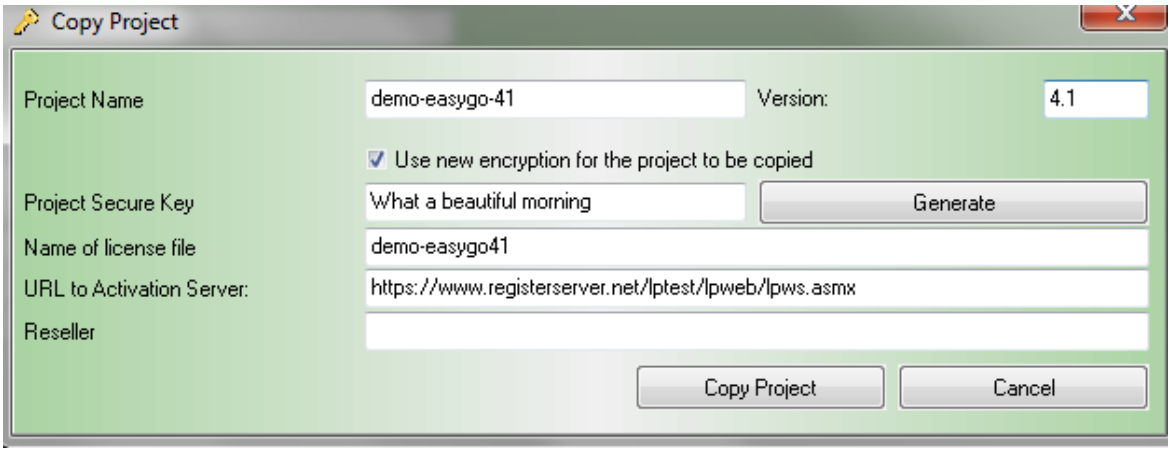
12.4.2 Copy a Project

You can copy an existing project with all settings. Select **Copy Project** in the TAB ***File***.



Project Name

This is an internal name. This is an internal name. The project name must not contain any special characters like . &%$§" , space or umlauts like äöü. You can later assign a full product name on the Activation Server 6 within the product configuration.

Version

Version number of your application

Project requires new Read / Write key

It is recommended to change the encryption of the license file (Read/Write key) every time you built a new project. Check the option: *Use new encryption for the project to be copied*

Project requires new Serial Numbers

If the new project requires new Serial Numbers for the product activation, change the **Project Secure Key** by clicking on the Generate button.

The result is identical like using the option: Create a new Project 403 but all settings of the master project are copied and you don't have to do all the settings again

Name of license file

Default for the license file name

URL to the activation Server

Default for the URL to the activation server. Should only be changed if you are using multiple Activation Servers

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Reseller

Default reseller name

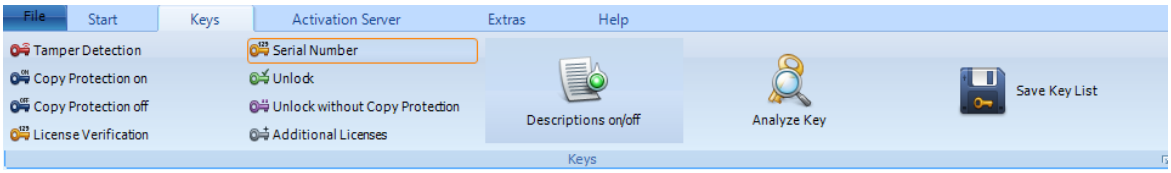
- You can change project options or modules / features by editing the project template 182
- After creating a new project or changing the project template, you have to select update the project on the Activation Server 429 again (only necessary if the Activation Server 6 is used)

12.5 TAB - Keys

The License Generator allows to create different type of Activation Keys

- Activation Keys for EasyGo like Serial Number 301, Unlock Keys 325 or keys for additional modules 335. These keys have predefined settings
- Activation Keys - Expert Mode 389 where all settings can be changed

To create keys with other generators (e.g. Browser based) see chapter: Create Keys 299



12.5.1 Serial Number

The Serial Number can be generated for each order manually with the License Generator. This is the best option if only a few orders have to be handled and no Activation Server 6 is used.

Start the License Generator and load the *demo-EasyGo.xml* or your project template.

In the TAB *Keys* select ***Serial Number***

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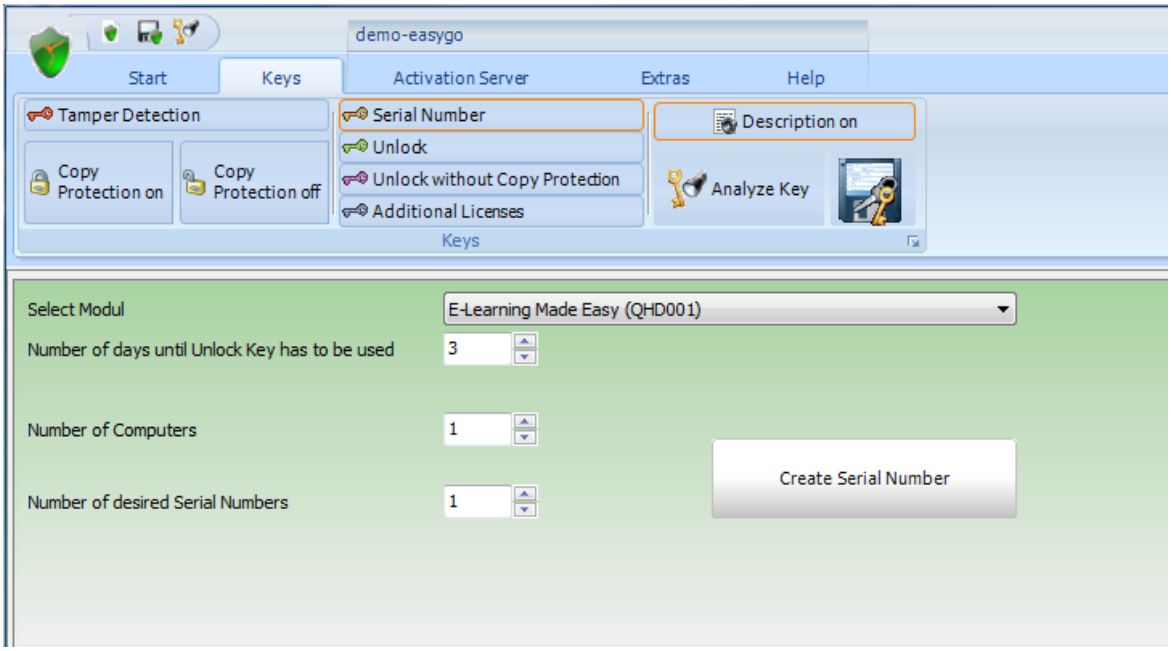

Select Module

Select the module, for which you want to create a Serial Number. By default, all modules will appear. A good idea is to define in the project template, which module is used as the main module. Then only this module will appear in the pick list. See Define module for Serial Number 201

Number of days until Unlock Key has to be used

If activation by e-mail, fax or phone is used, there is a time difference between applying the Serial Number key and sending the Unlock Key. To allow the customer to use your application after applying the Serial Number, add a few days (typically 2-5 days) which are included in the Serial Number. The **value 0** means that the user cannot start the application before he types in the Unlock Key.

Instead of using number of days, you can also use an Expiry Date

If you deliver a **time limited full version** - see workflow options 150 - then the text changes to: **Number of days until full version expires**

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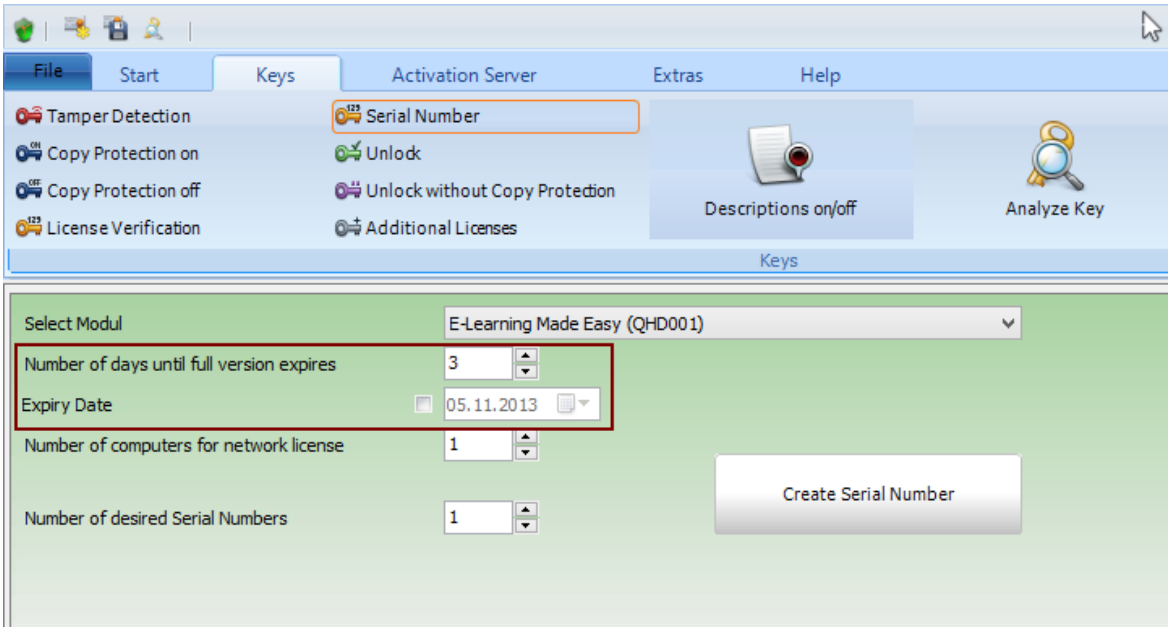
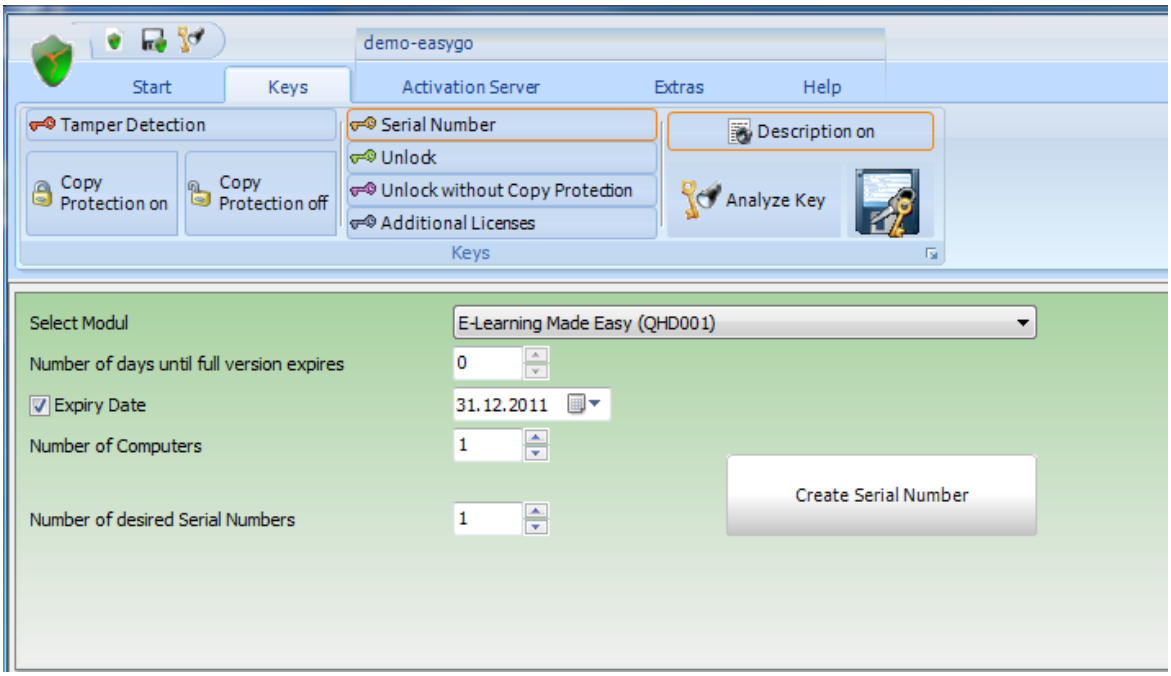


Example screenshot : After typing in the Serial Number the full version would expire in 365 days.

If you check: **Expiry Date**, then the full version would expire at this date. This is useful, if all customer versions should expire at a certain date.



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If the user has an evaluation version installed and the evaluation version has not expired yet (e.g. expiry date is in 12 days), the Serial Number would overwrite this value with the value specified in the Serial Number.

Number of...

If a network license is used (more then 1 license per PC / user / concurrent user), the number of PCs / users / concurrent users can be coded in the Serial Number. If the user buys later more licenses, send him and Additional Key 335.

This value **overwrites** the existing value in the license file. If you have an evaluation version with 5 users and the Serial Number includes 1 user, this results in a license for one user after applying the Serial Number.

For a single user installation always set this value to 1.

You can change the value for a Yes/No module or also set a value for a counter module.

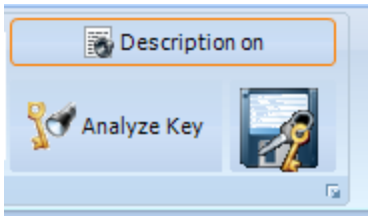
Number of desired Serial Numbers

Either generate one key per customer or generate a complete key list with hundreds of keys. For details see Create a Key List 308.

Create and Save Key

After pressing the button Create *Serial Number*, the key(s) including the extended description is/are copied into the text box. If only one key is generated, it is also copied into the clipboard.
The content of the text box can be saved to a file with the button *Save generated keys to file*.

If you send out a key by mail, turn on the option: **Description**. This will create additional text for each key to ensure, that the user types in the correct letter.



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RCGEH-5EPc3-9E7IL-3tI8X-WQU5k-6v141
In block 3 at position 4 there is the capital letter I
In block 4 at position 3 there is the capital letter I

See also: How often an a key / ID be used? 344

If you need more configuration options for a Serial Number, see Create Serial Number using Activation Keys 305

See also

Create Serial Number using Activation Keys 305
Other Activation Keys 334

12.5.2 Unlock Key with Copy Protection

Start the License Generator and load the *demo-EasyGo.xml* project template or your application template.

In the TAB *Keys* select ***Unlock Key***

Enter the Installation Code 475 (Hardware ID) which was transmitted from the customer and select the type of copy protection (Volume ID, MAC Address, Hostname etc.) you want to use. You have to enter only **one** hardware ID.

Use CTRL + V to paste the installation code.

After pressing the button *Create Unlock Key with Copy Protection*, the key including the extended description is copied into the text box. It is also copied into the clipboard. The content of the text box can be saved to a file with the button *Save generated keys to file*.

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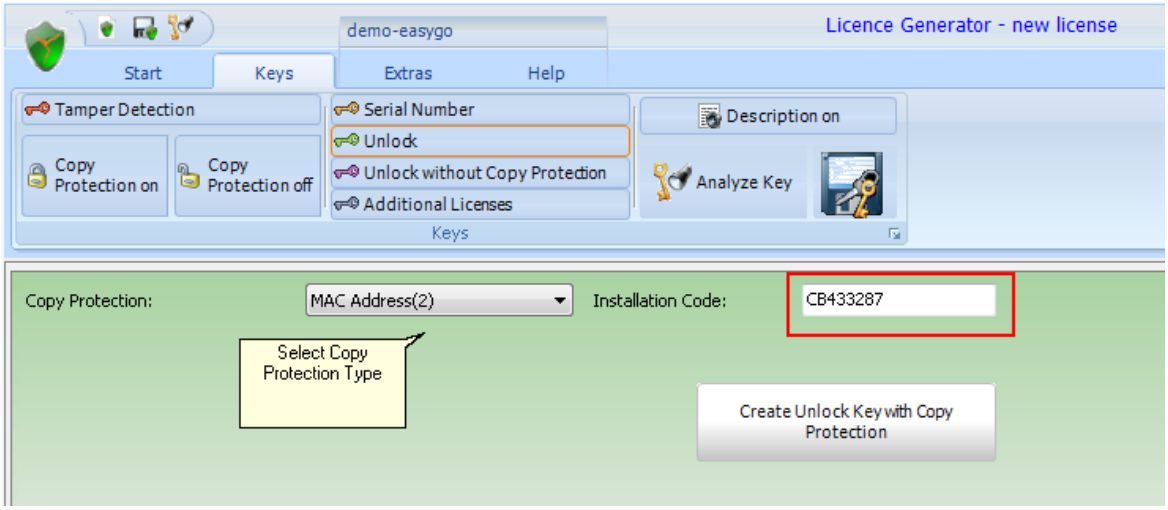
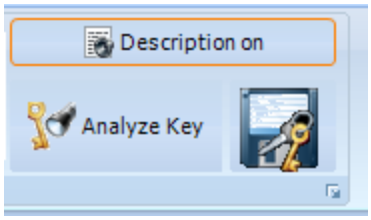


Send the Unlock Key to the user, which would use the key in the screen Enter Unlock Key 251.

If you send out a key by mail, turn on the option: **Description**. This will create additional text for each key to ensure, that the user types in the correct letter.



RCGEH-5EPc3-9E7lL-3tI8X-WQU5k-6v141
In block 3 at position 4 there is the capital letter I
In block 4 at position 3 there is the capital letter I

See also

Create Unlock Key without Copy Protection 330
Unlock Key - all options 320
Other Activation Keys 334
Explanation of all installation codes 475

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12.5.3 Unlock Key without Copy Protection

If the product should be unlocked with copy protection, select Create Unlock Key using License Generator 325 instead. Unlocking **without** Copy Protection will just remove the time limitation of the evaluation version, but the user could copy the product and use it on multiple PCs.

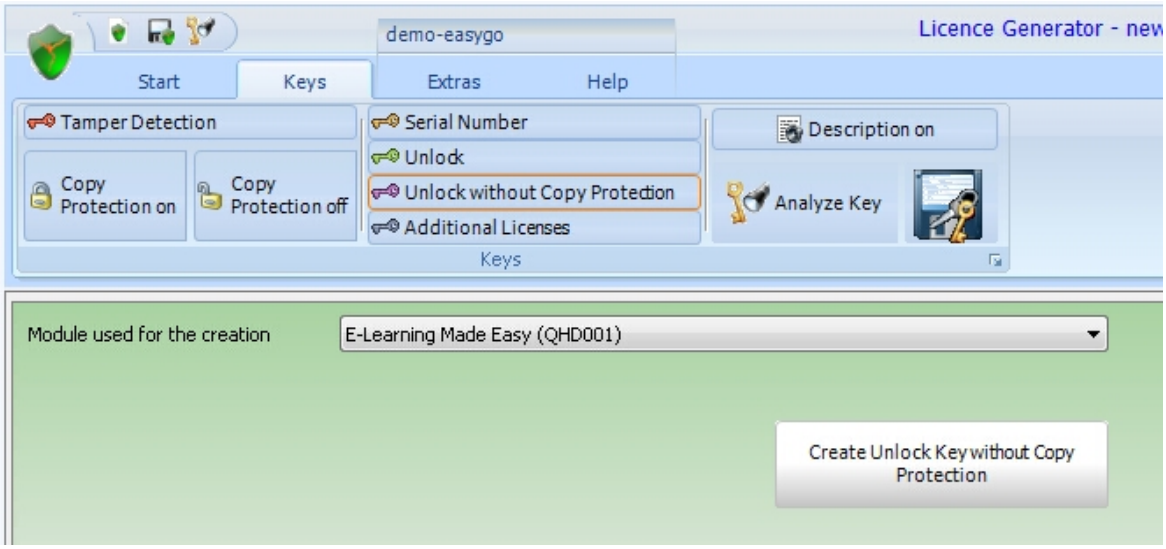
Start the License Generator and load the *demo-EasyGo.xml* project template or your application template.

In the TAB ***Keys*** select ***Unlock Key without Copy Protection.***

Select Module

Select the module, for which you want to create a Serial Number. By default, all modules will appear. A good idea is to define in the project template, which module is used as the main module. Then only this module will appear in the pick list. See Define module for Serial Number 201

After pressing the button *Create Unlock Key without Copy Protection*, including the extended description is copied into the text box. It is also copied into the clipboard. The content of the text box can be saved to a file with the button *Save generated keys to file*.



If you send out a key by mail, turn on the option: **Description**. This will create additional text for each key to ensure, that the user types in the correct letter.

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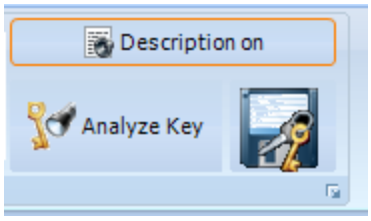


RCGEH-5EPc3-9E7IL-3tI8X-WQU5k-6v141
In block 3 at position 4 there is the capital letter I
In block 4 at position 3 there is the capital letter I

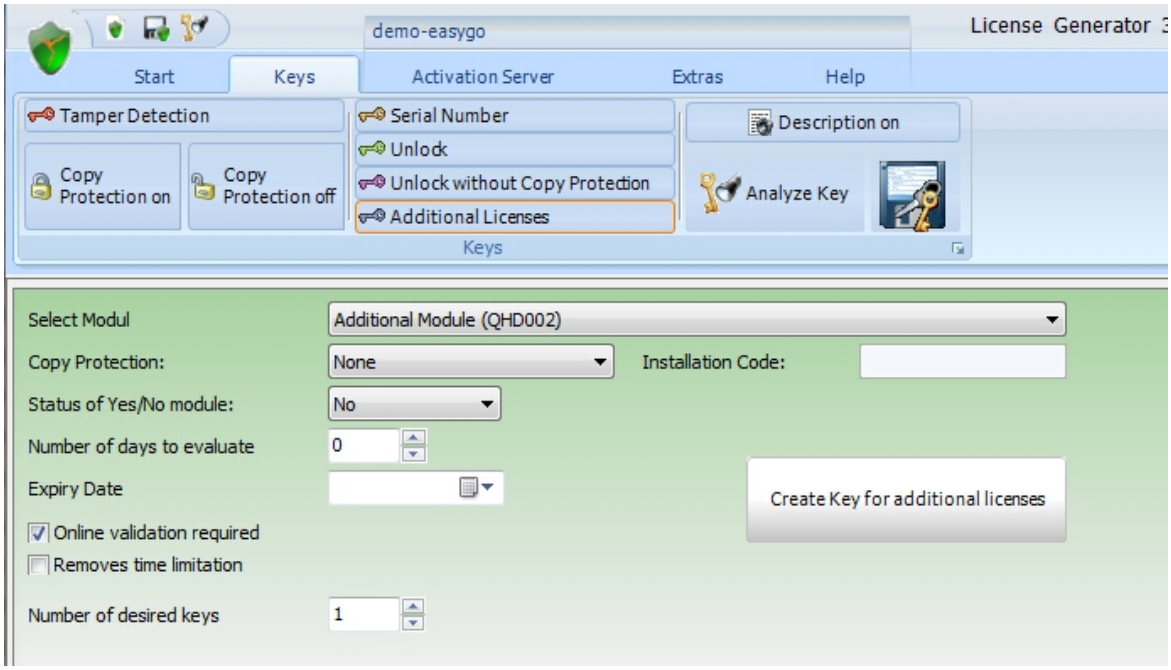
See also

Unlock Key - all options 320
Unlock Key with Copy Protection 325

12.5.4 Additional Keys

Start the License Generator and load the *demo-EasyGo.xml* project template or your application template.

In the TAB ***Keys*** select *Additional Licenses*



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Select Module

Select the module, for which you want to create a key. **All modules** will appear.

Number of...

If a network license is used (more then 1 license per PC / user / concurrent user), the number of PCs / users / concurrent users can be increased or decreased by sending an Activation Key to the customer.

This key **adds** the selected number of licenses to the existing value in the license file. If you have an existing license with 5 users and the additional license includes 2 users, this results in a license for 7 users after applying the key. Select: *Overwrite value in license file* if you want to **overwrite** the existing value.

You can change the value for a Yes/No module or also set a value for a counter module.

A value with 0 will not change the existing value in the license file. For a Yes/No module select: *Unchanged*

Number of days to evaluate

This option is to **prolong an existing trial period**. Make an Activation Key with:

- Number of .. = 0 or for a Yes/No Module = Unchanged
- either select: "Number of days" to evaluate or "Expiry Date"

Online Validation - Requires Activaton Server

If you choose the option **Online validation required**, the workflow for applying a key is as follows:

- The user needs an Internet connection to apply a key
- The key is transferred to the Activation server and is stored in the database
- If the key was already used, the key can not be applied
- If the key was already used on the same machine and reinstallation is allowed, then the key can be applied

Using this option you can create Activation Keys without knowing the license file ID or the

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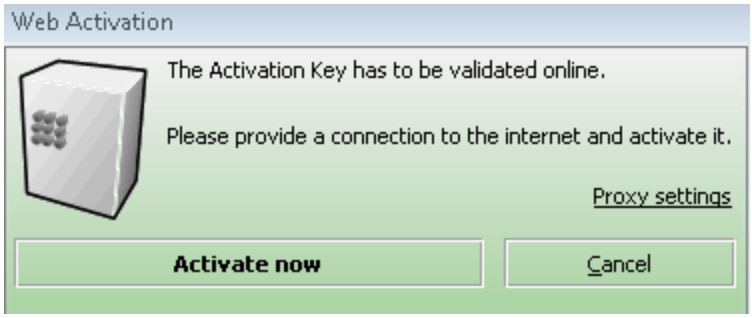
installation code from the user and it is ensured that the key can only be used once.

Activation Screen which pops-up when the user types in the key



Note

- You can allow using the Activation Key multiple times on **different machines** by changing the maximum key usage on the Activation Server Administration Interface - see How can I change how often a key / ID can be used?
- You can allow to using the Activation Key multiple times on the **same machine** - see chapter Allow Reinstallation / multiple usage of an Activation Key 450

This feature requires the Activation Server 6

Using an installation code / hardware ID

If Copy Protection = None is selected, the key can be used on any machine.

You can bind an Activation Key to the Installation Code 475 (Copy Protection) of a license file. The Activation Key can then be used only on the PC / Server when the hardware ID in the key matches the hardware ID used for copy protection in the license file.

You can retrieve the Installation Code from the customer with the License Viewer. 281

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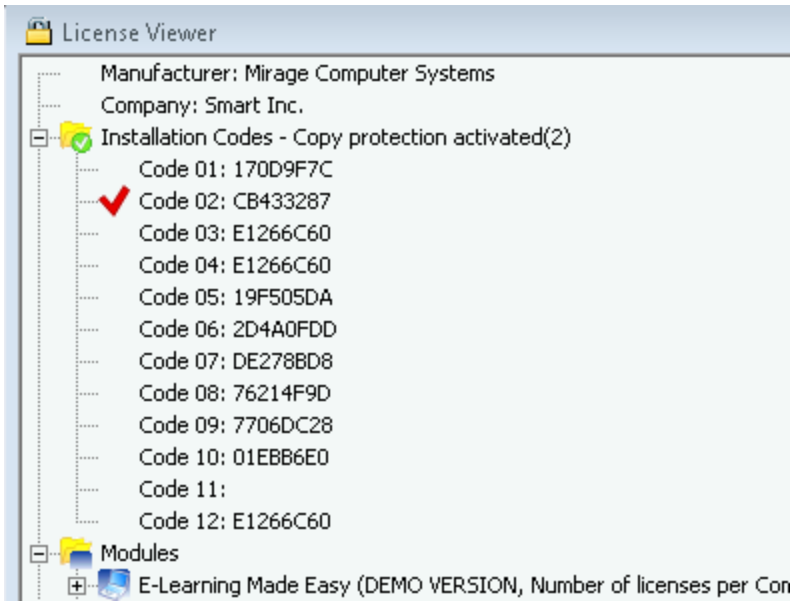

You have to use the installation code which is marked with ✔

Removes time limitation

The option **removes the expiry date** of a license.

To ensure, that a key can not be used on multiple machines, there are 2 options available:

Number of desired keys

Either generate one key per customer or generate a complete key list with hundreds of keys. For details see Create a Key List 340

After pressing the button *Create Key for additional licenses*, the key including the extended description is copied into the text box. It is also copied into the clipboard. The content of the text box can be saved to a file with the button *Save generated keys to file*.

If you send out a key by mail, turn on the option: **Description**. This will create additional text for each key to ensure, that the user types in the correct letter.

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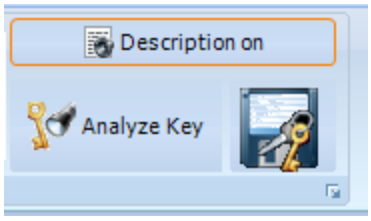
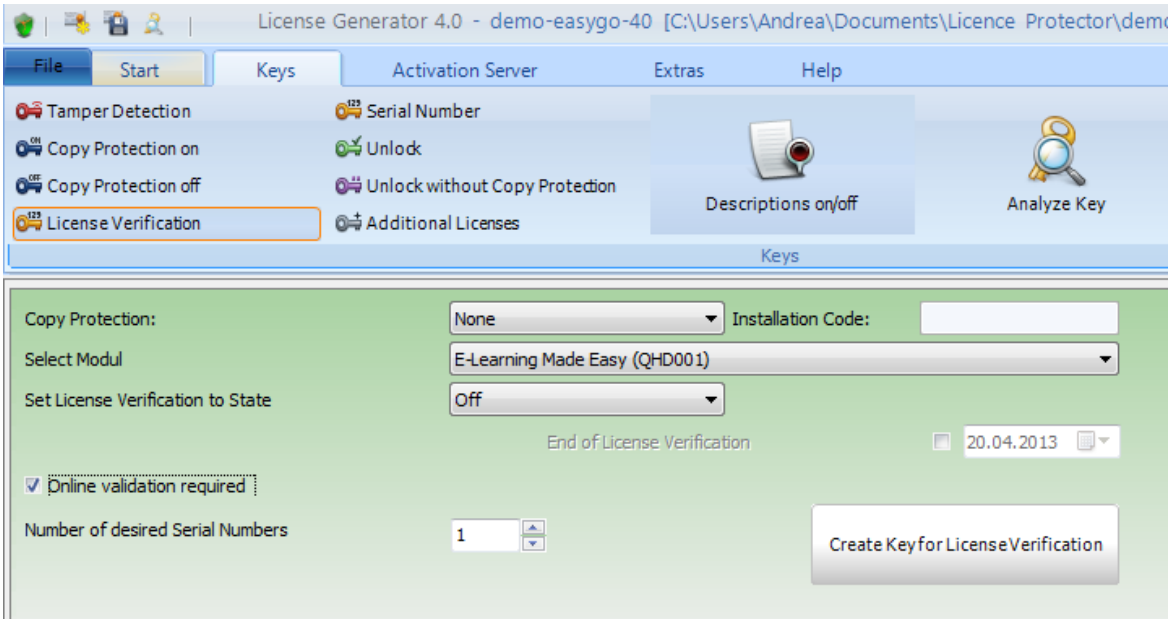


RCGEH-5EPc3-9E7IL-3tI8X-WQU5k-6v141
In block 3 at position 4 there is the capital letter I
In block 4 at position 3 there is the capital letter I

If you need more configuration options for a key, see Create Activation Key 392

12.5.5 License Verification

If a regular online check 541 is used, you can disable or enable the online check using the license verification key.



Typically the regular online validation is done using the main module. Ensure that you select the correct module.

Set the license verification state:

- **off** = disables the regular online verification
- **ongoing verification** = enables the regular online verification
- **license locked** = locks the license

To ensure, that the key can only be used once and that you can check, if the key was applied, use the option: *online validation required*.

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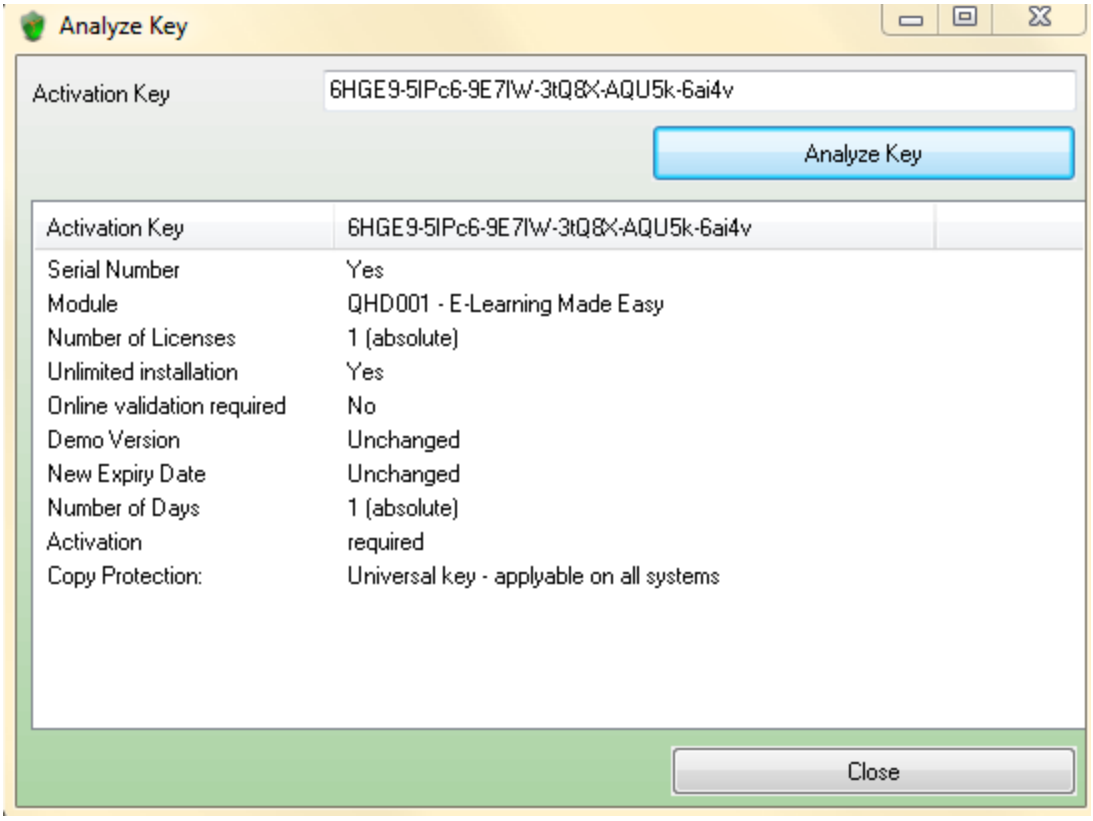
12.5.6 Analyze Activation Key

All Activation Keys have the same format and you cannot even guess, which settings a key would change.

The License Generator allows to analyse an Activation Key. Either select the icon in the title bar or in the Tab **Keys.**

The clipboard content is automatically inserted. Press the button *Analyze Key*. You get a complete list of all the settings of the Activation Key.



12.5.7 Suspend Date Lock

Suspend Date Lock

Licence Protector 5 detects, if a user manipulates the date. There can be a situation (if the user sets the date into the future and then back again), when a program start is not possible anymore, because Licence Protector 5 informs your application about the date manipulation.

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With **each** Activation Key the Check Date function is set back to the current date. Just send the user an activation key with a new expiry date to suspend the date lock.

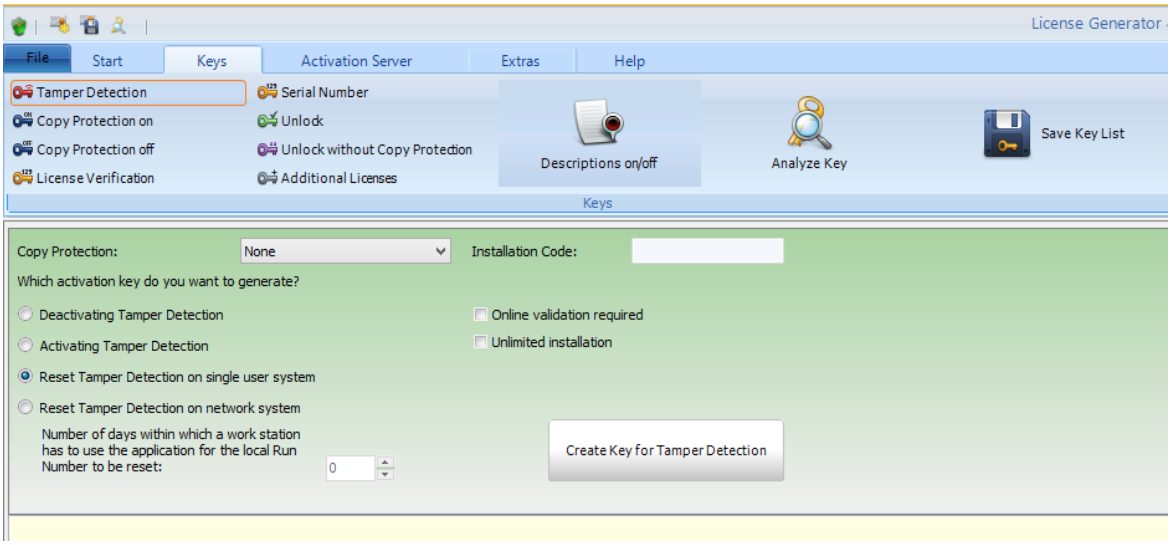
Your application must provide a possibility to type in an Activation Key, even when the application does not start.

12.5.8 Keys to reset Tamper Detection

If the option Tamper Detection 565 is used and the customer restores a backup or tries to manipulate the license, the application will not start. There are several ways to reset the application

Sending an Reset Key

This is the recommended activation. Within the License Generator, select the TAB *Keys*, **Tamper Detection.**



- Select *Deactivating Tamper Detection* if you want to **disable** Tamper Detection for a product was already installed on the end users computer
- Select *Activating Tamper Detection* if you want to **activate** Tamper Detection for a product was already installed on the end users computer
- Select either *Resetting Tamper Detection* on a single user or network system to just **reset** the lock. The user can then start the application again but Tamper Protection is still active

Use *Online validation required* to ensure, that the key cannot be used on multiple PCs

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Uncheck *Unlimited installation* to ensure, that the key cannot be used twice on the same license file

Within a network, the key has to **reset all Computers**. Therefore a time frame has to by defined (Option: *Number of days within which a work station has to use the application to reset tamper detection*). Within that time frame each computer has to start the application to remove the lock. That means that during these days the Tamper Detection functionality is virtually deactivated.

You should select the value for *number of days* large enough to allow all computers to start the application within the time frame to reset the lock. Tell your customer to start the application on all computers.

Sending out a new license file

One method is to create a new license file. That license file will start with Run Number 0 and has no locally stored Run Number so the standard start-up functionality is used.

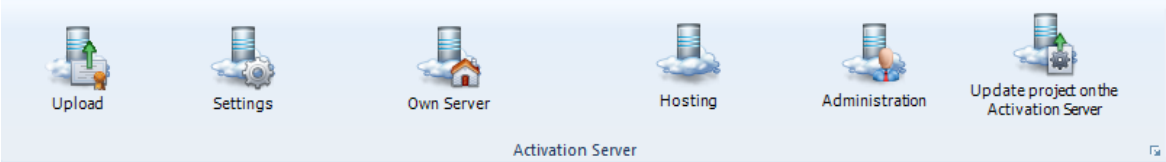
Using DLL commands

You can use DLL commands to rest the Run Number.

- ResetLocalRunNo 749
- ResetGlobalRunNo 750

The command PrepareForce 738 would allow to open a license file and ignore the error.

12.6 TAB - Activation Server



Configure here the settings for the product activation, configure your Activation Server 6 and access the Web Administration Interface.

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The Activation Server 6 is the central point for administration of licenses - create keys, lock licenses, change activations or generate reports. It ensures that each license can be registered only once. Every transaction is logged to a database.

Optionally, keys can be transmitted to the activation server before they are applied to the license file. It is checked, whether the key was already used or not. This is to ensure that the key cannot be passed on and used multiple times.

Hosting

The Activation Server 6 is provided via a hosting model. Mirage provides installation and maintenance of the server. The hosting has to be ordered separately and there is a fee per activation. Order Hosting.

Running an own Activation Server

You can run your own server without any fee per activation.

Click here for system requirements of the Activation Server 6

See also

Online Activation Workflow 591
Administration Interface 429
Upload license file 421
Own Server - Settings 425
Hosting - Settings 427
Upload project configuration 429

12.6.1 Upload license file

This option allows to upload a license file to the Activation Server 6.

For details how to upload and download license file see chapter: License File upload/download 525

To upload a license file, fill in the customer details. The following settings are important.

- Type in the customer name
- Copy Protection = **none**
- Set all modules to the values the customer has bought

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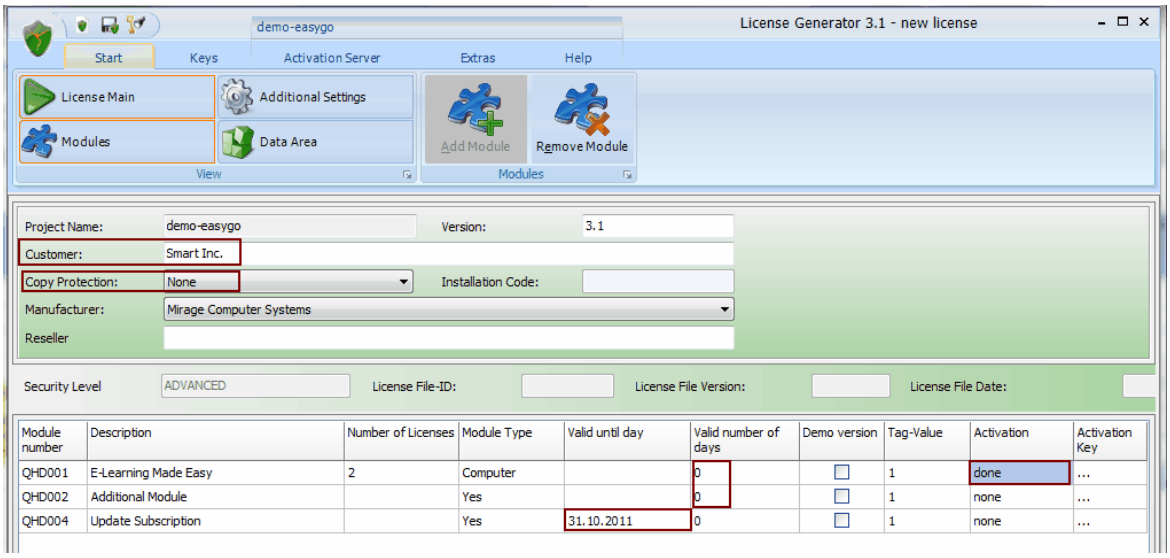
- Define time limitations only if the full version should expire after x days or if a module should expire (example below - update

For the **main module** set

- Status of Activation to **none**



Save the license file on a temporary folder (this step is mandatory).

Select the TAB Activation Server and click on the **Upload** Server option.

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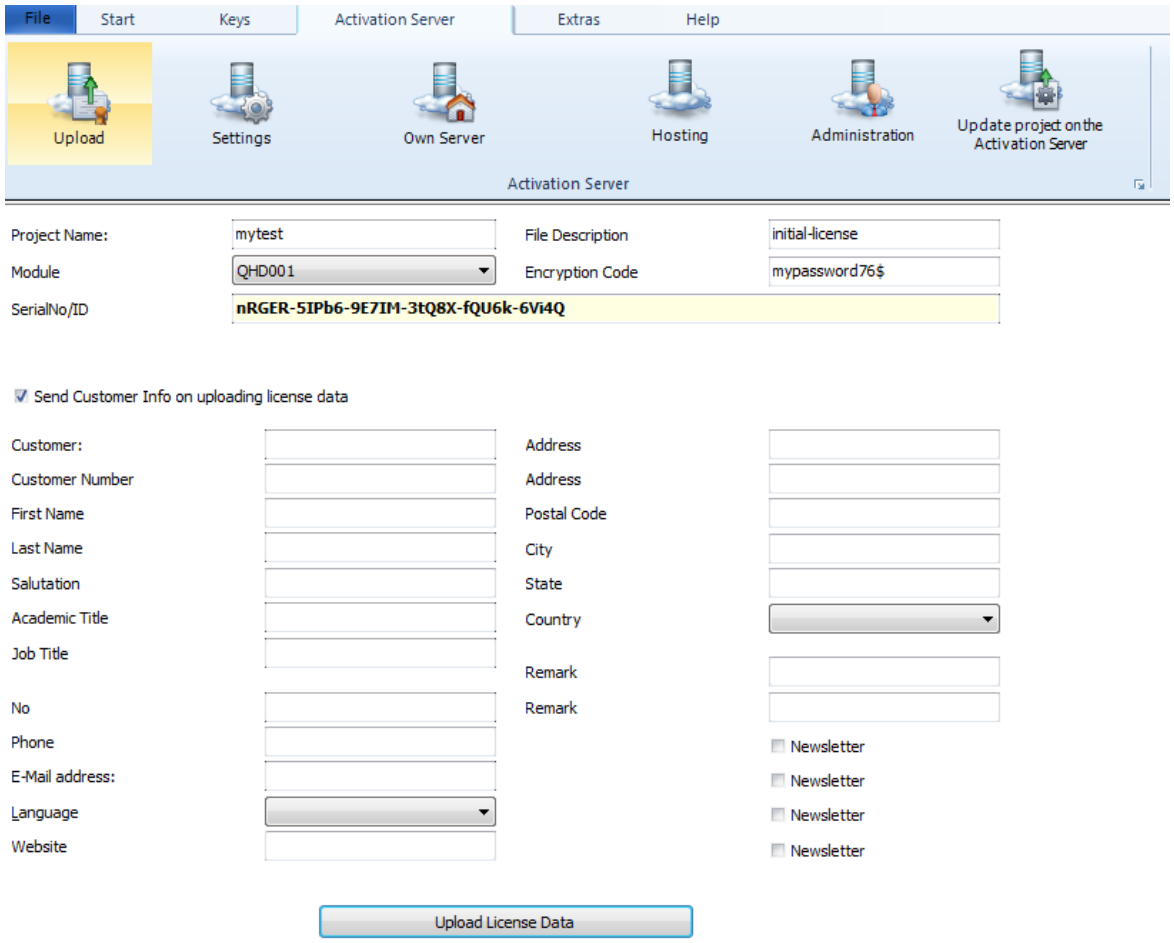

This opens a new window, where you can fill out additional license file details.

- The field ***Encryption Code*** is like a password. It ensure that nobody else with knowledge of your Activation Server 6 structure can download a file. We strongly recommend using it
- File description is the name of the license file on the Activation Server 6. If this file description is empty, the name is *default*.
- You have to use the ***module ID*** of the main module.
- The ***SerialNo/ID*** must just be a unique ID like order number, customer number or a Serial Number and is **mandatory**. A Serial Number just ensures, that the ID is unique but has no other purpose. It does not change the license file settings, e.g. modify number of network users. The users gets this ID to identify his license on the server
- The Send Customer Info creates a record in the customer table and assigns the address to this license

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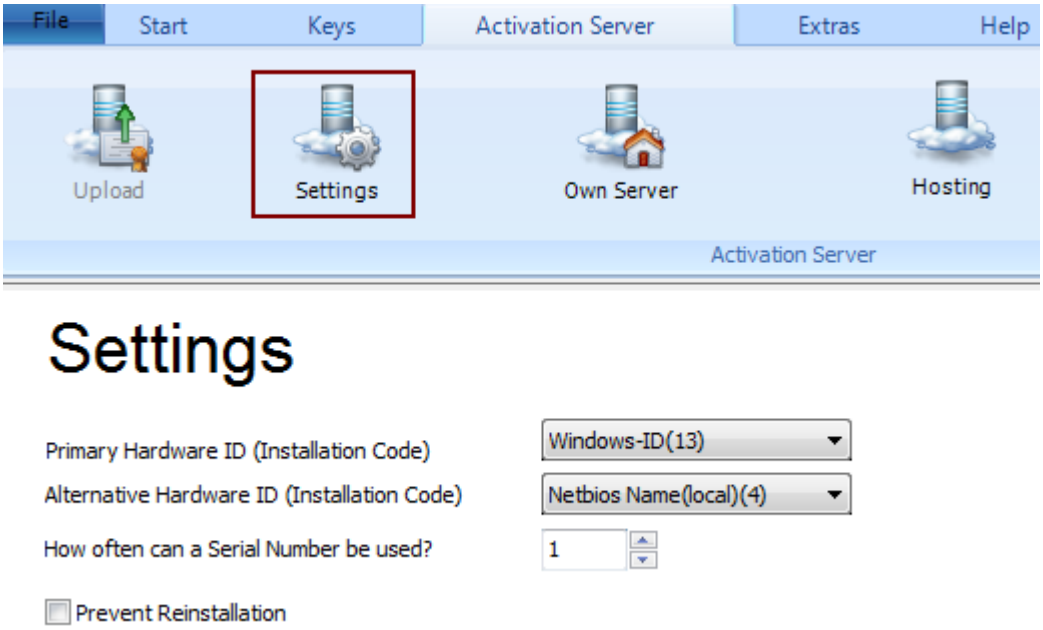
12.6.2 Settings



Primary / Alternative Hardware ID

The primary hardware ID 475 is used as the main criteria to activate copy protection. Only if this criteria is not retrievable the Alternative Hardware ID is used.

For **single user** installations or CD distribution, the Windows ID 487 (13) is recommended. For network installations use installation code 5 (Volume ID + UNC Path 482) or 6 (MAC Address + UNC Path 483).
If you offer a USB flash drive installation, the Primary Hardware ID must be 11 (USB flash drive 485).

Theses values are automatically assigned to each new project.

How often can a Serial Number be used?

It can be defined, how often a Serial Number can be used. The default value is 1. If you want to allow, that the product is installed e.g on 3 different PC's, then change here the value to 3.

Prevent Reinstallation

Typically a customer can uninstall a product and reinstall it on the same computer. The Serial Number is accepted again. Some workflows eg. a time limited full version require to prevent a reinstallation.

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Project Password

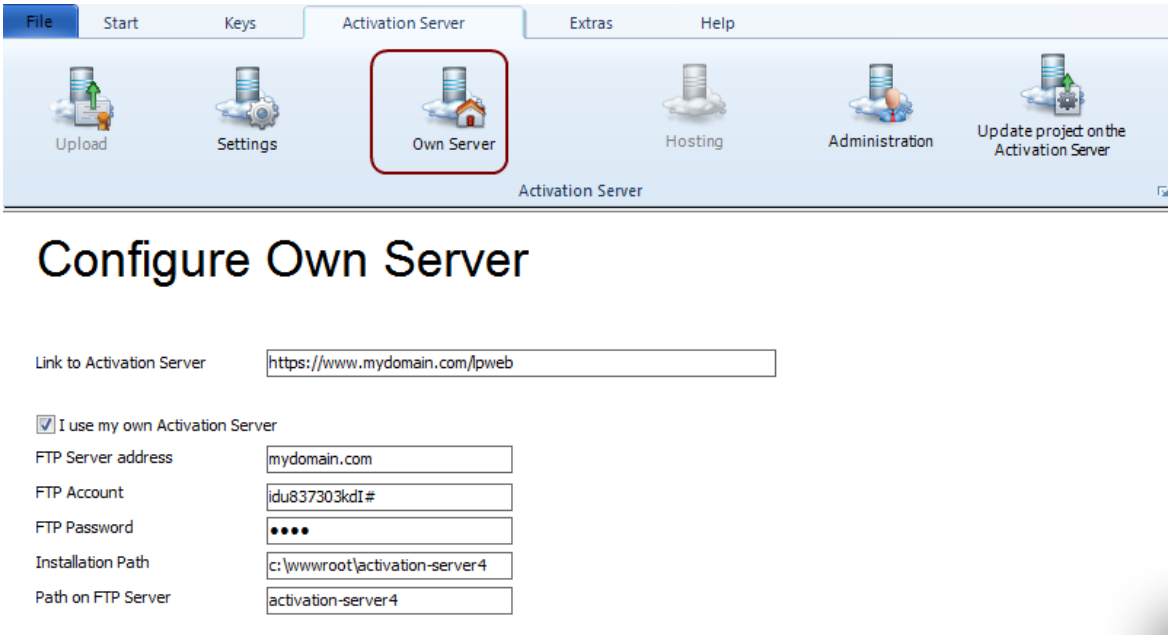
The project password is used to encrypt the connection to the Activation Server 6. It has to be set only if one project is used for Windows and MAC. If no password is set, then a default password is used. This is sufficient for Windows only projects.

Never change this password for projects which have already gone live as activations would fail.

This password option is no longer editable from version 5.1 onwards. Here a default password is used.

- After creating a new project or changing the project template, you have to select update the project on the Activation Server 429 again (only necessary if the Activation Server 6 is used)
- You can customize the project settings in more detail on the Activation Server 6 within the product configuration.

12.6.3 Own Server - configuration



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If you run the Activation Server 6 on your own computer, you can also use the automatic uploading of the configuration files 429 . This requires a special configuration of the server. If the configuration is not possible, you can always manually upload the configuration files 431.

To use an own server check: *I use my own server*

Step 1 - Link to the administration interface of the Activation Server 6

Type in the link to open the Web Administration Interface
https://www.mydomain.com/lpweb

Step 2 - Configure the settings for the FTP access

For an automatic upload of your Licence Protector 5 configuration files to the Activation Server 6 you have to provide an FTP access. Install an FTP-Server with access on FTP-port 21. Provide an FTP-account which has **full read/write access** to the Activation Server 6 installation including all subfolders (like ..\bin, \alg).

Now configure the FTP account in the Licence Protector 5 Generator.

- FTP-Server address: name of the FTP Server like *registerserver.net*
- FTP Account: FTP account user name
- FTP Password: password - always use a password with this FTP account (anonymous login is not supported)
- Installation path - path where the Activation Server 6 was installed
- PATH on FTP Server - path to the Activation Server 6 server directory, **relative** to the home directory

Example:
The installation path is on f:\wwwroot\activation-server4. The **FTP user's** home directory is **f:\wwwroot** .

The installation path would be f:\wwwroot\activation-server4. As the home directory of the FTP user is already f:\wwwroot, the relative path to specify would be: *activation-server4.*

Click here for system requirements of the Activation Server 6

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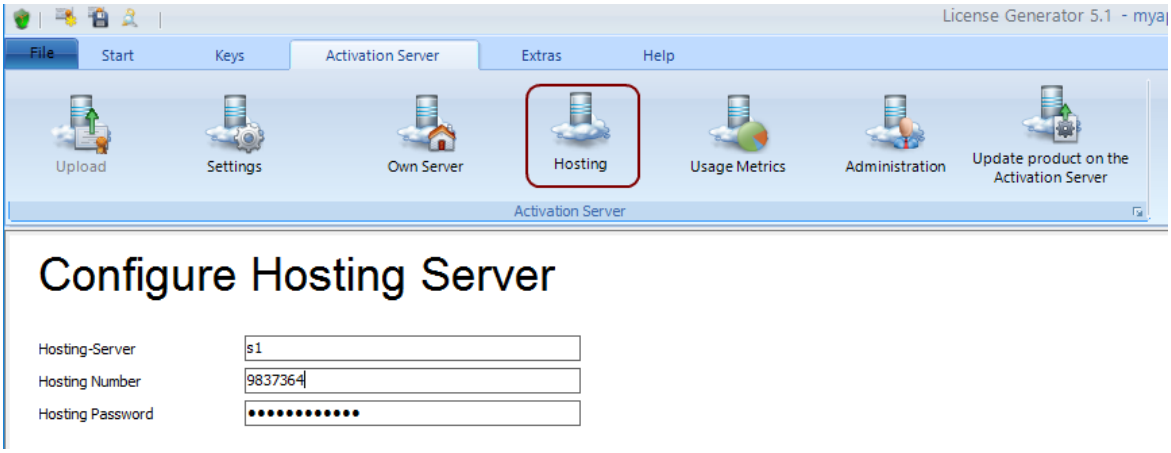
12.6.4 Hosting - configuration



Type in your **Hosting Number** and **Hosting password** as well. Deleting the Hosting Number will reset the project settings to values for the Test Server. The hosting details are provided after ordering the hosting service.
The **Hosting-Server** is an additional configuration value, which is empty by default. If used, it is provided with the hosting number and typically a value like s2

If you got the hosting information before the release of version 4 then you use the **FTP data without the string lp**

Example:
FTP Username: **lp9837364** -> Hosting ID = 9837364
FTP Password: **1Q7_thl%** -> Hosting Password = 1Q7_thl%

12.6.5 Usage Metrics

Licence Protector offers the option to send usage metrics like number of trial installations or information about the computer hardware to the activation server. The feature is by default turned of and you have to enable it if you want to use it. Activation Server 6 version 5 or higher is required.

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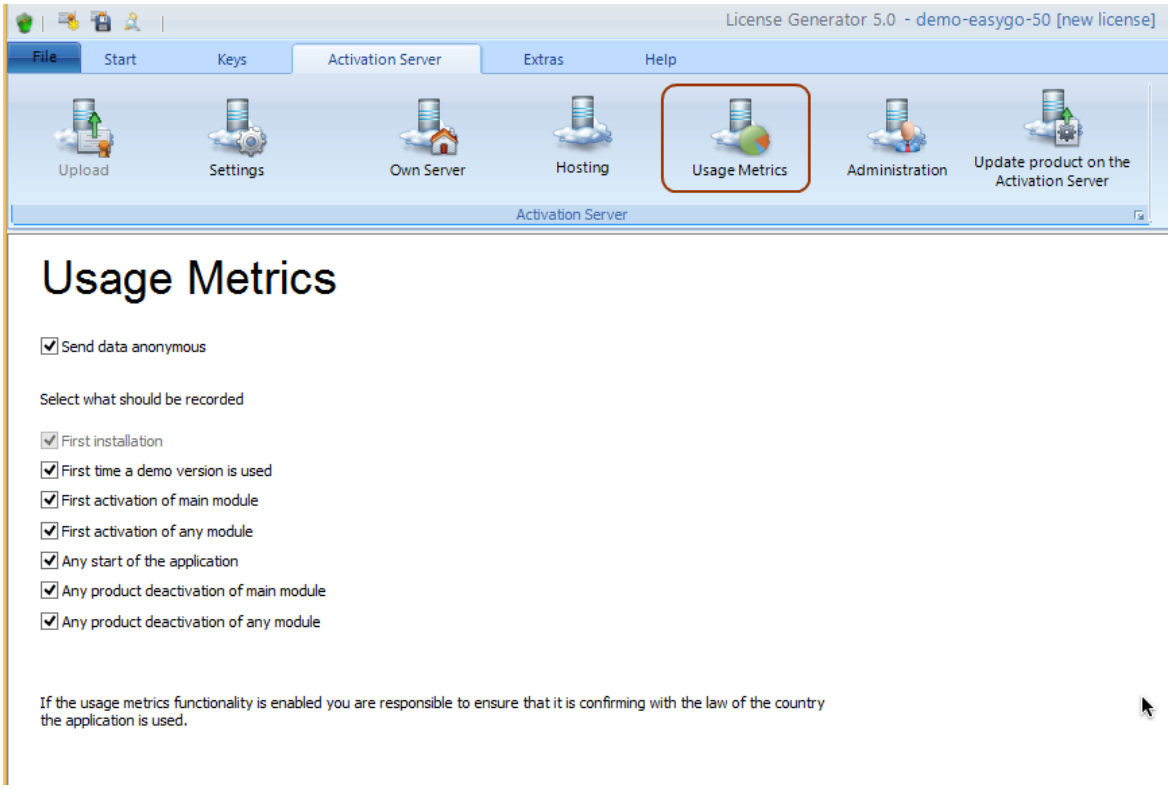

How to use this feature see chapter: Send usage metrics 215

This feature is only available in the *Basic and Professional Edition.*

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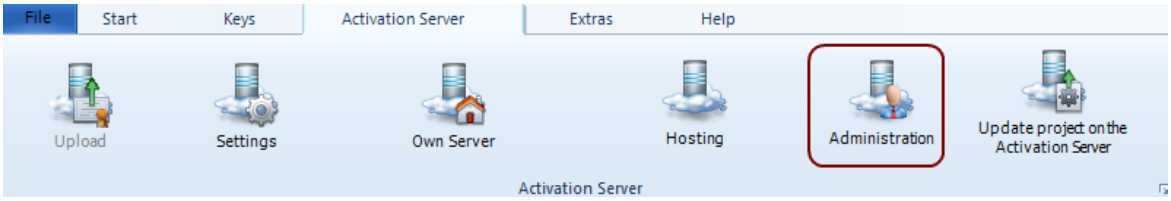
12.6.6 Administration



The Activation Server 6 comes with an browser-based Web administration interface. You can monitor each activation, allow reactivation or detect fraudulent usage of Activation Keys.
Have a look at the administration interface on the demo Web Activation Server or browse the tutorial of the Web Activation Server.

Your server URL is: https://Hosting Server 427.Registerserver.net/HostingID (e.g. https://**s1.registerserver.net/9837364**)

The user name is *demo-en*, the password is *protector*. To get a German user interface, use user name: *demo-de* and password: *protector*.

12.6.7 Update Product on the Activation Server

The Activation Server 6 needs information about your project. If this information is missing, a Serial Number is not accepted.

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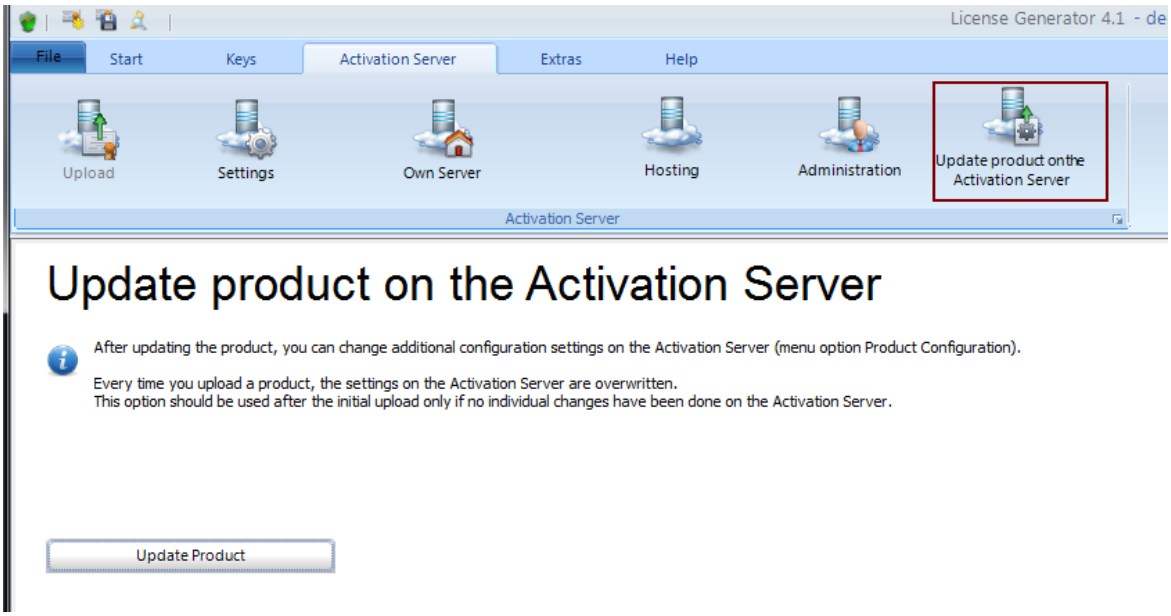

Only upload the product information once. You can **customize the project settings in more detail** on the Activation Server 6 within the product configuration. Once you have customized options, you should never again upload the project as all settings would be overwritten

- This option is only available if the login data to the Activation Server is configured - see screen *Hosting Settings* 427 or Own Server Settings 425
- If the uploading fails or the system hangs, see Error during uploading files 431

Test Server

Your projects and test activations are **deleted after 2 days** on the pre-configured test Activation Server.

See also

Error during uploading files 431
Manually upload Files 431

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12.6.7.1 Error during uploading files

If an error occurs during uploading of the files, check:

- Check your hosting ID and your password - see screen Hosting Settings 427 or Own Server Settings 425
- Do you have a firewall enabled? - **Disable the firewall** and try again
- Do you have an antivirus software installed? - **Disable the antivirus** software and try again
- If you are using an own server check your FTP server settings

If the upload still generates an error, upload the files manually - see chapter Manually Upload Files. 431

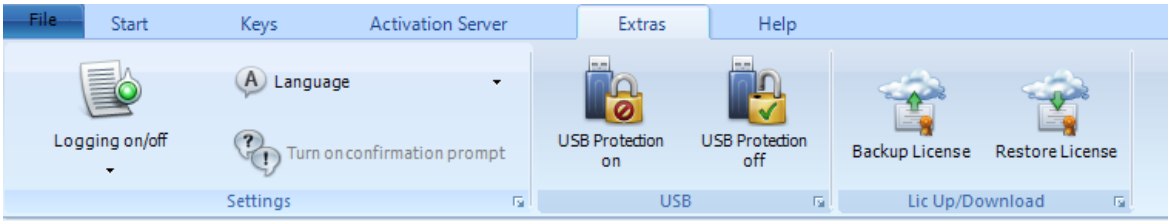
12.6.7.2 Manually upload Files

To manually update the product, login into the Activation Server 429 and upload the product using the menu *Administration / Setup* - **Product Upload**

Details

12.7 TAB - Extras

Find here configuration options as well as special options like USB protection.



- Logging 433
- Choose Language 432
- Confirmation Prompt 432
- USB flash drive Protection 433
- Backup / Restore your license 436

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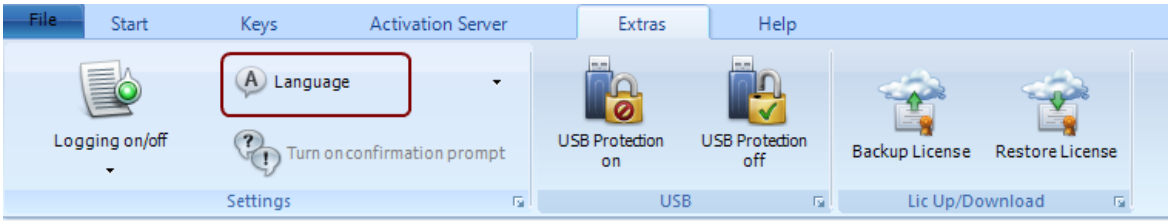
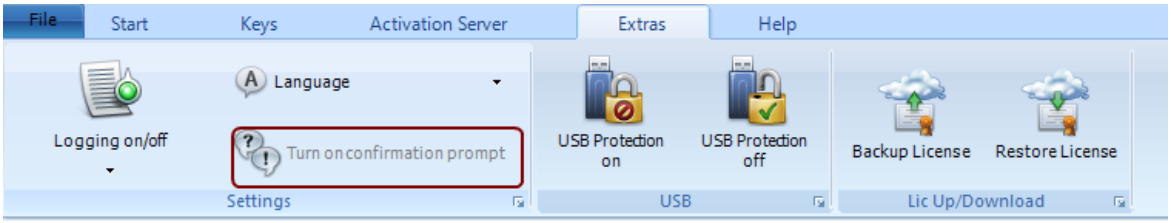
12.7.1 Choose Language

You can change the language of the License Generator application within the TAB *Extras*,

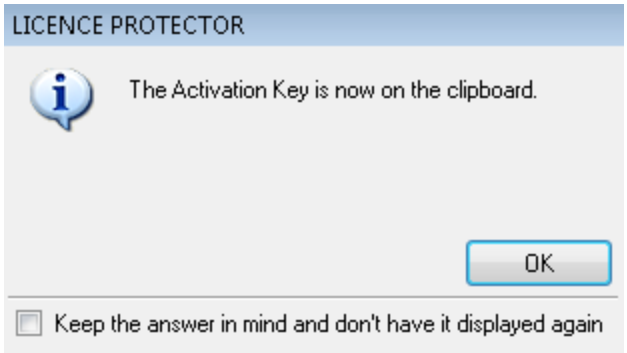
Languages



12.7.2 Confirmation prompt



Some actions pop-up a message to confirm the action. You can suppress this messages by checking the option: *Keep the answer in mind and don't have it displayed again.* The confirmation screen will then never appear.



To enable the confirmation screen again, select in the License Generator TAB, *Extras*,

Turn on confirmation prompt.

If the confirmation prompt is active, then this option is disabled.

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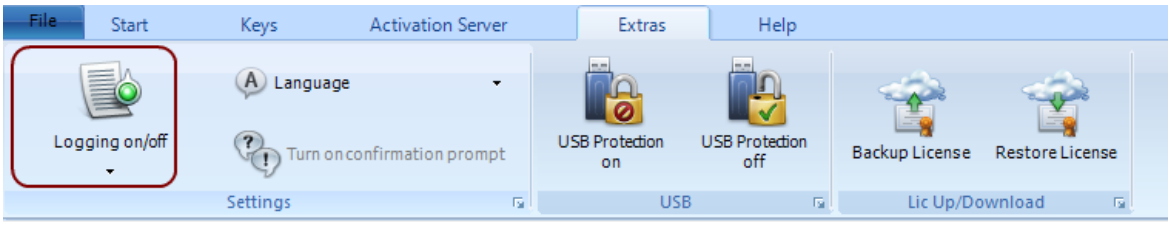
12.7.3 Logging



Select the TAB *Extras,* **Logging** to enable or disable a log file. This can be used for error tracking.

In case there is an error within the Licence Protector 5 application, Mirage support may advise you to turn on an error log.

Click on the arrow and select a folder to save the log files with *Select Path for Log files.*

The button is a toggle which is turned on or off

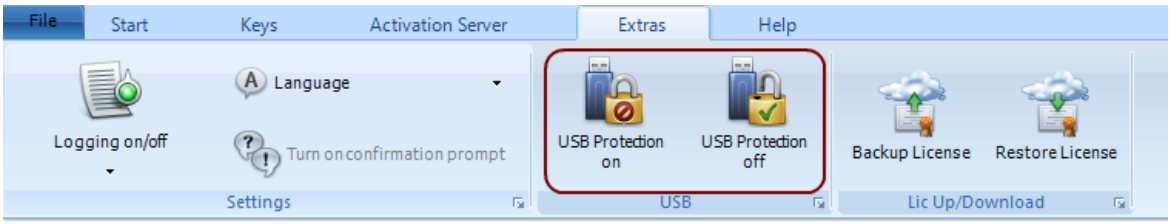
description is on

description is off

The log file can be activated in your application within the License Viewer 291, button *option.*

12.7.4 USB-stick Protection

For overall considerations using the USB flash drive protection see chapter Using an USB flash drive as a Dongle replacement 574.



To deliver a USB flash drive with a ready to go license, there are only a few steps necessary.

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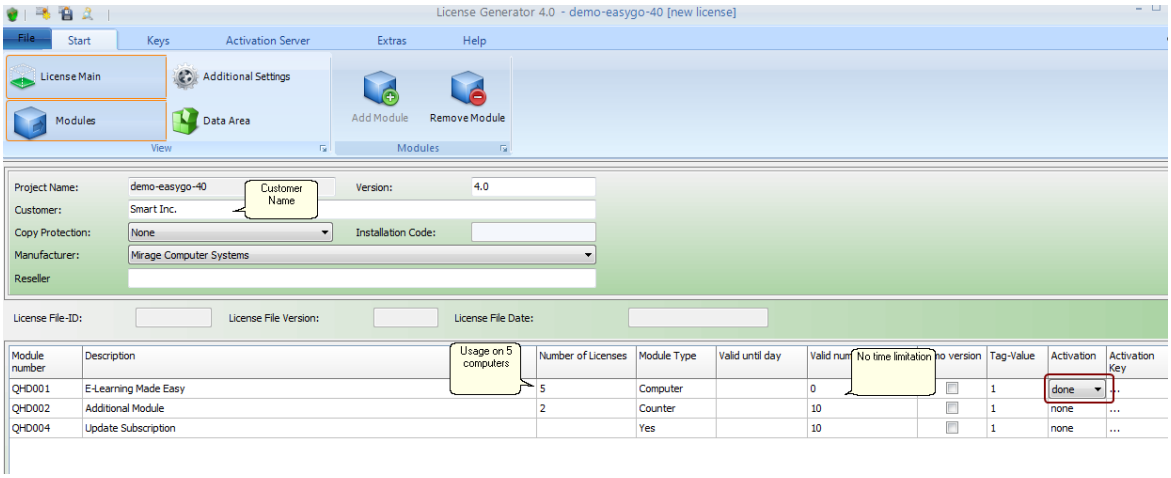
Create license file

- Open the License Generator and **load the project template**
- Configure all modules the customer has bought
- The license should have **no time limitation** or demo version status. You could add a time limitation, if the software should expire after x days or on a predefined expiry date
- Activation status must be **done** if you use EasyGo
- Type in the customer name and save the license file on the USB flash drive



Configuration settings for USB license

Limit usage

The customer can use the license always **only on the computer, where the USB flash drive is attached**. The limitation by PC / user is an additional configuration setting to limit the usage.

- use a module from type computer/PC 203 - this limits the usage to the defined number of computers (recommended option). To define an unlimited usage, just configure a license with 9999 computers
- use a module from type user 203 - this limits the usage to the defined number of users (USB flash drive can be used only on one PC)
- use a module from type Yes/No 203 - the USB flash drive can be used on any number of computers by an unlimited number of users

The computer license type uses the hostname 480 to count the number of computers. As a hostname can be changed, you could use the hardware ID 13 487 (Windows ID) instead of the hostname or a combination of both.

- Retrieve hardware ID 13 using GetInstCode(13) 684
- In the command Validate 818 or PrepareAndCheck 162 use the hardware ID 13 as

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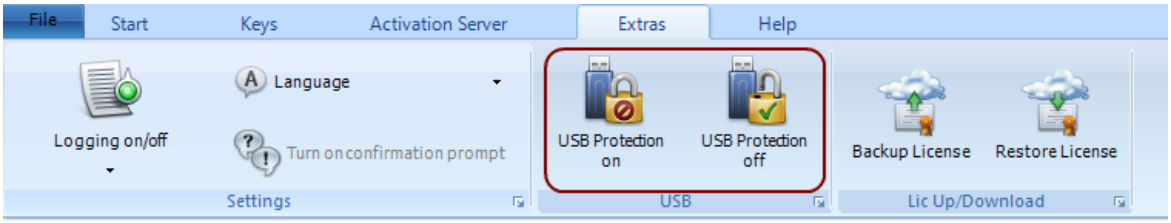
replacement for the hostname (Name = hardware ID13, UseWindowsUser = false)

- As now only a 8 digit number is displayed in the License Viewer, you could combine the hardware ID13 with the hostname - GetLPComputername 703 - the result in the license file would e.g. be: 411B9C8E (My Computer)

Activate protection on USB flash drive

First You have to load the correct project template for the file you want to protect. Then you can add the USB protection to this file.

In the License Generator, select the Tab *Extras*, then **USB Protection on.**



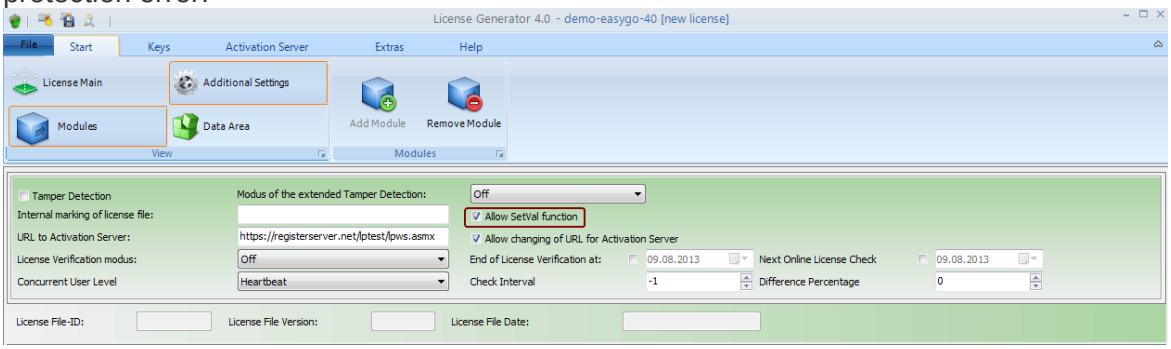
This opens a dialog, where you can select the license file on the USB flash drive. The copy protection is then activated.

If the USB flash drive does not support this option, an error message is displayed:
There is no valid instcode for file filename.lic

You have to use another USB flash drive.

The copy protection can be removed from the USB flash drive. Select the menu Tab *Extras*, then **USB Protection off** This opens a dialog, where you can select the license file on the USB flash drive. The copy protection is then removed.

The option: Allow SetVal function must be checked. Otherwise you get a write protection error.



SetVal configuration - screen additional settings

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Automated process for large quantities

If you need large quantities of USB flash drives with a license file already activated, you can use the service of the company OEM marketing - www.oem.de. They are specialized in CD and USB duplication and they have a special license from us to add the USB flash drive protection in a batch process. You have to send them a generic license file and the project template.

This feature is only available in the *Professional Edition.*

12.7.5 Backup / Restore your license

This command allows you to make an online backup of your license and share it with other PCs.

For details see: License usage and installation on multiple PCs 35

12.8 TAB - Help

Licence Protector 5 comes with extensive help and tutorial information. Within the TAB Help, you can select the following options:

- About 437
- Buy Licence Protector 437
- Check for Update 437
- Licence Protector on the Web 438
- License Viewer 439 - information about your license
- Online Help 444
- Quick introduction help 24

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12.8.1 About

Select the TAB *Help*, **About** to retrieve version information and copyright notice.

12.8.2 Buy Licence Protector

Select the TAB *Help*, **Buy Licence Protector** to buy additional licenses or the main Licence Protector application. The order process is completely automated using one of the [e-commerce integrations](#) 596 you can use with Licence Protector 5.

12.8.3 Check for Update

Select the TAB *Help*, **Check for Update** to open the Update website. This is the main information area where you can download previous updates. It also provides detail information, if an update is a free service pack or requires an update subscription.

Click on to get the following options

Configure Update Check

Here you can configure, how often a check for a new update is done and if it is automatically installed or not..

You can select one of the following options:

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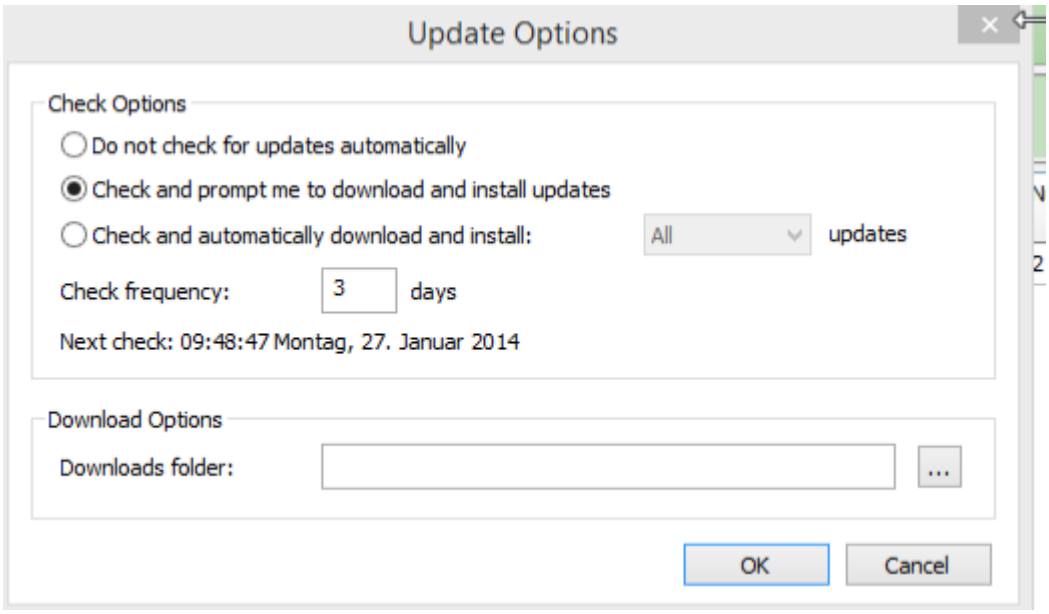

The update check is done in the background (runs as a Windows service) and informs you if an update is available.

Check for Updates

This is an instant check to validate, if an update is available.

You also can make an update check from your **program manager group**, *Licence Protector 5,* *Check for updates.* The check is **instantly** done

12.8.4 Licence Protector on the Web

Select the TAB *Help,* **Licence Protector on the Web** to browse the Licence Protector website

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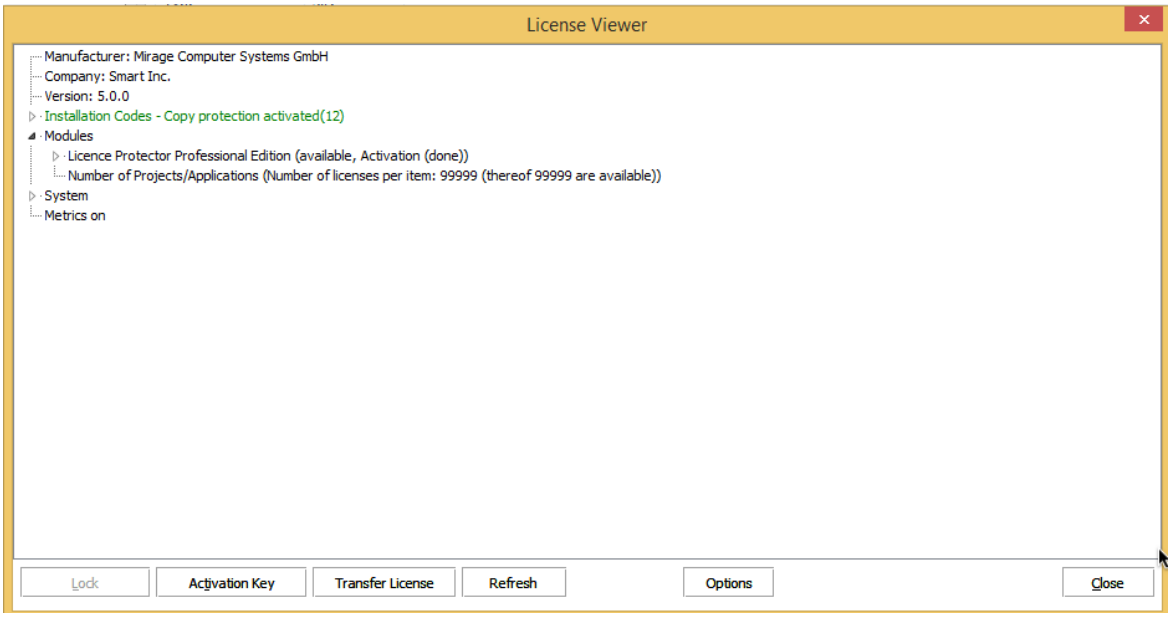
12.8.5 License Viewer - information about your license

The license information for your Licence Protector version is stored in the license file **LICPROTECTOR.LIC**. To display your licenses for Licence Protector 5, choose the TAB *Help*, **License Viewer.**



See also

Add new licenses to Licence Protector 440
Number of projects you can use 36

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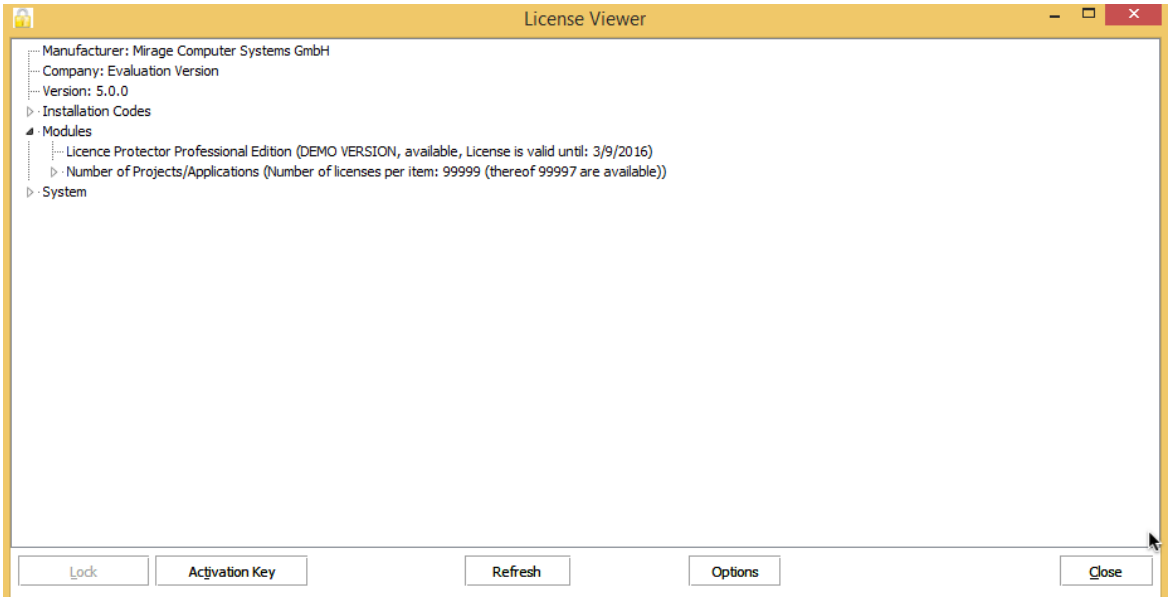
12.8.5.1 Add new licences to Licence Protector

Additional licenses for Licence Protector 5

To display your licenses for Licence Protector 5, choose the TAB *Help*, **License Viewer.** If you have acquired additional licenses for Licence Protector 5 (e.g. more projects 36 or the concurrent user module), you can activate the licenses via the Activation Key 390 you got with the order confirmation.

You can type in the Activation Key after pressing the button ***Activation Key***.



Online Validation

Some Activation Keys are validated online and they require an Internet connection

Select TAB *Help*, **Buy Licence Protector** to buy additional licenses.

Apply Activation Key after Evaluation Period has expired

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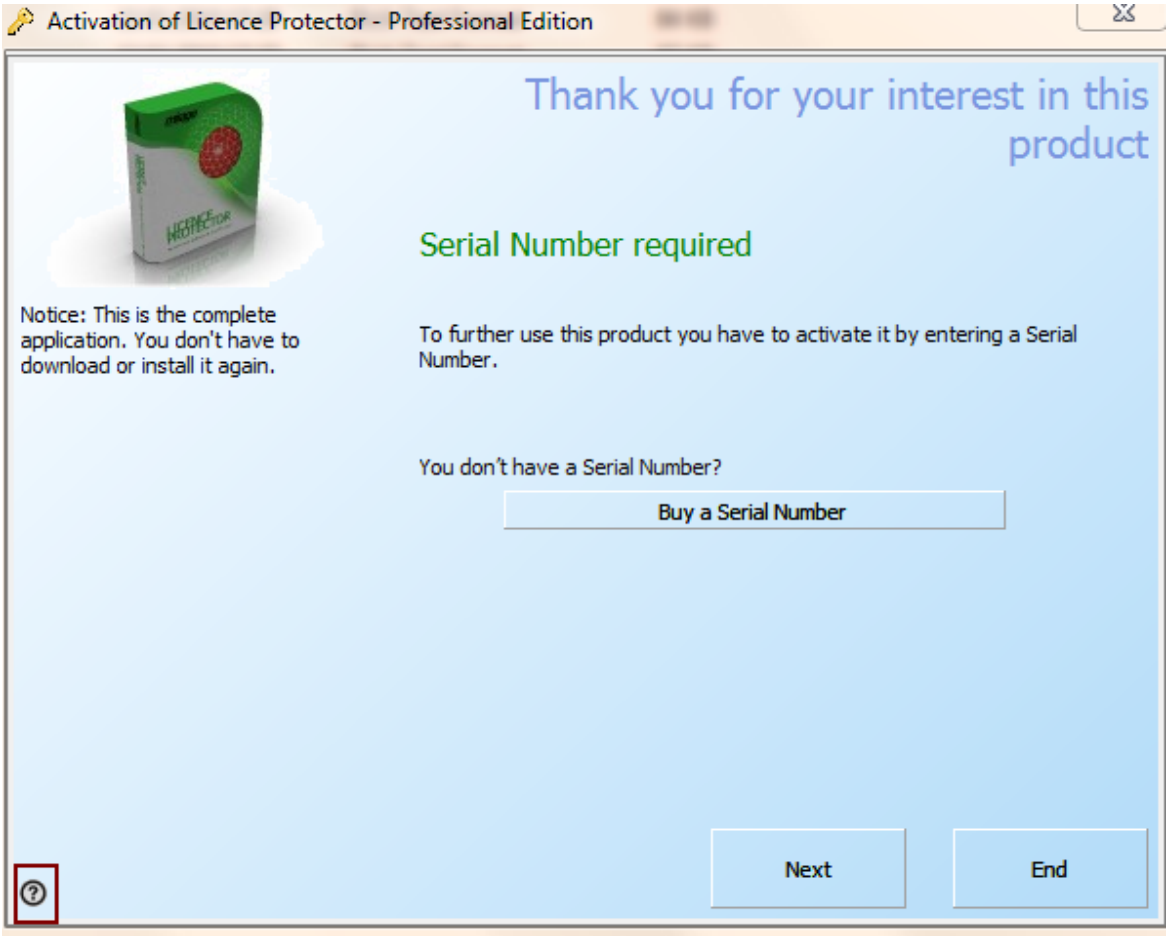
If the evaluation period has expired, click on the **icon ?**, select ***Show License Information*** *(see screen below)* and then press the button Activation Key.



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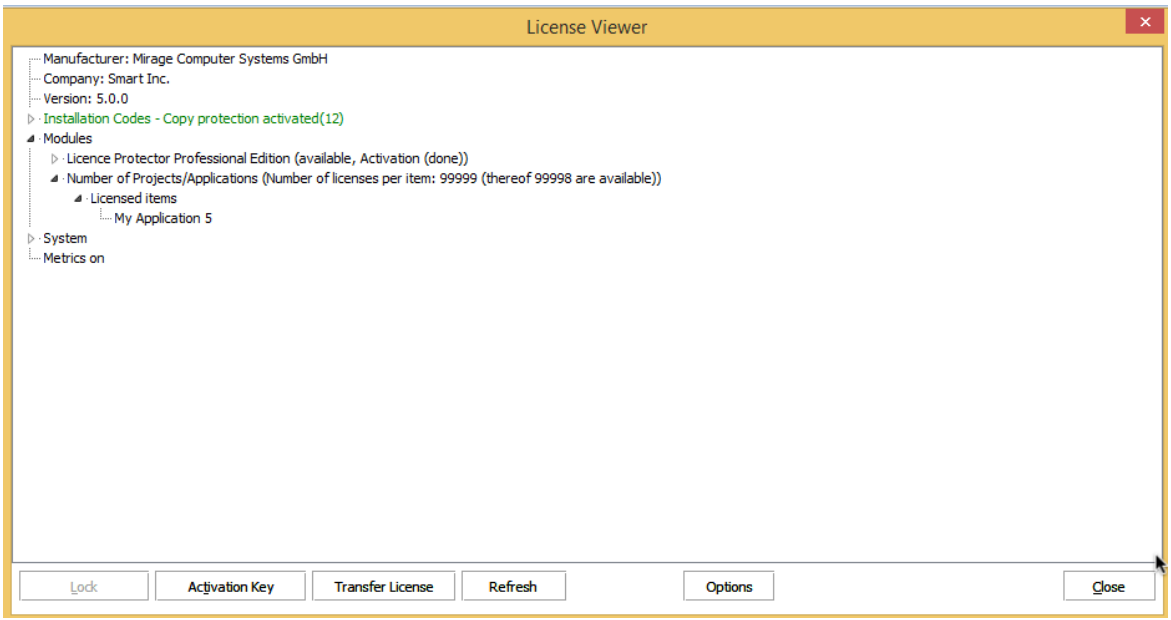
12.8.5.2 Number of projects / applications you can use

Number of Projects / Applications you can protect

You have acquired a license for Licence Protector 5 for a specific number of **projects = software applications**. The project name 183 of the XML project file is used for licensing.

Choose the TAB *Help*, **License Viewer** to display, how many licenses are available and which projects are using the licenses.



All active projects are displayed. Deactivated projects are displayed in brackets.

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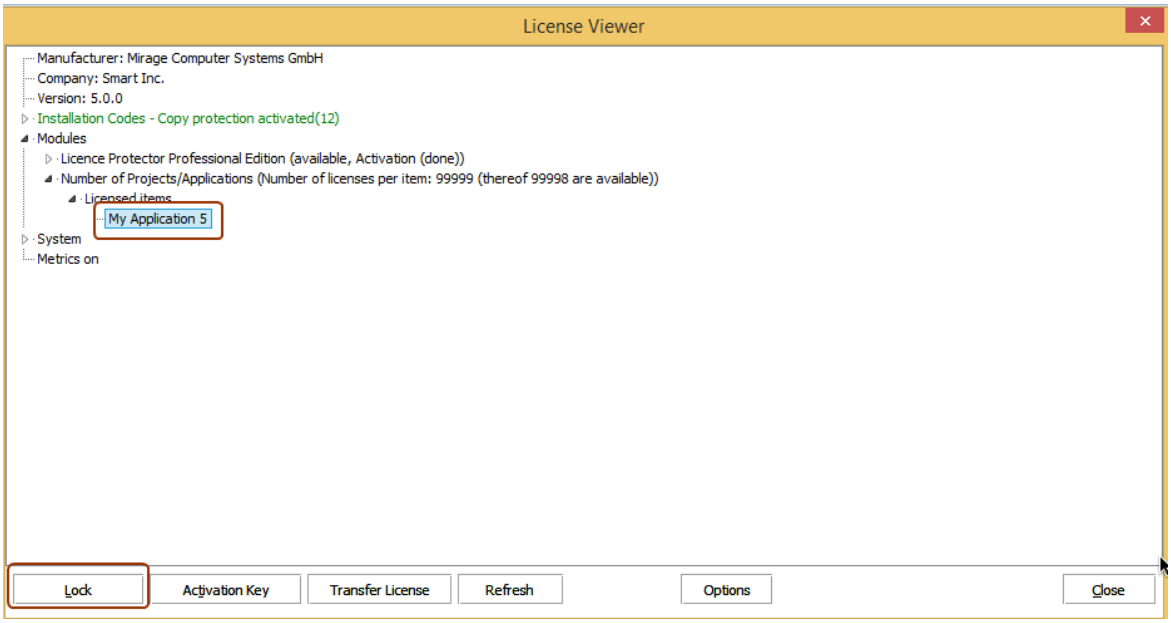
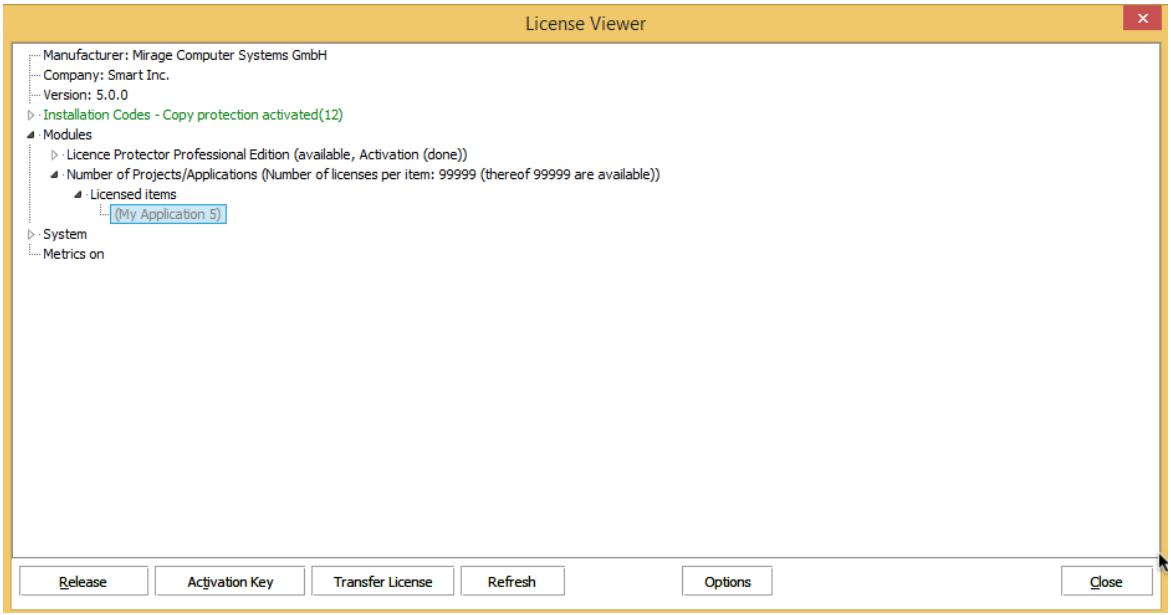
Lock a project

If you don't need a project any more, you can lock (deactivate) projects with the *Lock* button *(*highlight the project name*)* to gain free licenses.



To use the project again, highlight it and select the *Release* button.



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You can also remove projects from the Activation Server. However, once removed, online activations will no longer work - details

12.8.6 Online Help

Select the TAB *Help,* **Online Help** to open the online help, which you are using right now.

12.8.7 Quick introduction help

By default, the Welcome Screen is opened additional to the Start Screen 24. This screen provides you with:

- Links to most popular FAQ to get started
- Link to Online Knowledge Base
- Link to updates

The screen can be deactivated by checking *Do not display this Quick Introduction help anymore when starting* and activated again in the TAB *Help*, **Quick Introduction help**

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Thank you very much for using Licence Protector, the most powerful and safest tool for protecting your application.

And go!

Quick Introduction
How do I create a new project file?
Where do I find sample source code?
Which files do I have to distribute?
How do I create an Unlock Key?
How do I distribute a network version?
How do I generate a keylist?
How does concurrent user testing work?
How do I activate Licence Protector?

If you have any questions which are not answered by this tutorial, search in the

Online Knowledge Base

Check for updates

Your version is 2.7.0.759

Online check for updates

www.Licence-Protector.com

Do not display this Quick Introduction help anymore when starting

Close

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12.8.8 Special Functions

The License Generator offers some special functions, which are described here:

- Confirmation prompt 432
- Command Line Parameters 446

12.8.8.1 Command Line Parameters

The License Generator can be started using command line parameters.

Licgenerator.exe PARAMETER

The following parameters are supported

- **-l "path\xy.lic"** - loads the specified license file
- **-p "path\xy.xml"** - loads the specified project template

If you load a license file, it always needs the correct project template. Always specify the license file **and** project template.

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Part XIII

13 Activation Server 5

The Activation Server 6 is the central point for administration of licenses - create keys, lock licenses, change activations or generate reports.

It comes with an own online help

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Part XIV

14 Part II - Enhanced Features

This chapter gives you a lot of in depth information and explains different implementation options:

- Allow Reinstallation and multiple usage of an Activation Key 450
- Anti Hacker Strategies 455
- Automatic License Generator 464
- Concurrent user - how it works 465
- Copy Protection Details 474
- Custom made User Interface (own GUI) 495
- Demo / Evaluation Version - multiple Workflows 159
- Different delivery scenarios 506 - like deliver a license file
- How TOs and FAQ 515
- Lock a license / Regular Online checks 541
- Limit number of program starts 547
- Network License - how it works 548
- Protect a Server Application, Service, Web Activation 560
- Store data in the license file 562
- Tamper Detection - prevent a reinstallation 565
- Transfer a license from PC A to PC B 571
- Use an USB flash drive 574
- Virtual Machines 584
- Workflow from Distribution to Activation 585
- License Viewer - your Licence Protector 5 license 439

Additional Tutorials

- Activation Server
- Integration in Online Shops 596
- Function Reference and Error Codes 635

14.1 Allow Reinstallation / Product Reactivation

The default option is, that an Activation Key can only be used once. A key is stored in the license file and even if the license file is replaced, it can never be used again on the same machine.

If you want to allow that:

- a user can uninstall the application and reinstall it again
- any additional Activation Key can be used again when an application is reinstalled
- a user can change his hardware like network adapter

on the **same machine**, you can configure this as an option.

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There are different ways for a reinstallation.

Reinstallation during the Evaluation Period

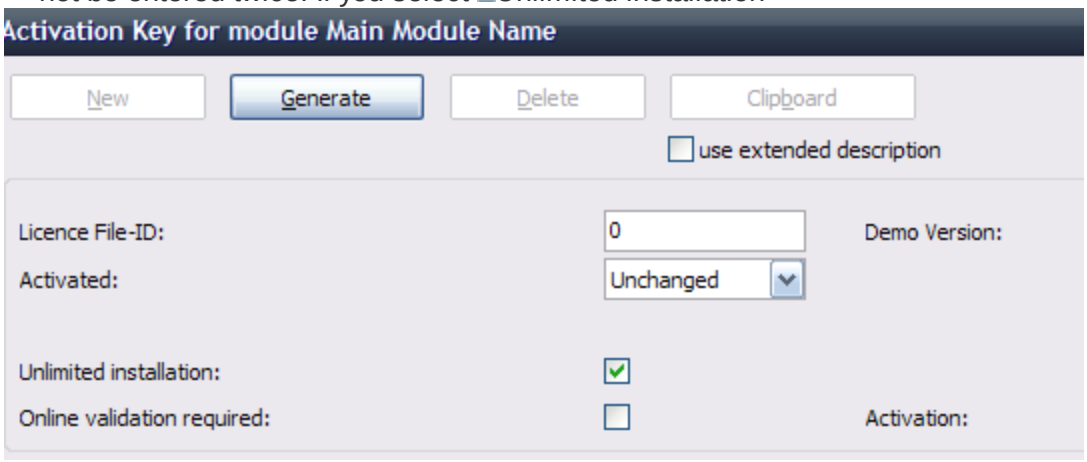
Reinstallation during the evaluation period is always possible but will never prolong the evaluation time - for details see Evaluation Options 68.

Restore a Backup

If the user backups the license file, deletes the folder, and restore the license file, the application will work without any additional configuration settings.

Complete Reinstallation

With a complete reinstallation, the original (generic) license 99 file is installed again. The user has to enter the Serial Number 301 again. By default, the Serial Number Key can not be entered twice. If you select Unlimited installation



during the creation of an Serial Number Key, the key can be used multiple times on the **same machine**.

Hardware ID changes

The hardware ID changed because e.g. the network card was replaced. The result is a copy protection error. Your application could now try to automatically reactivate 454 the product.

How does Licence Protector 5 detect, if an Activation Key is used on the same machine?

There is a 2 step process.

1. Local (offline) test

The original key is stored in different places. If a new Activation Key is applied, it is checked if the Activation Key was already used or not.

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2. Online validation

If an Activation Key is marked for Online Validation or the application is activated online 591, then the Activation Server 6 performs an additional online check. For each Activation Key or product activation, the complete hardware profile (installation codes 67) is stored. The Activation Server 6 now checks, if the Activation Key was already used on the same machine (the **installation codes match**) or if the Activation Key is sent from a different machine. If the installation codes do not match, the Activation Key is used on another machine and is rejected.

You can define, how many criteria have to match - e.g. 3 criteria out of 9 should match to allow a reinstallation.

Example
The MAC address is used for Copy Protection. The user replaces the network adapter. A reinstallation should be possible if hostname, volume ID, and NetBios name matches. This would allow a reinstallation even if the network is replaced.

It is possible to define that all installation codes must match. This would allow a reinstallation only on a **100% identical machine configuration.**

For a network license, the server hardware is used to identify the machine.

A reinstallation is not possible if you use Tamper Detection 565. To allow a reinstallation, deactivate Tamper Detection.

See also
Create Activation Key / Serial Number for multiple usage 452
Web Activation Server definitions 454
Reactivation after copy protection violation 454

14.1.1 Create Activation Key / Serial Number for multiple usage

The information, if an Activation Key can be used multiple times on the same machine, is coded into the key. Therefore the key has to be generated with the option **Unlimited Installation.**

- Create a key for multiple usage manually with the Licence Generator

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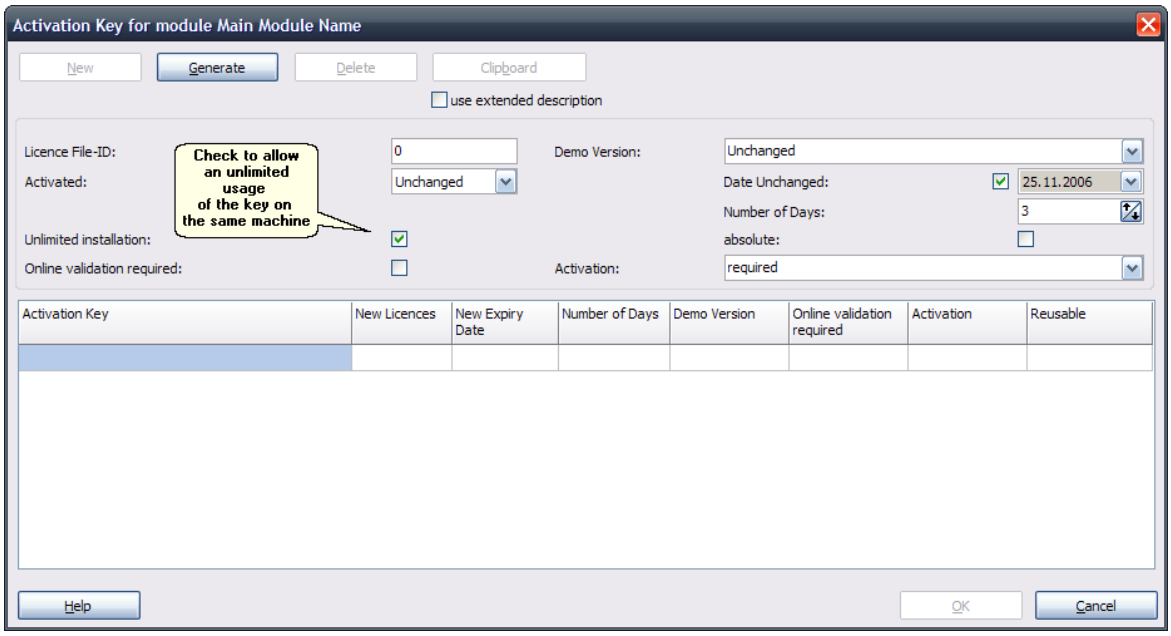
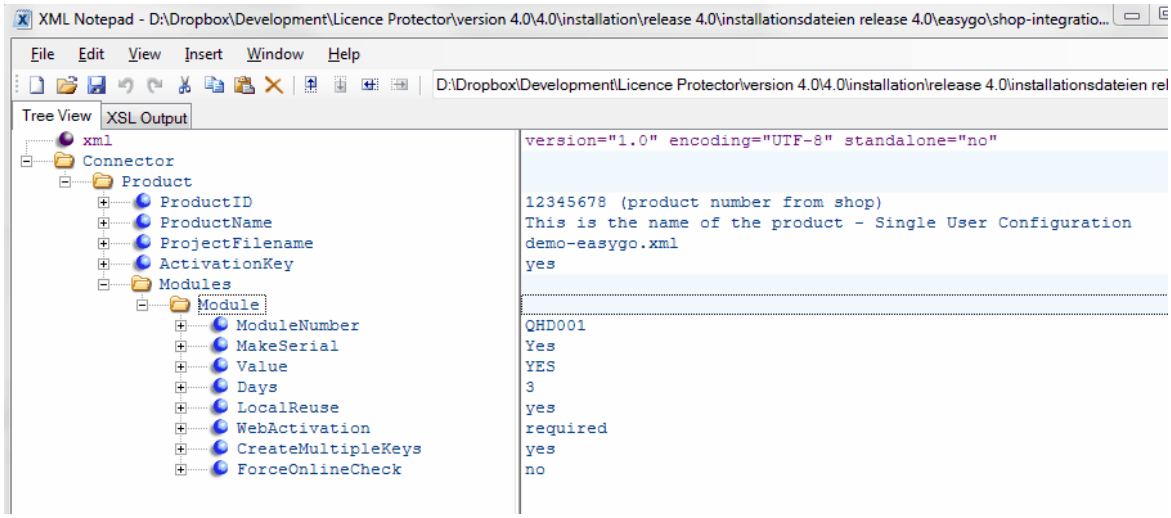
If the License Generator is used, just check the option: **Unlimited Installation** additionally



Create a key for multiple usage using the Automatic Licence Generator

If the Automatic License Generator is used (see also create Serial Number automatically 313) then you have to set **LocalReuse** = yes in the config-autongenerator.xml file.



If you are using the Activation Server 6, you also have to add the definitions for the server. 454

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See also
Web Activation Server definitions 454

14.1.2 Activation Server definitions

The Activation Server 6 offers multiple configuration settings to fine-tune the product reactivation.

Details about settings and configuration.

See also
Create Activation Key / Serial Number for multiple usage 452
Reactivation after copy protection violation 454

14.1.3 Reactivation after copy protection violation

If the user gets a copy protection violation error - see screen 264 - you can try a reactivation. This makes sense to cover the situation, that a user has changed the hardware criteria you used for copy protection. It is automatically covered using EasyGo.

How does this work?

- When the user activates the license 13 hardware IDs are transferred but only **one** ID is used for copy protection (you configure it on the server)
- In the case the ID you used changes, Licence Protector would connect to the Activation Server 6 and send again 13 hardware IDs
- The Activation Server 6 then compares the old IDs with the new IDs using a rule you can specify

Cover a copy protection error using own screens

If the result of PrepareAndCheck is error code 1024 (copy protection violation) then

- Open the file with SecurityLevel 110, then PrepareForce 738
- Retrieve the Serial Number using GetSerial 709
- Now perform a license check including product activation using WebRegisterExt 821 and the **Serial Number as ID.** *Product* has to be the main module number 166.

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- If you get an error code = 0, then the reactivation was successful. All other error codes should terminate the application

Make sure to make the correct Activation Server definitions 454 for the reactivation.

See also
Create Activation Key / Serial Number for multiple usage 452
Web Activation Server definitions 454
Allow Reinstallation / Product Reactivation 450

14.2 Anti Hacker Strategies

We do offer additional security information for customers online. On our Internet site www.license-Protector.com, select Support and then **Customer Self Service Portal**. There you find within the Knowledge Base special chapters: **Additional Solutions and Anti Hacker Strategies** with more ideas to secure your software. The login data for this portal is provided for customers with a valid online subscription.

We strongly recommend implementing the following methods. The CRC / MD5 check is **mandatory** and the other methods should be implemented if possible.

- CRC / MD5 Check of the Licence Protector DLL 456
- CRC / MD5 Check of the main application EXE 457
- Detect crack using the TAG value 459
- Code Protection / Decompile Protection 461
- Hide the PSK / Read Key 462
- Read Only license File 207
- .NET - sign all components 463
- Validate the license in different program segments 464

You cannot prevent that your application is hacked (e.g. DLL call is bypassed) but you can detect it and change the behaviour of your application, so that it is working in a wrong way.

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For .NET and Java you should additionally use the code protection / decompile protection 461 offered by All-In-One Protector or an obfuscator to encrypt the code itself.

14.2.1 CRC / MD5 Check of the Licence Protector DLL

One hacker approach is to replace the DLL. This can be prevented easily by checking the CRC value (cyclic redundancy check) or MD5 checksum of the DLL.

The CRC value of each dll can be found here 76. As each DLL is available in a compressed and uncompressed version you have to check for **all CRC values** of a DLL - for EasyGo you also have to check for the CRC value of the signed DLL. This is due to the fact that a user could have installed an application which uses the compressed DLL and another application which uses the uncompressed DLL. The last installed DLL would be used.

You can also retrieve the CRC value of an file with the GetCRC32 677 command (you can use the license Tester 296 to retrieve the CRC value for any file).

Use the check **before** you open the license file. You should end the application **without** an error message if the DLL was replaced some times later in your application. If you would end the application directly after the test this can be traced. Just write status information in a log file.

There a different methods to make a CRC check and the check has to be included in the **source code**. Below are links to source code samples. Please take care of copyright issues if stated on the web site or within the source code.

Articles how to implement CRC32 checks

- http://delphi.about.com/gi/dynamic/offsite.htm?zi=1/XJ&sdn=delphi&zu=http%3A%2F%2Fwww.efg2.com%2FLab%2FMathematics%2FFileCheck.htm (Delphi)
- http://www.vbaccelerator.com/home/NET/Code/Libraries/CRC32/article.asp (.NET)

- http://vb-tec.de/crc.htm (VB6 - German article)
- http://www.aboutvb.de/khw/artikel/khwcrc.htm (VB6 - German article)
- http://www.networkdls.com/Software.Asp?Review=22 (C++)
- CRC on Wikipedia: http://en.wikipedia.org/wiki/Cyclic_redundancy_check

or search for **crc32 / MD5** check in Google.

We strongly recommend making an CRC check to be sure, that the correct Licence Protector DLL is registered. The MD5 CRC check is more stronger than the CRC32. If security is a main issue use MD5.

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How to find the LicProtector.DLL on the system

You have to find the place where the DLL is stored via registry settings. This is due to the fact that somebody could install the DLL on another folder and register it there.

You get the installation folder with this registry entry

HKEY_LOCAL_MACHINE\SOFTWARE\Classes\CLSID\CLSID of DLL 76 \InprocServer32 (DLL)
HKEY_LOCAL_MACHINE\SOFTWARE\Classes\CLSID\CLSID of DLL 76 \LocalServer32 (COM exe)

or when the DLL was registered without admin rights

HKEY_Current_USER\SOFTWARE\Classes\CLSID\CLSID of DLL 76 \InprocServer32 (DLL)
HKEY_Current_USER\SOFTWARE\Classes\CLSID\CLSID of DLL 76 \LocalServer32 (COM exe)

On 64bit operating systems the registry entry is
HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Classes\CLSID\CLSID of DLL 76 \InprocServer32 (DLL)
HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Classes\CLSID\CLSID of DLL 76 \LocalServer32 (COM exe)

Replace the CLSID of DLL with the information of the latest release - see Add the LicProtector 76 510.DLL 76

14.2.2 CRC / MD5 Check of the main application EXE

You can also use a CRC (cyclic redundancy check) check or the MD5 checksum to detect if your main application EXE is cracked. This involves a bit more work like the CRC Check of the DLL 456 but adds additional security.The check could be done as follows.

- Store the CRC value of your EXE file in a separate license file, which you name e.g. myapp.idx. A separate license file is necessary because you have to update this file every time you make a new compile of your EXE file. If you update the EXE file you always have to include the file which contains the CRC check in your update
- At the application start, first check the CRC value of the DLL
- Retrieve the CRC value of the EXE from the license file
- Check your EXE file
- In case the CRC is wrong let your application crash or hang - but not directly after the CRC check

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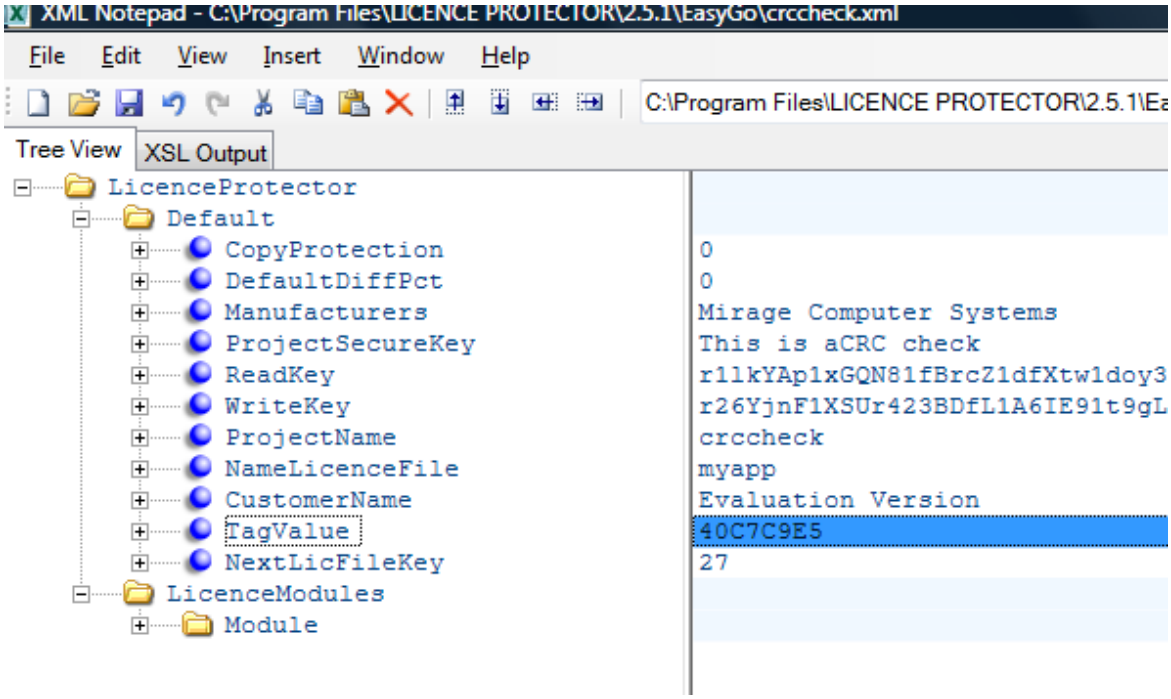
Tip: You can store multiple CRC values to test different EXE files. Either add all values in one field or use a module for each TAG value.

Create license file template

Make a new license file template 403 which uses a different Project Key 211 (Read/Write Key). Store the CRC value of your EXE file in the field TagValue 209 of the node <Default>. You need to define a default module although you would not use it.



Load the file into the Generator and save it as myapp.idx.

Source Code Integration

You have to open the file myapp.idx (without user interface), retrieve the TagValue and then close the file. Use these commands:

- SecurityLevel 110
- PrepareForce 738
- GetVal 710 - Token LTG 712
- Quit 179

Now retrieve the CRC value of your EXE file - how to retrieve the CRC see CRC Check of the Licence Protector DLL 456. You could use GetCRC32 677 value if first checked the DLL to be sure that it is not cracked.

If the CRC does not match, continue your application but let it crash, hang or just terminate later.

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Tip: You can create a tool to update the myapp.idx file with the latest CRC value of your EXE.

- Retrieve CRC value of the EXE with GetCRC32 677
- SecurityLevel 110
- PrepareForce 738
- SetVal 791 - Token LTG 712
- Quit 179

The MD5 CRC check is more stronger than the CRC32. If security is a main issue use MD5.

14.2.3 Detect crack using the TAG value

The main target of a hacker would be the DLL. One approach is to disassemble the EXE file, search for the DLL calls and **bypass the DLL calls**. This can be discovered with the method described below.

To obstruct crackers in removing your protection and license-check code you can use this strategy based on the Tag values.

How does a cracker work? First he tries to locate the code that blocks the execution of the program. Typically he finds that code by searching for the output e.g. “you have no license…”. Then he bypasses the failing check that leads to that message. So he will gradually learn that all calls to Licence Protector 5 are for protecting the application and he probably will remove them. And that is the point where the “good and bad value” can be successfully used:

Initialize a variable at the **beginning** of your application with a **wrong value**.

Example: 1000000 (to use the timer later) or if you use calculations in the application define a constant which you use in the calculation with a wrong value. A timer would let the application hang. A wrong formula would give wrong results.

Within the license file, store the correct value in the TAG field – e.g. 1 (to use the timer) or the correct value of the constant.

The **PrepareAndCheck** 162 command and the **ValidateEX** 820 command return the Tag value automatically. Before using the ValidateEx command, reset the variables with the wrong value.

Now do not simply check this value and react with a message like “Hey cracker, you have removed my protection code”. The cracker would bypass that code at once and nothing is won. The trick is to use that bad or good value silently for example in an algorithm that calculates the duration of a timer-interval. The application needs an interval of 1 second to work correctly but calculated with the wrong value it would be set to 1000000 (Note: This is an example!). The result is that the cracked application will hang or not be completely

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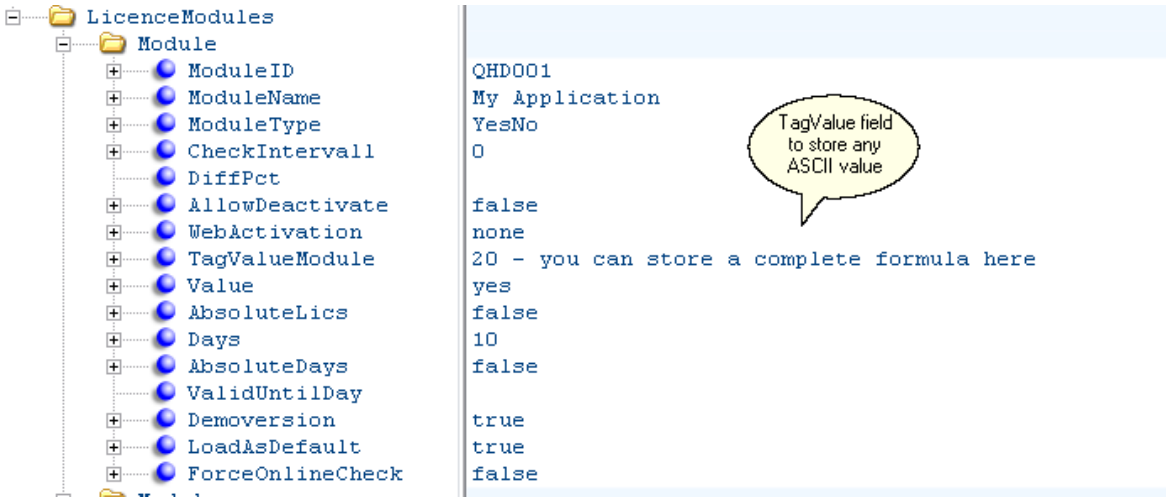
functional and the cracker will have a really hard time to find the reason. This is because now he has to understand the logic of your application and not only search for some key-words and bypass some lines of code.

A further improvement is to start the bad behaviour not at once but after some time so that searching for the problematic code will be even more complicated.

As mentioned above you should use the **ValidateEx()** function to read the good value. **Every module** can have an own tag value defined in your project configuration file in the TagValueModule item.

Example
Define a Tag value in the project template 182



- At the beginning of your program, set the variable TagValue1=100000
- When testing a module read the TAG value with ValidateEx 820() command
- Divide TagValue by 20. Wait in the program for the result (either 1 second or 5000 seconds)

If the hacker has removed your code, then the program will wait for 100005000 seconds.

Note: This is a very simple example. You should use a more complex algorithm and your counter-measures should not easily attract suspicion.

Recommendations

- Use the TAG value in any case with the PrepareAndCheck 116 command
- Use ValidateEx() multiple times during the application runs. Reset the value before you call this command
- If you have different modules use different TAG value strategies (e.g. one formula, one timer)

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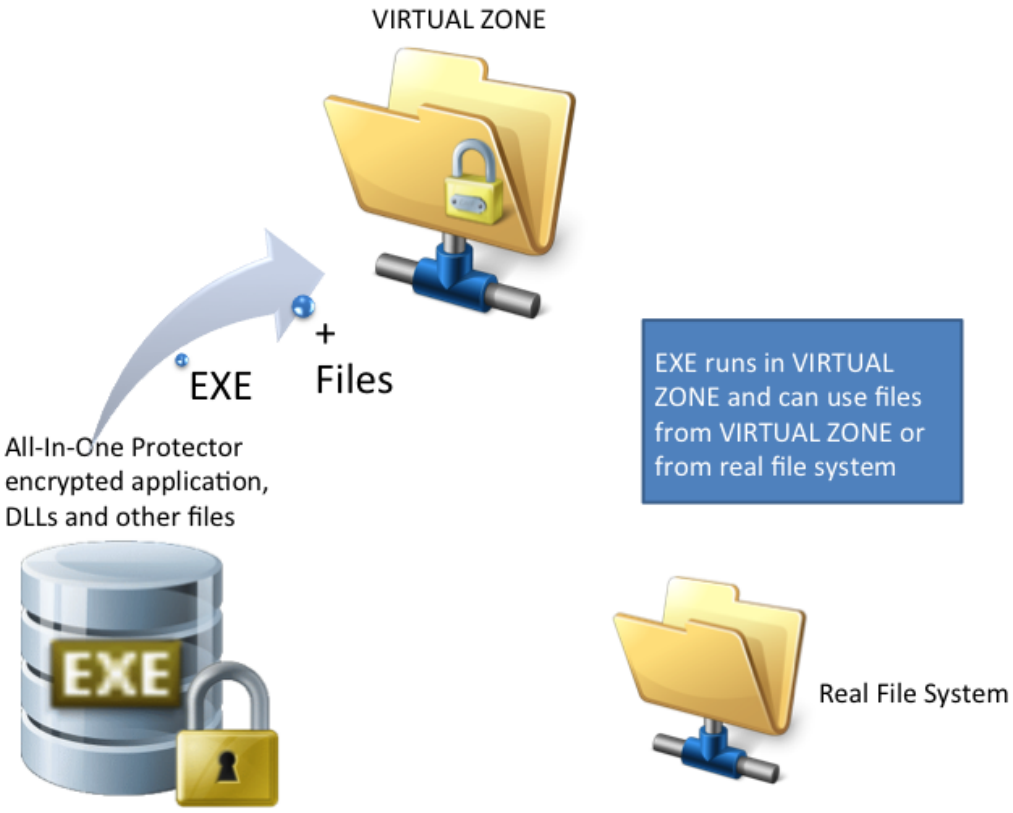
14.2.4 Code Protection / Decompile Protection

Licence Protector can be perfectly combined with All-In-One Protector (www.AllInOne-Protector.com), which ensures, that the code **cannot be modified or decompiled**.

All-In-One Protector creates a **VIRTUAL ZONE** in the memory of the computer, where the EXE file and all other files (like DLLs) in the database are copied. After copying the files, the EXE file is started.

This VIRTUAL ZONE **simulates a disk**. If the EXE file opens another file or starts another application, the file is first searched in the VIRTUAL ZONE. If the file is not found on the VIRTUAL ZONE, it is searched in the real file system. This technique ensures, that an **application runs without modification**. An access to the VIRTUAL ZONE from outside is not possible **- all files are completely protected during runtime.**



The All-In-One Protector technology is much better than a wrapper:

- No chance to decompile the database or analyse the EXE file
- Protects multiple files (e.g. DLLs and all files which are read only) and not only one EXE file

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This offers a perfect decompile protection and is more effective than obfuscation of the code.

There is a **special bundle price**. Contact sales@mirage-systems.de for more information.

14.2.5 Hide the PSK / Read Key

If an EXE file is disassembled, th ePSK or ReadKey would be visible. We recommend splitting the keys in different parts and variables - if possible, split it between different DLLs.

Example: PSK: This is a b1eatiful mo2rning

Split the READ in your code into variables with a$=”th”, b$=”is”, c$=”a” and define constants for numeric values. Add all variables and the constants to a string before you use the prepare method. In the example b$ can be used for the word THIS and for the word IS - use variables whose content you can use multiple times in the PSK.

If possible, only use the **Read Key** instead of the PSK and split the Read Key in the same way.

Sample
Read Key:

```
r1nBLCV1rZLZI0YyG7J1BiGNc2cLtZg21pfxm1nv9Jl2f34fs2ajVw31ToTQL1QYtDg21mdF
5285UTM24Huyj1zSmDp1Eytat2dLCLB1XPh3Z292dIG11XErz134VPv1nsIxW0SWjHC1Tg4v
9280TSr1tbt6o1Tu5Je0SVKh71c8Vtx12XtvM1pTIxi1lgBca2acLYI1Dv5wb11Y7Cd12XcV
O1pPfXm1XYppC0ZM37R1yXsvn27WwPF1qVcY12eLrUF1UAjZl26Y1xe17wY4j
```

A very simple method would be to hide the strings in different program parts and make calculations. You can implement more sophistic code like the one below. This is just to outline an idea.

```
x$=”2”
a$=r1nBLCV1rZLZI0YyG7J1BiGNc2cLtZg21pfxm1nv9Jl2f34fs2ajVw31ToTQL1QYtDg21
mdFb$=str$((500+28))
c$=5UTM+x$+4Huyj1zSmDp1Eytat+x$+dLCLB1XPh3Z+x$+9+x$+dIG11XErz134VPv1nsIx
W0SWjHC1Tg4v9+x$+80TSr1tbt6o1Tu5Je0SVKh71c8Vtx1+x$+XtvM1pTIxi1lgBca+x$+a
cLYI1Dv5wb11Y7Cd1+x$+XcVO1pPfXm1XYppC0ZM37R1yXsvn+x$+7WwPF1qVcY1+x$+eLrU
F1UAjZl+x$+6Y1xe17wY4j

readkey$=a$+b$+c$
```

.NET offers a **SecureString Class**. It represents text that should be kept confidential. The text is encrypted for privacy when being used, and deleted from computer

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memory when no longer needed. For details see: http://msdn2.microsoft.com/en-us/library/system.security.securestring.aspx

Another good idea is to use 2 license files with different encryption. One file to store configuration data (config.lic) and one file to store the license information (license.lic)

- Create a config.lic with a different encryption 404 (ReadKey / Writekey)
- Store the ReadKey of the license.lic in the data area 562 of the config.lic or in the TAG value 209
- You can additionally store the CRC values 457 of your other program components in the config.lic
- Hide the ReadKey of the config.lic as described above in your Source Code
- To open the license file, first open the config.lic, retrieve the ReadKey of the license file license.lic and then open the license.lic file

14.2.6 Read Only license file

The DLL is able to change the license file, e.g. add a new module or change the values of a license. As this is quite handy when you make a new update which provides a new module, it is also a possible option for an hacker if he has stolen the PSK/ReadKey 211.

If you are sure that you will never **modify** your license file using a DLL call with **SetVal / AddModule / DeleteModule**, you can protect the content of the license file by using the **<AllowSetVal>No</AllowSetVal>** 192 in the project file or setting this option in the additional settings page within the License Generator 386. This blocks modifying important information via SetVal like adding new licenses or modules.

Activation Keys can be used any time but a hacker would not be able to modify the license file using the licprotector.dll (even in case of stealing the PSK/Read Key) and make a generic program to modify license files.

14.2.7 .NET - sign all components

.NET offers a Strong-Name signing. This prevents spoofing of your code because the framework checks during loading if the assembly was modified.

This is just an **additional** option you could use to add one more security feature but it does not replace the other anti hacker strategies. 455

For more details how to use strong-name signing see this article:
http://msdn.microsoft.com/msdnmag/issues/06/07/CLRInsideOut/default.aspx

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14.2.8 Validate the license in different program segments

Validate the license not only during program start but also in different parts of your application.

To prevent, that somebody never terminates a program during a trial period, include a timer to test e.g. every hour the license.

The regular license check can be done with the command: ValidateEX 820

14.3 Automatic Licence Generator

The Automatic License Generator is a tool to generate license files and Activation Keys in a batch process. You can use it for integration in online shops, websites or your customer system.

The integration for the e-commerce providers like www.avangate.com, www.cleverbridge.com, www.element5.com and www.sharit.com in combination with EasyGo is covered in the chapter Integration In Online Shops 596.

The e-commerce integration using the Automatic License Generator is described in the chapter Integration in Online Shops 596

Installation

- Unzip the files to the final installation folder. This could be a network drive if multiple users need access
- Add a **write permission** for the user everyone to the license file alg.lic
- Click on AutoLicGenerator510.exe and activate the product using your Serial Number

Files

The installer package contains 2 application files

- AutoLicGenerator510.exe is the main application
- AlgShop510.exe is a special generator for Cleverbridge 603 and Element5/Shareit 617

Documentation

The complete documentation for the Automatic License Generator is only available as a PDF documentation

Documentation Automatic License Generator

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See also

Create Serial Number using own user interface 316
Create a Key List with Serial Numbers 308
Create Unlock Key using own user interface 316

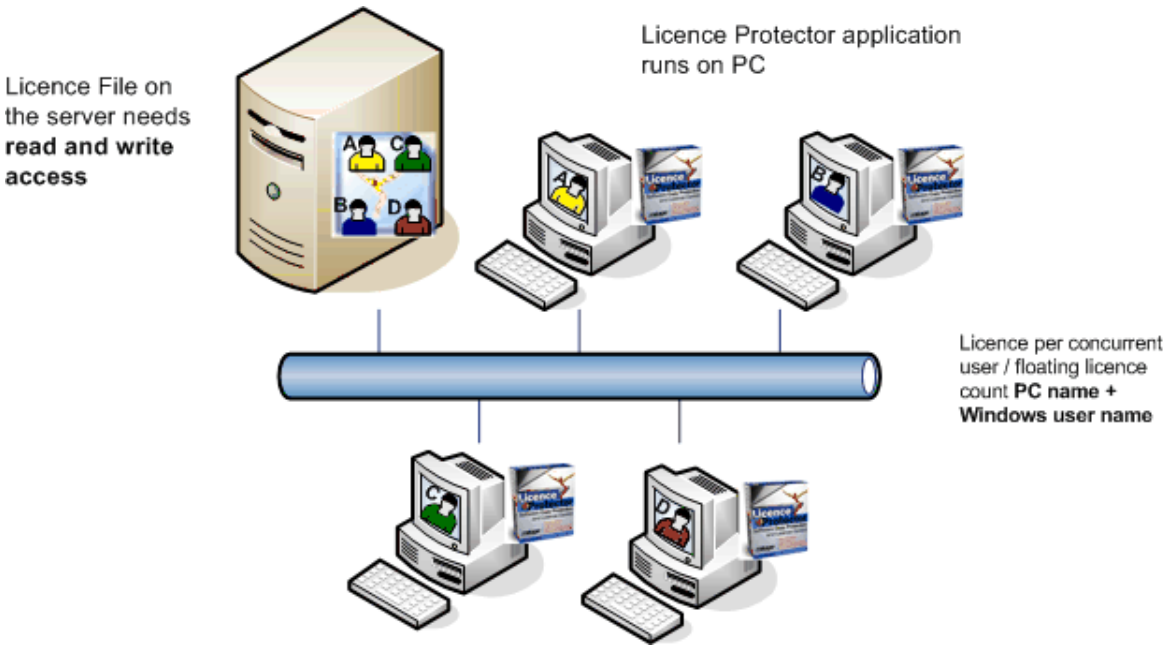
14.4 Concurrent User - how it works

The concurrent user license is also called floating license. It is checked, how many users have started the application **at the same time.** This allows buying a 5 concurrent user license and install an application on e.g. 30 PC's.

The license per concurrent user **combines** the **PC name + Windows user name** (e.g. *OFFICEPC-TOM*) and stores this name in the license file. The combination is necessary to count a license, even if a user is logged in with the same name on multiple PC's.

Once the application is started, it checks, if the name is already stored in the license file and if not, it starts only if a free license is available. After the application has been terminated, the **license is given back by removing the name in the license file.** The license is available again for another user.

The license file has to be on the server on a shared folder. Each application user needs a read/write access to the license file.



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A Citrix or Terminal Server requires a special licensing. There is only one machine (hardware ID), but on this machine multiple sessions can be started. Licence Protector 5 automatically detects, that the application runs on a Citrix or Terminal server and **counts a license for each session** (=PC).

Example
A home office user logs into the company network using a Citrix in the office. Licence Protector 5 would retrieve the hostname of the home PC and would require a license for this PC.

This feature is supported for the license type per *computer/seat* and for *concurrent user* licensing. It also works in the same way for Remote Desktop. Other tools like gotomypc just transfer the screen content and mouse movements. Then no additional license is counted.

See also

Details of the concurrent user technique 466
Concurrent user with EasyGo 468
Concurrent user for modules 469
1 user concurrent user module 470
Remove Concurrent User 470
Special considerations 471
Summary of all commands related to concurrent user 879
Floating license over the Web 472

14.4.1 Details of the concurrent user technique

What happens if an application crashes and no Quit 179 could be performed to remove the user from the license file? The license of this user keeps locked and no other user can use the in fact free license. To avoid this problem, Licence Protector 5 uses a heartbeat algorithm to identify a “dead” license and frees it for other users. Every concurrent user sends a heartbeat (in fact an automatic validate) and at the same time checks if there are missing heartbeats of other users. As a result, 'alive' users remove 'dead' ones in the license file.

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Every module has a property CheckInterval 649 which decides, when heartbeats have to take place and are expected to take place. With that method it is assured, that at maximum 2 times of the check interval 'dead' users are removed from the license file. This interval is calculated automatically depending on the maximum number of users. In a file with module A (30 users), module B (45 users) and module C (15 users) the module B would be used to set the interval time as it includes the maximum number of users. The time is 30 seconds multiplied with number of users.

Example
Concurrent user module M1 with 10 licences (module with the maximum number of users)

The module M1 is validated with PrepareAndCheck 162 or Validate 818, which starts the concurrent user mechanism. The heartbeat of every instance is by default 10 users x 30 seconds = 300 seconds. A 'dead' user license would be removed in best case after 300 seconds and worst case after 600 seconds.

If an application crashes and the user starts the application again, there are 2 situations:

- the license was not removed and is still a valid license in the file. Then the license is updated and the application starts
- the license was removed. Then the application can only start if there is a free license available

Note that Licence Protector 5 does not need to have an identical time base for all involved clients because it uses an internal time mechanism.

- Which name is used to count the license?
  The functions ExistsEntry 670, IsEntryActivated 719, GetEntriesOfModule 683 are also available for concurrent user modules. Note that the usernames you receive have the format:

  Username+++Workstation

  For example: You will receive *alisa+++stationhermes* if alisa uses a concurrent user license from her computer named stationhermes.

  Adding the workstation name ensures that if a user logs in with the same name on 2 machines that it is counted as 2 licenses.

2 different concurrent user levels

There are two possible concurrent user levels:

- With Heartbeat (default)
- Light

In level “Light”, there is no heartbeat mechanism and therefore a dead instance is not recognized and removed automatically. Those dead instances have to be removed

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manually (see remove concurrent user 470). The advantage of “Light” is, that it does not need as many resources as the level “Heartbeat”.

You can change the default value using different options:

- Use command ConcurrentUserLevel 660
- Change the setting only for one license file in the License Generator, detail page 385
- Change the setting in the license file template -

Changes in version 2.6

Until version 2.6, each module had an own heartbeat. Now only the module with the maximum number of licenses does the heartbeat testing. This is a major improvement regarding former versions, in which more than 50 concurrent user modules could lead to situations, where the application won’t react any further because there were multiple accesses to the licence file in one second.

14.4.2 Concurrent User with EasyGo

If the concurrent user module is the main module 166 which used for activation with EasyGo then nothing special has to be considered. Use Quit 179 only at the end of the application and not after PrepareAndCheck 162 (set quit=false).

An error screen - no free license available would appear in case a user tries to start the application and no license is available.

Use one or more Validate() 820 commands during the execution of the application to get an updated status of the license. The heartbeat check does not return an error code and therefore an additional Validate() 820 is necessary

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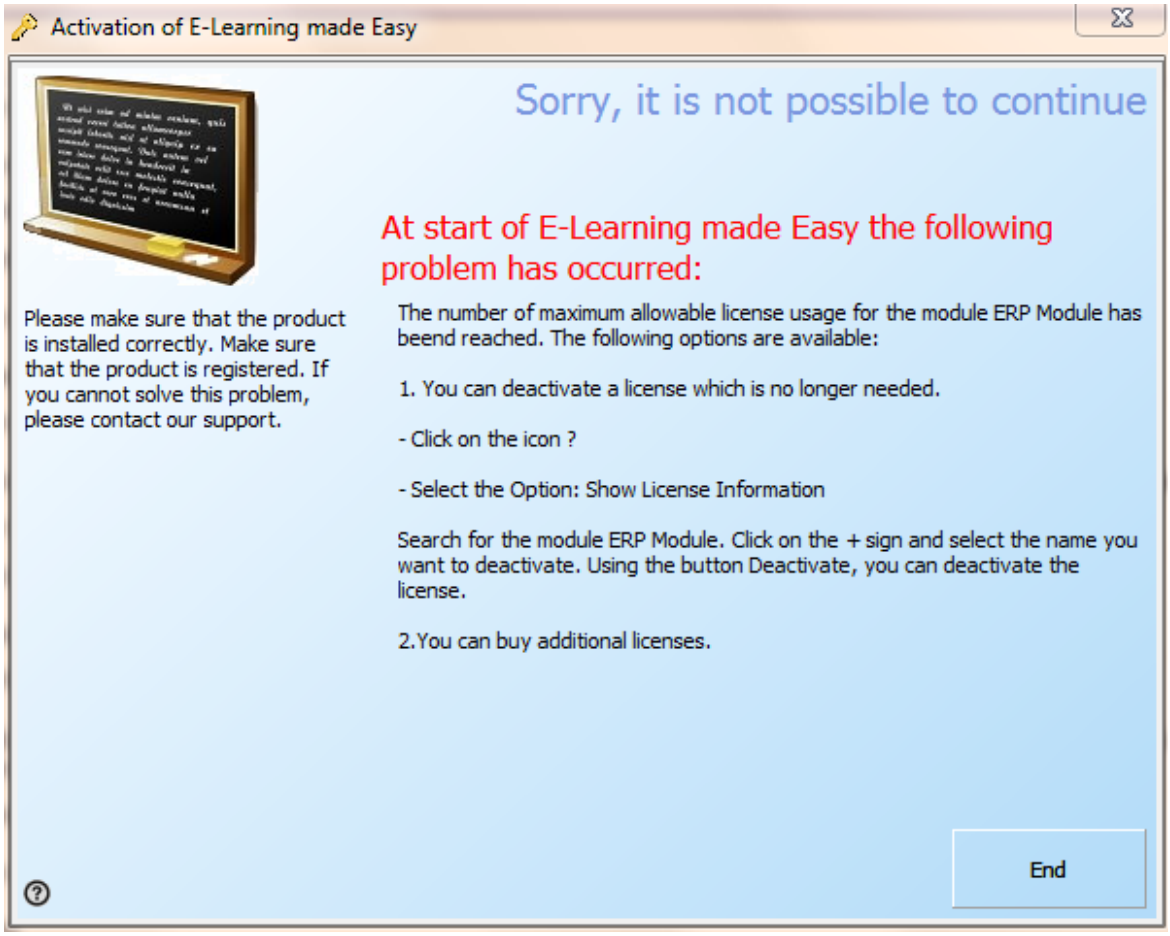

14.4.3 Concurrent user for modules

Each module can be from type concurrent user.

You can use a concurrent user module exactly the same way as using a (named) user module:

- Prepare() at program start (e.g. PrepareAndCheck 162 (set quit=false), PrepareAdvanced 162, Prepare 727)
- Use one or more Validate() 820 commands during the execution of the application to get an updated status of the license. The heartbeat check does not return an error code and therefore an additional Validate() 820 is necessary
- Quit() 179 at the **end** of the program

You must keep the Licence Protector instance in order to work with concurrent user. Quit may be used only at the end of the application. It removes **all users from all modules**. If you want to terminate all users of a single module, use the command StopConcurrentUsage 808.

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If you use multiple modules with concurrent user, see special considerations 471 regarding the frequency of testing.

14.4.4 1 user concurrent user module

If you have a concurrent user system running with 1 license, then the automated detection of a machine that hangs does not work. The user is only removed if the **same user** logs in again.

We recommend implementing the following workflow with a license for 1 concurrent user:

- ValidateEx 820

If Error 32 (no free license) -> Check Totallicenses 813

If Totallicenses=1 (one user license)

Delete all users in the license file with RemoveAllItems 745

Wait to check if the user is alive

- CheckInterval 649 (retrieve the time in seconds a user should respond - heartbeat) - with a one user system this would be 30 seconds
- Wait for this interval x 2
- Retry the ValidateEx 820 command

If you still get error code 32, then the other user is a live user and no license is available.

If you get status error code = 0 then your user has got the new license

14.4.5 Remove Concurrent User

The inbuilt concurrent user feature removes a user automatically either

- all users from **all modules** with Quit 179
- all users from **one single module** with StopConcurrentUsage 808
- inbuilt heartbeat 465 which detects crashed workstations

Offer the License Viewer to allow to remove a user - see Deactivate a network license 286

It is possible to remove **all users from all modules** with the following code sequence and continue concurrent user testing.

- GetModuleList 707 (retrieve a list of all modules)

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- GetEntriesOfModule 683 (retrieve a list of all users for a module from the result of GetModuleList)
- DeactivateEntry 658 (deactivate the user with the username from the result of GetEntriesOfModule)
- RemoveDeactivated 746 (delete all deactivated users)

or

- RemoveAllItems 745 (removes all users from a module)

After all users are removed, all **active** users are added again to the license file automatically with the next heartbeat check. The result is a license file with all inactive users removed and all active users booked in again.

Offer this option for an admin user in your application to instantly remove users.

14.4.6 Special considerations

The property *CheckInterval* 649 automatically is set by Licence Protector 5 and depends on the **maximum number of licenses**. You can read that value with the function CheckInterval and if you want to change it, you can use SetCheckInterval 756**()**. Do not set the value too small. If 1000 concurrent users have to do their heartbeat in a 30 second interval then you probably get a massive resource problem!

Stay near the automatic value which is

Number of licenses	CheckInterval
5	150 seconds
10	300 seconds = 5 minutes
20	600 seconds = 10 minutes
50	25 minutes
100	50 minutes
500	250 minutes
1000	about 8 hours

There is another parameter that can be set to modify the recognition of non responding license: DiffPct 664**.** That parameter's default value is 0. If you set it to e.g. 10 (percent) then a dead user entry is recognized at least CheckInterval (10 seconds) plus 10 percent = 11 seconds.

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You can read the DiffPct value (in percent) by the function DiffPct and you can set it with SetDiffPct 761.

Note: A change of *CheckInterval* with *SetCheckInterval* and *DiffPct* with *SetDiffPct* affect the whole license environment so never let each of your users modify these values.

To check the local properties of the concurrent user mechanism there are the following functions:

- **GetCUIsRunning** 677 – checks if the user for that module is running, that means that it was validated and so the concurrent using started
- **GetCULastValidate** 678 – Get the time of the last automatic (not explicitly executed) validate (the last heartbeat!)
- **GetCUNextValidate** 679 – Get the time of the next, planned automatic validate (the next heartbeat)
- **GetCURunCounter** 680 – Gets the number of executed automatic validates

These functions only get values of the local instance of Licence Protector 5. If you are on Bert's machine and he uses the concurrent user module D1006 then you can use the functions to extract the values. You can not get the values of Charlie which uses the module in another client and therefore access another Licence Protector 5 instance.

As explained before, the Quit() 179 operation is essential for the concurrent user mechanism. Don't forget to Quit()! This will free the license in the license file.

An alternative to Quit() is **StopConcurrentUsage** 808**()** which is performed only for a **specified user and a specified module**. So it typically is used in the middle of a running application in contrary to Quit() which normally is used at terminating the application.

We recommend usinging the above mentioned functions only if you do explicitly don't want to use the in build default values.

14.4.7 Floating License over the Web

For single user applications, Licence Protector 5 offers an option to use an application on **multiple PC's but only on one PC at a time**. It is similar to a floating license in a network 552 but uses the Activation Server 6 to check, which PC has started the application.

During **each program start**, the PC has to register the application online and at the **end of the application**, the application has to unregister **online**.

As a basic integration use the EasyGo workflow 104 including the license transfer option 114 .

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License File

The license file is either on the local computer or on the network. The module type 203 must be a Yes/No module so that the users are not counted within the license file. The module count is done through the Activation Server 6.

At the start of the application

The command PrepareAndCheck 162 will do all necessary steps. There is nothing special to consider.

If you want to start the application **without displaying** any screens, use the following code sequence

- Open the license file with Prepare 727. If return code is not 0 use PrepareAndCheck to display the error
- Find out if the product is activated (GetWebActivation 717 = 2). If the product is not activated (e.g. trial mode) use PrepareAndCheck
- Retrieve main module ID with MainModuleID 725
- Retrieve Serial Number / ID with GetSerial 709. If the Serial Number / ID is empty then the product is not activated yet and can only be used on this PC. Do not continue with the online check
- Activate the license transfer option 114 using SetRegisterLicTransfer. Set option *TransferLicence* to true, to transfer the complete file. This command must be used **before** WebRegisterExt 821.
- Register the license online using WebRegisterExt 821 and the **main** module ID and Serial Number as parameters

Error handling

- Check the error code after PrepareAndCheck 162 or WebRegisterExt 821
- If the error is 3001 then no Internet / Server connection is available. You could allow a program start although the license count is wrong. Otherwise the user will not be able to use the program in case of an Internet / Server problem
- For all other errors terminate the application

At the end of the application

When the application terminates, the license has to be unregistered online. The local license is then locked.

- Retrieve main module ID with MainModuleID 725
- Retrieve Serial Number / ID with GetSerial 709
- Lock the local license using DeactivateModule 661. Use the **main** module ID and your Serial Number / ID as parameter.

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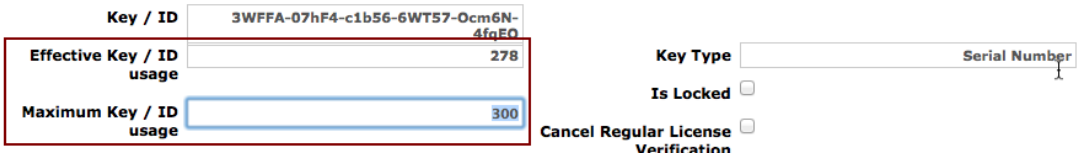
You can disable the progress screens using ShowWAStartPage 806, ShowWAProgressPage 804 and ShowWAResultPage 805.

Activation Server

- Change how often the Serial Number can be 344 used to the maximum concurrent user license usage
- The field: *Effective Key / ID usage* is the real time status of the number of users who are working right now with the application



Special Considerations

This workflow will result in a heavy server load of the Activation Server 6, depending how many products you have delivered and how often a user does start the application. If you are using the hosting service ensure that you have the right hosting package to cover the requests.

See also

Floating license in a network 552

14.5 Copy Protection - Details

14.5.1 The Basics about Copy Protection

Licence Protector 5 offers a media independent protection - the media itself like CD / DVD, download link or USB flash drive is not modified or protected. The copy protection does not prevent, that you can copy the data from CD to the hard disk but **it prevents that the application can be started on multiple machines.**

The advantage of a software copy protection is:

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- media independent - distribute the application via **CD / DVD**, **download**, **USB flash drive** 574 or other media where you can store files
- the application can run without a CD / DVD inserted
- you can produce even one single CD - no need to have 1000 CDs duplicated at once
- no problems with the CD / DVD drives or operating systems because no physical modification (like modification of the CD) is done

The additional step, which is necessary, is to transfer the hardware IDs. With Online activation 591, this step is automated. With activation by e-mail, 237 fax 243 or phone 248 this is a manual process.

This feature prevents the application, that it can be run on different machines. It binds the license file 66 to a hardware specific item.

The user can not move the application from computer A to computer B because the hardware identifiers that are used for Copy Protection will be different on another machine - Copy protection does not prevent the copy process but starting the application on non licensed machines.

The place, where the license file is stored is used to determine the hardware information of the machine.

- If the license file is stored on a local machine, then the hardware of the local machine is used
- If the license file is stored on a server, then the server hardware is retrieved through the network protocol (Volume ID 477, MAC Address 478, Hostname 480). When starting the application on a local machine within a network, Licence Protector 5 retrieves the server hardware even if the application is running on the local machine
- If the license file is stored on a NAS drive (Network attached storage), then the hardware of the NAS is used (Volume ID 477, MAC Address 478, Hostname 480). When starting the application on a local machine within a network, Licence Protector 5 retrieves the NAS hardware even if the application is running on the local machine
- If the license file is on a USB flash drive, then the hardware ID of the USB flash 485 drive is used

Copy Protection can be used as an option. You can create a license **without** Copy Protection by just sending out an Unlock Key without Copy Protection 330 (manual product activation) or special configuration 514 settings for the online activation.

You can also use your own hardware IDs - see chapter Use own hardware IDs 490

14.5.2 Hardware IDs

Hardware IDs are often referenced as installation codes, because the codes are only available after the installation of the application on a machine. The hardware Id's are referenced with installation code numbers to prevent, that the user knows the criteria which is used. The installation code numbers are itemized in brackets after the name of the hardware ID.

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For protection of privacy, the hardware ID is always an 8 digit code. This is very important because some countries do not allow to transfer personal data..

The following hardware IDs are supported. The number in brackets represent the installation codes, which are used within Licence Protector 5.

- Volume ID 477 (1)
- MAC Address 478 of the network adapter (2)
- Hostname 480 (3)
- Netbios Name 481 (4) 1)
- Volume ID and UNC Pathname 482 (5) **- recommended for network installations**
- MAC Address and UNC Pathname 483 (6)
- IP-Address 483 (7) 1)
- Volume ID + MAC Address + Hostname + UNC Pathname 484 (8) 1)
- Volume ID + MAC Address + Hostname 484 (9) 1)
- Hostname and UNC Pathname (485 10) **- recommended for a server application**
- USB flash drive (485 11) 1)
- Windows Domain 486 (12) 1)
- Windows ID 487 (13) **- recommended for single user installations**
- System ID - macOS 489 (14) **- only possible option for macOS**

1)
This feature is only available in the *Professional Edition.*

If a hardware ID can not be retrieved (e.g. there is no network adapter) then the code is empty.

Installation codes which work only for single PC installations

- Netbios Name 481
- USB flash drive 485
- Windows Domain 486
- Windows ID 487 (recommended)
- System ID macOS 489

Server license (Client server)

For an application which runs on the client, the license test is done on the client and the license file is on the server, you should only use an installation code combined with the UNC pathname like code 5 482, code 6 483, code 8 484 or code 10 485
The product activation is done on the client machine.

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Server license

If the application is server based or a web application and the license test is done on the server, you can use the installation codes for single user, especially Windows ID 487. The product activation is done on the server.

14.5.2.1 Sending Hardware IDs

Using the Online Activation, the hardware IDs are automatically transferred to the Activation Server 6. Using activation by e-mail, fax or phone the codes have to be sent to you and you have to send and unlock key back.

The complete process is described in the chapter: Worflow - from Distribution to Activation 585

Customers, using the Activation Server 6 can use an automated e-mail activation service 327

14.5.2.2 Volume ID (1)

Each hard disk drive (even a USB flash drive) has a volume ID (like a Serial Number). To view a drives current Volume ID you can just perform a **dir <drive>:** and the volume ID is shown on the second line down, e.g.

Volume in drive E is system
Volume Serial Number is **BC09-8AE4**

The Serial Number can be changed with tools and if a drive is imaged, the volume ID is also imaged

Pros/Cons
+ Always available and always works
+ Works in single user and network environment
- After reinstallation of Windows, the volume ID changes
- Volume ID's are always the same when a image tool is used to set up a drive
- Allows to install the application multiple times on the same server / computer

Recommendation

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- Good for applications used with a network license where it does not matter when the license file could be duplicated on the same server. Duplication on the same server is prevented using code 5 482 (Volume ID + UNC Pathname)

14.5.2.3 MAC Address (2)

The MAC address of the network adapter is a good criteria because it is still available after a reinstallation of a machine and is independent of disk imaging. Adapters for VPN and dial-up modem adapters are not used because they are not available without internet connect.

There are a few things to be considered as well as in a server environment as for single user installations.

W-LAN Adapter

If a mobile PC has a W-LAN adapter and is in battery mode without a W-LAN connection, then often the W-LAN adapter is disabled to save battery. On a system with Vista and Windows 8 / 10, Licence Protector 5 can retrieve the disabled adapter but not on Windows XP. A disabled adapter on Windows XP results in a copy protection error.

The same situation occurs when a network cable is unplugged.

Switch to Netbiosname 475 on single user maschines or hostname.

Server with 2 network adapters

If a server has more then one adapter and some PCs access the server through adapter 1, some through adapter 2, then a copy protection violation will occur. In this case we recommend switching to the criteria Volume ID + UNC Pathname 482.

- Details multiple network adapters

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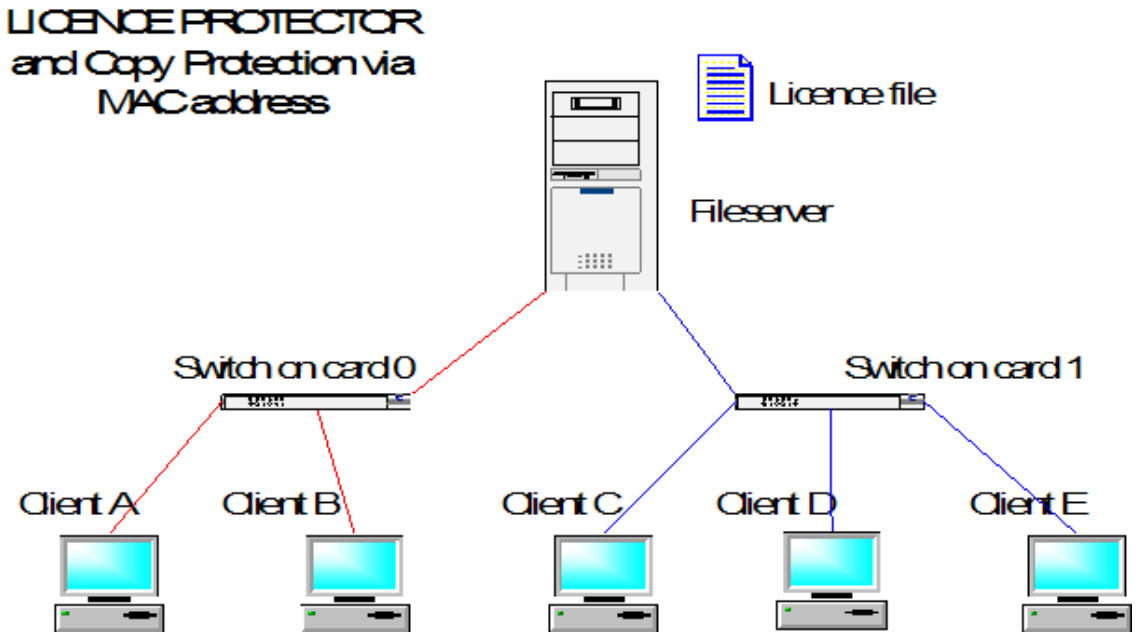

On the image above you see 5 clients A, B, C, D and E which use an application protected by Licence Protector 5. All five use the same license file on the central fileserver.

The problem is, that A and B reach the fileserver on a different route than clients C, D and E and therefore the clients have different connected network-cards, here card 0 and card 1, and so they calculate different MAC addresses. But all clients use the same license file and in that license file, let's assume card 1 is used as installation code.

The result is that only C, D and E will pass the Licence Protector 5 copy protection check. At A and B the check will fail!

If you have such an environment then use or switch to Volume ID or Hostname in comibnation with UNC path as mean of copy protection.

Server with subnets

In a subnet portioned network environment the MAC address should not be used. All PCs in outer-subnets can not retrieve the MAC address. Switch to Volume ID or Hostname in comibnation with UNC path as mean of copy protection.

Novell Server

Licence Protector 5 can be used on a Novell server for licensing, but the Software Copy Protection will not work because the hardware information like Volume ID or MAC address can not be retrieved from the server.

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PC with multiple network adapters

If a PC has multiple network adapters and is offline, the same situation occurs like described above with W-Lan Adapters.

PDA with network adapter

If a PDA with an inbuilt network adapter is **connected to the PC during the activation** is done, then it could happen that this network adapter is used because the network adapter of the PDA is added to the PCs network adapters. The PDA should be disconnected and then the MAC address can be used for copy protection.

Pros/Cons
+ After reinstallation of Windows, the MAC address does not change
+ If an image tool is used, the MAC address is still different
+ Good within a network because the MAC address must be unique
- See considerations above for multiple network cards
- Allows to install the application multiple times on the same server / computer

Recommendation
Should be used for enterprise users because disk imaging is often used to set up multiple machines and a reinstallation of Windows does not need a new licensing.

14.5.2.4 Hostname (3)

A Windows machine's NetBIOS name 481 is not to be confused with the computer's host name. Each computer running TCP/IP (whether it's a Windows machine or not) has a host name (also sometimes called a machine name). You can view/change it on the DNS tab in Control Panel -> Network -> TCP/IP -> Properties Host names are used by applications such as telnet, ftp, web browsers, etc. In order to connect to a computer running the TCP/IP protocol using its HOST name, the host name must be resolved into an IP Address (the host name or FQDN (Fully Qualified Domain Name)-IP address resolution is typically done by something called DNS - Domain Name System/Service). Changing a computer's Host name DOES NOT change its NetBIOS name.

Note
If a local PC does not have a network adapter and uses a dial-up connection for registration then the hostname could change between 'localhost' and the hostname used for the dial-up connection. The only solution for this scenario is to use the NetBIOS computer name.

Pros/Cons
+ Works in single user and network environment
+ Good within a network because the hostname must be unique

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- After reinstallation of Windows, the hostname changes
- See considerations above with dial-up connections
- Allows to install the application multiple times on the same server / computer. Combine it with UNC Path (instcode 10 485) to allow only one installation

Recommendation

- Should be used for enterprise users which have problems using the installation code with the MAC address

14.5.2.5 NetBIOS Computer Name (4)

Each computer running Windows has a NetBIOS name; you can view/change it on the identification tab in Control Panel -> Network. Various services & client tools, including Network Neighbourhood and NET USE, use NetBIOS names. The NetBIOS name is specified when Windows networking is installed/configured. In order to connect to a computer running TCP/IP via its NetBIOS name, the name must be resolved to an IP Address (the NetBIOS name-IP address resolution is often done by WINS - NetBIOS Name Server). A computer's NetBIOS name is often the same as that computer's host name 480, but it doesn't have to be.

Pros/Cons

+ Works always in single user environment
+ See considerations regarding hostname 480 with dial-up connections
+ Works even in Notebooks with W-Lan adapter when disconnected from the local network
- After reinstallation of Windows, the NetBIOS computer name changes
- Only usable for **single user** installations
- Allows to install the application multiple times on the same server / computer

Recommendation

- If you do have only single user installations then use the NetBIOS name

Settings for Activation Server

To allow a reactivation you have to **enable** the use of local hardware IDs.These are the settings for the project.config file

<InstCodeType1>4</InstCodeType1>
<InstCodeType2>3</InstCodeType2>
<InstCodeType3>1</InstCodeType3>
<AllowReactivation>Yes</AllowReactivation>
<IgnoreLocalInstCodes>false</IgnoreLocalInstCodes> (definition is mandatory for this hardware ID)
<MinIdenticalInstcodes>3</MinIdenticalInstcodes> (number of hardware IDs which have to match to allow a reinstallation)

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This ID can only be used as a **single PC / single user** license. A network license is not supported.

This feature is only available in the *Professional Edition.*

14.5.2.6 Volume ID + UNC Pathname (network licence) (5)

This Installation Code combines the Volume ID 477 with the UNC pathname (details).

Pros/Cons

+ Always available and always works
+ Works in single user and network environment
+ Allows only one installation on one machine
- After reinstallation of Windows, the volume ID changes
- Volume ID's are always the same when a image tool is used to set up a drive

Recommendation

- Should be used for enterprise users which have problems using the installation code with the MAC address and which want to make sure that the application is only installed once

This code is ideal for a network license as it prevents multiple installations on the same server and will most often work - also in complex network environments

This code results in a copy protection error if the applications is started on the server AND on the workstation. It only works if the server is used as a dedicated server. Use code 1-3 in case of an problem.

Settings for Activation Server

To allow a reactivation and to prevent that another path can be used with the reactivation, you have to limit the reactivation to ID 5. These are the settings for the product configuration

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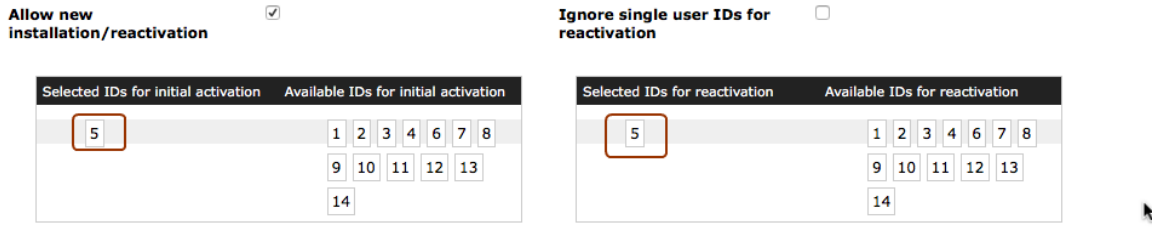

14.5.2.7 MAC Address + UNC Pathname (network licence) (6)

This Installation Code combines the MAC address 478 with the UNC pathname (details).

Pros/Cons

+ After reinstallation of Windows, the MAC address does not change
+ If an image tool is used, the MAC address is still different
+ Good within a network because the MAC address must be unique
+ Allows only one installation on one machine
- See considerations for MAC address 478 in combination with W-LAN and multiple network cards

Recommendation

- Should be used for enterprise users because disk imaging is often used to set up multiple machines and a reinstallation of Windows does not need a new licensing.

This code results in a copy protection error if the applications is started on the server AND on the workstation. It only works if the server is used as a dedicated server. Use code 1-3 in case of an problem.

14.5.2.8 IP Address (7)

Every computer running TCP/IP needs an IP address. This address has to be unique inside a sub network but is not worldwide unique.

Pros/Cons

+ Works in single user and network environment
+ Ideal for a server with an static IP address
- Only unique in a subnet, not unique worldwide
- See considerations above with dial-up connections
- Allows to install the application multiple times on the same server / computer

Recommendation

- Can used as an alternative for the hostname 480

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This feature is only available in the *Professional Edition.*

14.5.2.9 Combination Code 1+2+3+UNC Pathname (8)

This Installation Code combines the Volume ID, MAC address and Hostname with the UNC pathname (details).

The combination of the several installation codes makes it significantly more difficult to configure virtual machines with identical hardware IDs.

Pros/Cons

+ Cheating is extremely difficult due to the 4 used parameters
+ If an image tool is used, the MAC address is still different
+ Good within a network because the MAC address must be unique
+ Allows only one installation on one machine
+ Works in single user and network environment
- Needs more often a re-licensing because of hardware changes
- See considerations for multiple network cards 478 and subnets
- Restricted use in network environment with Windows 98 / NT machines

Recommendation

- Should be used for environments were heavy copy protection is needed and several installations on one machine should **not** be possible. Otherwise use installation code 9. 484

This feature is only available in the *Professional Edition.*

This code results in a copy protection error if the applications is started on the server AND on the workstation. It only works if the server is used as a dedicated server. Use code 1-3 in case of an problem.

14.5.2.10 Combination Code 1+2+3 (9)

This Installation Code combines the Volume ID, MAC address and Hostname. The combination of the several installation codes makes it significantly more difficult to configure virtual machines with identical hardware IDs.

Pros/Cons

+ Cheating is extremely difficult due to the 3 used parameters
+ If an image tool is used, the MAC address is still different
+ Good within a network because the MAC address must be unique
+ Works in single user and network environment
- Needs more often a re-licensing because of hardware changes
- See considerations for multiple network cards 478 and subnets
- Restricted use in network environment with Windows 98 / NT machines
- Allows to install the application multiple times on the same server / computer

Recommendation

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- Should be used for environments were heavy copy protection is needed and several installations on one machine should be possible. Otherwise use installation code 8 484.

This feature is only available in the *Professional Edition.*

14.5.2.11 Hostname + UNC Pathname (server licence) (10)

This Installation Code combines the Hostname 480 with the UNC pathname (details).

Pros/Cons

+ Works in single user and network environment
+ Good within a network because the hostname must be unique
+ Allows only one installation on one machine
- After reinstallation of Windows, the hostname changes

Recommendation

- Use it when you have a server application
- Should be used for enterprise users which have problems using the installation code with the MAC address + UNC path (code 6 483)

This code is ideal for an application, which only runs on the server as it prevents multiple installations on the same server and seldom causes a problem

This code results in a copy protection error if the applications is started on the server AND on the workstation. It only works if the server is used as a dedicated server. Use code 1-3 in case of an problem.

14.5.2.12 USB Flash drive (11)

Licence Protector 5 offers a unique technology to use a standard USB flash drive as a 'Dongle replacement'. Now the times are over where you have to decide whether to use a software copy protection or a Dongle.

The big advantage compared with a dongle is, that nearly any standard USB flash drive can be used. You can send out the USB flash drive with the license file or the customer can use his own USB flash drive. If a USB flash drive can be used or not depends on the fact, if the manufacturer has added a special information like a kind of a Serial Number of the USB flash drive.

If a module with a license per PC is used, the usage of the USB flash drive can be limited to a specified number of PCs.

Pros/Cons

+ Works always in single user environment

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+ Customer can use a single user license on different machines
+ The number of machines, where the USB flash drive can be used, can be limited
- Only usable for **single user** installations
- Hardware is involved
- Not all USB flash drives will work

For details how to use the USB flash drive see chapter: Using an USB flash drive as a Dongle replacement 574.

Settings for Activation Server

To allow a reactivation, you have to limit the reactivation exclusively to the USB flash drive.

Details 580

This ID can only be used as a **single PC / single user** license. A network license is not supported.

The USB protection works only with Windows XP and newer Windows versions like Vista / Windows 7 / Windows 8.

Licence Protector 5 also works on USB flash drives with Microsoft BitLocker drive encryption.

This feature is only available in the *Professional Edition.*

14.5.2.13Domain (12)

This installation code is a very good criteria if you need a **company wide (unlimited) license with single user installations**.

After a user logs in his Windows account, the Windows-Domain name is used for copy protection. This also works for notebook users which are offline, as you can always log in using the domain-name.

There are 2 options

- ▼ The same license file can be copied to any machine. No additional activation is necessary after the first user has activated the product

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Step 1 - Product Activation

One user activates the product and makes a backup of the license file (.LIC file).

Step 2 - Installation on multiple PCs

The .lic file can now be copied to any number of machines within the same network.

- The same Serial Number can be used within the domain for multiple product activations (see settings for Activation Server below). There are no restrictions, how often the Serial Number can be used.

Settings for Activation Server

To allow a reactivation, you have to limit the reactivation exclusively to the domain. These are the settings for the project.config file

<InstCodeType1>12</InstCodeType1>
<InstCodeType2>5</InstCodeType2> (this would be used if the network works without a domain)
<InstCodeType3>1</InstCodeType3>
<AllowReactivation>Yes</AllowReactivation>
<CheckInstCodeType1>12</CheckInstCodeType1>
<IgnoreLocalInstCodes>false</IgnoreLocalInstCodes> (definition is mandatory for reactivation using domain)
<MinIdenticalInstcodes>12</MinIdenticalInstcodes> (backup ID if no domain is available - then no reactivation is done as 12 IDs have to match)

Every workstation has to specify the **same domain** for login like *domainname\username*

This ID can only be used as a **single PC / single user** license. A network license is not supported.

This feature is only available in the *Professional Edition.*

14.5.2.14Windows ID (13)

The Windows ID includes **Windows operating system information combined with hardware** used on a computer system and is similar to a Windows UUID (Universal Unique Identifier). The Windows ID will be different even on virtual machines (if you clone one Windows copy and run it on a virtual machine on another computer).

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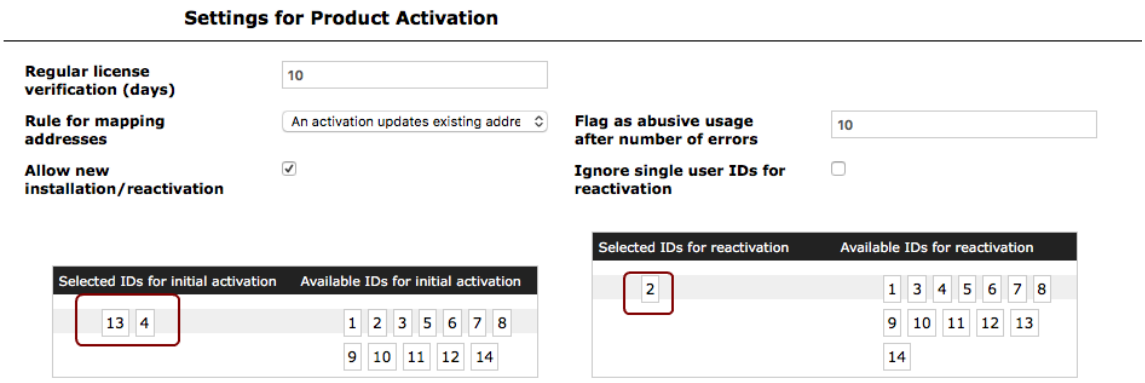
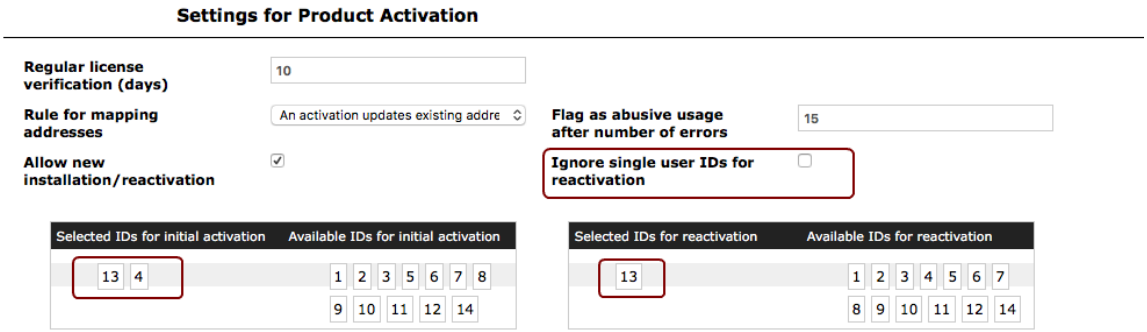
The advantage of this ID is, that it will **seldom change and cannot be faked.** Changing the hostname, volume ID or MAC address will not affect this installation code.

Settings for Activation Server

To allow a reactivation, you have to limit the reactivation to an ID which is still the same even if Windows is reinstalled. These are the settings for the [product configuration]



If you use [regular online] checks, use hardware ID 13 instead of hardware ID 2 in the settings for reactivation.
The option: *Ignore single user Ids for reactivation* must be **unchecked.**



This is the recommended installation code for single user installations

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This ID can only be used as a **single PC / single user** license. A network license is not supported.

14.5.2.15 System ID - macOS (14)

The copy protection works in the way that the license file is linked to the **Serial Number of the macOS.**

To display the Serial Number,

- Choose *About This Mac* from the Apple Menu (Apple logo on the Menu Bar))
- Double-click the version text, for example "Version 10.7"

or click on ***More Info*** on this screen

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To distinguish a Serial Number **Key** and the Serial Number of the MAC computer it is referenced as **System ID - macOS** in this documentation.

14.5.2.16Use own hardware IDs

Licence Protector 5 supports using own hardware IDs. This makes sense if you deliver a custom made machine and you want to bind the license to this machine. The machine ID can be stored in the license file and then verified during runtime.

The workflow would be as follows.

Create a license file

You have to create a license file for each customer with special settings.

- Set the status of Activation to **done**
- **Valid Number of Days = 0** *(no time limitation)*
- Type in the customer name

Implement the standard EasyGo workflow 104. This would allow you to also deliver license files with evaluation versions. Setting the activation status to *done* just suppresses the activation screens.

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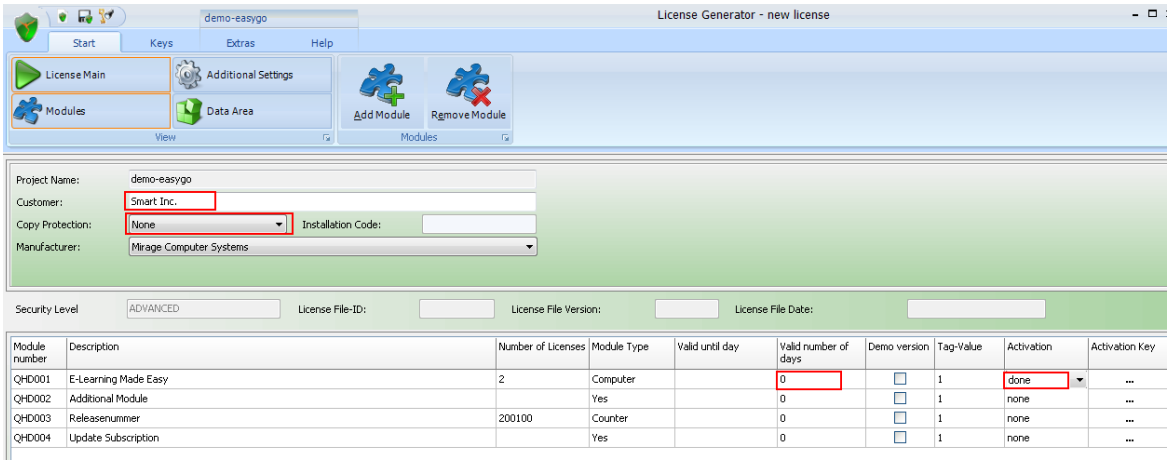
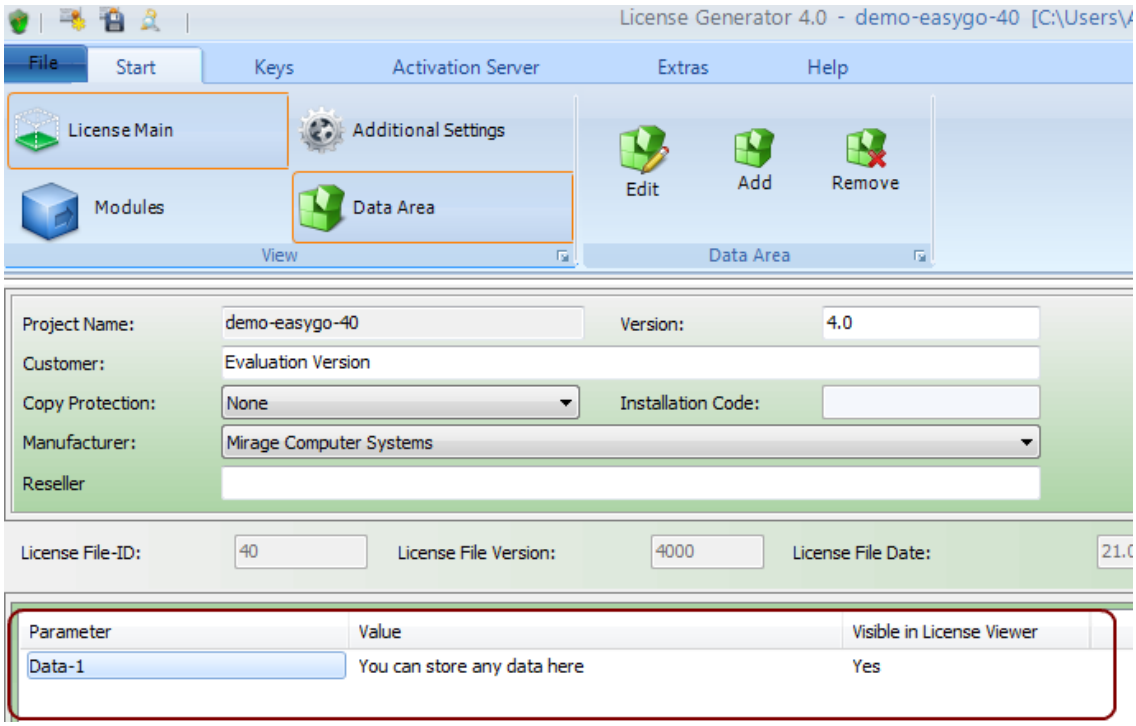


Store your own hardware ID

Save the hardware ID either in the in the **data area** of the license file (most flexible method because it allows storing multiple data) or in the **Internal Marking field** (TAG value) of the license file.

- Details how to store the ID in the data area

  Select **Data Area** in the main screen. It allows to edit and modify data, which is stored in the data area of the license file. For full details see chapter Store data in the license file. 562



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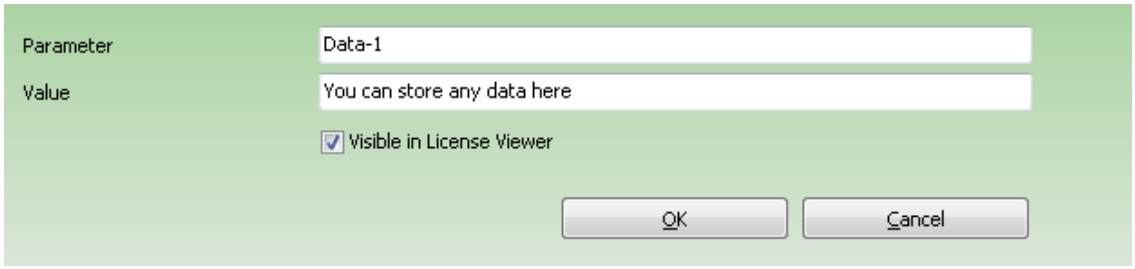
Select **Add** to add a new data entry or highlight an existing entry to **Edit** or **Remove** it.



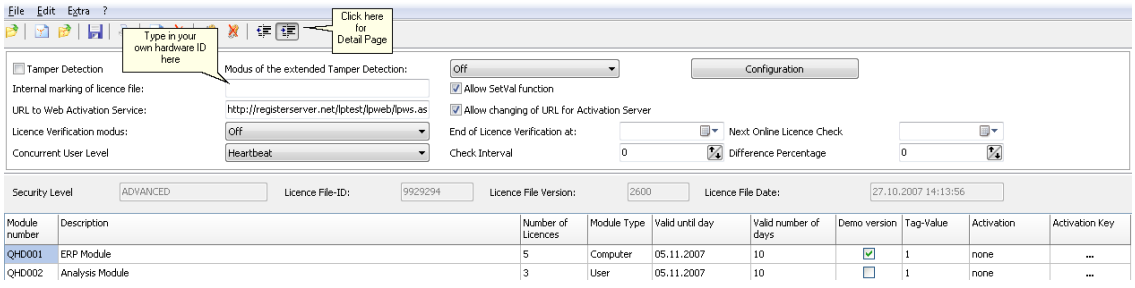
Either store the values invisible in the file or select, if the data should be visible in the License Viewer 281.

The modification is written back in the license file when you press save and not when you close this window.

This feature is only available in the *Professional Edition.*

Details how to store the ID in the Internal Marking field

Switch to the detail page in the License Generator and the in your hardware ID in the field ***Internal marking of license file***



Retrieve Value during runtime

You would use the standard EasyGo commands 104 and retrieve your hardware ID during runtime.

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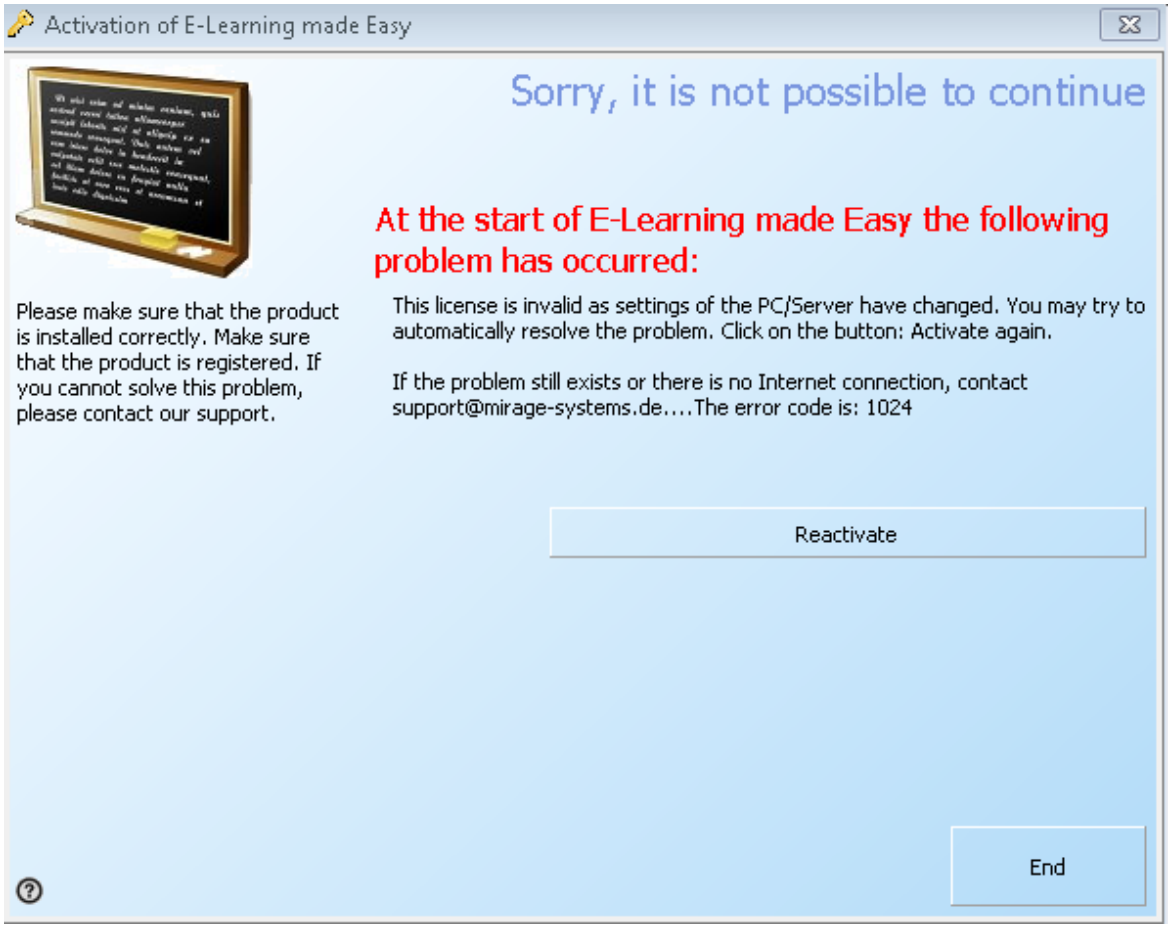
For hardware IDs stored in the data area see chapter Store data in the license file 562 how to retrieve the values.
If you use the *Internal Marking field* you would use the command GetVal 791, Token LTG 712 to retrieve the value.

14.5.3 Copy Protection Violation

If a hardware ID changes, a copy protection error occurs.

If the license file is copied to another PC or the hardware of the PC changed, then a copy protection 67 error occurs It is not possible to continue.



It is possible to try a reactivation. This covers the situation when a user has changed hardware settings. The next step is to Select the activation method 228 and then try to

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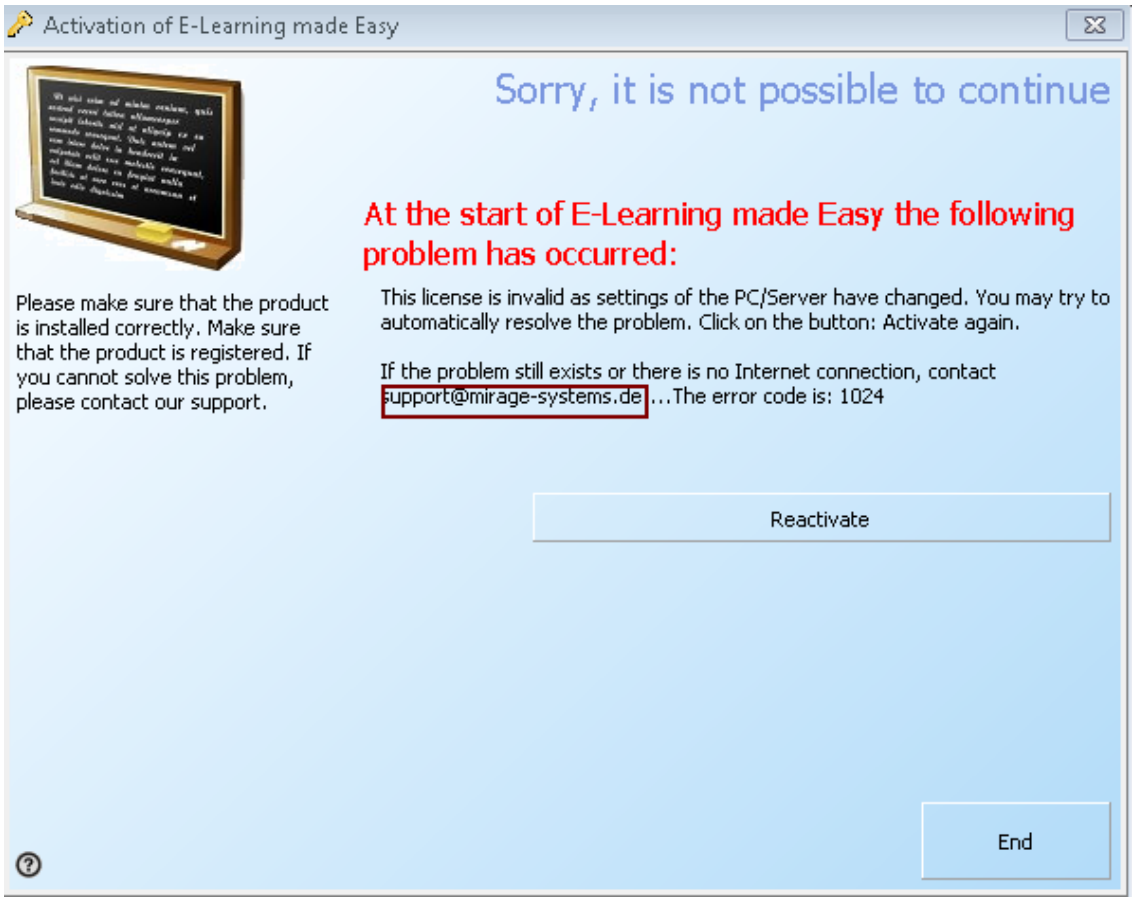
reactivate. See details - Reactivation after copy protection violation 454. Ensure that the configuration on the Activation Server 6 is set to allow reactivation.

Source Code Settings

The following configuration settings are configured with the command **SetRegisterSettings** 121:

- ContactAddress - display e-mail or phone number in the error screen.



Error code: 1024 635

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14.6 Custom-made User Interface (own GUI)

Licence Protector 5 supports with EasyGo a workflow which will suit most requirements. However, if you want to provide your own user interface it is possible

- If you want to provide your **own screens and deliver a Serial Number Key** - see workflow - Serial Number - own screens 495. It can also be used if you do need **no user interface** because the application runs on the server
- If you want to provide your **own screens and deliver a license file** and you **do not need online activation** - see workflow - license File - own screens 503
- Create your own License Viewer 505

See also
Deliver license File - Own Screens 503
Deliver Serial Number - Own Screens 495
Create own License Viewer 505

14.6.1 Serial Number - Own Screens

This workflow makes sense if you want to provide all screens in your **own Look & Feel** or if you have a server **application which does not allow to pop-up any screens on the server**.

You can implement the following workflow with the modifications you like.

Depending on the kind of activation you choose, the workflow is different.

The predefined workflow is as follows:

- Create the generic license File 588 for the evaluation version
- Provide an evaluation version 68 (also non-evaluation 223 version which always needs a Serial Number is possible).
- For all start and workflow options see chapter: Worflow Options 145
- Customer can test within the time limited period or buy the software - screen Start Screen in Evaluation Mode 222
- Customer buys the software and gets the Serial Number 301 Key. The key is unique and is the 'proof of purchase'.
- The Serial Number sets a trigger that enables activation via web(online 591), e-mail 593, fax 593 or phone 593 (activation methods can be defined)
- Online Activation – the Serial Number is transferred to the Activation Server 6 448 it is validated if the Serial Number was already used or not and copy protection 67 is enabled, time limitation is deleted (to get an unlimited full version). The customer can

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work instantly with the application. A reinstallation on the same PC which already registered is accepted (configurable). Other workflows can be defined like do not activate copy protection or activate time limitation for full version

- Activation by e-mail, fax and phone requires manual activation by sending the installation code 474 (hardware ID) to you and sending back an Unlock Key 320
- The application is now copy protected and without time limitation (depending on the settings)

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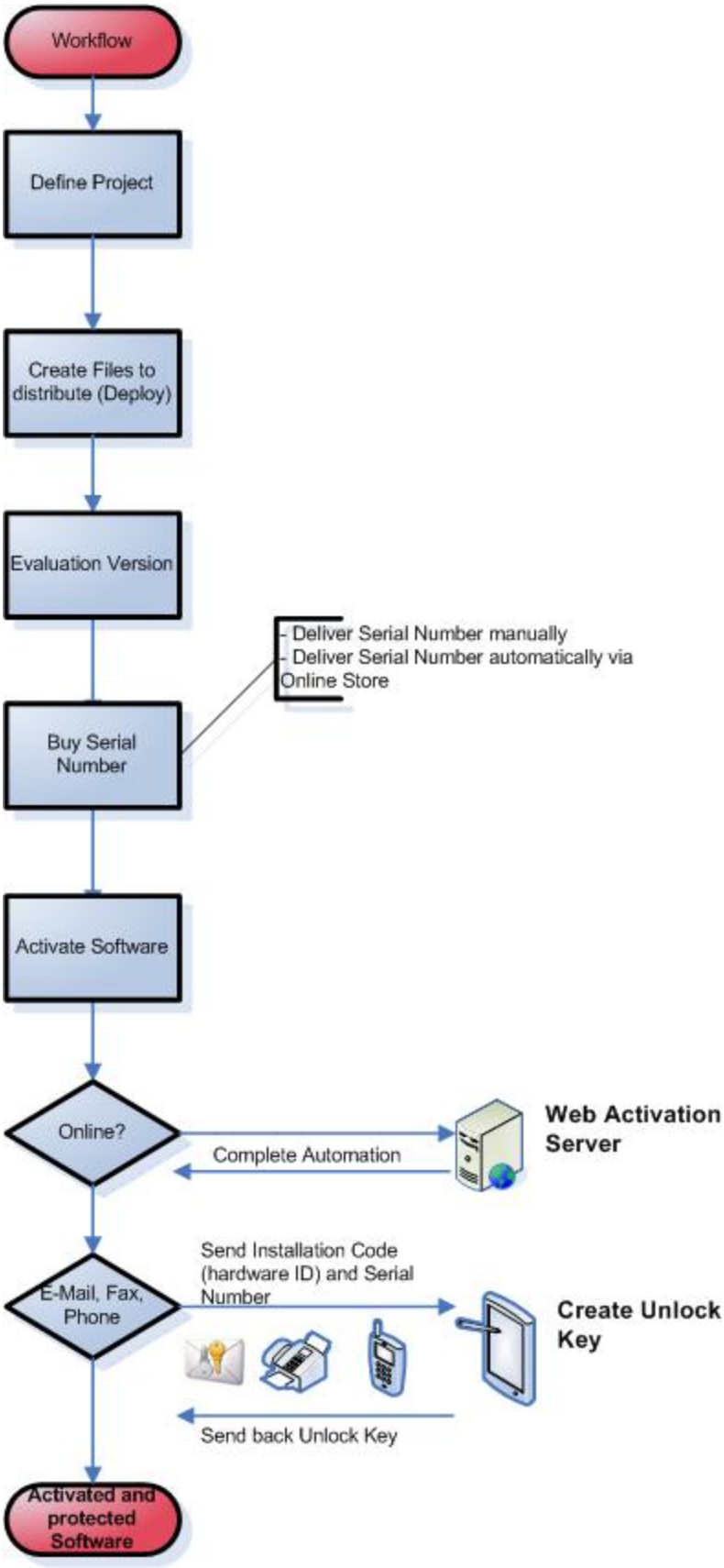

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The Video Tutorial offers a live demonstration of each activation method.

Start Video Tutorial

See also

Source Code Integration for this workflow 498
Create own License Viewer 505
Transfer a license from PC A to PC B 571
Block / Lock a license after Activation is done 541
Tamper Detection 565

14.6.1.1 Source Code Integration

To implement an workflow with a Serial Number you should implement the following code sequence.

Create generic license file

The generic license file, which is included in the installation package, has exactly the same settings like the file used with EasyGo. See Create license File. 99
Ensure that you have set the property - Activation Status after product activation 198 - in your project file.

Test main license

At the program start, implement the following code sequence

- SetLanguage 108 - define language for all screens and error messages. Necessary even if you use own screens
- Open the license file with PrepareAdvanced 729 - implement an own error handling. Error 1024 (copy protection violation) should allow to type in an Activation Key to switch copy protection type. Use SecurityLevel 110 and PrepareForce 738 to open the file and ShowLicViewer 800 or an own user interface 505 to provide the necessary information
- If you want to offer a license transfer 573, use CheckModuleSubscription 654

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- Now test the main module with ValidateEX 820 or ValidatesYes 945 and check for time limitation with RemainingDays 743 an/or ExpiredOn 672
- If the module is expired display a screen - Evaluation Period Expired 253. Make sure that you cover the situation if the version expires when the user already typed in a Serial Number and hasn't got the Unlock Key back
- If the status *Activation* is **none** (0) then the software **does not need activation** (no Serial Number was applied). Retrieve the activation status with GetWebActivation 717. Display a screen like this - Start Screen in Evaluation Mode 222
- If the status *Activation* is **required** (1) then a Serial Number was applied - display a screen to type in an Unlock Key - see Enter Unlock Key 251
- If the status *Activation* is **done** (2) then the software is activated - a screen should be displayed only in case of an error generated during PrepareAdvanced 729
- Provide an Own License Viewer 505
- To display errors, you could use ShowStartErrorPage 802, which would also cover to view the license and apply keys. You can retrieve a language specific error message with GetErrorMessage 683 for your own dialogs. A good idea is to call PrepareAndCheck 162 for each error as it includes screens AND error handling.
- Use Quit 179 at the end of the application

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Screen to type in a Serial Number

You can make your own screens to type in a Serial Number and offer Online Activation 232, e-mail 237, Fax 243 or Phone Activation 248. The Serial Number must have the same settings like used in EasyGo - see Serial Number Key 301. If you want to use the e-mail Activator Service then use GetMailActivatorBlock 704 to build then encrypted text block for the e-mail.

- To save the Serial Number in the license file use SetVal 711 ("module ID", 'SNR', your ID / Serial Number)
- Use ApplyActivationKey 644 (your ID / Serial Number) to read the values of the key and save it in the license file
- Save the customer name in the license file using SetVal 711 ("", 'CST', customer name)

You have to ensure, that the key is typed in in this format: **aqGEC-5EPc3-9E7Ii-3tI8X-RQU5k-6v148** . IsKeyValid 720 will check if it is a valid key for your license file. This command would not work if you use own IDs as a Serial Number 179.

Screen to type in the Unlock Key

The Unlock Key must have the same settings like used in EasyGo - see Unlock Key 320. Just use ApplyActivationKey 644 to save the Unlock Key.

Online Activation

The Online Activation process can be implemented with a few DLL calls. The configuration files are the same as used for EasyGo - see configure a project

The Serial number would be used as the unique ID on the Activation Server.

The sequence for the Online Activation is as follows:

- Retrieve the Serial Number using GetSerial 709
- Activate the license for the main module using WebRegisterExt 821 and use as the **unique ID the Serial Number**
- Use SendCustomerInfo 753 to send additional customer address information (e.g. phone number or language). The parameter ID / Serial Number must contain the Serial Number to link it with the customer address data

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- You can turn on/off the activation dialogs with ShowWAStartPage 806, ShowWAProgressPage 804, ShowWAResultPage 805
- By defaults all other necessary parameters are retrieved from the license file but could also be set individually

  Url to Activation Server - WebServiceURL 823
  Project name - ProjectName 740
  Proxy Settings - LocalProxyPort 723, LocalProxyServer 723, UseLocalIEProxy 816, UseLocalProxy 817

E-mail / Fax Activation

- Use GetInstcode 684 to retrieve the hardware ID(s)
- Retrieve the Serial Number using GetSerial 709

You can build the block for the automated e-mail activation using GetMailActivatorBlock 704. Your application has to open the default e-mail client (e.g. with mailto:) and insert the activation data like Serial Number, name and the block for automated e-mail activation.

Sample Screen Activation by e-mail 237
Sample Screen Activation by Fax 243

Activation by Phone

- Use GetInstcode 684 to retrieve the hardware ID(s) and display all Ids on the screen
- Retrieve the Serial Number using GetSerial 709

Sample Screen 248

Test Modules

You can test a module using ValidateEX 820 (recommended), Validate 818 or ValidatesYes 945. Additional options are:

- Retrieve the module type - GetVal 710, Token LTY 714. Module type is also retrievable with GetModuleList 707 (list of all modules within a license file)
- Retrieve module name - ModuleName 725. Module name is also also retrievable with GetModuleList 707
- Check if a module exists in a license file - ExistsModule 671
- Retrieve status Demo version of a module (ValidateEx 820)

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- Retrieve time limitation of a module RemainingDays 743 and/or ExpiredOn 672
- Retrieve the number of days which have been set for the trial period - NoOfDays 727
- Retrieve Activation Status of a module - GetWebActivation 717 (2 = product / product activation for a module is done)
- Find out, if a module / license is deactivated using GetVerificationOfModule 716 (result: frozen = 2)
- You can add modules (AddModule 642) to the license file or remove modules (DeleteModule 664) . This is necessary if you e.g. install an update of the application with new features

For modules which are from **type user, PC, concurrent, Item counter** you can

- Retrieve number of licenses and available licenses of a network module - TotalLicences 813 and RemainingLicences 744. If the module is from type counter then you get the **value of the counter** with TotalLicences 813
- Retrieve all entries / user / computer - GetEntriesOfModule 683
- Deactivate an entry / user / computer - DeactivateEntry 658
- Activate an entry / user / computer again - ActivateEntry 641
- Delete all entries / users / computers - RemoveAllItems 745
- Delete all deactivated entries / user / computer - RemoveDeactivated 746
- Check if a specified entry / user / computer exists - ExistsEntry 670
- Check if an entry / user / computer is in use or deactivated - IsEntryActivated 719

Recommendations

You should provide a function to view the license information. Either provide the License Viewer 281 or implement an own viewer 505.

See also

Create own License Viewer 505
Transfer a license from PC A to PC B 571
Block / Lock a license after Activation is done 541
Tamper Detection 565

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14.6.2 License File - Own Screens

This workflow makes sense if you want to provide all screens in your **own Look & Feel,** you **do not need online activation** and you want to deliver a **license file**.

This scenario works as follows:

- Evaluation Version with generic license file 99. Use the same settings like EasyGo
- Customer buys the product - the installation code is displayed in your screen
- Installation code is transferred
- A customer specific license file **including copy protection turned on** is generated and sent back to the customer
- Customer copies license file to the installation directory

Create generic license file

The generic license file, which is included in the installation package, has exactly the same settings like the file used with EasyGo. See Create license File. 99

Test Evaluation Version and display installation code

At the program start, implement the following code sequence

- SetLanguage 108 - define language for all screens and error messages. Necessary even if you use own screens
- Open the license file with PrepareAdvanced 729 - implement an own error handling. Error 1024 (copy protection violation) should allow to type in an Activation Key to switch copy protection type. Use SecurityLevel 110 and PrepareForce 738 to open the file and ShowLicViewer 800 or an own user interface 505 to provide the necessary information
- Now test the main module with ValidateEX 820 or ValidatesYes 945 and check for time limitation with RemainingDays 743 an/or ExpiredOn 672
- If the status *Activation* is none (0) then the software **needs activation**. Retrieve the activation status with GetWebActivation 717
- Display at least 2 installation codes (Hardware Ids 475) to register the software. Multiple codes are necessary in case one code can not be retrieved. Use GetInstcode 684 to retrieve the code
- If the status Activation is done (2) then the software is activated
- To display errors you could use ShowStartErrorPage 802, which would also cover to view the license and apply keys. You can retrieve a language specific error message with GetErrorMessage 683 for your own dialogs
- Use Quit 179 at the end of the application

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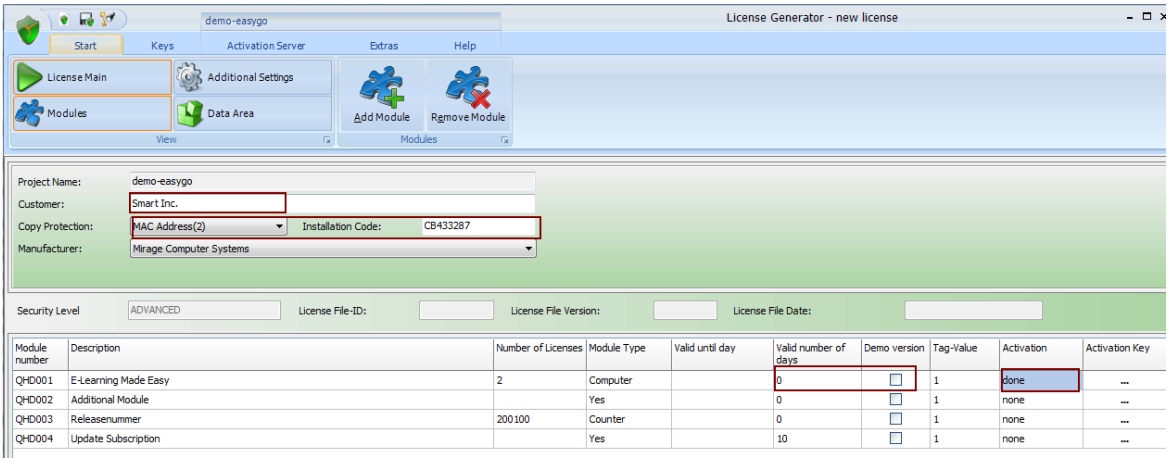
Customer buys software

The customer has to transmit the 8 digit installation code. The next step is to create a **customer specific license file** (using the customer name, the installation code and all the modules the customer has bought). Important settings are:

- Set the field status of *Activation* to **Done**
- If the full version should have no time limitation, set *Valid number of days* to **0,** *Demo version* to **No** and all other modules to the customer specific values.
- Select the **desired Copy Protection method and type in the installation code** the customer sent to you.



Generator - customer specific licence file

Each license file gets a new license file ID (like a Serial Number).

Now send the license file to the customer. As the copy protection is already switched on, the file can only be used on the licensed machine and the customer just has to copy the file to the installation directory.

Test Modules

You can test a module using ValidateEX 820 (recommended), Validate 818 or ValidatesYes 945

- Retrieve the module type - GetVal 710, Token LTY 714. Module type is also retrievable with GetModuleList 707 (list of all modules within a license file)
- Retrieve module name - ModuleName 725. Module name is also also retrievable with GetModuleList 707
- Check if a module exists in a license file - ExistsModule 671
- Retrieve status Demo version of a module (ValidateEx 820)

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- Retrieve time limitation of a module RemainingDays 743 and/or ExpiredOn 672
- Retrieve the number of days which have been set for the trial period - NoOfDays 727
- Retrieve Activation Status of a module - GetWebActivation 717 (2 = product / product activation for a module is done)
- Find out, if a module / license is deactivated using GetVerificationOfModule 716 (result: frozen = 2)
- You can add modules (AddModule 642) to the license file or remove modules (DeleteModule 664) . This is necessary if you e.g. install an update of the application with new features

For modules which are from **type user, PC, concurrent, Item counter** you can

- Retrieve number of licenses and available licenses of a network module - TotalLicences 813 and RemainingLicences 744. If the module is from type counter then you get the **value of the counter** with TotalLicences 813
- Retrieve all entries / user / computer - GetEntriesOfModule 683
- Deactivate an entry / user / computer - DeactivateEntry 658
- Activate an entry / user / computer again - ActivateEntry 641
- Delete all entries / users / computers - RemoveAllItems 745
- Delete all deactivated entries / user / computer - RemoveDeactivated 746
- Check if a specified entry / user / computer exists - ExistsEntry 670
- Check if an entry / user / computer is in use or deactivated - IsEntryActivated 719

Recommendations

You should provide a function to view the license information. Either provide the License Viewer 281 or implement an own viewer 505.

See also

Create own License Viewer 505

14.6.3 Create own License Viewer

If you want to provide an License Viewer with your own Look & Feel, implement a new menu item like *Help, Show License Information*. First have a look at the inbuilt License Viewer 281. Your Viewer could offer the following options:

- The name of the license holder - GetCustomer 681
- List of installation codes - GetInstcode 684
- The installation type used for copy protection - GetCopyProtection 676
- The license file ID - GetLicFileID 701

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- An option to apply Activation Keys - ApplyActivationKey 644
- Turn on error log - SetLogging 769
- All modules - GetModuleList 707
- Reload license file content in case you want to update the data in your viewer - Refresh 742

You can also display **detail information for each module**:

- Retrieve the module type - GetVal 710, Token LTY 714. Module type is also retrievable with GetModuleList 707 (list of all modules within a license file)
- Retrieve module name - ModuleName 725. Module name is also also retrievable with GetModuleList 707
- Check if a module exists in a license file - ExistsModule 671
- Retrieve status Demo version of a module (ValidateEx 820)
- Retrieve time limitation of a module RemainingDays 743 and/or ExpiredOn 672
- Retrieve the number of days which have been set for the trial period - NoOfDays 727
- Retrieve Activation Status of a module - GetWebActivation 717 (2 = product / product activation for a module is done)
- Find out, if a module / license is deactivated using GetVerificationOfModule 716 (result: frozen = 2)
- You can add modules (AddModule 642) to the license file or remove modules (DeleteModule 664) . This is necessary if you e.g. install an update of the application with new features

For modules which are from **type user, PC, concurrent, Item counter** you can

- Retrieve number of licenses and available licenses of a network module - TotalLicences 813 and RemainingLicences 744. If the module is from type counter then you get the **value of the counter** with TotalLicences 813
- Retrieve all entries / user / computer - GetEntriesOfModule 683
- Deactivate an entry / user / computer - DeactivateEntry 658
- Activate an entry / user / computer again - ActivateEntry 641
- Delete all entries / users / computers - RemoveAllItems 745
- Delete all deactivated entries / user / computer - RemoveDeactivated 746
- Check if a specified entry / user / computer exists - ExistsEntry 670
- Check if an entry / user / computer is in use or deactivated - IsEntryActivated 719

14.7 Different delivery scenarios

Licence Protector 5 supports with EasyGo a workflow which will suit most requirements. However, there are scenarios which make sense to deliver a license file, a file and activation keys or use a custom-made user interface, e.g.

- If you have **more than 5 modules** it makes sense to deliver a license file. Otherwise the user would have to type in an Activation Key per module. The EasyGo workflow is used - see workflow -license File with EasyGo 172
- If you want to deliver a file without Copy Protection

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- Deliver a Password Key 510 to unlock the software without using copy protection
- Activation without user interaction 511

See also

Deliver license file and Serial Number 172
Deliver license file with Copy Protection 508
Deliver license file without Copy Protection 509
Deliver Password Key 510

14.7.1 Deliver Licence File and Serial Number

If you have **more than 5 modules** it makes sense to deliver a customer specific license file with all the modules enabled the customer has bought. Otherwise the user would have to type in an Activation Key per module. If you can rely on online connection the license file can be automatically downloaded from the Activation Server 6 526 during the product activation.

This scenario works as follows:

- Evaluation Version with generic license file 99. Use the same settings like EasyGo
- Customer buys the product - he gets a **customer specific license file and a Serial Number**
- Type in the customer name
- Copy protection must be set to **none**
- The Activation status must be set to **none**
- Set all modules to the values the customer has bought
- The Serial Number is used to activate the product using the EasyGo Workflow - see Workflow - from Distribution to Activation 585
- Customer copies license file to the installation directory
- Activation of the product using the EasyGo screens and workflow - how to implement EasyGo see Implementing EasyGo 76

Customer specific license File

This license file should have the same settings like the generic license file 99 (including time limitation for the **main module**) but all other modules the customer has **bought without time limitation** and set to the values needed (e.g. set number of licenses bought). The time limitation of the main modules defines the time the customer can use the software before he has to activate it.

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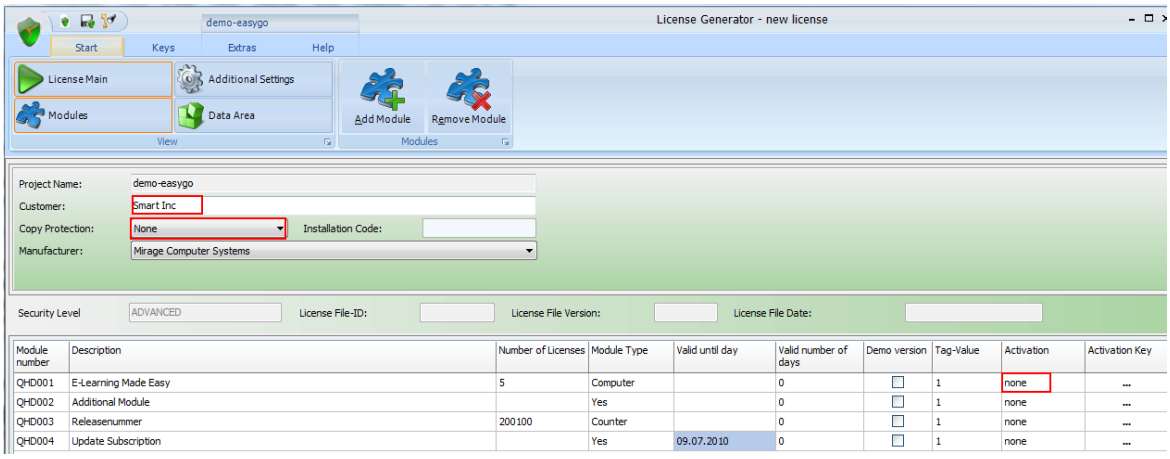

14.7.2 Deliver Licence File with Copy Protection

If you want to deliver a license file **with copy protection already activated,** you need the installation codes before you deliver the software. Either

- Your customer installs the software in advance and you display the installation codes using the License Viewer 281 or
- You create a small exe file which just displays the hardware IDs using the command GetInstCode 684. Note: The tool needs to open a license file to retrieve the installation codes

After retrieving the installation codes from the end user, create a customer specific license file:

- Type in the customer name
- Set the status of Activation to **done**
- **Valid Number of Days = 0** *(no time limitation)*
- Select the **Copy Protection Option** and type in the **Installation Code**. This would require that the user has already installed your application. The installation codes are displayed in the License Viewer 281 and/or the EasyGo screens 222 (Show licenseInformation)
- Set all modules to the values the customer has bought

Implement the standard EasyGo workflow 104. This would allow you to also deliver license files using activation with a Serial Number. Setting the activation status to done just suppresses the activation screens.

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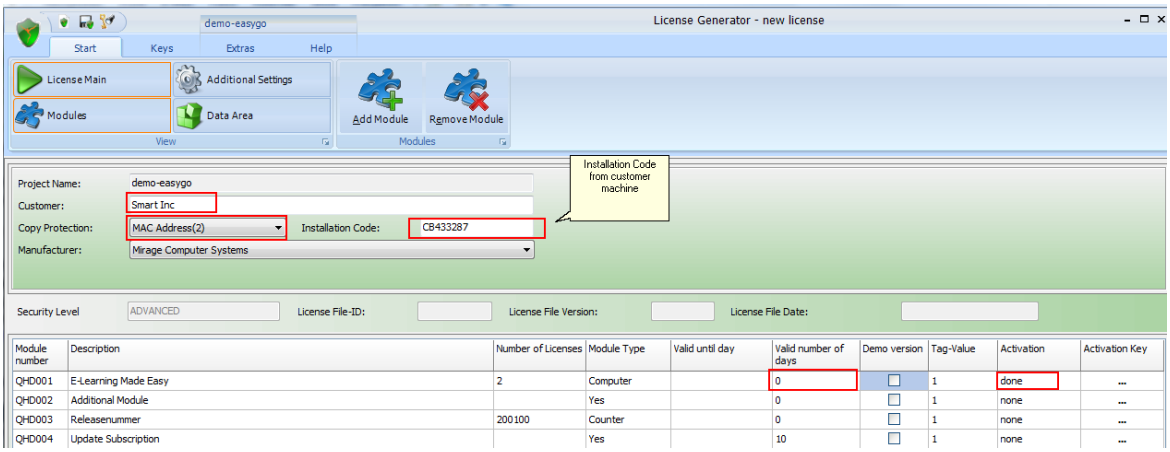
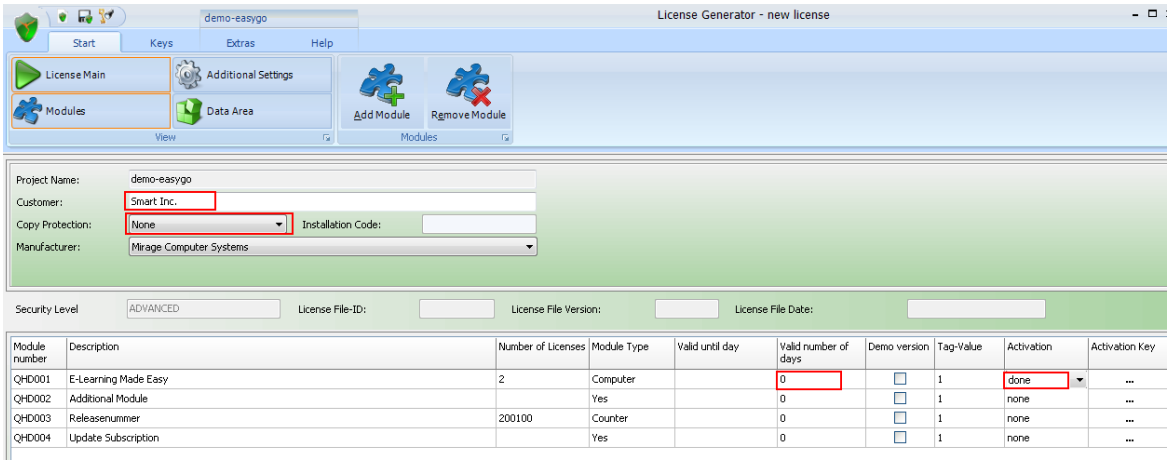


14.7.3 Deliver Licence File without Copy Protection

If you want to deliver a license file **without copy protection** and just use licensing options like network license, then

- Copy Protection = **none**
- Type in the customer name
- Set the status of Activation to **done**
- **Valid Number of Days = 0** *(no time limitation)*
- Set all modules to the values the customer has bought

Implement the standard EasyGo workflow 104. This would allow you to also deliver license files using copy protection. Setting the activation status to done just suppresses the activation screens.



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14.7.4 Deliver Password Key without Copy Protection

If you want to provide a **key to start the software but you do not need copy protection**, you can implement this workflow using Licence Protector 5. The key is then just a kind of 'Password Key' and can be passed to other users. The encryption of the key ensures that:

- The key can only be used for the specified application
- The key can only be used for the specified module

To distinguish this key from other keys like Serial Number or Unlock Key, it is referenced as ***Password Key***.

To implement this workflow, you could use the following code sequence.

Create generic license file

The generic license file, which is included in the installation package, has exactly the same settings like the file used with EasyGo. See Create license File. 99

Test main license

At the program start, implement the following code sequence

- SetLanguage 108 - define language for all screens and error messages. Necessary even if you use own screens
- Open the license file with PrepareForce 738 - implement an own error handling
- Now test the main module with ValidateEX 820 or ValidatesYes 945 and check for time limitation with RemainingDays 743 an/or ExpiredOn 672
- If the module is expired display a screen - Evaluation Period Expired 253
- If the status *Activation* is **none** (0) then the software **is in the original state.** (no *Password Key* was applied). Retrieve the activation status with GetWebActivation 717. Display a screen to type in the *Password Key and user name.*
- To save the *Password Key* in the license file use ApplyActivationKey 644. To save the user name use SetVal 791, Token CST 711

The *Password Key* needs the following settings:

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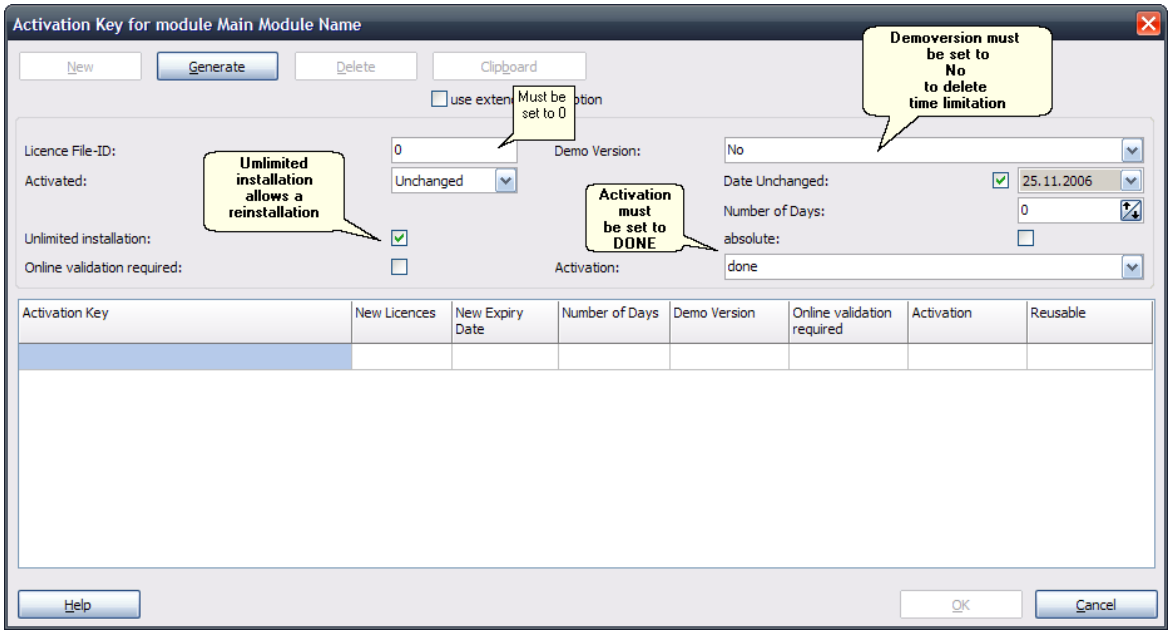

Additional Options

- To display errors you could use ShowStartErrorPage 802, which would also cover to view the license and apply keys. You can retrieve a language specific error message with GetErrorMessage 683 for your own dialogs
- Use Quit 179 at the end of the application

14.7.5 Activation without user interaction

In case you deliver the software preinstalled on PC's or you want to activate the software during the first program start without user interaction, there are 2 options:

- Activate Online using the same Serial Number 511
- Activate copy protection using DLL commands 513

14.7.5.1 Activate Online using same Serial Number

In case you deliver **single user** installations in a huge number to one company and **online access is always available**, a product activation **without user interaction** is possible. The workflow could also be used for standard single user installations, if always an online access is available and a trial version is not needed.

- The Serial Number is already stored in the the license file. On the activation server is a definition, how often this Serial Number can be used
- During the program start, the Serial Number is retrieved, sent to the activation server and the result is a product, which is instantly activated

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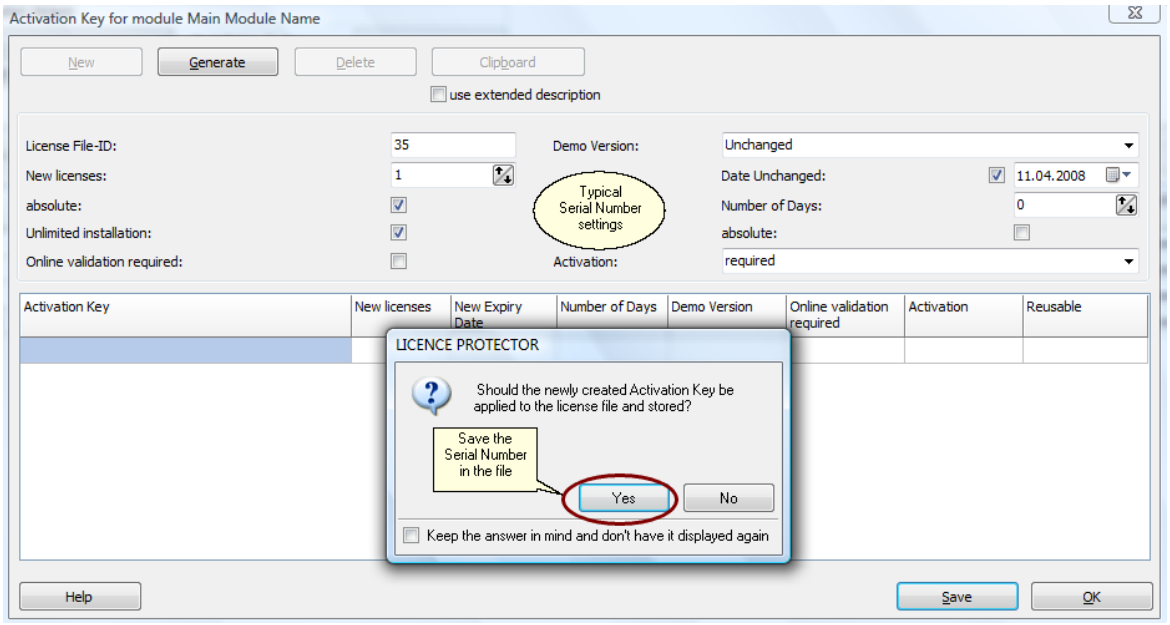
- If the company needs more licenses, just increase the number of activations on the Activation Server 6

Workflow in Detail

- Create a new license file 99 in the Generator which is time limited. Save the file.
- Create a Serial Number 301 in the Generator. It is important to save the the Serial Number in the file



Save Serial Number in the license file

- Add this Serial Number on the Activation Server and define, **how often the Serial Number can be used** - see Add a key on the Activation Server

Code Integration

- SetLanguage 108 - define language for all screens and error messages. Necessary even if you use own screens
- Open the license file with PrepareAdvanced 729 - implement an own error handling. Error 1024 (copy protection violation) should allow to type in an Activation Key to switch copy protection type. Use SecurityLevel 110 and PrepareForce 738 to open the file and ShowLicViewer 800 or an own user interface 505 to provide the necessary information
- Now test the main module with ValidateEX 820 or ValidatesYes 945
- If the status *Activation* is **required** (1) then the software **is not activated yet**. Retrieve the activation status with GetWebActivation 717

Activate the product online

The Online Activation process can be implemented with a few DLL calls. The configuration files are the same as used for EasyGo - see configure a project

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The Serial number would be used as the unique ID on the Activation Server.

Use the command: GetSerial 709

The command SetRegisterSerialNo 776 would display this Serial Number as a default value in the activation dialogues when using the PrepareAndCheck 162 command

The sequence for the Online Activation is as follows:

- Activate the license for the main module using WebRegisterExt 821 and use as the **unique ID the Serial Number**
- You can turn on/off the activation dialogs with ShowWAStartPage 806, ShowWAProgressPage 804, ShowWAResultPage 805
- By defaults all other necessary parameters are retrieved from the license file but could also be set individually

  Url to Activation Server - WebServiceURL 823
  Project name - ProjectName 740
  Proxy Settings - LocalProxyPort 723, LocalProxyServer 723, UseLocalIEProxy 816, UseLocalProxy 817

- If the status *Activation* is **done** (2) then the software is activated - a screen should be displayed only in case of an error generated during PrepareAdvanced 729
- If the status *Activation* is **erroneous** (3) then the activation was not successful. Try to activate again.
- Provide an Own License Viewer 505
- To display errors, you could use ShowStartErrorPage 802, which would also cover to view the license and apply keys. You can retrieve a language specific error message with GetErrorMessage 683 for your own dialogs
- Use Quit 179 at the end of the application

14.7.5.2 Activate Copy Protection with DLL commands

The copy protection can be activated during the first program start just using DLL commands. This feature is handy if the software is delivered preinstalled on a PC.

Code Integration

- SetLanguage 108 - define language for all screens and error messages. Necessary even if you use own screens
- Open the license file with PrepareAdvanced 729 - implement an own error handling. Error 1024 (copy protection violation) should allow to type in an Activation Key to switch copy protection type. Use SecurityLevel 110 and PrepareForce 738 to open the file and ShowLicViewer 800 or an own user interface 505 to provide the necessary information
- Now test the main module with ValidateEX 820 or ValidatesYes 945

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- If the status *Activation* is **none** (0) then the software **is not activated yet**. Retrieve the activation status with GetWebActivation 717

To activate the copy protection:

- Retrieve the installation code you want to use with GetInstCode 684
- Activate the copy protection with SetVal, Token ICO 711 - set it to the value you retrieved with GetInstCode
- Set the Activation to done with SetVal, Token WST 711 = 2

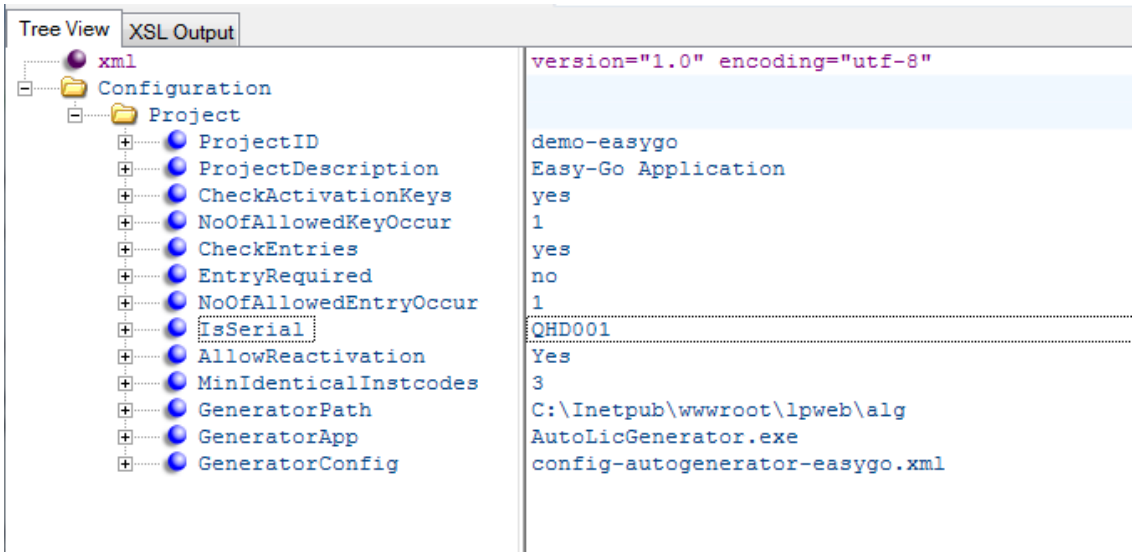
14.7.6 Activation without copy protection

If you want to make an online product activation using a Serial Number, but you don't want to activate copy protection, the Activation Server 6 files have to be modified as follows.

Configuration files for Activation Server

project.config file

In the project.config file, **remove** the parameter <InstCodeTypex>. Find a typical configuration file sample below



Workflow configuration file

In the workflow configuration file, set the parameter <CreateCopyProtectionKey> to **no.**

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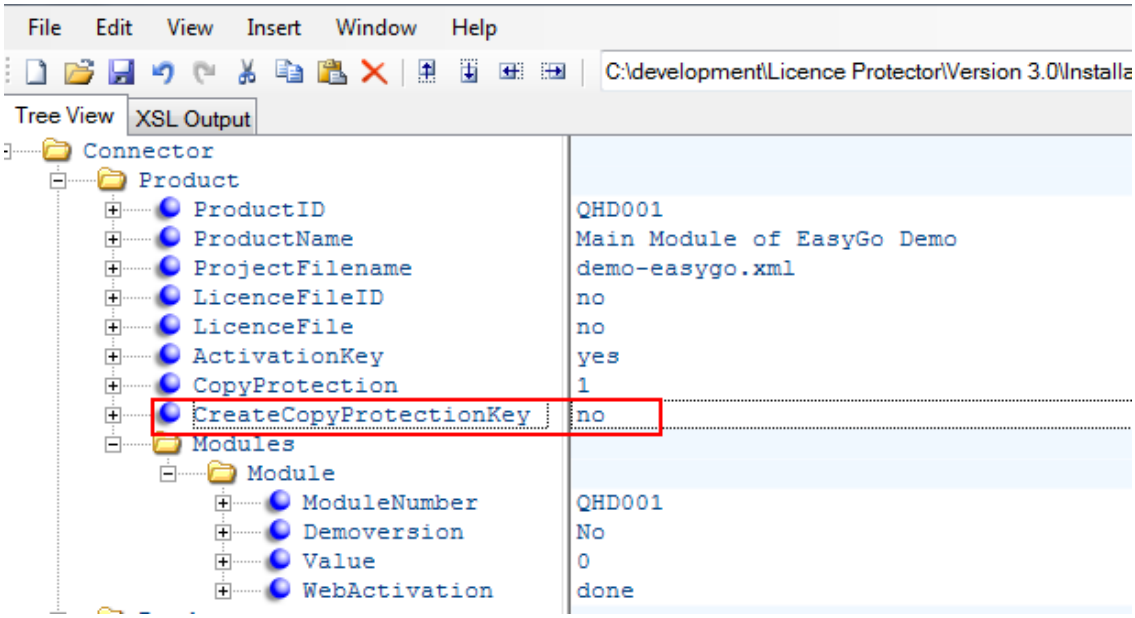

If the product activation is done by E-mail, fax or phone, the Unlock Key must have the following values

- Create Unlock Key without Copy Protection using License Generator

See details: Unlock Key without Copy Protection 330

14.8 How TOs and FAQ

This chapter introduces **F**requently **A**sked **Q**uestions as well as tips and tricks.

Click on the + sign on the left side to get a complete list.

14.8.1 How can I print this Tutorial

Print this tutorial

The Online Tutorial is also available as a PDF document.

You can print this tutorial - click on the link to download PDF file

14.8.2 Activation Server - How TOs and FAQ

The Activation Server 6 FAQ can be found in an own Tutorial

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Activation Server 6 FAQ

14.8.3 How do I activate Licence Protector 5?

See chapter - How to activate Licence Protector 5 27

14.8.4 How can I retrieve the Serial Number from the Licence File?

Use the command: GetSerial 709

The command SetRegisterSerialNo 776 would display this Serial Number as a default value in the activation dialogues when using the PrepareAndCheck 162 command

14.8.5 How can I analyze an Activation Key?

All Activation Keys have the same format 300 and you cannot even guess, which settings a key would change.

The License Generator allows to analyse an Activation Key. Either select the icon in the title bar or in the Tab **Keys.**

The clipboard content is automatically inserted. Press the button *Analyze Key*. You get a complete list of all the settings of the Activation Key.

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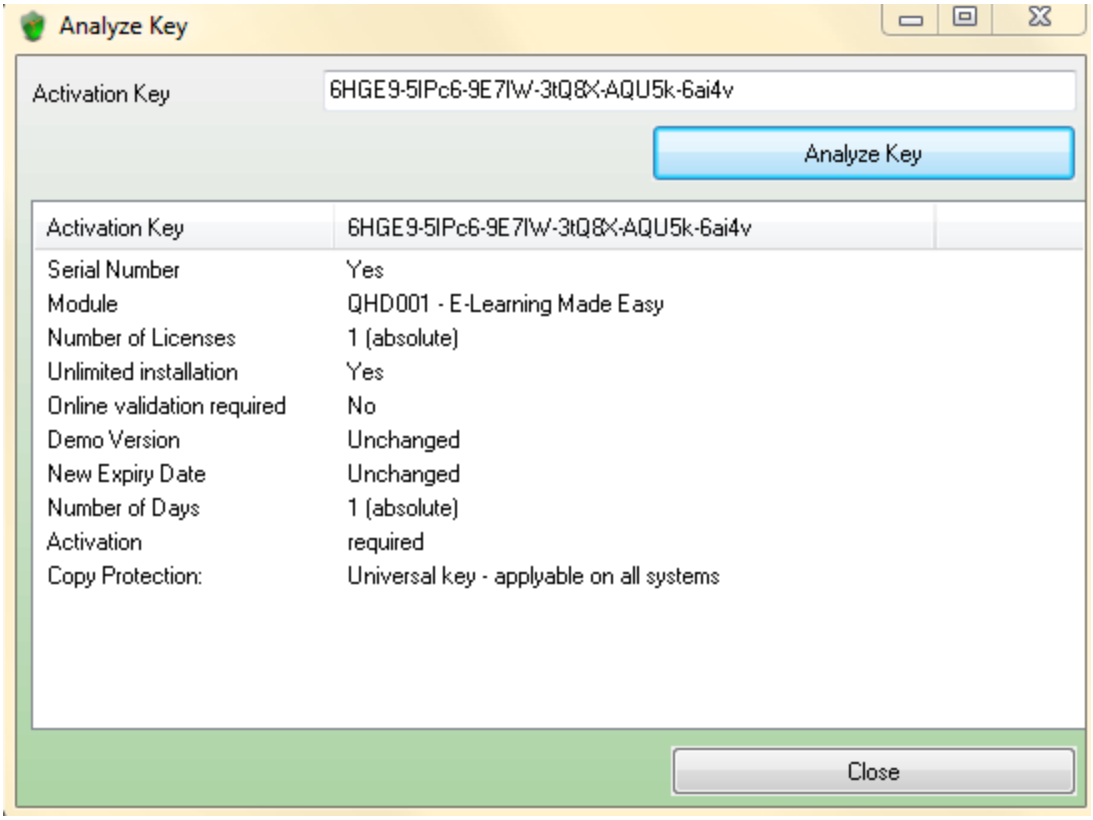

14.8.6 How can I test a Release Number?

You can store the release information of your application within the license file in the field version 377. The field is defined in the project file with AppVersion 186.

The value can be retrieved with the DLL command AppVersion 647.

Now you just have to code, that your exe file runs only, when a specific release number is in the license file –e.g. the program release 3.06 would only start when the module *Release* has the value 3060. This ensures that a customer can not download the latest release from the Internet and then copy his license file to the installation directory. The new program would not run with the old license file. The value can be modified with the command AppVersion 647.

Combine this test with an Update Subscription 148 module.

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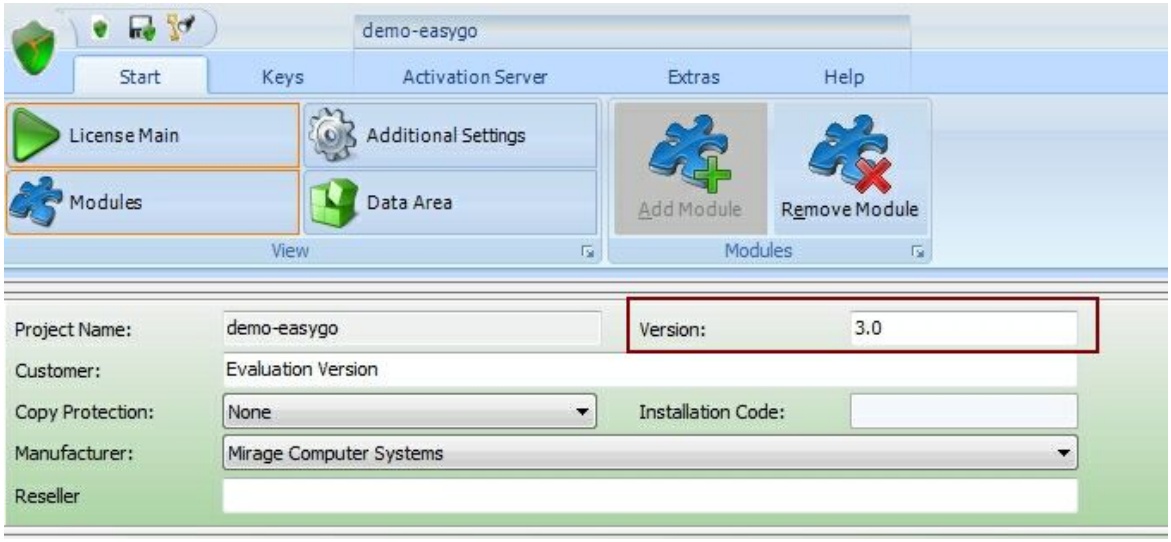
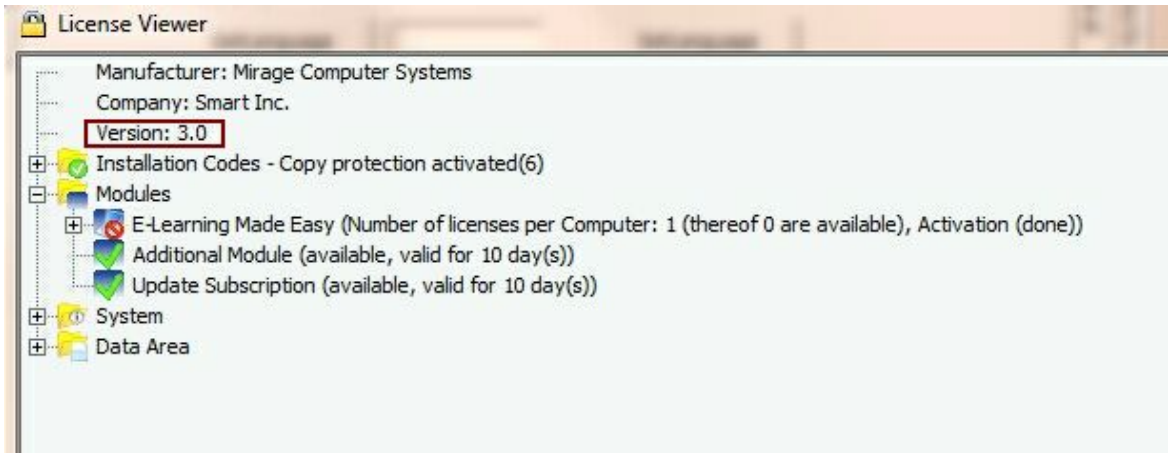
Change Version information in the License Generator



Version information in the License Viewer



Version information on the Activation Server 6

The version information is sent with every product activation to the Activation Server 6.

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14.8.7 How do I create a new project file?

For every software package you want to protect, you create an own project file. For details see Project Template 182.

14.8.8 Where do I find sample source code?

You find samples source code in the FAQ area on our website.

As the sample source code is not updated with every release, **you have to change the name of the Licence Protector DLL and the ProgID**. For details see Add the LicProtector 76 510.dll to your project 76.

For some compilers additional information, how to integrate the DLL, is provided:

- Authorware / Director 80
- Access Basic 80
- Using C++ 80
- Using C# 83
- Delphi 84
- Java 84
- PHP 85
- VB6 86
- VB.NET 87

14.8.9 How can I create an Activation Key manually?

An Activation Key can be generated within the License Generator or using the Web Administration Interface 339.

Open your project template and select a module. Each Activation Key is **module specific**. It is not possible to create an Activation Key which modifies multiple modules. **Double-Click on the column Activation Key**.

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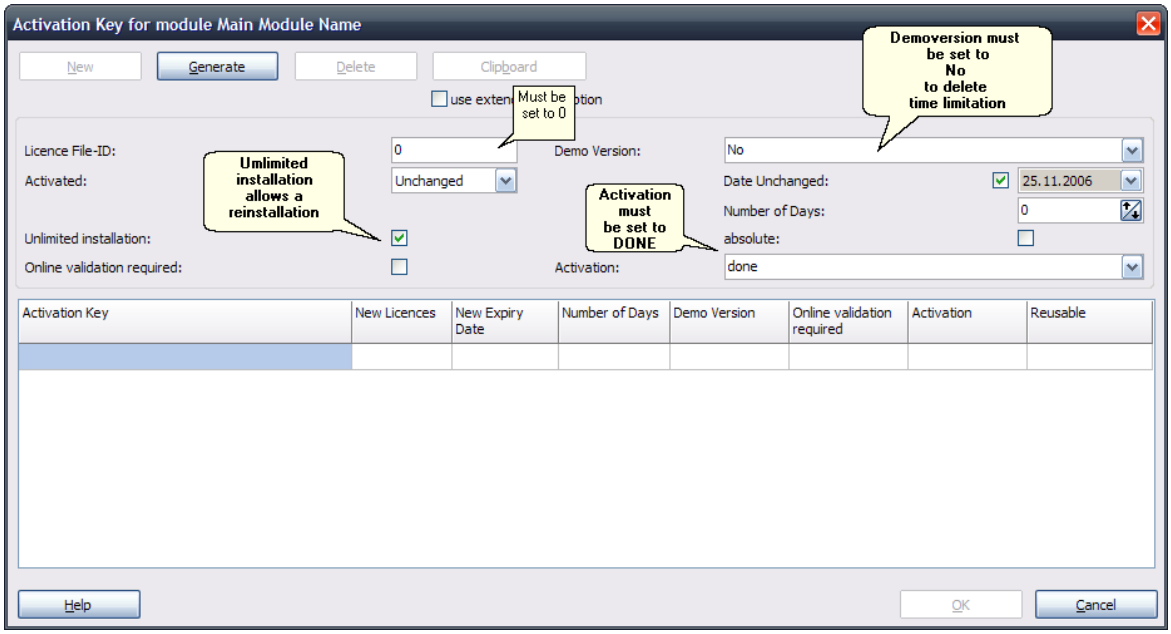
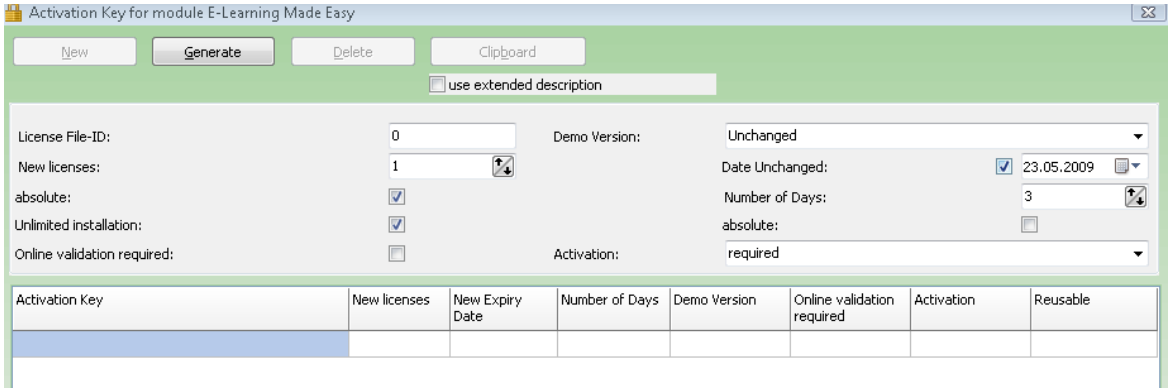


A new screen opens, press **New**, select the values and press **Generate**.



See also

Detail information about Activation Keys 389

14.8.10 How do I generate a keylist?

To create Serial Numbers in a batch process see Create a key list with Serial Numbers 308.

To create any other types of Activation Keys see Automatic License Generator 464 documentation.

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14.8.11 How do I create an Unlock Key?

You find all options to create an Unlock Key in the chapter Unlock Key 320.

14.8.12 How to create multiple keys for one product?

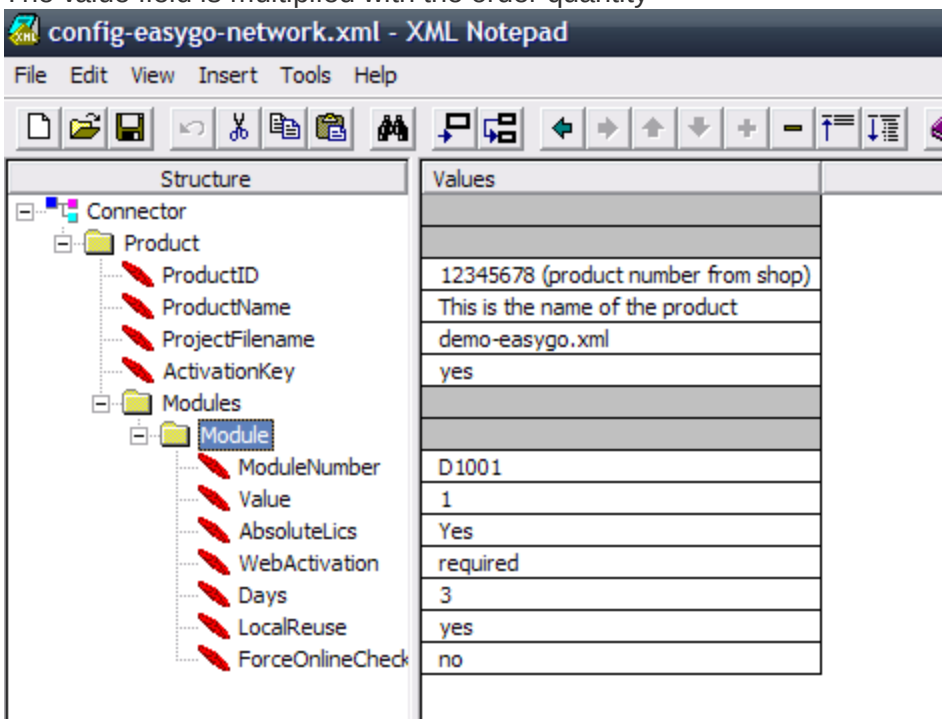
Licence Protector allows to create multiple keys for one product of an order.

Situation A

Network license and the quantity in the order is 5. By default **one** Activation Key with **value = 5** (user / PC / concurrent) is generated.

- Configuration file for network license

  The value field is multiplied with the order quantity



Situation B

Single user license and the quantity in the order is 5. You can specify with the parameter <CreateMultipleKeys> that **five** Activation Keys with **value = 1** are generated.

- Configuration file for multiple keys

  The order quantity is used for the number of keys to generate. <FixedValue> has to be set to **No** (default value). If you have a Yes/No module then <FixedValue> is not necessary.

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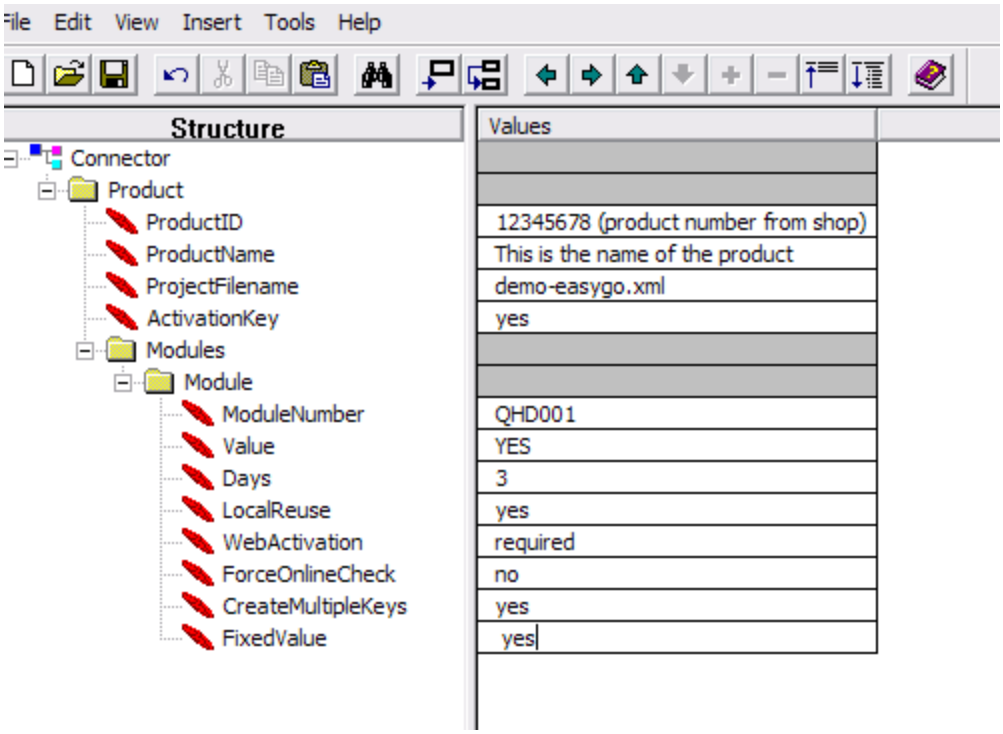

14.8.13 When does time limitation start?

Time limitation starts not with installing the program or with opening the license file - it starts with the **first usage** of the Validate 818 / PrepareAndCheck 162 call for a module.

This allows to start the time limitation for each module separately. Example:

You have 2 modules. Both modules have a trial period of 30 days.

If module A is first used on 01.01.2007, then module A expires at 30.1.2007. If module B is first used on 10.01.2007 then only module B expires at 10.02.2007.

If you want to start the trial period with the installation of the software, then invoke the application after installation and use the validate command for all modules.

14.8.14 How can I create my own userinterface?

Licence Protector 5 supports with EasyGo a workflow which will suit most requirements. However, there are scenarios which make sense to deliver a license file, a file and activation keys or use a custom made user interface. For details see - Different Workflows - custom-made User Interface 506.

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14.8.15 How to unlock the System Date Lock?

If the system date was tampered and the check for system date modification 112 was enabled using CheckSysdateChanged 112 or SysdateChanged 809 you can use **any Activation Key** to unlock the version - e.g. a key which sets Demoversion to true or a key without any settings.

Before the activation key is applied the user has to turn back the date to today's date. The activation key resets the internal date check using this date as the new date to start testing again.

14.8.16 How can I modify the Licence File ID?

The license file ID is a counter which is increased every time a new license file is created. The counter is stored in the project template in the field <NextLicFileKey 192>.

If you use the project files in different locations, use per location a different range of values.

Example:

- 10000 - 190000 for location 1
- 20000 - 209000 for location 2

As the license file ID is also used to track time limitation 68 on a PC, just make a new license file for a new release to allow that a user can test the application again.

You can retrieve the license file ID with GetLicFileID 701.

14.8.17 Which files do I have to distrubute?

You find all information about distribution in the chapter *Installation and Distribution issues* 349.

14.8.18 Which files do I have to copy to the Web Activation Server?

Enter topic text here.

14.8.19 How to edit an XML file

A lot of configuration files (e.g. the file for the project template 182) are in xml format. You can edit this file using any editor like notepad or Word. As an alternative, there is a nice freeware tool for xml files, which you can download here.

http://www.snapfiles.com/get/xmlnotepad.html

Start the XML notepad and select *File*, *Open*. You then see the XML file content, which is structured. The content can be easily modified and saved.

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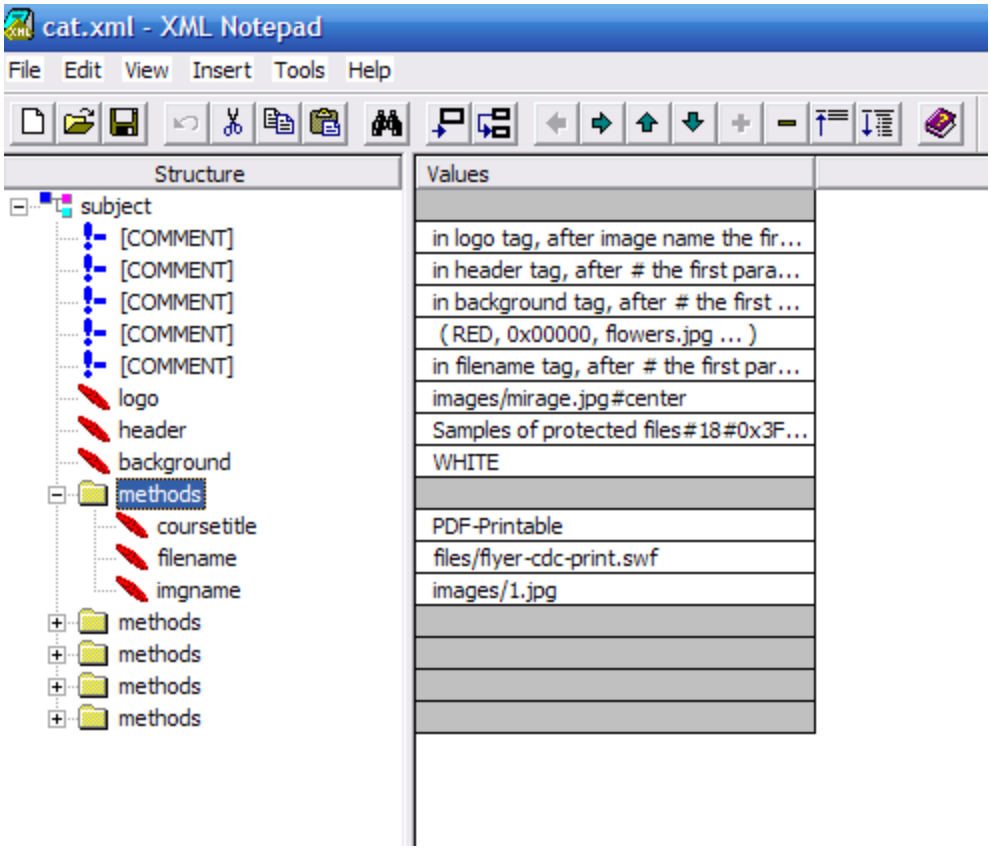

14.8.20 Where can I buy Licence Protector?

Select your Version

Standard, *Basic* or *Professional Edition*? Check out the feature comparison matrix which version is right for you.

Buy Serial Number

You can buy Licence Protector 5 online and instantly use it. Buy Licence Protector 5.

After the order process you get a license file and a download link. See How to activate Licence Protector 5 516 how to unlock the trial version.

14.8.21 How TOs - Activation Server related

The Activation Server 6 FAQ can be found in an own Tutorial

Activation Server 6 FAQ

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14.8.22 How can I secure flash, PPT, PDF, Word, Audio, Video files?

To secure these types of files you need **All-In-One Protector**.

www.AllInOne-Protector.com

14.8.23 How can I secure EXE files - I don't have the source code.

If you do not have the source code of an application or a DLL cannot be used, it is not possible to use Licence Protector 5 - use instead **All-In-One Protector**. It allows similar license and product activation options without the need to develop or change source code.

www.AllInOne-Protector.com

14.8.24 How do I uninstall Licence Protector 5

To uninstall Licence Protector 5

- Select Start, Control Panel
- Add/Remove Programs

Search for Licence Protector 5.1 and select Remove.

14.8.25 I found no answer for my questions

If you did not find an answer for your questions in the tutorial search in the extensive Online Knowledge Base.

Browse Online Knowledge Base

14.9 License File upload/download

Licence Protector 5 offers multiple options how to deliver license. A very interesting option is to deliver only one ID to the customer, upload the complete license file on the Activation Server 6 and then synchronize the data to the local PC / network.

- User does not have to type in Activation Keys - this simplifies the license handling
- Unlock with one ID a complete license file with any number of modules

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- User can synchronize the latest license information
- Online Backup of the license file. A lost license can always be restored
- Any type of ID (like customer ID, invoice number) can be used for the download

- Workflow relies on **online** connection
- License information have to be updated manually. An automated update using from an order using an e-commerce provider is not possible

Find below a description about a few possible workflows:

- Deliver via license file download using EasyGo 526
- Deliver via license file download using own screens 532
- Online backup of the license file 541

14.9.1 Deliver via license file download using EasyGo

To deliver a license file via download, the following steps are necessary:

- Create a license file with the License Generator and upload this file to the Activation Server 6
- User gets a Serial Number 301 which he can use to download his license
- The product activation downloads the license file
- When additional modules or licenses are bought, the license is manually updated on the Activation Server 6
- User downloads updated license information

Create a license file and upload it

Load your project and configure all the license options the customer ordered. You can either create the license file with the License Generator or just copy an existing license file on the Activation Server 6.

Create a default license file, upload it with the Generator and then always copy this default license file on the Activation Server 6.

- Create license file with the License Generator and upload it to the Activation Server 6

  Fill in the customer details. The following settings are important.

  - Type in the customer name
  - Copy Protection = **none**
  - Set all modules to the values the customer has bought

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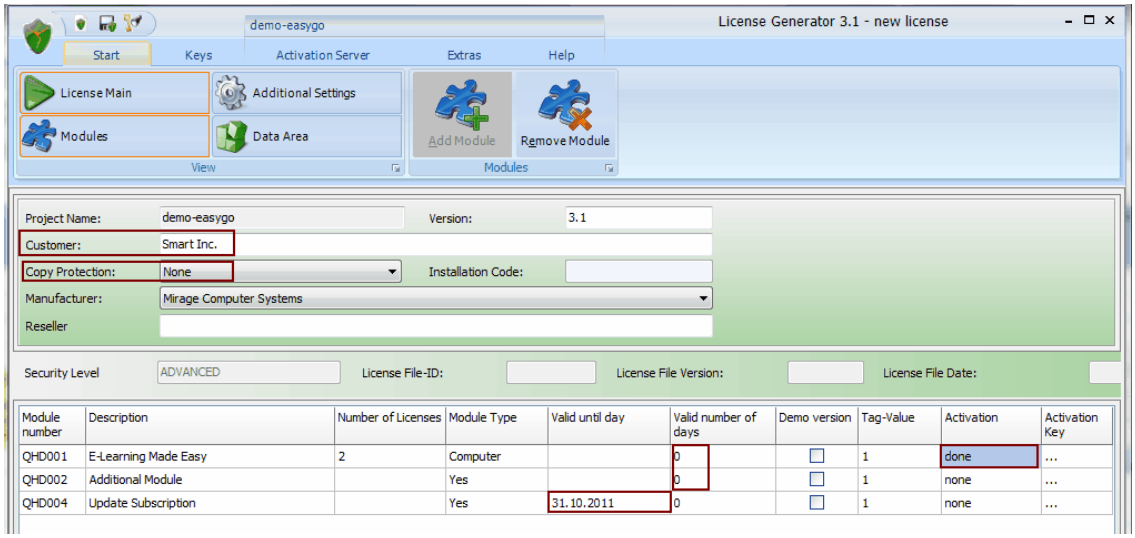
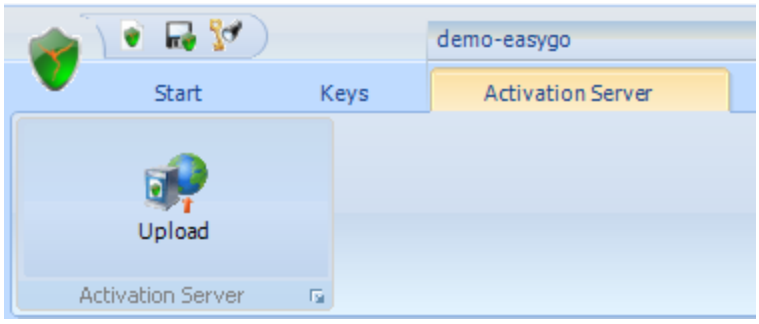
- Define time limitations only if the full version should expire after x days or if a module should expire at a specific date (example below - update subscription)
- For the **main module** set Status of Activation to **done**



Save the license file on a temporary folder (this step is mandatory).

- Create a Serial Number 301. You could alternatively use any ID which must just be a unique ID like order number or customer number (see use own IDs for product activation 179) . A Serial Number ensures, that the ID is unique. The users gets this ID to identify his license on the server

Select the TAB Activation Server and click on the **Upload** Server option.



This opens a new window, where you can fill out additional license file details.

- The field ***Encryption Code*** is like a password. It ensure that nobody else with knowledge of your Activation Server 6 structure can download a file. We strongly recommend using it
- File description is the name of the license file on the Activation Server 6. If this file description is empty, the name is *default*.
- You have to use the ***module ID*** of the main module
- Use the Serial Number or ID to identify the license

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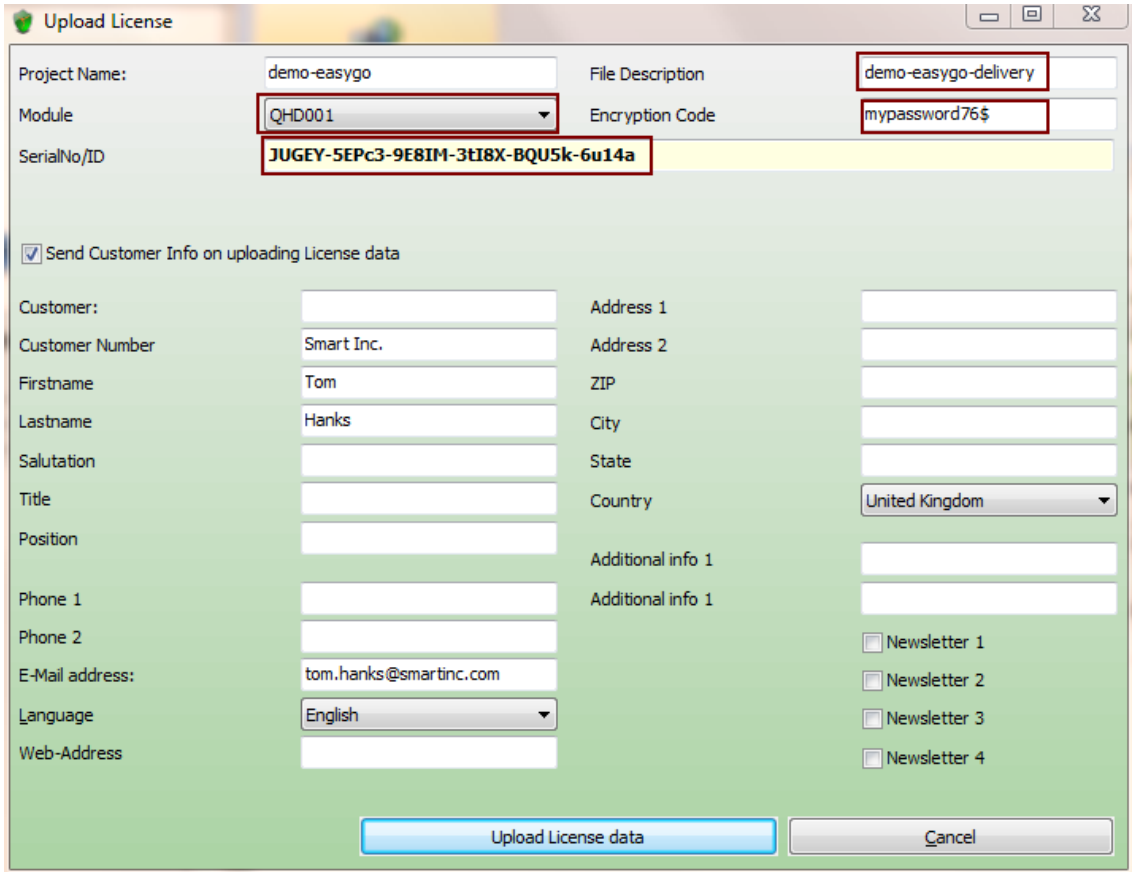
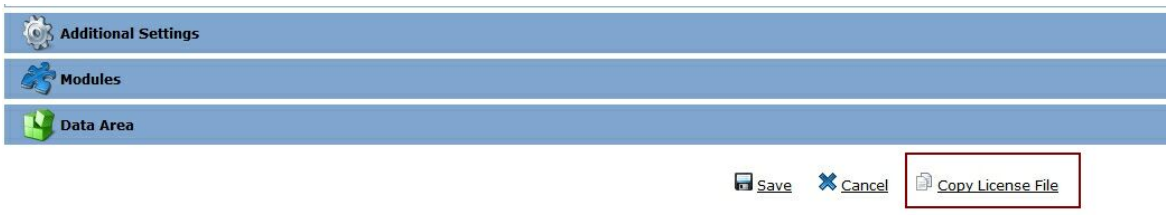
- The *Send Customer Info* option creates a record in the address table and assigns the address to this license



Copy a license file on the Activation Server 6

To copy an **existing** license file, select a license file from another customer or your default file and then click on the option: **Copy License File**



You then specify the **Serial Number / ID,** which will be used to download the license file.

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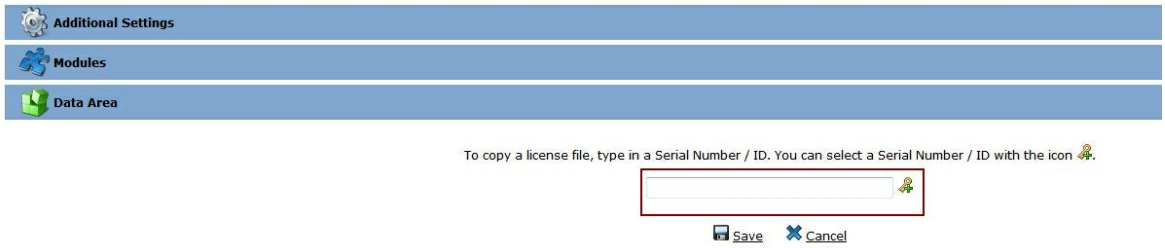

User activates the software

Use the EasyGo commands (function reference EasyGo 104). You must use SetRegisterLictransfer 114 with the following options:

- *TransferLicence* = **true** - this option activates the license file download
- *File Description* must have the same value like used in the screen to upload the license file
- *Encryption Code* must have the same value like used in the screen to upload the license file

The activation option should be restricted to **online** - SetRegisterSettings 116

- As the license file is modified after the download (e.g. copy protection is turned on), a good idea is to upload it. The command GetActionsOfLastPrepareAndCheck 673 provides the 'event', when the activation was done. Use UploadLic 814 to upload the file

If a Serial Number / ID is used, which was not previously uploaded to the Activation Server 6 and assigned to a license file, the default (=demo license) file is activated but all the customer specific modules would not be available

Modify the license file - add or change licenses

If the user buys additional modules or more network licenses, you change the license information on the Activation Server 6.

Click here for details

- Select TAB, *Manage Activations* and then ***Key List***
- Click on the ID you uploaded

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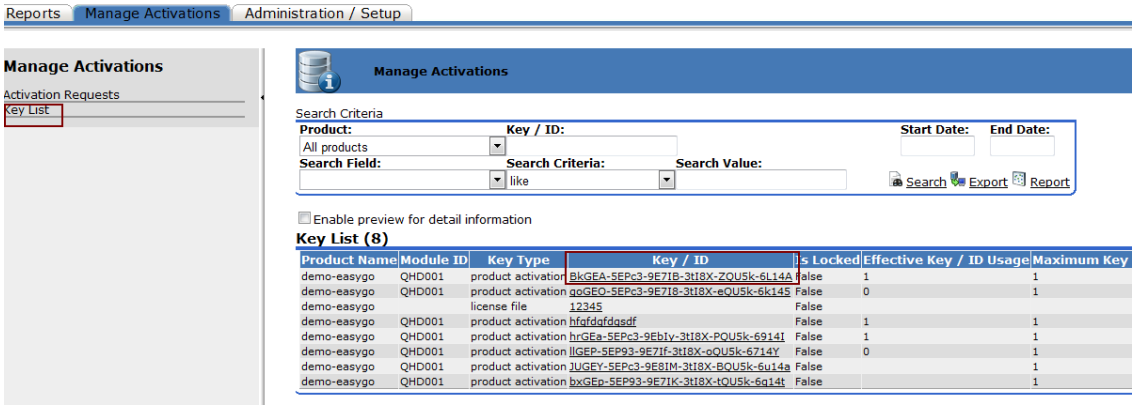
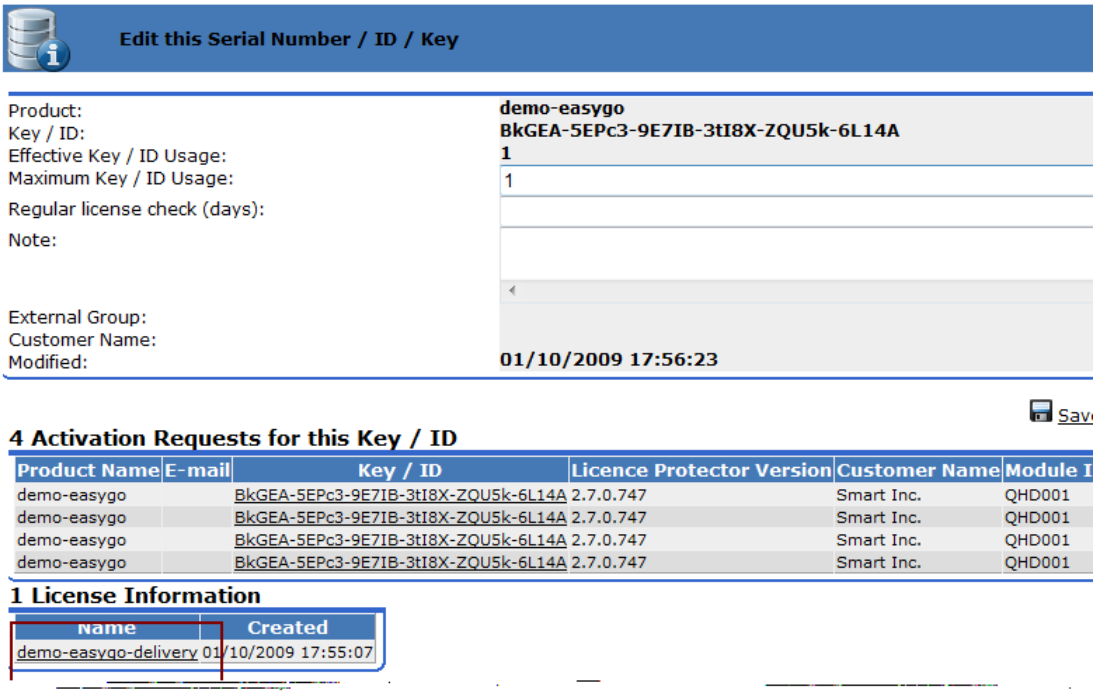


You get a new window



Now select your license file and edit the values.

User updates license information

Provide a menu option: *Update my license*

Use the following code sequence:

- Read the Serial Number using GetSerial 709
- Now update the license information using DownloadWholeLic 667

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This will download the latest license file information from the Activation Server 6

You can also offer an option to upload the license file using UploadLic 814.

Configuration settings on the Activation Server 6

The following values in the project.config file on the Activation Server 6 are important for the license file upload:

Configuration settings on the Activation Server 6

The following values in the project.config file on the Activation Server 6 are important for the license file upload.

You can configure these options using *Administration / Setup*, **Product configuration**

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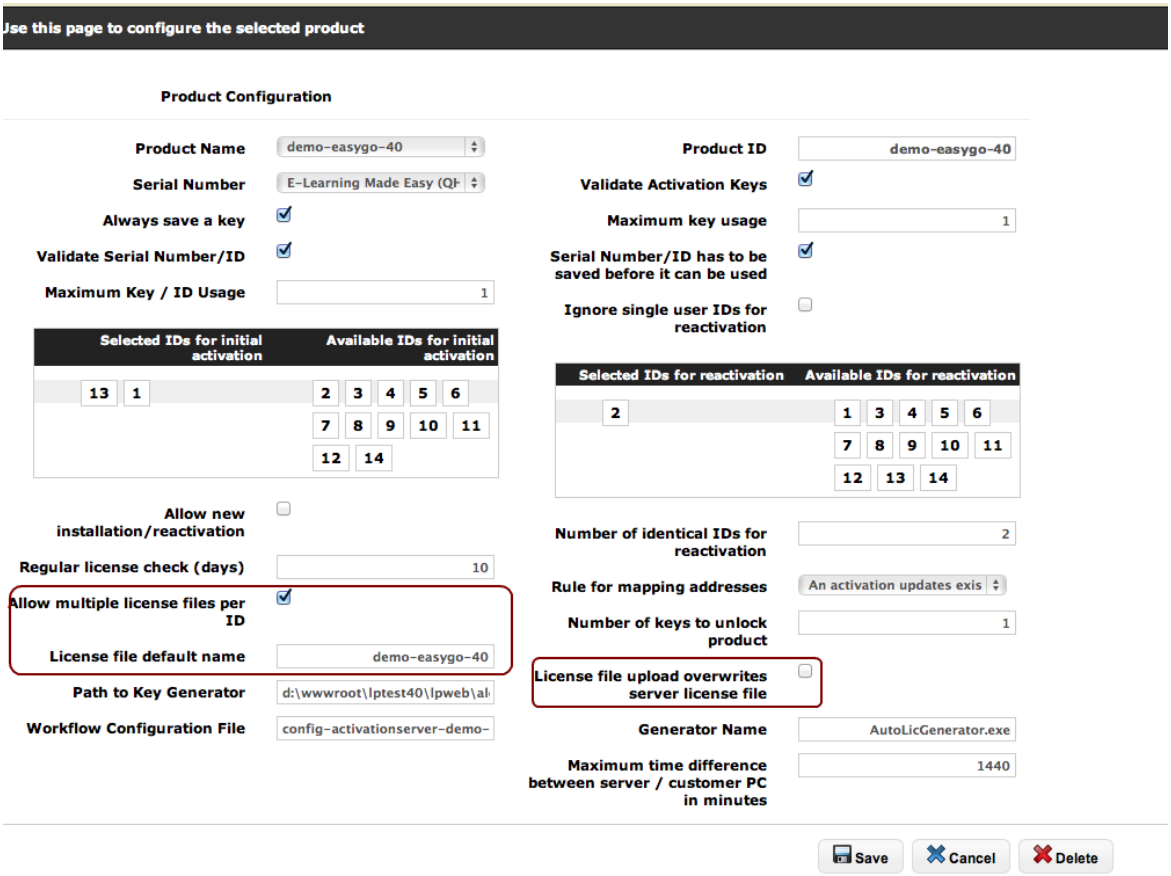

There are additional options for for the license file

- Allow multiple license files per ID - MultipleLVS
- License file default name - LvsDefaultName
- License file upload overwrites server license file - LvsOverwriteServerChanges

14.9.2 Deliver via license file download using own screens

To deliver a license file via download, the following steps are necessary:

- Create a license file with the License Generator and upload this file to the Activation Server 6
- User gets a unique ID which he can use to download his license. This can be a customer number, invoice number or just a Serial Number
- User downloads his license using the unique ID
- When additional modules or licenses are bought, the license is manually updated on the Activation Server 6
- User downloads updated license information

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Template demo-easygo-fileupload.xml template

You find a new template on the folder ..\Licence Protector\3.0\EasyGo.
Ensure that you have set the property - Activation Status after product activation 198 - in your project file.

Use this template for all your tests.

Create a license file and upload it

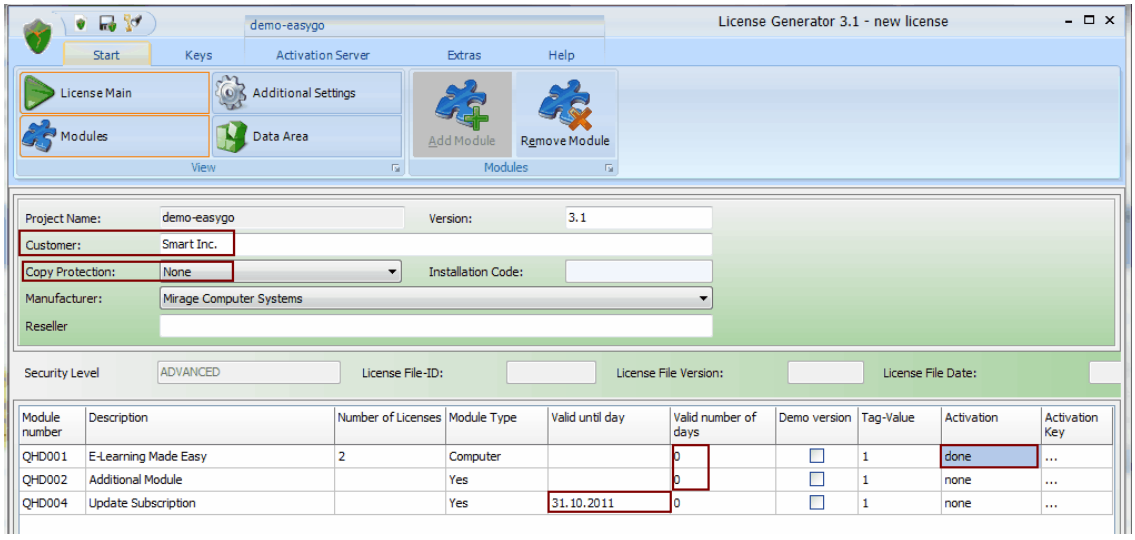
Load your project and configure all the license options the customer ordered.

Create a default license file, upload it with the Generator and then always copy this default license file on the Activation Server 6. You can either create the license file with the License Generator or just copy an existing license file on the Activation Server 6.

- Create license file with the License Generator and upload it to the Activation Server 6

  Fill in the customer details. The following settings are important.

  - Type in the customer name
  - Copy Protection = **none**
  - Set all modules to the values the customer has bought
  - Define time limitations only if the full version should expire after x days or if a module should expire at a specific date (example below - update subscription)
  - For the **main module** set Status of Activation to **done**



  Save the license file on a temporary folder (this step is mandatory).

  Select the TAB Activation Server and click on the **Upload** Server option.

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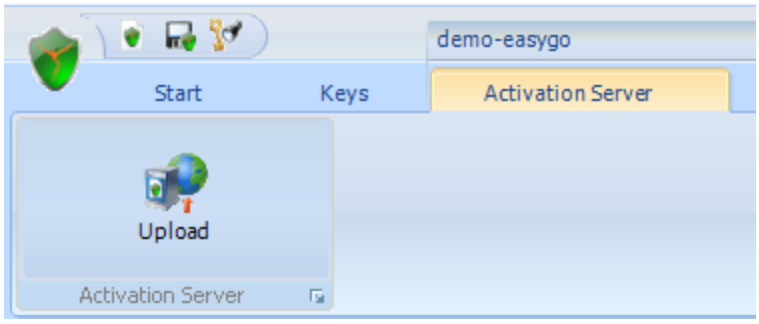

This opens a new window, where you can fill out additional license file details.

- The field ***Encryption Code*** is like a password. It ensure that nobody else with knowledge of your Activation Server 6 structure can download a file. We strongly recommend using it
- File description is the name of the license file on the Activation Server 6. If this file description is empty, the name is *default*.
- You have to use the ***module ID*** of the main module
- The ***SerialNo/ID*** must just be a unique ID like order number, customer number or a Serial Number. A Serial Number just ensures, that the ID is unique but has no other purpose. It does not change the license file settings, e.g. modify number of network users. The users gets this ID to identify his license on the server
- The *Send Customer Info* creates a record in the address table and assigns the address to this license

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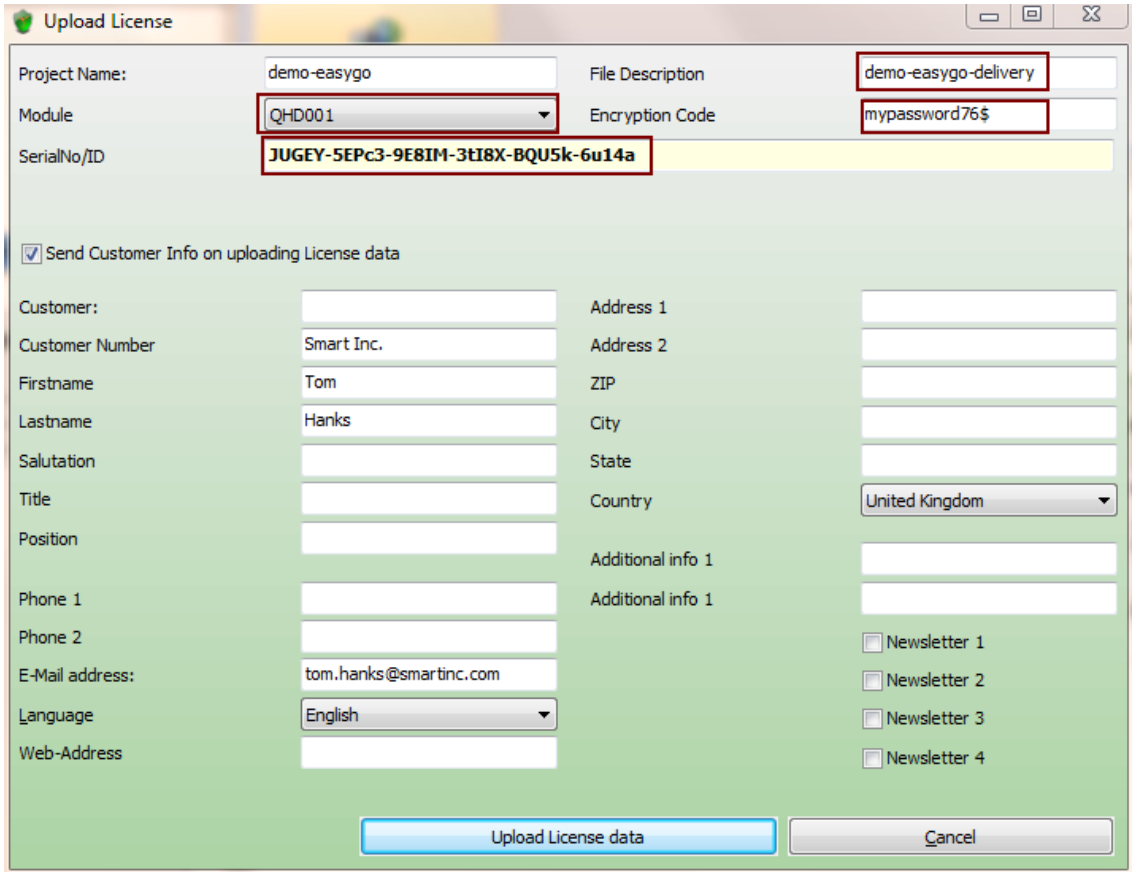
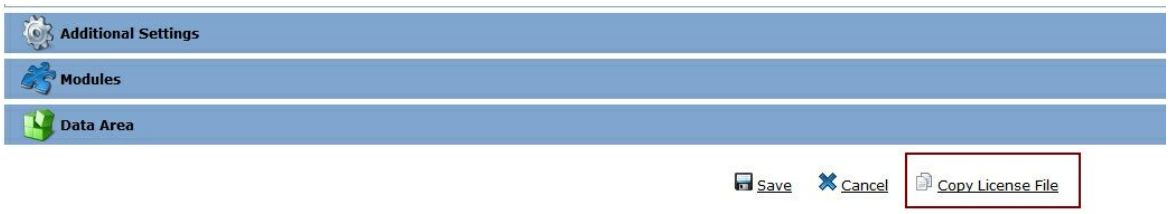


Copy a license file on the Activation Server 6

To copy an **existing** license file, select a license file from another customer or your default file and then click on the option: **Copy License File**



You then specify the **Serial Number / ID,** which will be used to download the license file.

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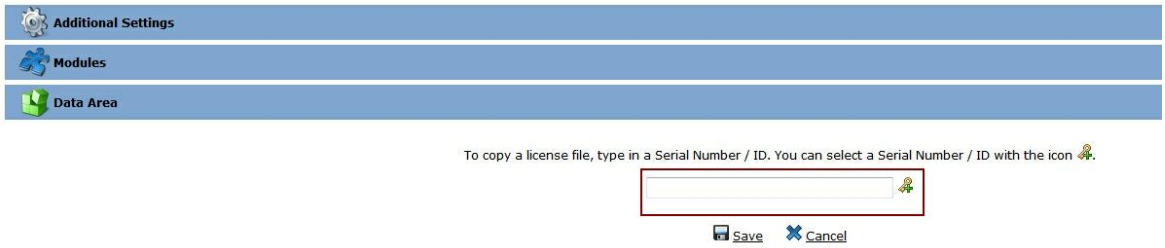

User downloads the license and activates the product

The user can now download the license and activate the product, using the **unique ID**.

Provide a menu option: *Activate license* with a dialogue, where the user can type in his unique ID

- Open the license file on the local system with PrepareAdvanced 729
- To download the license file and activate the software use WebregisterExt 821. As ID use the unique ID / Serial Number the user typed in. As module ID use the module ID of your main module. Set the parameter *RequestLicData* to **true** to ensure, that the license file is downloaded. This command will **always** connect to the Activation Server 6, **download** the license file (if specified) and **activate** the product.

  For activation, the workflow rule defined on the Activation Server 6 is used - see Project.config file
- Use SendCustomerInfo 753 to send customer address information. The parameter ID / Serial Number must contain the Serial Number to link it with the customer address data
- To save the unique ID / Serial Number in the license file use SetVal 711 ("module ID", 'SNR', your ID / Serial Number)
- Save the customer name in the license file using SetVal 711 ("", 'CST', customer name)
- Now make a **backup** of the license file. Use UploadLic 814 to make a backup of the activated license file

Regular application start

When your application starts, always use the following code sequence to make the basic license check:

- SetLanguage 108 - define language for all screens and error messages. Necessary even if you use own screens
- Open the license file with PrepareAdvanced 729 - implement an own error handling. Error 1024 (copy protection violation) should allow to type in an Activation Key to switch copy protection type. Use SecurityLevel 110 and PrepareForce 738 to open the file and ShowLicViewer 800 or an own user interface 505 to provide the necessary information
- **Test if the license was deactivated or a regular online** check is necessary using CheckModuleSubscription 654. This would only initiate an online check in case the license was locked, transferred or if a regular online check is due

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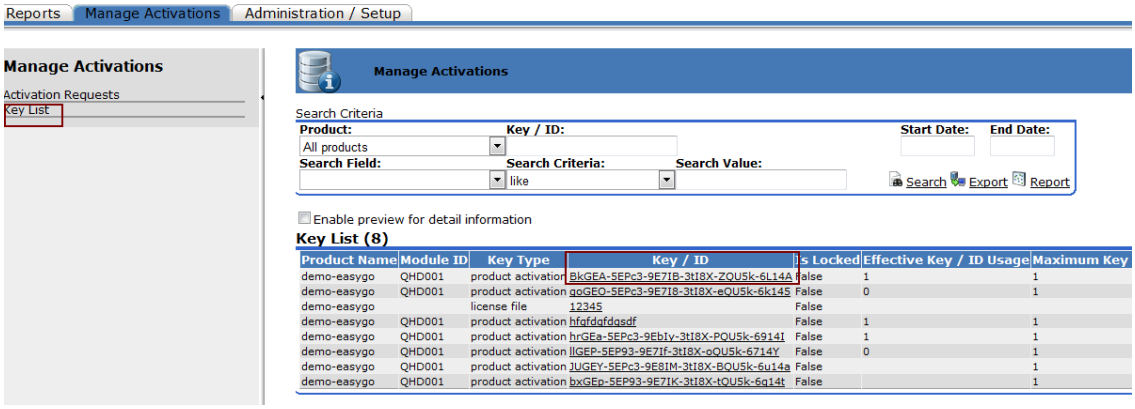
- Now test the main module with ValidateEX 820 or ValidatesYes 945 and check for time limitation with RemainingDays 743 an/or ExpiredOn 672
- Use GetWebActivation 717 to find out if the module is activated or not
- If the module is expired display a screen - Evaluation Period Expired 253
- Provide an Own License Viewer 505 to allow the user to view his license information,
- To display errors, you could use ShowStartErrorPage 802, which would also cover to view the license and apply keys. You can retrieve a language specific error message with GetErrorMessage 683 for your own dialogs
- Use Quit 179 at the end of the application

Modify the license file - add or change licenses

If the user buys additional modules or more network licenses, you change the license information on the Activation Server 6.

Click here for details

- Select TAB, *Manage Activations* and then ***Key List***
- Click on the ID you uploaded



You get a new window

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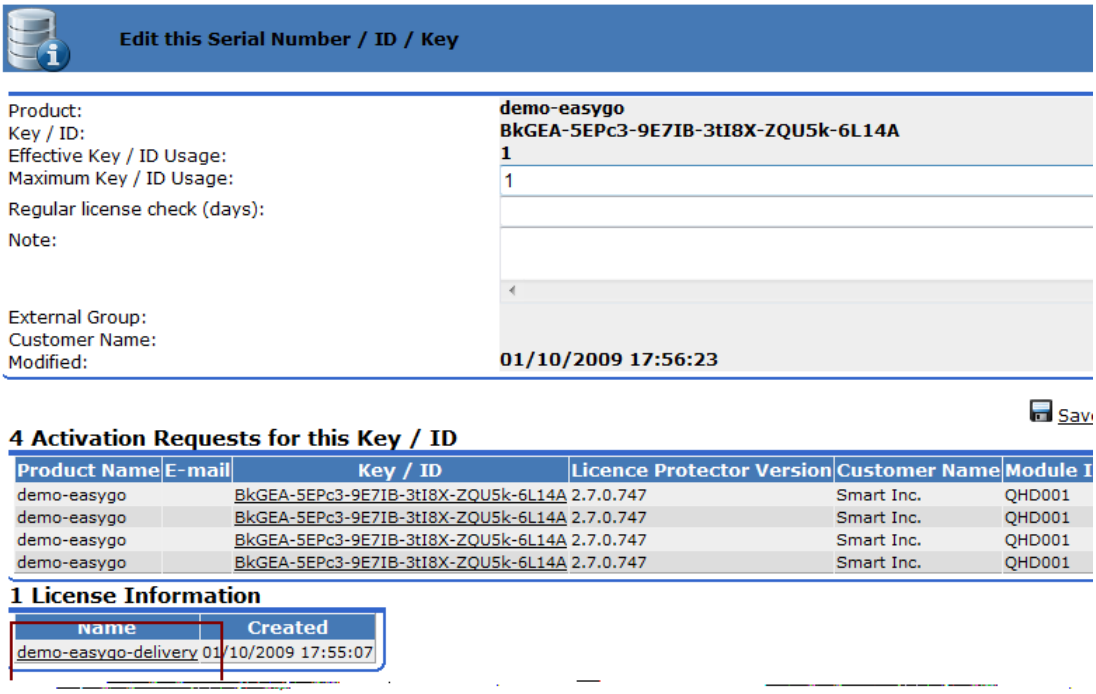

Now select your license file and edit the values.

User updates license information

Provide a menu option: *Update my license*

Use the following code sequence:

- PrepareAdvanced to open the license file
- Read the unique ID / Serial Number using GetSerial 709
- Now update the license information using CheckModuleSubscription 654. Set *ForceOnlineCheck* to **true** (will connect to the Activation Server 6) and also set the parameter *RequestLicData* to **true** to ensure, that the license file is **downloaded**

This will download the latest license file information from the Activation Server 6

Transfer a license

You can transfer a complete **license file** to another PC.

Provide a menu option: *Transfer my license*

Use the following code sequence:

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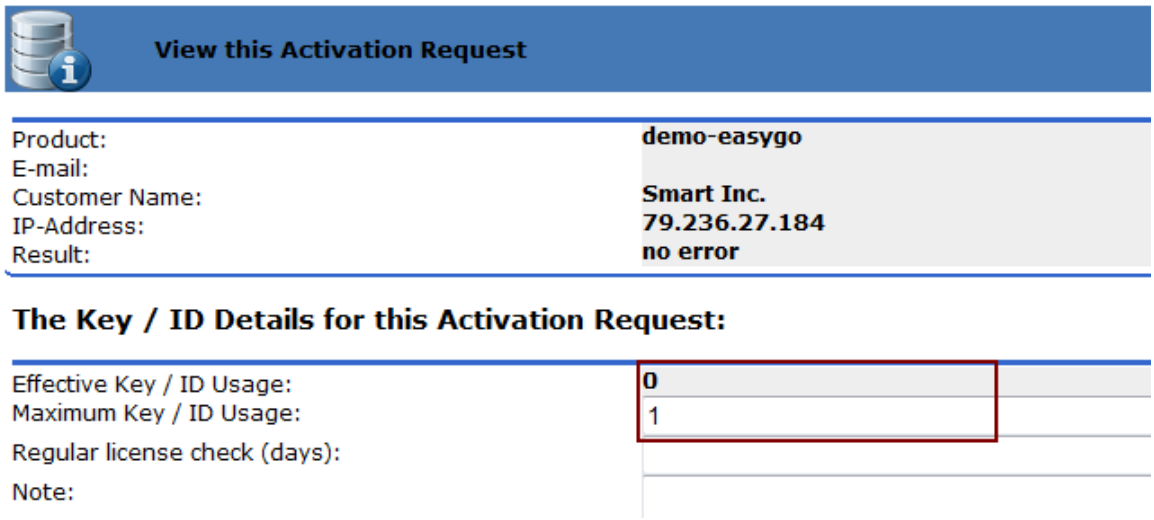
- PrepareAdvanced to open the license file
- Read the unique ID / Serial Number using GetSerial 709
- Use DeactivateModule 661 and the main module ID to deactivate the license on the Activation Server 6. Set the parameter *SendLicData* to **true** to ensure, that the latest license file is uploaded to the activation server. The field Effective Key / ID usage is now set to **0** so that the unique ID can be used on another PC



- If the user would restart the application on this PC, the command CheckModuleSubscription 654 would make an online check and reassign the license to this PC again

Use license on another PC

The user can now install the product on another PC and activate the license again. See User downloads the license and activates the product 536

Using multiple license files for one ID

The concept supports saving **multiple license files** for the **same** unique ID. This allows you to save backups. A good idea is to use always the same names.

Example

- The original file name of the delivery - store it with the project name and extension: **delivery** - e.g. demo-easygo-delivery
- A backup file - store it with the project name and extension: **backup** - e.g. demo-easygo-backup

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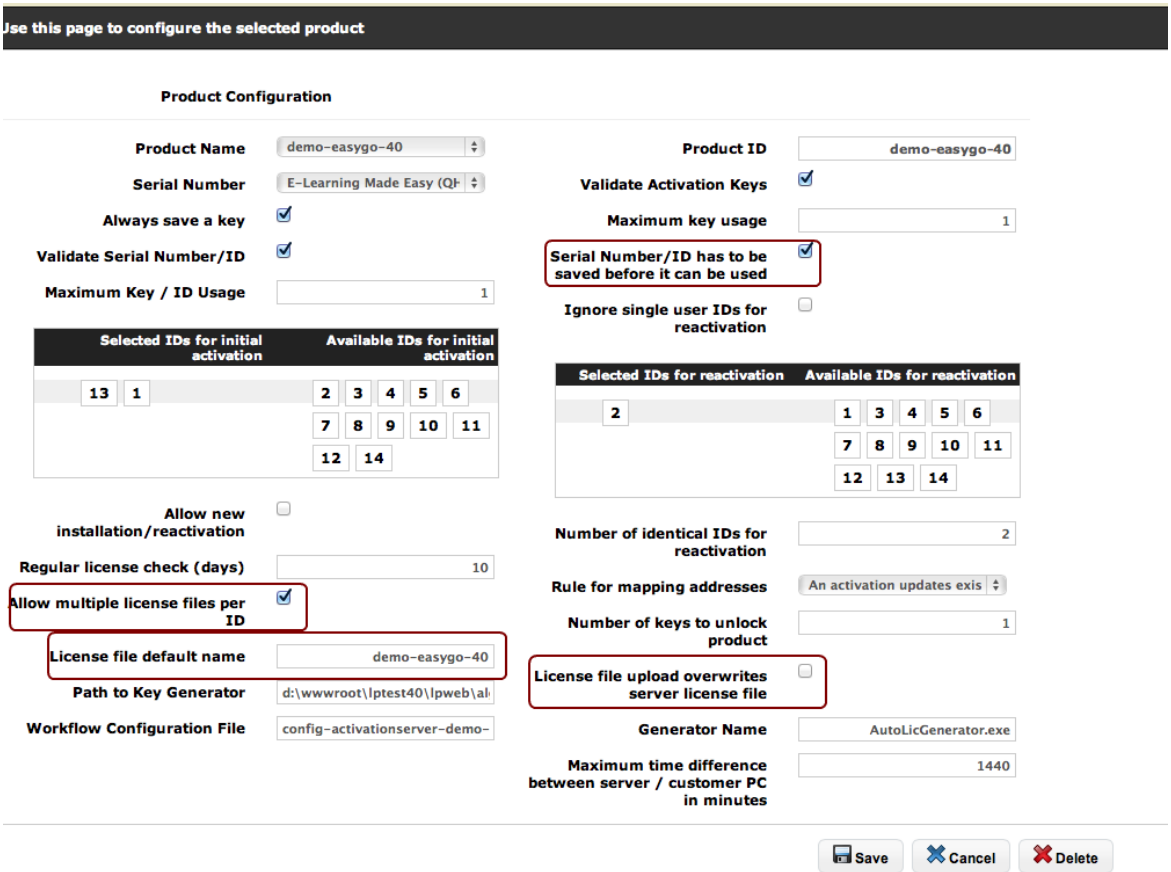
Configuration settings on the Activation Server 6

The following values in the project.config file on the Activation Server 6 are important for the license file upload:

The project.config file needs the configuration setting, that **only uploaded Keys / IDs are accepted**. This ensures, that the user cannot use a fake ID to download the file.

- EntryRequired=true

You can configure this option using *Administration / Setup*, **Product configuration**



There are additional options for for the license file

- Allow multiple license files per ID - MultipleLVS
- License file default name - LvsDefaultName
- License file upload overwrites server license file - LvsOverwriteServerChanges

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14.9.3 Online backup of license file

To make an online backup of the license file, just upload the license file after the product activation or offer a menu item with Upload and Download license file.

As you need a unique ID, you can either use the Serial Number or another ID you have stored in the customer system.

- To upload a license file use UploadLic 814
- To download a license file use DownloadWholeLic 667.

- A good idea is to upload a license file directly after an activation was done (see GetActionsOfLastPrepareAndCheck 673)
- You can suppress any screen message using ShowWAStartPage 806, ShowWAProgressPage 804 and ShowWAResultPage 805
- The date of the last successful file upload is displayed in the License Viewer 283

14.10 Lock or revoke a license / Regular Online checks / Subscriptions

It is possible to lock / revoke a license after the activation is done or check if a subscription 148 or maintenance contract is still valid. This feature requires the Activation Server 6. 448

There is an inbuilt command which **regularly checks**, if the license is still valid or not.

The workflow is as follows:

- Licence Protector 5 checks every x days online, if the license is still valid
- The license can be locked on the Activation Server 6
- The next online check detects that the license is locked and freezes the local license (error screen 265)
- The license can be unlocked on the the Activation Server 6 again
- The license could be activated again with a new Serial Number
- A final date to stop the license verification can be defined

A typical scenario would be to cover charge backs of credit cards. The license is checked e.g. every 30 days and the license check ends after 4 months.

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An individual online check 546 is also possible.

Implementation

- Configuration Settings 542
- Source Code Integration 543
- Lock a license on the Activation Server 545
- Individual Online Check 546
- Enable / Disable the license verification using a key 417

See also
Lock a license on the Activation Server 545
Individual Online Check 546

14.10.1 Configuration Settings

Using the feature for **regular online checks** requires special configuration settings in the license file and for the Activation Server 6.

Necessary settings for the project template

- **Enable** regular online checks with <ModuleVerification> 197 and <EndVerification>
- Set the grace period in the project template using <SubGraceDays> 197

Using API commands

Instead of setting default values using the project template you can also use API commands.

- Enable regular online checks with VerificationOfModule 716
- Set the grace period with the command SetSubGraceDays 790 or SetVal, Token SGD 711

Configuration on the Activation Server

The product configuration on the Activation Server 6 needs a special setting to define the interval of the regular online check.

Set the time period when online checks have to be performed with **Regular license checks (days)** - in the sample every 10 days an online check is done

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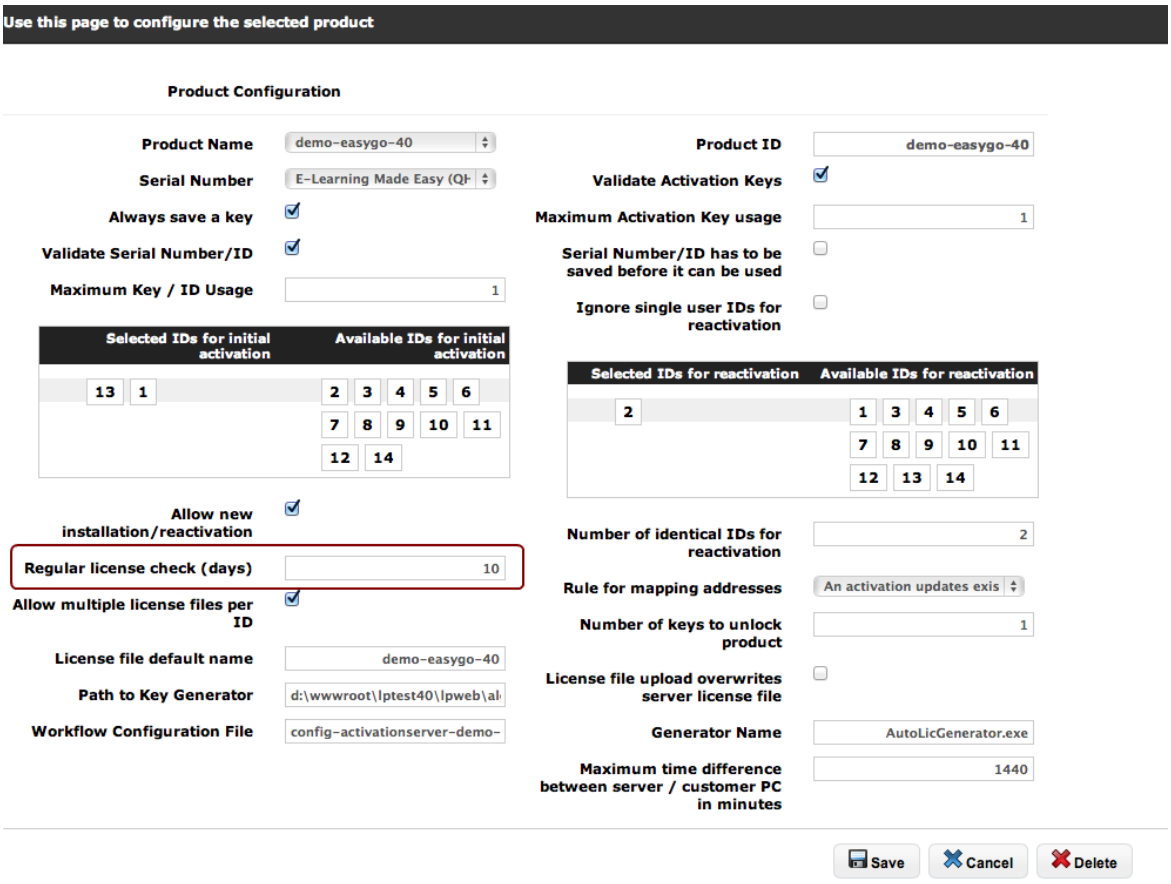
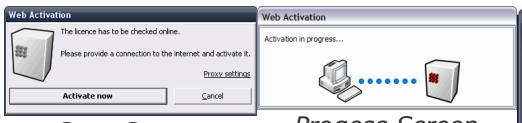


14.10.2 Source Code Integration

Within your Source Code you use the EasyGo commands [104] and some additional checks.

- Use SetLanguage [108], SecurityLevel [110], SetRegisterSettings [116]
- Open your license file by starting EasyGo with PrepareAndCheck [162]
- Check if the version is already activated because only then you need to perform the additional online check - GetWebActivation [717] using the main module ID would return **2** = application is activated
- By default, the online check is transparent for the customer by displaying the following 3 screens.



Start Screen (ShowWAStartPage)

Progess Screen ShowWAProgressPage

Result Screen (ShowWAResultPage)

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The dialogs could be deactivated either with the settings <ShowWAStartPage>, <ShowWAProgressPage>, <ShowWAResultpage> in the project template 193 or with the commands ShowWAStartPage 806, ShowWAProgressPage 804, ShowWAResultPage 805 in the source code.

If the product is **already activated**,

- Retrieve the Serial Number using GetSerial 709
- Enable the regular online check of this module with SetVerificationOfModule 797 = 1. This is only necessary if the online check was not enabled within the project template 201 . Note:
- The current status can be retrieved using GetVerificationOfModule 716. The result frozen = 2 indicates that the license was locked . Implement a reactivation screen like this: License deactivated / reactivate license 265.
- Perform the online check with CheckModuleSubscription 654 (with grace period 544) or CheckModule 652 (**no grace** period) specifying the **main module** number and using the **Serial Number as ID,** download full license should be set to **false** (no download of license file).

Licence Protector 5 will go online only if the next check is due. Otherwise Licence Protector 5 will just continue without going online. Note: GetNextVerificationOfModule 726 will retrieve the date, when the next online check is due.

The check is documented on the Activation Server 6 with transaction type *Validation.*

- The next date to go online is retrieved from the product configuration - value from field **Regular license checks (days).** The new date for the next online verification is stored in the license file. It can be changed using NextVerificationOfModule 726

Program logic depending on the results of CheckModuleSubscription 654

- Only continue in your application if error code is **0**
- If error code is **3018** then the license is **locked** on the Activation Server 6 (see how to lock the license 545). Your application should terminate. The next start of the application will always go online to check if the license is still locked
- If error code is **3001** then no online connection could be established. This error will appear only if no grace period is left (see below

Grace period

In case the connection to the Activation Server 6 fails, a grace period is activated (if value of grace period >0) . Details see CheckModuleSubscription 654

- Use SetSubGraceDays 790 to overwrite the default value of the template <SubGraceDays> 201

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- Use GetVal, Token SGD 715 to retrieve the number of grace time in full days (integer value) - set with SetSubGraceDays 790
- Use GetRemainingSubgraceDays 708 to retrieve the remaining grace time as an exact double value (e.g. 2.8765 days)
- Use GetVal, Token SGP 715 to retrieve the expiry date/time of the grace period (date/time value)

Set the grace period to 10000 days in case you have installations which have never an online connection. This allows activating the regular license check as a general setup and the application would work with or without an online connection.

Options to control the regular online check

- It is normally sufficient to use the main module for the online check although the online check can be activated per module
- By default, the **first date** for the regular online check is used from the configuration file on the Activation Server 6, product configuration - Regular license check (days)
- A date for the first/next online validation could be set with NextVerificationOfModule 726. It also allows to retrieve the date for the next regular online check
- Get or Set the date, when the last online check is planned with EndVerificationOfModule 682. After this date, all checks are terminated
- The current status can be retrieved using GetVerificationOfModule 716
- Set the grace period with SetSubGraceDays 790
- The regular license check can be changed or terminated **for a single key** within the Key Details on the Activation Server 6

14.10.3 Lock a license on the Activation Server

It is possible to lock a license or check if a subscription or maintenance contract is still valid. If the license is locked **before** the Serial Number key was already used, the product activation will fail. If the Serial Number key is locked **after** the activation was already done, then a **regular online** check is necessary to lock / revoke the license.

You can lock each module / feature separately.

- On the Activation Server 6 **Home TAB**, search for the Key / ID
- Click on the Serial Number and check the field: **Is Locked**

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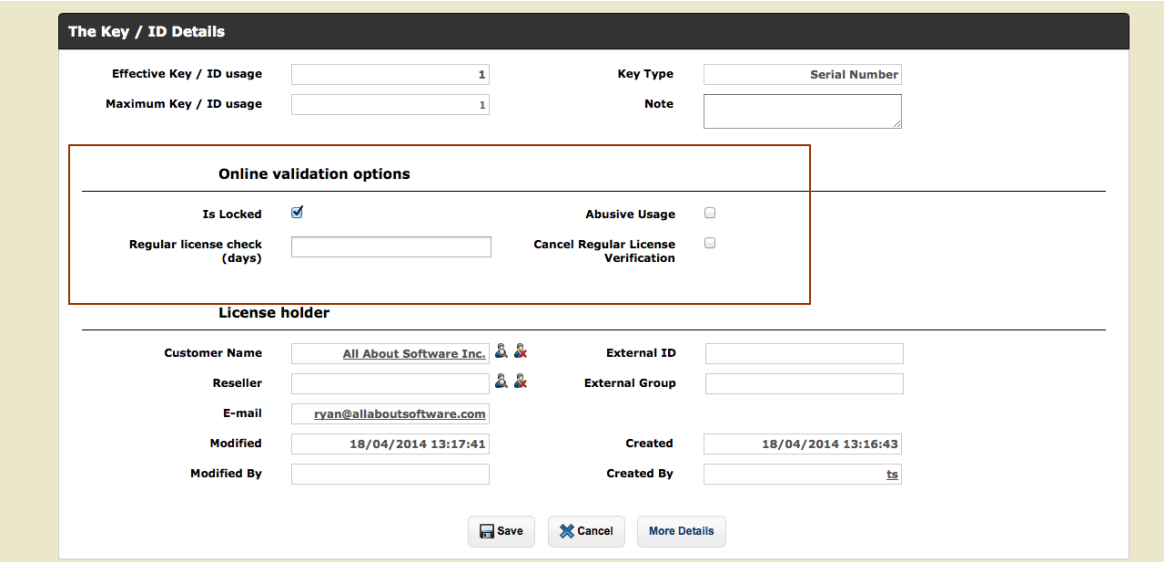

14.10.4 Individual Online Check

To make an individual (not automatic) online check, use the command CheckModuleSubscription 654.This command just checks, if a license is locked or not. The check is logged on the Activation Server 6.

If the product is **already activated**,

- Retrieve the main module ID using MainModuleID 725
- Retrieve the Serial Number using GetSerial 709
- Perform the online check with CheckModuleSubscription 654 (specifying the **main module** number and using the **Serial Number as ID**) and set the parameter ***ForceCheck*=true**

This could be used e.g. within an update to make a one time online connection to validate, if the key / ID was locked.

See also Source Code Integration for regular online checks 543 to get a detail overview about different options.

See also

Lock a license on the Activation Server 545

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14.10.5 Compare Activation Server 6 time with local PC time

Every time, an online request is done, the **server time is compared with the local computer time**. The local time zone is considered in this check. If the time difference is more than 1 day (default setting), then the online check terminates with error 3014.

You can define the time difference in the project.config file with the setting TicketValidMinutes.

To ensure, that the local PC has not modified the date/time you can either:

- make a regular online check 542
- make an individual online check 546
- activate the evaluation version 159

and combine the online checks with the inbuilt option (offline) to check for system date modification 112

14.11 Limit number of program starts

The number of program starts can be limited using a Counter module

- Add a new module and define the module type 203 as counter = C
- Set a start value - e.g. 100
- Decrease the counter using ValidateAndDecrease 819
- The actual counter value can be retrieved with RemainingLicenses 744
- The counter stops at 0 and ValidateAndDecrease 819 delivers an error code 32
- Use ShowMessagePage 801 to display an customized message

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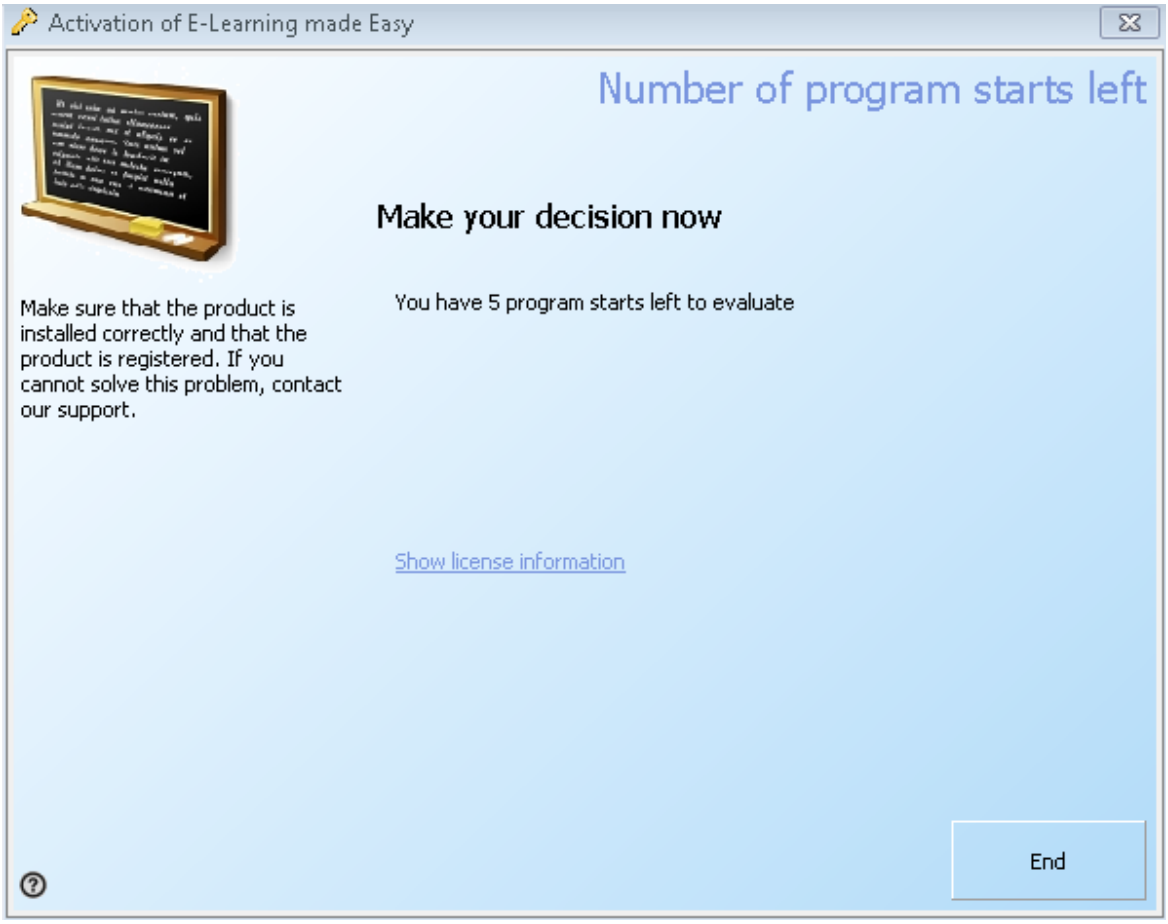

Customized screen

To ensure, that the license file can not be replaced by an older backup, you have to activate Tamper Detection 565.

Make the counter module a time limited module. This ensures, that the user can work with the application only for a specified time or for the defined number of program starts. The event which happens first, causes the application stop.

Example
The counter is set to 100 (100 program starts) and the time limitation is 10 days.

- The application would stop after 10 days even if only 20 program starts have been made
- The application would stop immediately if 100 program starts have been made

14.12 Network License - how it works

It is possible to store all files (required files see files for distribution 349) on a network folder. Multiple users can start the application at the same time. Each user needs a **read and write access** to this folder.

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The advantages of a network installation are?

- Centralized installation - all files are located on one machine
- Only 1 activation is necessary even if 100 users or PCs are using the application
- If additional users 554 should be added, only one Activation Key has to be sent out

Just define the number of users or computers you want to allow to start the application.

There are different options for a network license

- License per PC 549
- License per User 551
- Floating license / concurrent user 552
- Network license per server 554
- Terminal Server / Citrix 554
- Floating license over the Web 472
- Automatic backup and restore of the license file 560

When using a network license, the activation 591 can be done from **any PC/Client** (not from the server) and it has to be done only **once** for all PCs. The PC/Client retrieves the hardware data (installation codes) 67 of the server.

If you have a server application (like a service on the server) and you want to do all the testing on the server, see Network license with a Server Application 561.

See also

Available license Options 71
How to add Add additional users / licenses within a network 554
How do I implement concurrent user testing? 465
Deactivate a network license 286
Network license with a Server Application 561

14.12.1 Network License per PC

The license per PC uses the **name of the PC** (hostname) and stores this name in the license file. Once the application is started, it checks if the PC name is already stored in the license file and if not, it starts only if a free license is available. After the application has been terminated, the license is **still in use.**

The license file has to be on the server on a shared folder. Each application user needs a read/write access to the license file.

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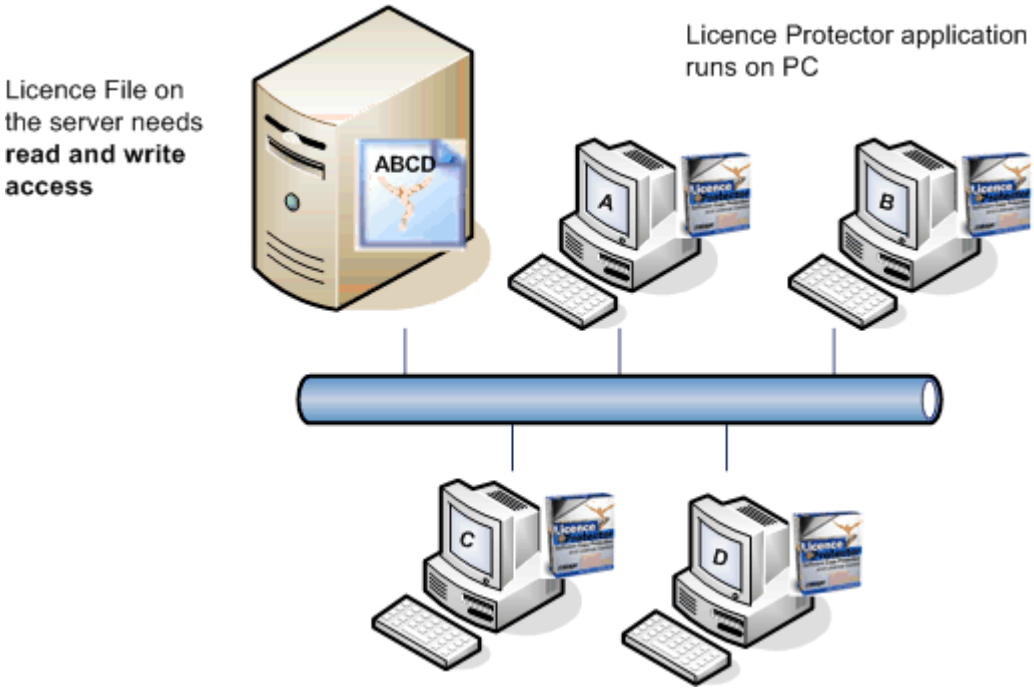

A PC can be removed from the license file in the License Viewer 286. The license is then available for another PC.

A Citrix or Terminal Server requires a special licensing. There is only one machine (hardware ID), but on this machine multiple sessions can be started. Licence Protector 5 automatically detects, that the application runs on a Citrix or Terminal server and **counts a license for each session** (=PC).

Example
A home office user logs into the company network using a Citrix in the office. Licence Protector 5 would retrieve the hostname of the home PC and would require a license for this PC.

This feature is supported for the license type per *computer/seat* and for *concurrent user* licensing. It also works in the same way for Remote Desktop. Other tools like gotomypc just transfer the screen content and mouse movements. Then no additional license is counted.

The definition in the project template 188 for a license per PC is <ModuleType>Computer</ModuleType>.

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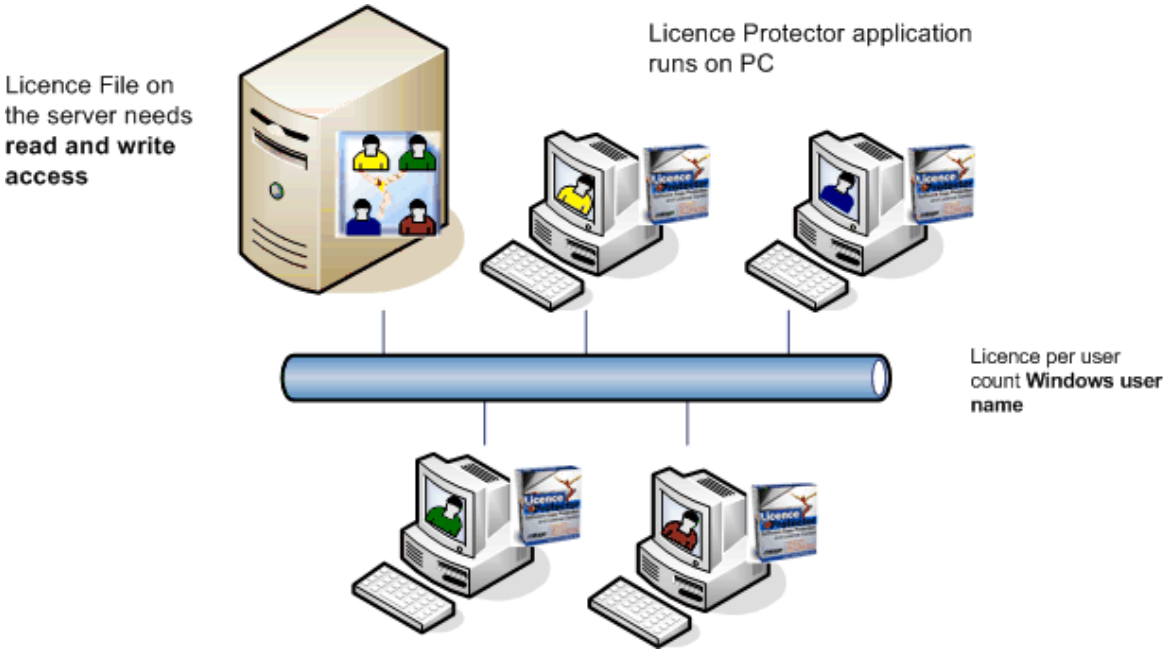
See also

Server Application, Service, Web Application 560

14.12.2 Network License per User

The license per User uses the **Windows user name** and stores this name in the license file. Once the application is started, it checks if the user name is already stored in the license file and if not, it starts only if a free license is available. After the application has been terminated, the license is **still in use**. If a user is logged in with the same name on multiple PCs it is counted as one license.

The license file has to be on the server on a shared folder. Each application user needs a read/write access to the license file.



A user can be removed from the license file in the License Viewer 286. The license is then available for another user.

If a user logs in with the same user name in a network or Terminal Server / Citrix Server, a license per *user* would require only 1 license, because the Windows login name is used, which is the same on the local and remote PC. If a license per user should count a separate license for each session / PC, this is possible with the following command sequence:

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- Retrieve Windows user name with GetLPWindowsUser 703 - e.g. TOM
- Retrieve PC name with GetLPComputername 703 - eg. PC1
- Add both values to one value - e.g. TOM on PC1
- Use PrepareAndCheck 162 or Validate 818 with this value (parameter *name*) and set the parameter: *UseWindowsUser* to false.

The definition in the project template 188 for a license per User is <ModuleType>User</ModuleType>.

See also

Server Application, Service, Web Application 560

14.12.3 Network License per Concurrent User / Floating license

The concurrent user license is also called floating license. It is checked, how many users have started the application **at the same time.** This allows buying a 5 concurrent user license and install an application on e.g. 30 PC's.

The license per concurrent user **combines** the **PC name + Windows user name** (e.g. *OFFICEPC-TOM*) and stores this name in the license file. The combination is necessary to count a license, even if a user is logged in with the same name on multiple PC's.

Once the application is started, it checks, if the name is already stored in the license file and if not, it starts only if a free license is available. After the application has been terminated, the **license is given back by removing the name in the license file.** The license is available again for another user.

The license file has to be on the server on a shared folder. Each application user needs a read/write access to the license file.

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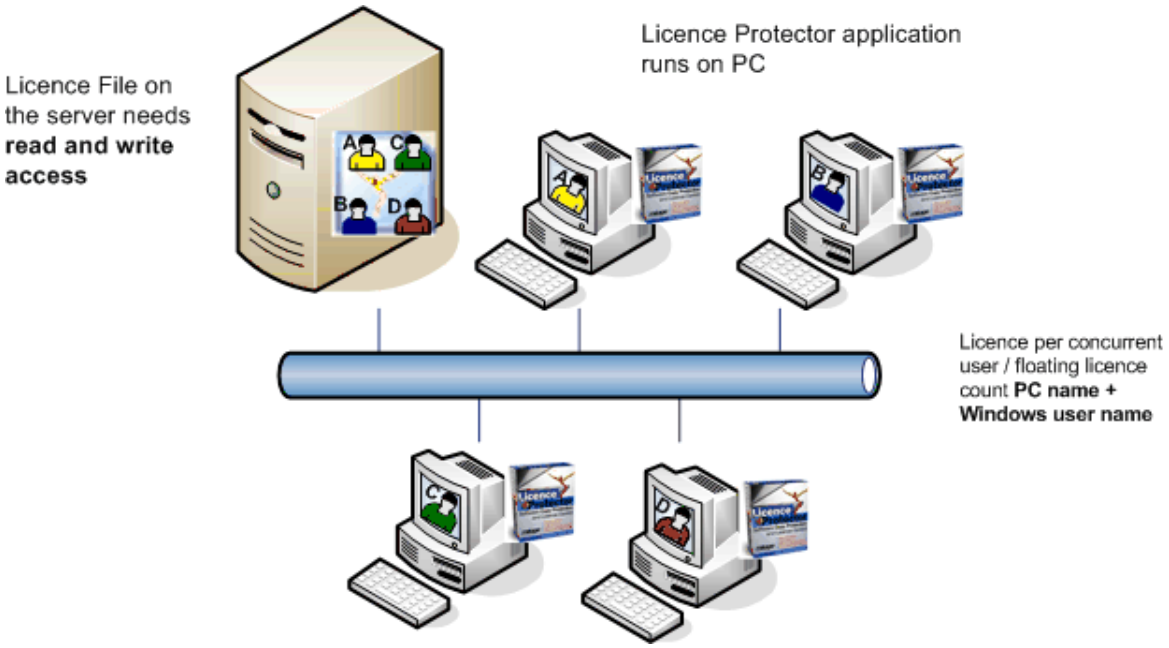

A Citrix or Terminal Server requires a special licensing. There is only one machine (hardware ID), but on this machine multiple sessions can be started. Licence Protector 5 automatically detects, that the application runs on a Citrix or Terminal server and **counts a license for each session** (=PC).

Example
A home office user logs into the company network using a Citrix in the office. Licence Protector 5 would retrieve the hostname of the home PC and would require a license for this PC.

This feature is supported for the license type per *computer/seat* and for *concurrent user* licensing. It also works in the same way for Remote Desktop. Other tools like gotomypc just transfer the screen content and mouse movements. Then no additional license is counted.

The definition in the project template 188 for a license per concurrent user is <ModuleType>Concurrent</ModuleType>.

A concurrent user license for a server application has to be implemented differently. See network license with server application 561

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See also
How do I implement concurrent user testing? 465
Server Application, Service, Web Application 560

14.12.4 Network License per Server

To have a license per Server (the number of PCs are not limited), use the license per PC 549 option and set the number of PCs to 9999 or any number which will be sufficient. You could also use a Yes/No module 188.

14.12.5 Terminal Server / Citrix

Licence Protector 5 automatically detects, that the application runs on a Terminal Server / Citrix (only 1 server but multiple PCs are starting sessions on this server)

The following licenses are supported on a Terminal Server / Citrix:

- Licence per PC 549
- Licence per User 551
- Floating license / concurrent user 552
- Network license per Server 554

This feature is only available in the *Basic and Professional Edition.*

14.12.6 How to add additional users / licenses within a network?

To add additional licenses to an existing installation, just create an Activation Key.

- The Activation Key is generated within the Project Generator or Activation Server 6
- Select the option *Additional Licenses*. The number you select is **added** to the existing license file
- If you want to **replace** the existing value in the license file, select *Overwrite value in license file*

If you are using the Activation Server 6, use the Switch: *Online Validation required* to ensure, that a key can never be used twice.
For a complete overview about all options see: Create Additional Keys 335

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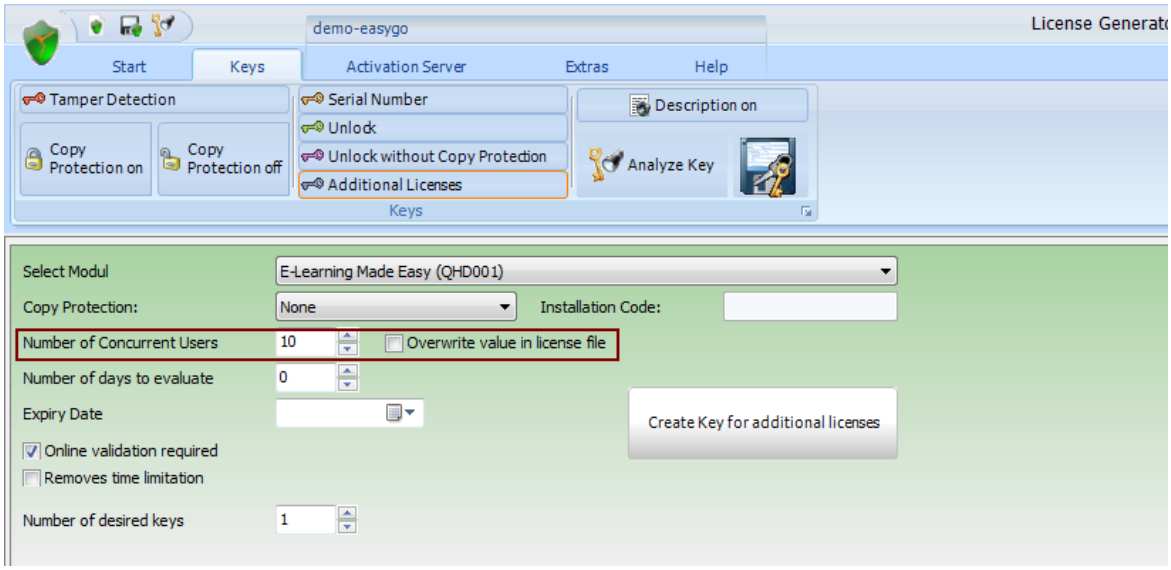

14.12.7 Deactivate a network license

If an application uses a license **per PC** 549, **per User** 551 or **Item** then a single license can be deactivated within the License Viewer 281. This is not necessary for concurrent user 552 because the license is automatically removed when the application terminates.

To activate this feature you have to set <**AllowDeactivate**> to yes in the project template 196.

- Lock a license within License Viewer

  A license (per PC / User / Item) can be locked by

  - selecting the license
  - press button *Lock*

  The deactivated license is now displayed in brackets and the icon changes to . The license can be used again by another PC / User / Item

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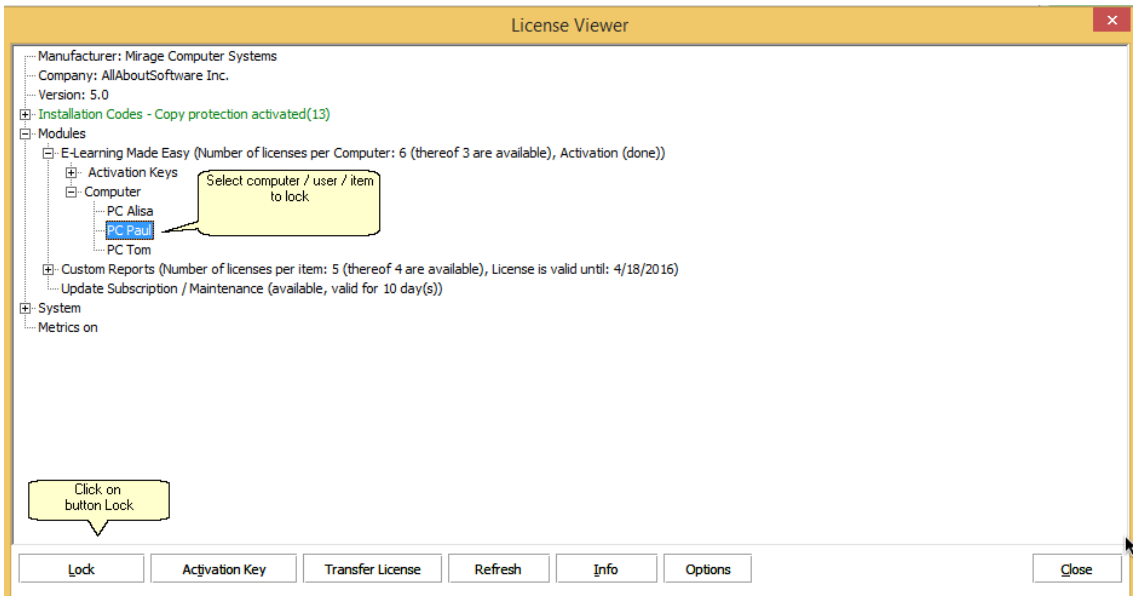
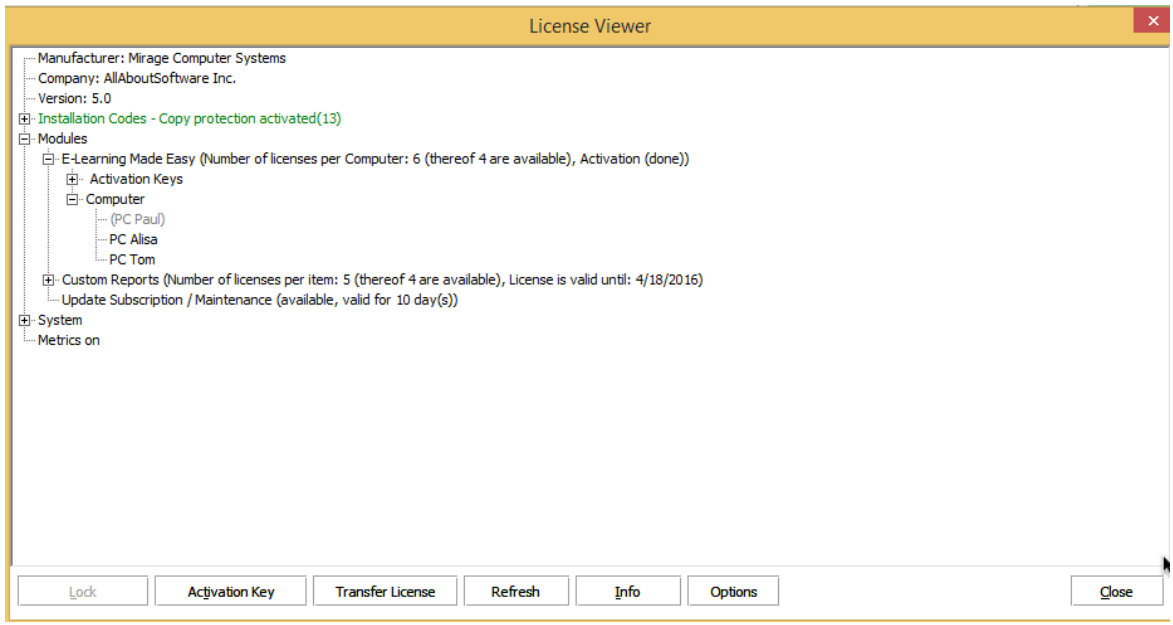


The locked license is displayed in brackets



Release a locked license

A license which was locked, is displaced in brackets. It can be activated again by

- selecting the license
- press button *Release*

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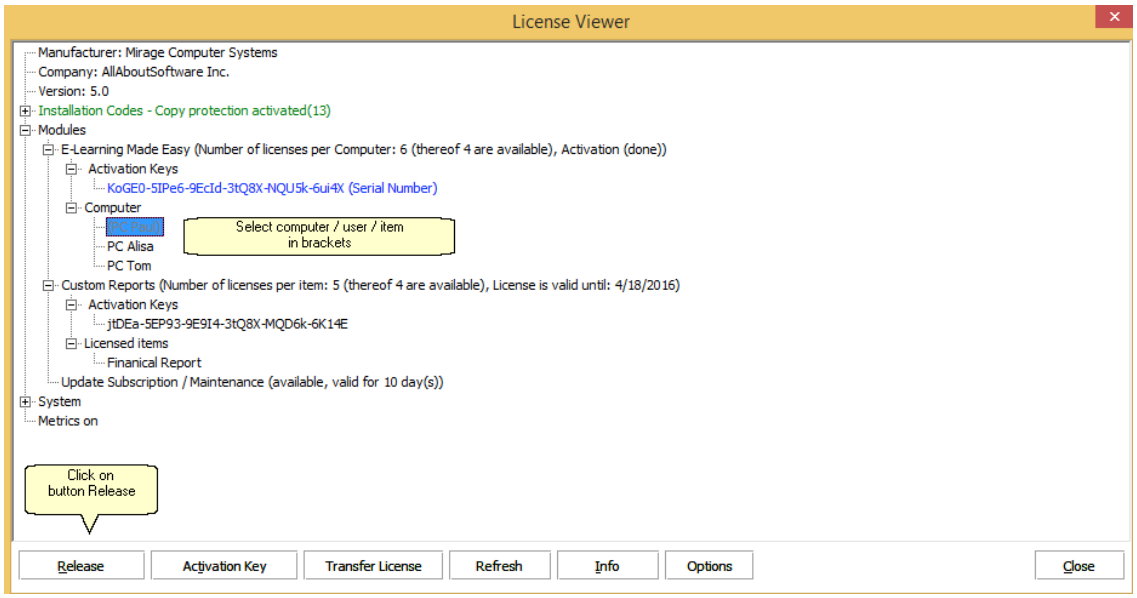

- Deactivation of a concurrent user is only necessary, if the user is not automatically removed. It is not a deactivation of the license - it is a **removing** of the user. The user will get the license again with the next program start again. See also: Concurrent user testing 465.

- The deactivation is done when you press the OK button. If the user has already started the application, the next PrepareAndCheck 162 or Validate will return an error. See error message screen 270.

It is possible to deactivate a network license using DLL commands - see commands GetEntriesOfModule 683, DeactivateEntry 658, RemoveDeactivated 746 and RemoveAllItems 745

Transfer a license

If the server is replaced, a license transfer 571 is necessary.

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14.12.8 Floating license over the Web

For single user applications, Licence Protector 5 offers an option to use an application on **multiple PC's but only on one PC at a time**. It is similar to a floating license in a network 552 but uses the Activation Server 6 to check, which PC has started the application.

During **each program start**, the PC has to register the application online and at the **end of the application**, the application has to unregister **online**.

As a basic integration use the EasyGo workflow 104 including the license transfer option 114 .

License File

The license file is either on the local computer or on the network. The module type 203 must be a Yes/No module so that the users are not counted within the license file. The module count is done through the Activation Server 6.

At the start of the application

The command PrepareAndCheck 162 will do all necessary steps. There is nothing special to consider.

If you want to start the application **without displaying** any screens, use the following code sequence

- Open the license file with Prepare 727. If return code is not 0 use PrepareAndCheck to display the error
- Find out if the product is activated (GetWebActivation 717 = 2). If the product is not activated (e.g. trial mode) use PrepareAndCheck
- Retrieve main module ID with MainModuleID 725
- Retrieve Serial Number / ID with GetSerial 709. If the Serial Number / ID is empty then the product is not activated yet and can only be used on this PC. Do not continue with the online check
- Activate the license transfer option 114 using SetRegisterLicTransfer. Set option *TransferLicence* to true, to transfer the complete file. This command must be used **before** WebRegisterExt 821.
- Register the license online using WebRegisterExt 821 and the **main** module ID and Serial Number as parameters

Error handling

- Check the error code after PrepareAndCheck 162 or WebRegisterExt 821
- If the error is 3001 then no Internet / Server connection is available. You could allow a program start although the license count is wrong. Otherwise the user will not be able to use the program in case of an Internet / Server problem

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- For all other errors terminate the application

At the end of the application

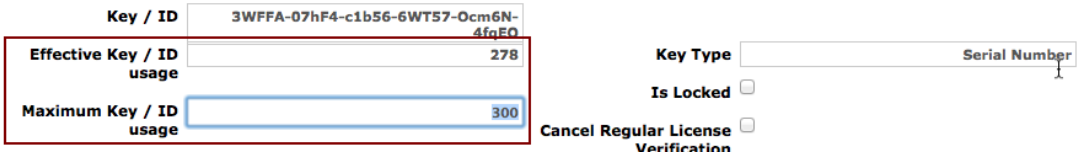
When the application terminates, the license has to be unregistered online. The local license is then locked.

- Retrieve main module ID with MainModuleID 725
- Retrieve Serial Number / ID with GetSerial 709
- Lock the local license using DeactivateModule 661. Use the **main** module ID and your Serial Number / ID as parameter.

You can disable the progress screens using ShowWAStartPage 806, ShowWAProgressPage 804 and ShowWAResultPage 805.

Activation Server

- Change how often the Serial Number can be 344 used to the maximum concurrent user license usage
- The field: *Effective Key / ID usage* is the real time status of the number of users who are working right now with the application



Special Considerations

This workflow will result in a heavy server load of the Activation Server 6, depending how many products you have delivered and how often a user does start the application. If you are using the hosting service ensure that you have the right hosting package to cover the requests.

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See also
Floating license in a network 552

14.12.9 Automatic backup and restore of the license file

When using a network license, you should activate the automatic backup of the license file. In case of an read/write error, the license file will automatically be restored.

How is it working?

Licence Protector will create a **continuous** license file backup (filename.bak) every x seconds. The backup file is only updated when there are **changes** in the license file. The interval is set with SetBackupInterval 753 and can be retrieved with GetBackUpInterval 674.

If a read attempt to the license file fails, the backup file is used instead and the original license file is replaced.

By default, no license file is created.

- Activate the backup file using SetBackupInterval 753. Typically use 30 to 60 seconds to update the backup file
- Retrieve the backup status with GetBackUpInterval 674

Limitations

- It is not working when Tamper Detection 565 is enabled
- If the ConcurrentUserLevel 660 is set to 1, the concurrent user count could be wrong when the backup is restored

14.13 Server Application, Service, Web Application

Licence Protector 5 allows testing all license features **without an user interface**. If you have a server application or a service, we recommend the following implementation:

- Create **one executable** which is only used to activate the product and display license information. This executable can be started on the server or on a workstation
  - Activate the product using EasyGo screens 104. To use own screens or browser based screens see: Custom-made User Interface 495
  - Display license information using the License Viewer 281

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- Implement the license tests on the server, using the DLL commands **without user interface**. You find all necessary commands in the chapter Multiple Modules 171 or a typical integration sequence below.

You have to signal to your Client PC's error codes like *no free license* or *evaluation period expired*

- If you need to have a network license per PC, user or floating license see chapter Network license with Server Application 561

Source Code Integration

Find below a typical sequence for a server test

- SetLanguage 108
- PrepareAdvanced 729 (opens file without user interface)
- ValidateEx 820 (check module - see also Network license with Server Application 561)
- RemainingDays 743 or ExpiredOn 672 (check for time limitation)
- GetWebActivation 717 to find out if the module is activated or not
- For each function / module to test use ValidateEx 820 with a different module number
- Quit 179

If you use commands for online connection, disable all pop-up screens using ShowWAStartPage 806, ShowWAProgressPage 804, ShowWAResultPage 805

For the complete integration see the chapter how to use own screens 498 or how to work with license file download 532

You have to ensure, that your service has a write access 350 to the license file.

See also
Custom-made User Interface 495 (own GUI)
Create own License Viewer 505

14.13.1 Network License with Server Application

Licence Protector 5 offers a network license per PC, User or floating license - see Network license - how it works 548. This works 'out *of the box'* if the the licensing is done on the workstation / Client PC because the PC or username of the Client PC is used.

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The main difference on a server based testing is, that the server (which makes the Licence Protector 5 calls), has to provide the PC name or username. You could also use other unique criteria like IP address.

For a license **per PC** or **user** the only difference is, that you have to provide the pc name / user name in the call ValidateEx 820 and set *UseWindowsUser* to false.

Example: iRes := lic.ValidateEx('D1001', **'user name'**, **false**, sTag); where user name must be a unique ID to identify the Client PC / user.

Concurrent User testing with the inbuilt feature - see Network license Per Concurrent User 552 is not available. Implement this code sequence to get a floating license with a Server Application:

- use module type 1 187 (per user)
- at the server start remove all users from the module using GetEntriesOfModule 683, DeactivateEntry 658 and RemoveDeactivated 746
- if a user logs in use ValidateEx 820 and the user ID like IP address or your application user name instead of using the windows user name - ValidateEx('D1001', **'user name'**, **false**, sTag)
- if a user logs out delete the user in the license file (DeactivateEntry 658 followed by RemoveDeactivated) 746
- if you are in an environment where your server informs you about disappeared clients (like session timeout) you simply can use this event to do also a log-out. Otherwise ping your client PC from time to time to get the information if the session is still valid

14.14 Store data in the license file

This feature allows storing encrypted data in the license file. The license file acts like a small database. There are commands to save, retrieve and delete a record.

The data area could be used to store:

" Program configuration parameters
" Usage of the application - like number of program starts or last online validation
" Additional customer information
" Other custom values you do not want to save in the registry, an ini-file or a database

It works in the way that you use an **ID and assign a text to this ID**, e.g. **ID** = LastOnlineValidation, **Text** = 09/09/201.

You can generate and deploy license files with already stored values or you can store information during the runtime of your program.

All values can either be displayed in the License Viewer 281 in the section ***Configuration*** or they can be just used internally and then they are invisible in the License Viewer. Each

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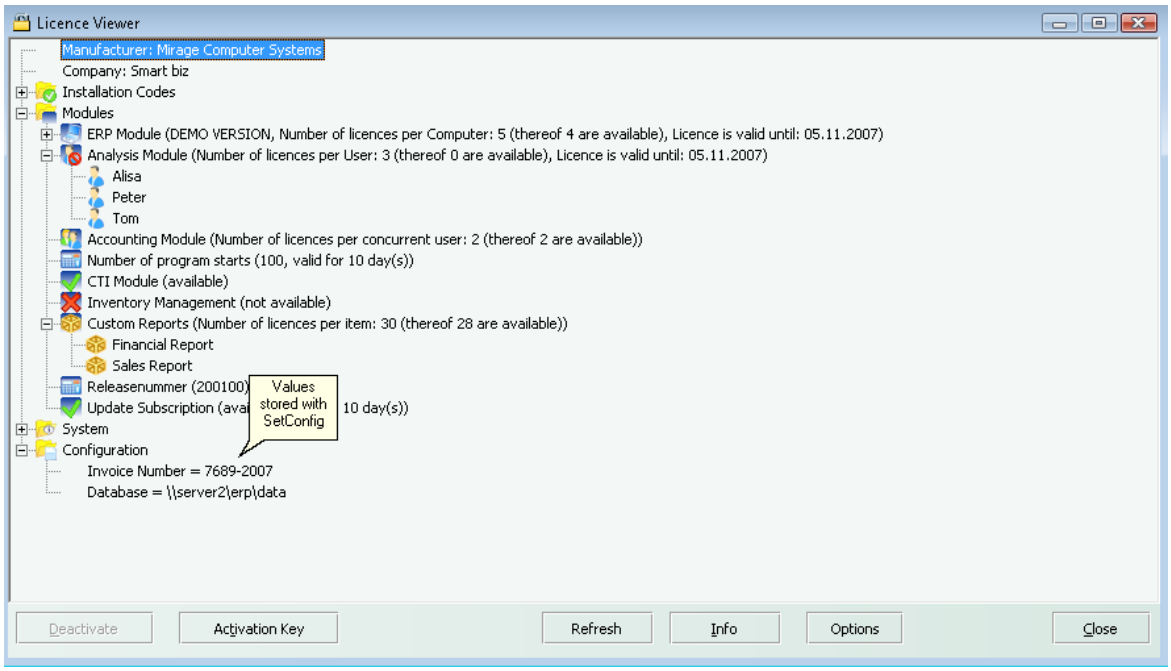
value can have a different setting (e.g. value 1 and 3 are visible in the License Viewer, value 2 is invisible).

The ID for each record must be unique.



Values visible in the Licence Viewer in the section Configuration

There are different options, how to add and modify the data.

- Store data using the License Generator

  All values can be modified in the data area within the License Generator 387.

- Store data using DLL commands

  There is a complete set of API commands to read and modify the data.

  ## Save a value

  Command SetConfig 757. If the ID already exists, the existing value is updated with the new value. You can specify, if the value should be visible in the License Viewer or not.

  ## Read a value

  Command GetConfig 675

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Delete a value

Command DeleteConfig 663

Check if a value exists

Command ExistsConfig 670

Check if value is visible in the License Viewer

Command IsConfigVisible 719

- Store data stored in the project template

  You can also store default data in the project template.

  Details see chapter Project Template 198

  Example

```
<Configs>
        <Config name="CustomerID" visible="no">D83726</Config>
        <Config name="BasicConfiguration" visible="yes">This is a
t ext </Config>
</Configs>
```

- Store data using Automatic License Generator

  The Automatic License Generator can be used to add the data when a license file is created.

  Order XML file

```
<product>
  <ProductID>1</ProductID>
   <Quantity>1</Quantity>
   <AbsoluteLics>yes</AbsoluteLics>
<Configs>
<Config name="InvoiceNo" visible="yes">12345</Config>
<Config name="InvoiceDate"  visible="yes">2008-09-15</Config>
</Configs>
 </Product>
```

  Please check the separate documentation 464 for the Automatic License Generator.

The data area can also be changed if the license file is uploaded to the Activation Server 6, then modified and then downloaded again

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- License file upload / download 525 in the source code
- Modify license file on the Activation Server 6

Do not store large data e.g. MIME-encoded binary data like images or movies as this would significantly slow down the access to the license file. Especially with concurrent user, the license file is permanently read and updated.

This feature is only available in the *Professional Edition.*

14.15 Tamper Detection

Licence Protector 5 offers a sophisticated method to detect if a license file was replaced by an old version of the file.

Tamper detection ensures, that the file **can not be copied (backup) and then be restored**. By default a license file can be backuped, the folder can be deleted and then the file can be copied back. As long as the hardware is the same, this is valid operation and offers an easy way for a reinstallation - see also Allow Reinstallation 450.

Tamper detection would detect, that the file is restored and blocks the application. To use the application again a special key is needed to unlock tamper detection.

This feature works in offline mode and can be activated to increase security. It prevents replacing a file with a previous version of the file. Typically this is only required if you have modules with counter values 203, which are decreased during runtime. A restore would then result in different counter values.

If your application is in evaluation mode 68 and the application is uninstalled and then reinstalled, this is automatically detected and Tamper Detection is not necessary for this situation.

Tamper Detection locks the complete application and you should be aware that this could results in more support calls. Also a reinstallation 450 of the application is not possible. If you store the license file on a USB flash drive and the USB flash drive should be used on different machines, Tamper Detection can not be used.

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See also

How does Tamper Detection work? 566
How to activate Tamper Detection 567
Reset Application 419

14.15.1 How does Tamper Detection work?

Every license file has a *Run Number* that starts with 0 and is increased every time the license file is altered and stored. An older version of the same file would have a lower Run Number than a newer version.

How does Licence Protector 5 know that once there was a higher Run Number of that file?

Well, it simply stores the latest Run Number locally in the Windows Registry. Let's assume the Run Number inside the license file is 15 and the locally stored Run Number is 7. That is ok, because an other computer has worked with the license file and so it increased the Run Number to 15. But if the Run Number inside the file is 3 and therefore it is smaller than the locally stored Run Number 7 this is a signal that this license file is tampered.

On a stand-alone application the Run Number in the license file should always be equal to the locally stored Run Number.

The locally stored Run Number in the Registry is encoded and could not be manually modified. It also can not be moved to another machine. But it can be deleted. Then there is the same situation as before the first usage of the application: There is no locally stored Run Number. In that case Licence Protector 5 can work with two different settings:

If the Tamper Detection Mode is set to **Automatic**, Licence Protector 5 checks if the locally stored Run Number was already created on that machine. If not, there is no problem and the registry is updated. If yes we can assume that the entry was deleted and so it returns a security violation - the application stops. This check also works if the application is reinstalled, the registry is deleted and the license file is the original file from the evaluation version.

If the Tamper Detection Mode is set to **Manual**, Licence Protector 5 always returns an error if no locally stored Run Number can be found. The Application now is responsible to solve that conflict. Typically it makes a WebRegisterExt 821 call to the Web Activation Server to check if that license is already registered. If yes then it returns a security violation error, if not then it can create the entry.

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Use Manual mode only if your application always has an Internet connection available.

Network Environment

If a network license is used, then the scenario is very complex because the Run Number is tracked on each machine and in case the license file is restored **all machines are blocked**.

To ensure that registry settings cannot be copied between computers, the system also combines the hostname with the Run Number. Changing the hostname on a PC will therefore result in a Tamper Detection violation.

14.15.2 How to activate Tamper Detection

In order to use Tamper Detection you have to activate it during the generation of license file although it is possible to activate this feature later with a special Activation Key or via DLL commands.

If you always need Tamper Detection, turn in on in the Project Template 182. To activate Tamper Detection for a single customer you can use the License Generator or a special Activation Key.

- Activation Tamper Detection in the Project Template

  The definitions are done in the Project Template 182 file, node <Default 192>.

TamperDetection

Set <TamperDetection>**on**</TamperDetection> to turn activate Tamper Detection.

Possible values are:

- off (default)
- on

TamperDetectionMode

Set <TamperDetectionMode>**auto**</TamperDetectionMode> to set the mode to Automatic 566.

Possible values are:

- off = Tamper Detection is deactivated (default)
- auto = runs in automatic 566 mode

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- manual = runs in manual 566 mode

Do not forget to set the TamperDetectionMode to either auto or manual mode. By default it is off and therefore the functionality does not work even if you have TamperDetection turned on.

TamperDetectionGraceTimes

Set <TamperDetectionGraceTimes>0</TamperDetectionGraceTimes> as a default.

It defines how big the difference of the Run Number in the license file compared with the local value could be.

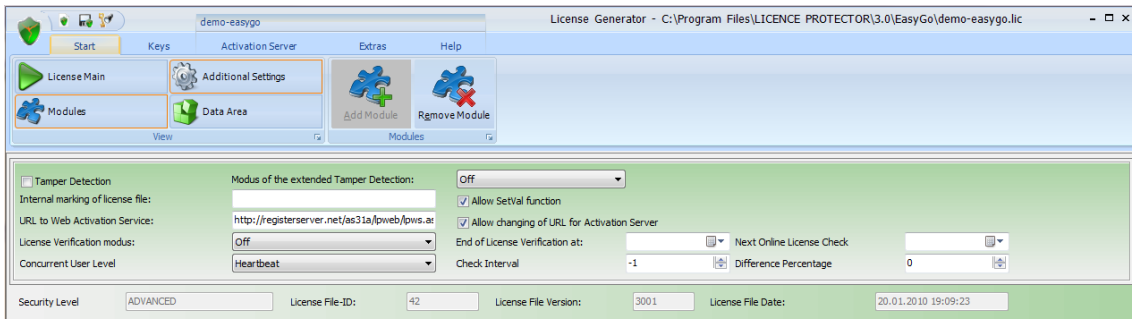
TamperDetetctionGraceTimes is by default 0 so a difference by 1 or greater between the Run Number inside the license file and the local Run Number is regarded as a security violation. If there may be a situation where low differences are allowed you can set this value.

Example
If this value is set to 1, a local Run Number 8 with a file Run Number 7 is not regarded a security violation.

Activate Tamper Detection in the Licence Generator

You can activate Tamper Detection for a single license file. Switch to the detail page and

- Check - Tamper Detection
- Select Modus of the extended Tamper detection - for values see here 567



Activate Tamper Detection with a key

To activate Tamper Detection for a single license file which is already delivered, you can create an Activation Key to turn on Tamper Detection in Automatic 566 mode.

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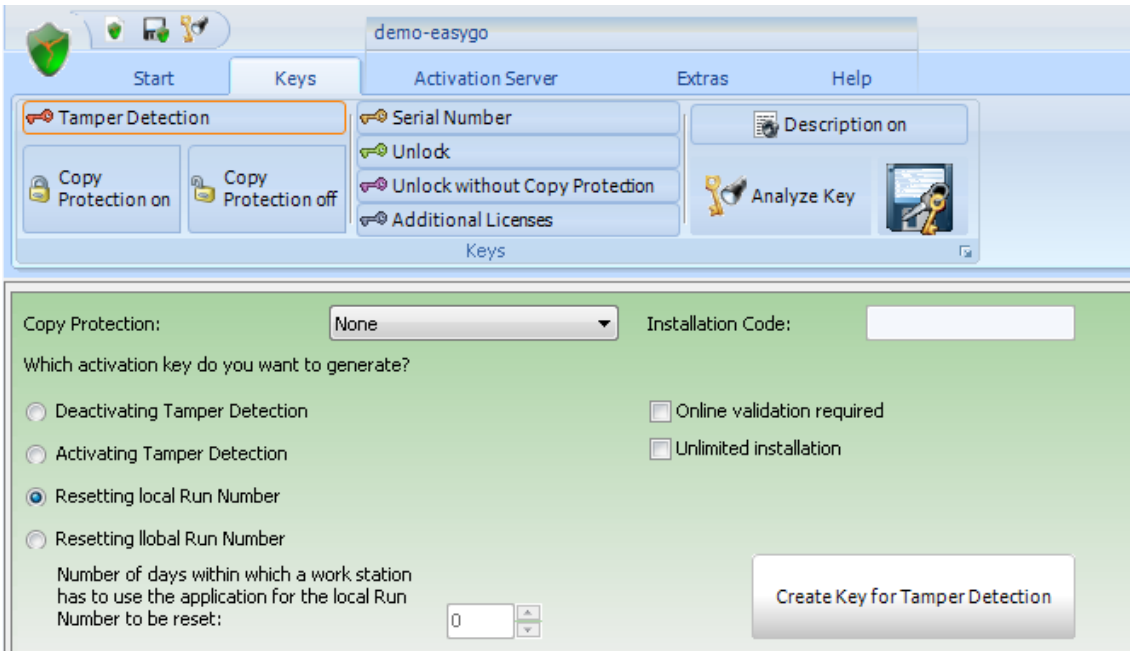
Within the License Generator, select *Edit*, Activation *Key* for Tamper Detection. Then select **Activating the Tamper Detection.** Additionally you could select **Online Validation required** and/or Unlimited Installation 450.



Activate Tamper Detection with DLL calls

To activate or modify Tamper Detection you can use DLL commands

- GetVal 710
- GetLastRunNoDate 700
- LicFileChanged 722
- licenseTampered 721
- RemoveLocalRunNo 748
- ResetLocalRunNo 749
- ResetGlobalRunNo 750
- SetVal 791
- TamperDetection 812

14.15.3 Reset Application

If the option Tamper Detection 565 is used and the customer restores a backup or tries to manipulate the license, the application will not start. There are several ways to reset the application

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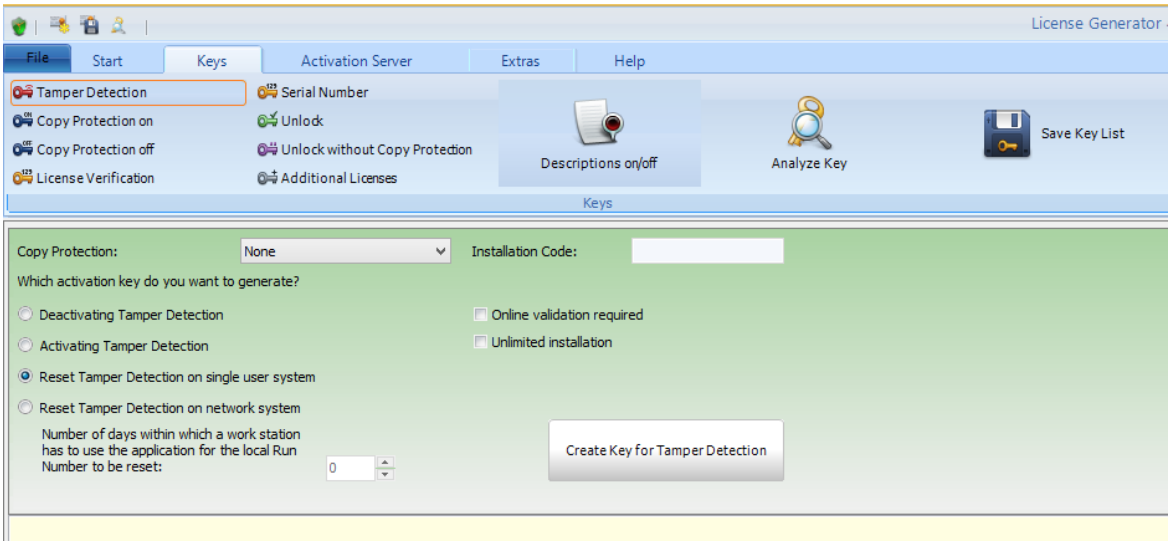
Sending an Reset Key

This is the recommended activation. Within the License Generator, select the TAB *Keys*, **Tamper Detection.**



- Select *Deactivating Tamper Detection* if you want to **disable** Tamper Detection for a product was already installed on the end users computer
- Select *Activating Tamper Detection* if you want to **activate** Tamper Detection for a product was already installed on the end users computer
- Select either *Resetting Tamper Detection* on a single user or network system to just **reset** the lock. The user can then start the application again but Tamper Protection is still active

Use *Online validation required* to ensure, that the key cannot be used on multiple PCs
Uncheck *Unlimited installation* to ensure, that the key cannot be used twice on the same license file

Within a network, the key has to **reset all Computers**. Therefore a time frame has to by defined (Option: *Number of days within which a work station has to use the application to reset tamper detection*). Within that time frame each computer has to start the application to remove the lock. That means that during these days the Tamper Detection functionality is virtually deactivated.

You should select the value for *number of days* large enough to allow all computers to start the application within the time frame to reset the lock. Tell your customer to start the application on all computers.

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Sending out a new license file

One method is to create a new license file. That license file will start with Run Number 0 and has no locally stored Run Number so the standard start-up functionality is used.

Using DLL commands

You can use DLL commands to rest the Run Number.

- ResetLocalRunNo 749
- ResetGlobalRunNo 750

The command PrepareForce 738 would allow to open a license file and ignore the error.

14.16 Transfer a license from PC A to PC B

This feature allows to move / transfer a license with activated copy protection from a PC A to PC B. This is only necessary, when the PC, **where the license file is stored**, has to be replaced or a user wants to switch between a PC and notebook.

If a network PC 548 with a license per PC or per User is replaced, this license can be deactivated within the License Viewer - see Deactivate a network license. 286

A license can only be transferred if the software was **already activated**. If the license is in evaluation mode, then no transfer is possible.

If the transfer was successful on PC A, then the license is sent to the Activation Server 6 and the local license is locked (tamper detection 565 ensures that a restore of a license file, which was saved before the transfer was done, results in an error)). The user can now install the application on PC B and use the old Serial Number again.

Depending on the type of workflow you are using, there are 2 different implementation options for transferring a license.

- Transfer a license using EasyGo 177
- Transfer a license with custom-made screens 573
- License transfer during uninstallation of the application 361

In case a license transfer is not possible (e.g. because the PC was formatted) a manual license deactivation can be done on the Activation Server 6.

- In order to be able to use this feature you need the Activation Server 6 448

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- A good idea is to automatically do the license transfer during the uninstallation of the application 361

14.16.1 Transfer a license using EasyGo

Add a new menu item (e.g. *Help*, ***Transfer license***) within your application and make the following Source Code modifications.

All screens, which handle the license transfer including error situations can be found here 260.

At the start of the application

- Activate the license transfer option 114 using SetRegisterLicTransfer 114. Set option *TransferLicence* to true, to transfer the complete file. This command must be used **before** PrepareAndCheck.

Command to transfer the license

- Retrieve **main module ID** with MainModuleID 725
- Retrieve Serial Number / ID with GetSerial 709. If the Serial Number / ID is empty then the license transfer is not possible as the product is not activated yet
- Transfer the license using the command TransferLicence 812 and the **main** module ID and Serial Number as parameters

The **complete** license file is uploaded to the Activation Server 6 and the license file on the local PC is locked.

- If the user restarts the application, an online connection would try to reactivate the license - see details License deactivated / reactivate license 265. The user gets different options to activate the license again
- If the user installs the application on PC B, he can activate the product using the same Serial Number / ID he used to activate the product on PC A
- Modules from type license per PC or User: All the PC / User entries are removed after the download.

  Example: A 10 user license on Server A, 7 licenses are used and 3 licenses are free. After the license transfer 9 licenses are free on Server B (one is used by the PC which does the license transfer)
- The license file can be viewed or changed on the Activation Server 6

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A transfer license button could also be added in the License Viewer - see Transfer License button 289
To find out, if a module / license is deactivated, use GetVerificationOfModule 716 (result: frozen = 2)

If the user makes a backup of the license file before he does the license transfer and restores the license file after the transfer, automatically a new online validation will be done during the next application start. This ensures that the license cannot be used twice.

14.16.2 Transfer a license using custom-made screens

If you do not use the EasyGo workflow but your own screens 495 use this workflow to transfer a license.

Add a new menu item (e.g. *Help*, ***Transfer license***) within your application and make the following Source Code modifications.

At the start of the application

- Activate the license transfer option 114 using SetRegisterLicTransfer. Set option *TransferLicence* to true, to transfer the complete file. This command must be used **before** WebRegisterExt 821.
- Set LockIsError 724 to true. This enables a special check to find out if an older license file was restored after a transfer was done. It would set the license to locked
- Validate 818 - Would return error code 300 to indicate that an older license file was restored and the license was set to locked. Implement a reactivation screen like this: License deactivated / reactivate license 265
- You could always use GetVerificationOfModule 716 after the validate command. The result frozen = 2 indicates that the license was locked . Implement a reactivation screen like this: License deactivated / reactivate license 265.
- Use CheckModuleSubscription 654 to detect, if the local license was locked previously using the regular online check 541 (it will automatically activate the license again if possible)

Command to transfer the license

- Retrieve main module ID with MainModuleID 725
- Retrieve Serial Number / ID with GetSerial 709. If the Serial Number / ID is empty then the license transfer is not possible as the product is not activated yet

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- Transfer the license using the command DeactivateModule 661. Use the **main** module ID and your Serial Number / ID as parameter

The **complete** license file is uploaded to the Activation Server 6 and the license file on the local PC is locked.

If the user installs the application on PC B, he can activate the product using the same Serial Number / ID he used to activate the product on PC A

You can disable the progress screens using ShowWAStartPage 806, ShowWAProgressPage 804 and ShowWAResultPage 805.

14.17 Using an USB stick (flash drive) as a Dongle replacement

Licence Protector 5 offers software copy protection with all the advantages and flexibility of a software solution. However, there are some situations where a hardware protection makes sense.

- Using one single license on multiple PCs and no online connection is available. The user can move the license from PC A to PC B using the USB flash drive
- Deliver a complete application on a USB flash drive - ready to go without the need to activate the software
- Marketing reasons - instead of receiving a CD, the user gets a USB flash drive with additional value for him

Licence Protector 5 offers a unique protection feature using a **standard USB flash drive**. The license is bound to an individual ID of the USB flash drive (different for each stick), which cannot be copied. It supports all the license options of a single user license like

- Evaluation options
- Multiple Modules

and additionally the option to define,

- **on how many PCs the USB** stick can be used or
- **how many users can start the application**

This is a very handy feature as you can control the usage of the stick.

The USB flash drive solution is much better than a Dongle:

- It is favorable - the price is only a fraction of the price of an Dongle
- The customer could even use his own USB flash drive. You can send out a Serial Number and activate the license on the USB flash drive using Online, e-mail, Fax and phone activation. This is important if you deliver in multiple countries and shipping hardware is difficult

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- In case of a hardware failure you can instantly issue a temporary license, where the license is stored on the local PC

Licence Protector 5 combines the advantages of software copy protection with the advantages of hardware protection!

The USB flash drive protection can only be used as a **single PC / single user** license. A network license is not supported as a PC cannot retrieve the hardware information of the USB flash drive when it is used on a server.

The USB protection works with Windows XP and Windows Vista / Windows 7 / Windows 8.

This feature is only available in the *Professional Edition.*

See also
Deliver the USB flash drive with Copy Protection activated 576
Use USB flash drive of the customer 578
Installation Code 11 485
Automated USB-Stick duplication 582

14.17.1 License File - open file and license test

The license file must be **located on the USB flash drive**. There is no modification in the source code necessary to use the USB flash drive protection.

In the PrepareAndCheck 162 command you specify the path and license file name.

A good idea is to ask during installation, if the application should use a USB flash drive and then open a file dialog to browse for the drive. The installer could then copy the file to this folder. Save the path in the registry or configuration file.

If you deliver the USB flash drive, then the file would already be on the USB flash drive. The installer just needs to browse for the drive and does not copy the file.

If the complete application runs on the stick, the path would be the same path where the application starts.

To prevent, that the USB flash drive is removed after the program start, make regular license tests 464, e.g. every 15 minutes.

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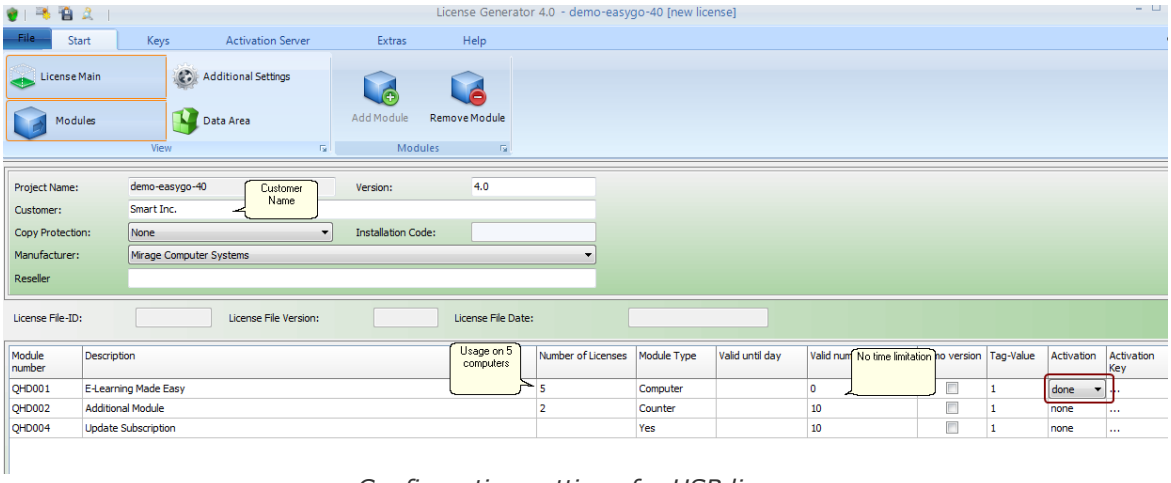
14.17.2 Deliver the USB-Stick with Copy Protection activated

To deliver a USB flash drive with a ready to go license, there are only a few steps necessary.

Create license file

- Open the License Generator and **load the project template**
- Configure all modules the customer has bought
- The license should have **no time limitation** or demo version status. You could add a time limitation, if the software should expire after x days or on a predefined expiry date
- Activation status must be **done** if you use EasyGo
- Type in the customer name and save the license file on the USB flash drive



Configuration settings for USB license

Limit usage

The customer can use the license always **only on the computer, where the USB flash drive is attached**. The limitation by PC / user is an additional configuration setting to limit the usage.

- use a module from type computer/PC 203 - this limits the usage to the defined number of computers (recommended option). To define an unlimited usage, just configure a license with 9999 computers
- use a module from type user 203 - this limits the usage to the defined number of users (USB flash drive can be used only on one PC)
- use a module from type Yes/No 203 - the USB flash drive can be used on any number of computers by an unlimited number of users

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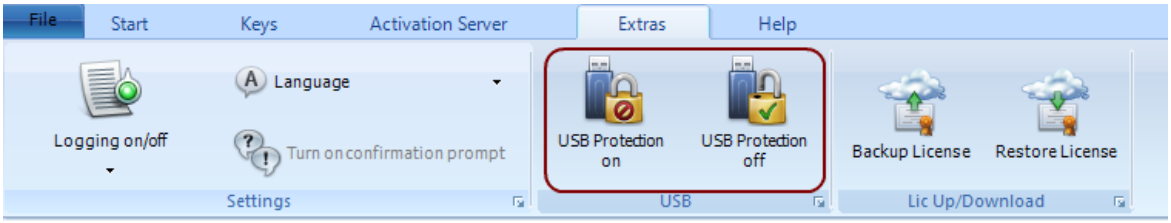
The computer license type uses the hostname 480 to count the number of computers. As a hostname can be changed, you could use the hardware ID 13 487 (Windows ID) instead of the hostname or a combination of both.

- Retrieve hardware ID 13 using GetInstCode(13) 684
- In the command Validate 818 or PrepareAndCheck 162 use the hardware ID 13 as replacement for the hostname (Name = hardware ID13, UseWindowsUser = false)
- As now only a 8 digit number is displayed in the License Viewer, you could combine the hardware ID13 with the hostname - GetLPComputername 703 - the result in the license file would e.g. be: 411B9C8E (My Computer)

Activate protection on USB flash drive

First You have to load the correct project template for the file you want to protect. Then you can add the USB protection to this file.

In the License Generator, select the Tab *Extras*, then **USB Protection on.**



This opens a dialog, where you can select the license file on the USB flash drive. The copy protection is then activated.

If the USB flash drive does not support this option, an error message is displayed:
There is no valid instcode for file filename.lic

You have to use another USB flash drive.

The copy protection can be removed from the USB flash drive. Select the menu Tab *Extras*, then **USB Protection off** This opens a dialog, where you can select the license file on the USB flash drive. The copy protection is then removed.

The option: Allow SetVal function must be checked. Otherwise you get a write protection error.

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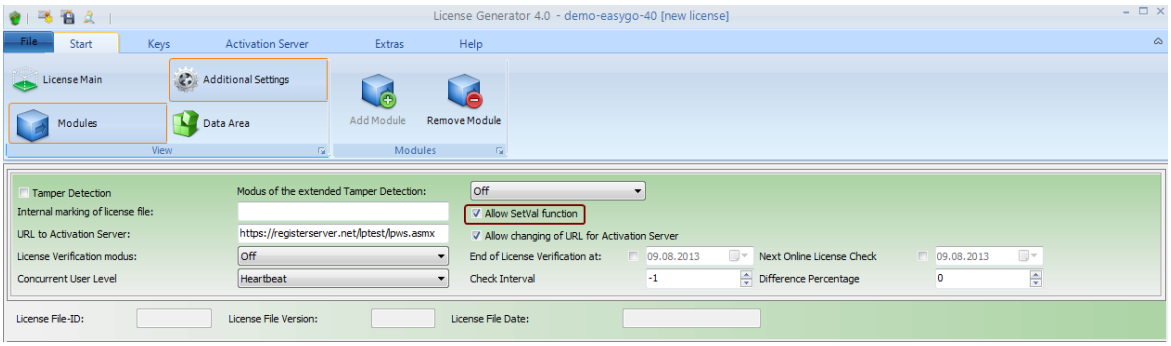

SetVal configuration - screen additional settings

Automated process for large quantities

If you need large quantities of USB flash drives with a license file already activated, you can use the service of the company OEM marketing - www.oem.de. They are specialized in CD and USB duplication and they have a special license from us to add the USB flash drive protection in a batch process. You have to send them a generic license file and the project template.

14.17.3 Use USB-Stick of the customer

If a USB flash drive of the customer should be used, there is the same workflow 585 with product activation using EasyGo. All activation options (online, e-mail, fax, phone) are supported. You just have to provide an option that the user can copy the generic license file 99 to the USB flash drive. This could be done e.g. during the installation.

Serial Number

You define with the Serial Number 301, on **how many PCs the USB flash drive can be attached**.

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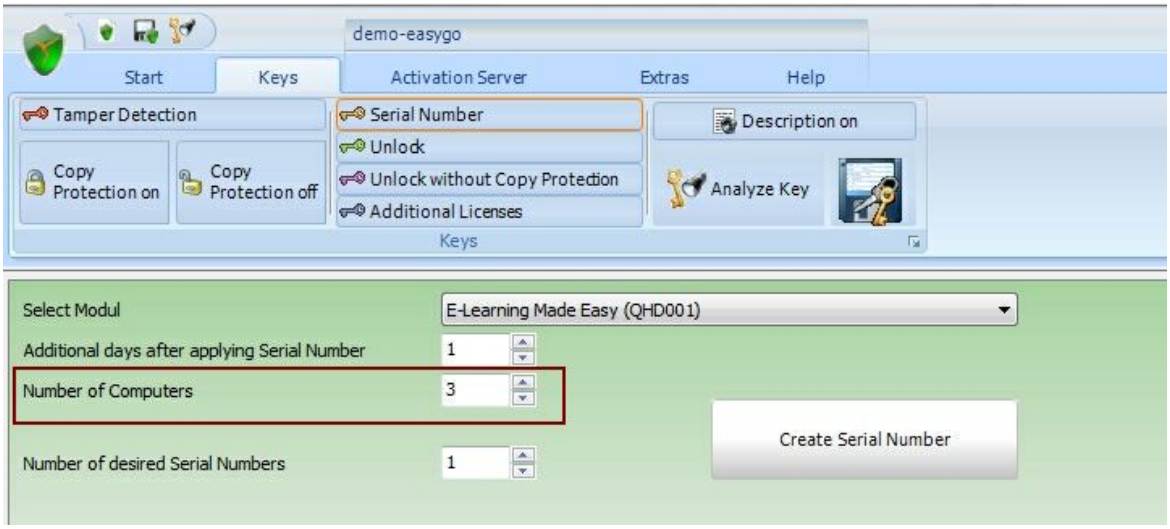

Product Activation

The USB flash drive protection uses the **installation code 11** 485. For activation by e-mail, fax, phone nothing specific has to be considered. See chapter: Unlock Key 320. If the installation code 11 is empty, then the USB flash drive does not support copy protection.

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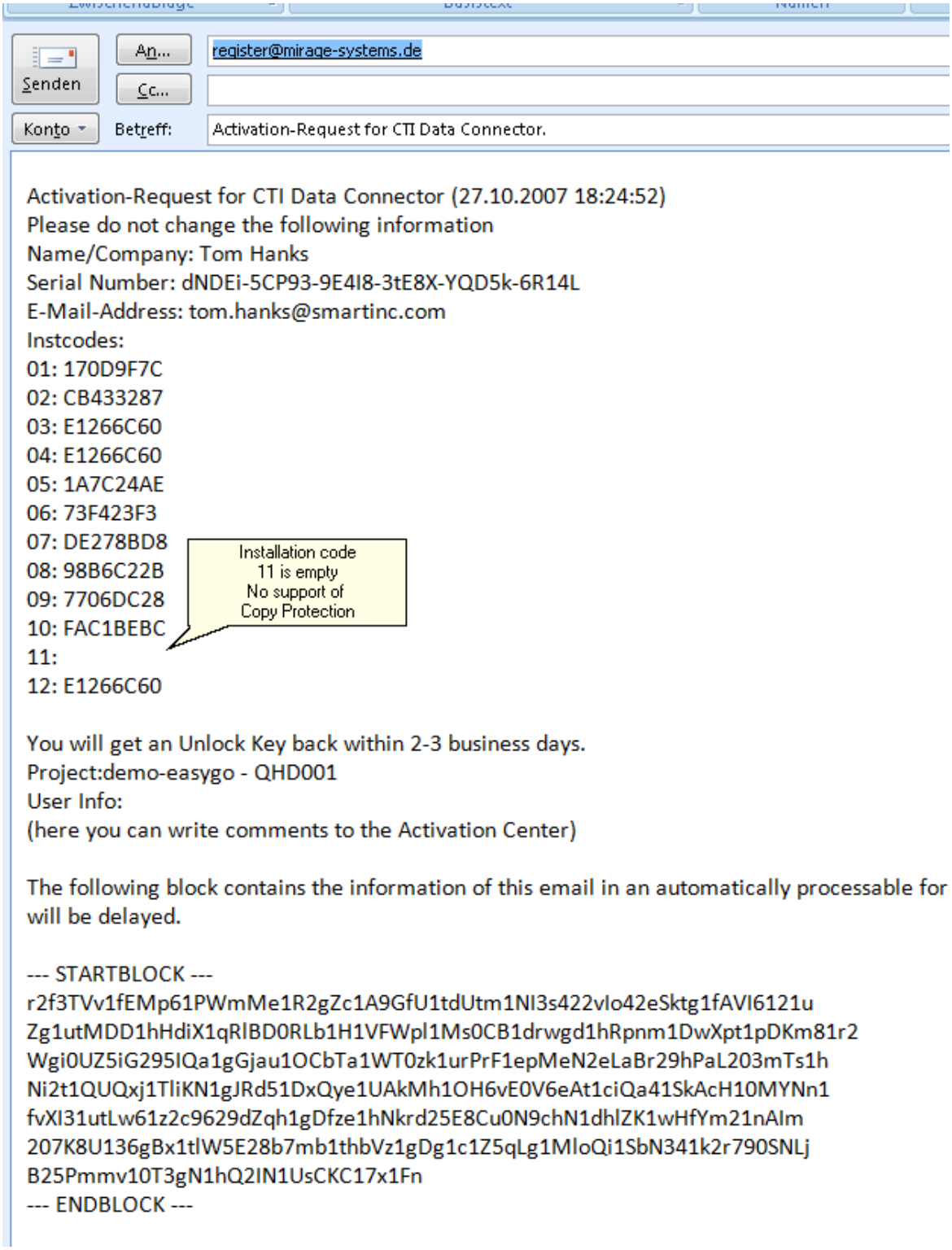

E-Mail Activation - No support of USB stick protection

For online activation we recommend using an own project name [185] (e.g. product-usb) because the activation server has to use installation code 11 as the main criteria. If the USB flash drive does not support copy protection, then the license is automatically bound to the PC which makes the activation.

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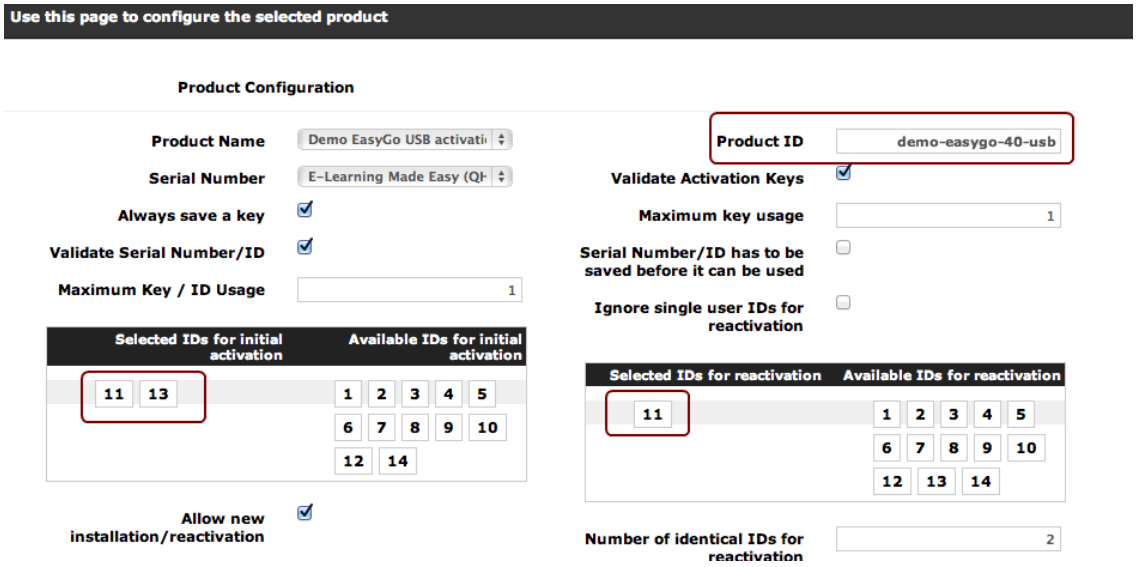
- Recommended configuration of project.config file on the Activation Server

You can configure these options using *Administration / Setup*, **Product configuration**



Find below the settings in the .config file

<Configuration>

<Project>
<ProjectID>demo-easygo-**USB**</ProjectID>

<CheckActivationKeys>yes</CheckActivationKeys>
<NoOfAllowedKeyOccur>1</NoOfAllowedKeyOccur>

<CheckEntries>yes</CheckEntries>
<EntryRequired>no</EntryRequired>
<NoOfAllowedEntryOccur>1</NoOfAllowedEntryOccur>

<InstCodeType1>**11**</InstCodeType1>
<InstCodeType2>**13**</InstCodeType2> (if the USB drive does not Support copy protection, the license is bound to the PC)
<InstCodeType3>3</InstCodeType3>

<AllowReactivation>Yes</AllowReactivation>

<CheckInstCodeType1>**11**</CheckInstCodeType1> (for reactivation, the USB flash drive ID has to match, reactivation with an installation on the hard disk is not possible).

</Project>

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14.17.4 Start application on the USB-Stick

If you want to start the complete application from the USB flash drive, the Licence Protector DLL has to be loaded dynamically.

See chapter: Use DLL without registering 358

14.17.5 Automated USB flash drive duplication

If hundreds of protected USB flash drives have to be produced, an automated process is required. The *Enterprise Bundle* comes with a tool, which supports an automated process.

This application has no user interface. The main purpose is to activate the copy protection on the USB flash drive without any user interaction.

The simplest way to use the application **cpautomation.exe** is to use a .BAT file. If you start the application without any command line parameters, you get a list of all available command line parameters.

Command Line Parameters

As the application has no user interface, it needs command line parameters. The values in **red** are required values

Parameter	Explanation	Example
-p	Project file name in xml format which includes the encryption and other information about the project	**-p demo-easygo.xml**
-lic	License file name on the USB flash drive	**-lic m:demo-easygo.lic**
-n	Limit number of PC's (or users). 0 uses the default license number . Details see: Limit Usage 576	**-n 5** (this would limit to use the USB flash drive on 5 PC's or for 5 users (depending on the definition)
-c	Hardware ID 475 - the default value is 11 = USB flash drive	not necessary
-m	Module ID of the application. Not required and reserved for future use	not necessary
-pause	will pause the screen. Necessary to trace if an error has occured	
-ep	Expiry date of the license	-ep 2014-12-31 (format must be YYYY-MM-DD)
-days	Number of days, when the license will expires. Counter begins whith the first program start	-days 363

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Setup for automated duplication

Create a new folder and copy all files needed for the USB flash drive (including the license file) into this folder (e.g. name it Publish USB)

The application for the automated USB flash drive duplication includes the following files:

- cpautomation5.0.exe
- cpautomation.lic
- cpautomation.bat

Batch Process

The file **cpautomation.bat** defines the process. Normally this is:

- Copy the files to the USB flash drive
- Activate copy protection for the USB flash drive

You can modify this bat file and adapt it to your USB flash drive duplication facility.

If you are familiar with batch files, use example 2, otherwise edit the file cpautomation.bat and modify it like example 1.

Example 1
cpautomation.bat
copy "c:....\Publish USB*.*" m:
cpautomation5.0.exe -p flash-demo.xml -f m:\flash-demo.lic -n 5
copy "c:....\Publish USB*.*" n:
cpautomation.exe -p flash-demo.xml -f n:\flash-demo.lic -n 5
copy "c:....\Publish USB*.*" o:
cpautomation.exe -p flash-demo.xml -f o:\flash-demo.lic -n 5

For each USB flash drive (typically drive letter d: to z:) you have to repeat the command line - copy the files and add the copy protection with cpautomation.exe.

Example 2
You could also start the cpautomation.bat using command line parameters. Then you do not have to change the bat file for every project.

cpautomation.exe flash-demo m: 5 (project name, drive name of the USB flash drive, number of licenses)

cpautomation.bat
copy autorun.info %1
copy %1.lic %2
copy %1.exe %2

cpautomation5.0.exe -p %1.xml -f %2\%1.lic -n %3

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Useful commands for batch files

- To delete all files within a folder: ECHO Y | DEL "m:*.*"
- To delete a specific folder: ECHO Y | RMDIR /s "foldername"
- Stop the batch script to check results: PAUSE

This feature is only available in the *Enterprise Suite.*

14.18 Virtual Machines

Licence Protector 5 offers multiple options how you can handle the license behaviour on virtual machines. Find below some ideas.

Detect a virtual machine

The command RunsOnVirtualMachine 751 retrieves the information, if the application is running on a virtual machine or not.

Ideas to handle virtual machines

Don't allow to start the application

If the applications detects that it runs on a virtual machine, it just stops.

Require USB flash drive for virtual machine

Using a USB flash drive protection 574 ensures, that a clone of the virtual machine would not run as the USB flash drive can be used only on one PC. The USB flash drive protection works only for single user installations.

You can either deliver the USB flash drive with copy protection already activated 576 or the customer can use his own USB flash drive 578.

To find out, if USB flash drive protection is enabled, use GetCopyProtection 676. It must be 11.

Regular online checks

The regular online check is the 100% solution. If the applications detects that it runs on a virtual machine, enable the regular online check. To activate the functionality with DLL commands, use SetVal, Token LVI 711=1. For the complete code implementation and configuration settings see chapter Regular Online checks 541.

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If the user would run multiple clones of the virtual machine, the Activation Server 6 would have multiple entries with the same Key / ID within the same timeframe.

Example
If the interval for regular online checks is 30 days, one documented entry on the Activation Server 6 would be expected. If the Activation Server 6 would have 3 entries within 30 days, this would indicate that 2 clones with the same Key / ID are running.

You could then lock the Key / ID 545. The next online check would lock the complete license on the customer machine.

Evaluation Version

To prevent, that the evaluation version is installed multiple times just by using the same image (before the evaluation version was installed) you can activate the evaluation version. 161

14.19 Workflow - from Distribution to Activation

This chapter explains the workflow in detail from distribution to activation.

- Distribution 585
- Evaluation Version 590
- Activation 591
- Sending out keys - Serial Number 301 and Unlock Key 320

If you have more than 5 modules you could deliver a customer specific license file - see license File with EasyGo 172

14.19.1 The Basics about Workflow

Depending on the kind of activation you choose, the workflow is different.

The predefined workflow is as follows:

- Create the generic license File 588 for the evaluation version
- Provide an evaluation version 68 (also non-evaluation 223 version which always needs a Serial Number is possible).
- For all start and workflow options see chapter: Worflow Options 145
- Customer can test within the time limited period or buy the software - screen Start Screen in Evaluation Mode 222
- Customer buys the software and gets the Serial Number 301 Key. The key is unique and is the 'proof of purchase'.
- The Serial Number sets a trigger that enables activation via web(online 591), e-mail 593, fax 593 or phone 593 (activation methods can be defined)

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- Online Activation – the Serial Number is transferred to the Activation Server 6 448 it is validated if the Serial Number was already used or not and copy protection 67 is enabled, time limitation is deleted (to get an unlimited full version). The customer can work instantly with the application. A reinstallation on the same PC which already registered is accepted (configurable). Other workflows can be defined like do not activate copy protection or activate time limitation for full version
- Activation by e-mail, fax and phone requires manual activation by sending the installation code 474 (hardware ID) to you and sending back an Unlock Key 320
- The application is now copy protected and without time limitation (depending on the settings)

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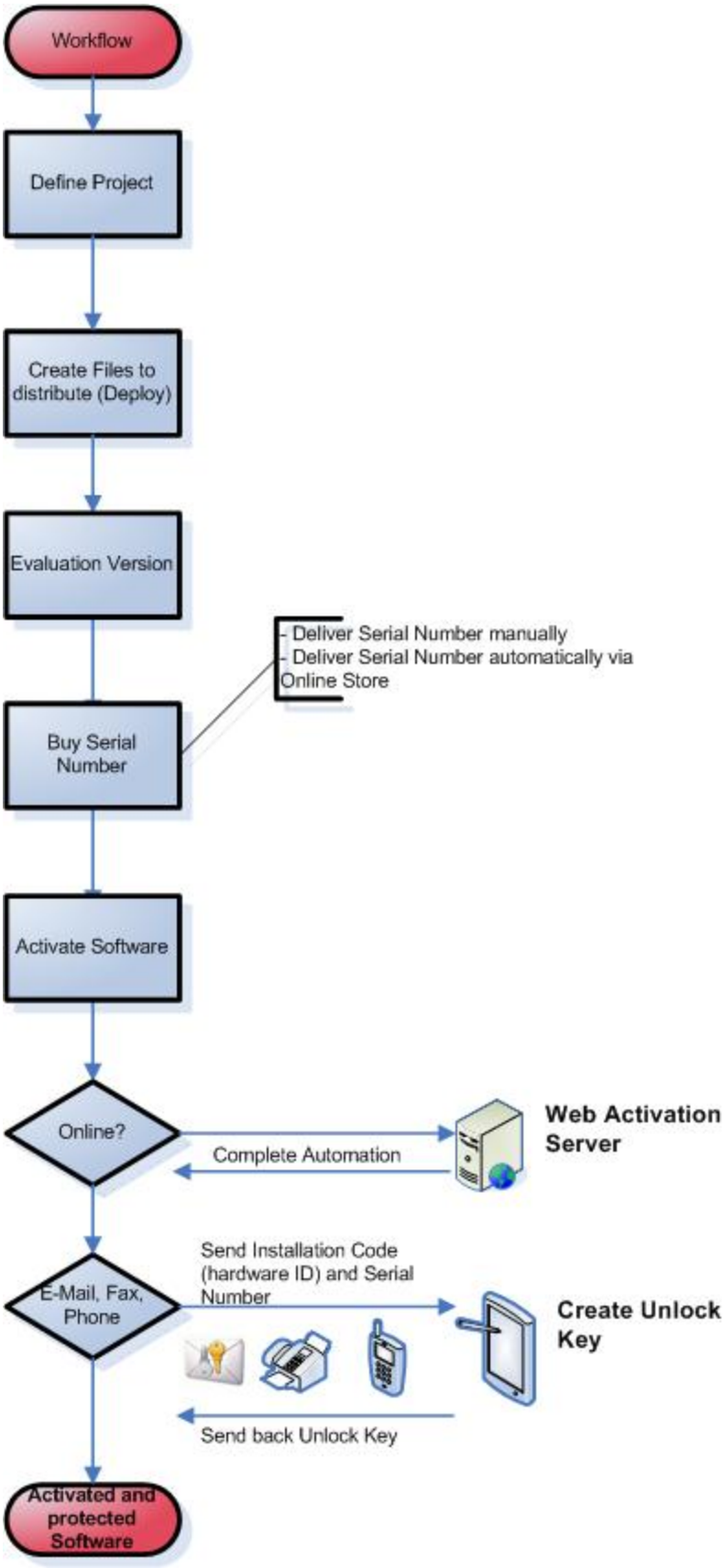

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The Video Tutorial offers a live demonstration of each activation method.

Start Video Tutorial

14.19.2 Generate generic Licence File

The demo / trail version or the full version comes always with the same generic license file. It can contain **one or more modules**, is **time limited** (option) and the Activation status has to be set to **none**.

The license file is created with the License Generator.

For details see - Create license File 99

14.19.3 Customer buys Serial Number

As a proof of purchase, the customer gets a unique Serial Number.

Depending on your business workflow, there are 3 options to generate a Serial Number (manually, 301 automatically with a key list 308, automatically after the order process 313). The Serial Number is sent to the customer. After receiving the Serial Number, the customer selects an activation method (Online 591, e-mail, Fax, Phone 593) and types in the Serial Number, name and e-mail.

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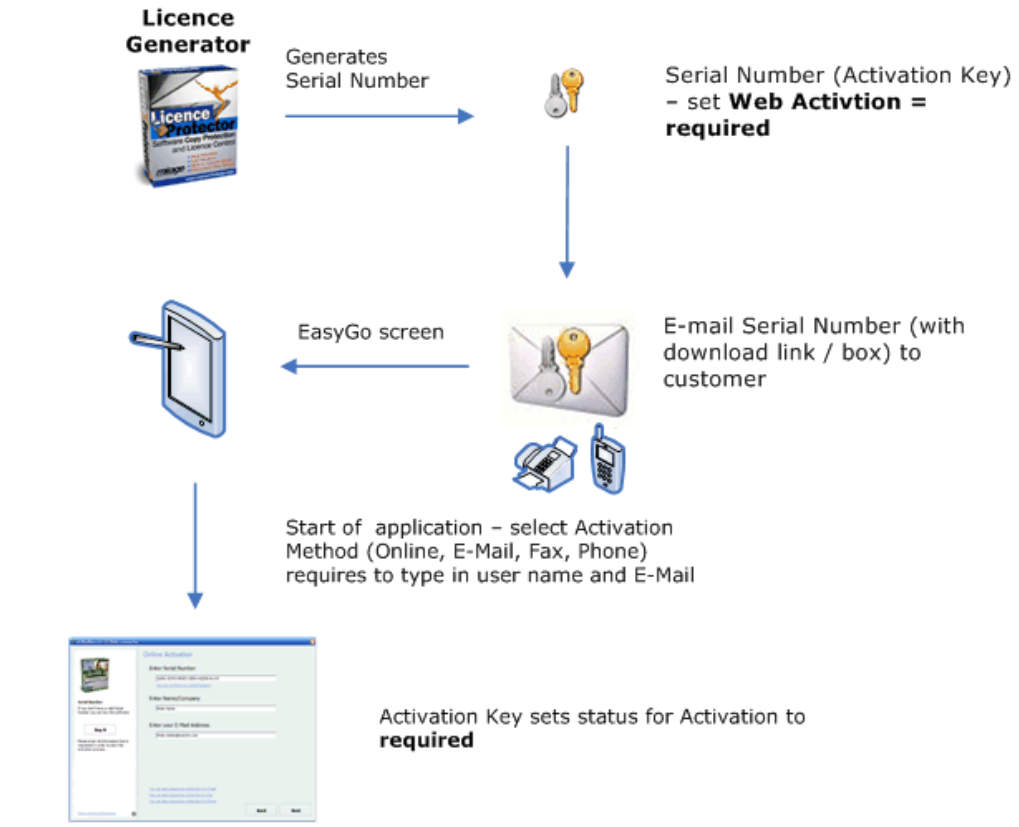

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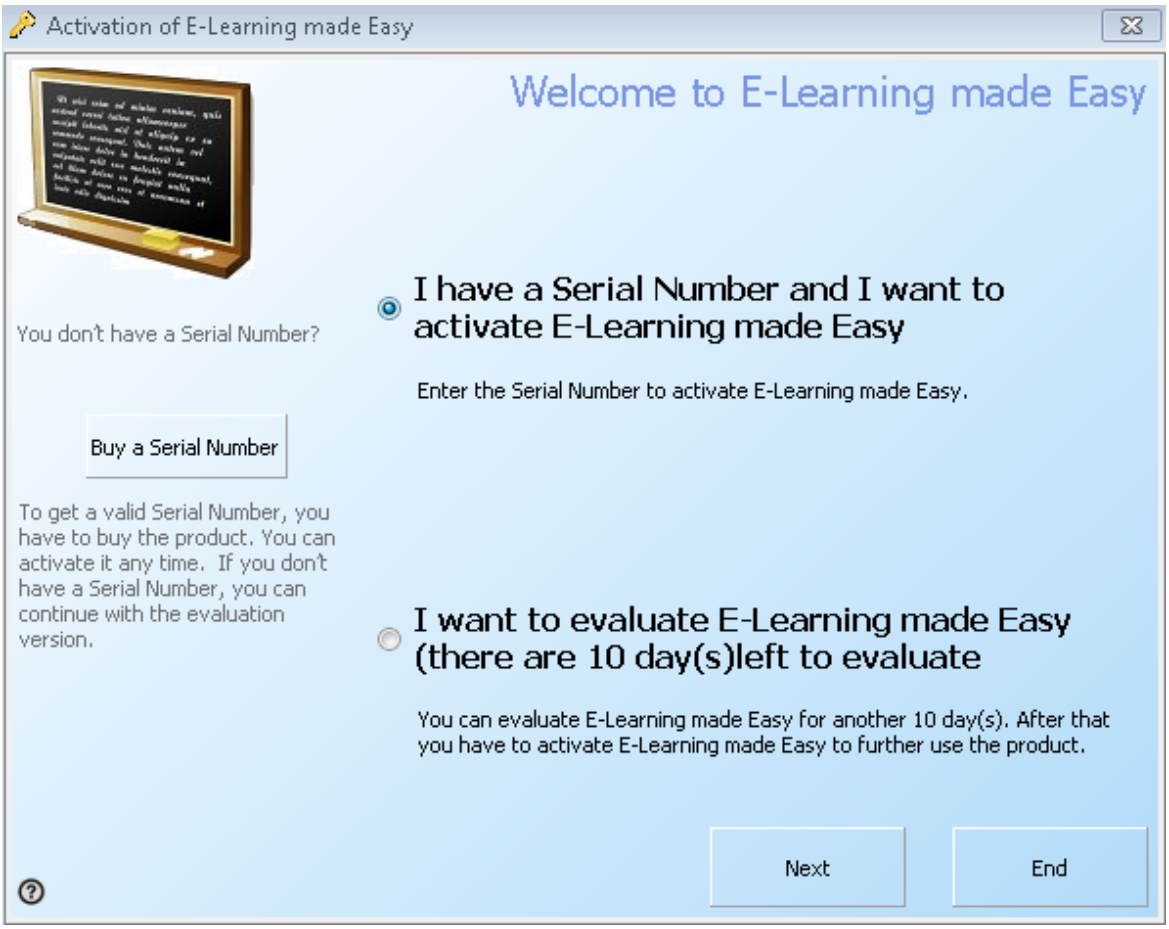
14.19.4 Evaluation Version

The application can be tested in an evaluation mode - details see chapter Evaluation Version 68



14.19.5 Buy Serial Number

As a proof of purchase, the customer gets a unique Serial Number. See how to create a Serial Number Key 301.

After receiving the Serial Number, the customer selects an activation method 73 (Online, e-mail, Fax, Phone) and types in the Serial Number, name and e-mail.

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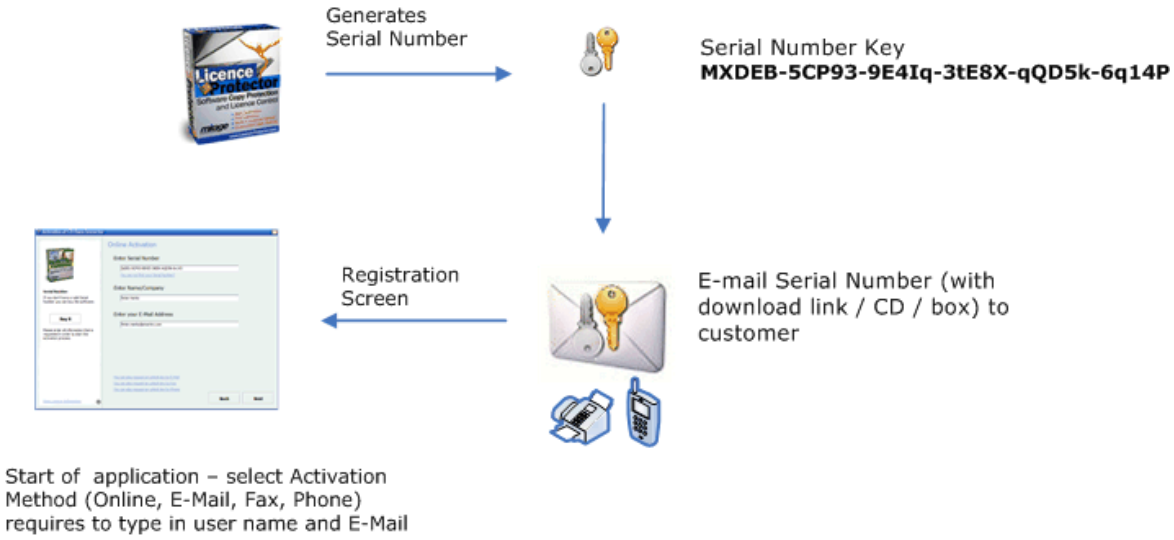

If an Online Shop 596 is used, the Serial Number Key can be generated automatically after the order process 313.

14.19.6 Activation Methods

There are 4 activation methods (Online, e-mail, Fax and Phone). The main purpose of the activation is to activate the copy protection (bind the license to the hardware of the PC / Server) and delete the time limitation, which was set to evaluation purpose.

When using a network license 591, the activation can be done from **any PC/Client** (not from the server) and it has to be done only **once** for all PCs. The PC/Client retrieves the hardware data (installation codes) 67 of the server.

14.19.6.1 Online Activation

This method allows a complete **automation** of the process. The Activation Server 6 448 is required. Mirage offers as an option a hosting of the server. The Activation Server 6 also ensures that the **Serial Number can be used only once** (configurable).

The hardware IDs 475 and the Serial Number is sent to the Web Activation server, verified, stored in a data base and in case the Serial Number was not used before, copy

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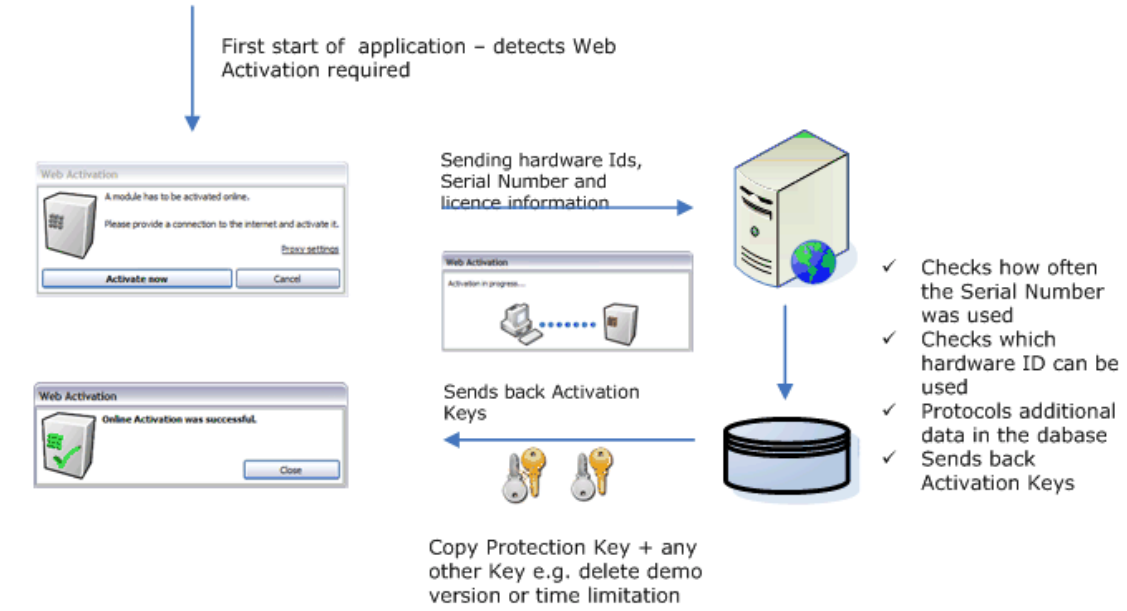
protection 67 is activated and time limitation is deleted to allow a an unlimited program start.



Sample Screen - Enter Serial Number - Online Activation

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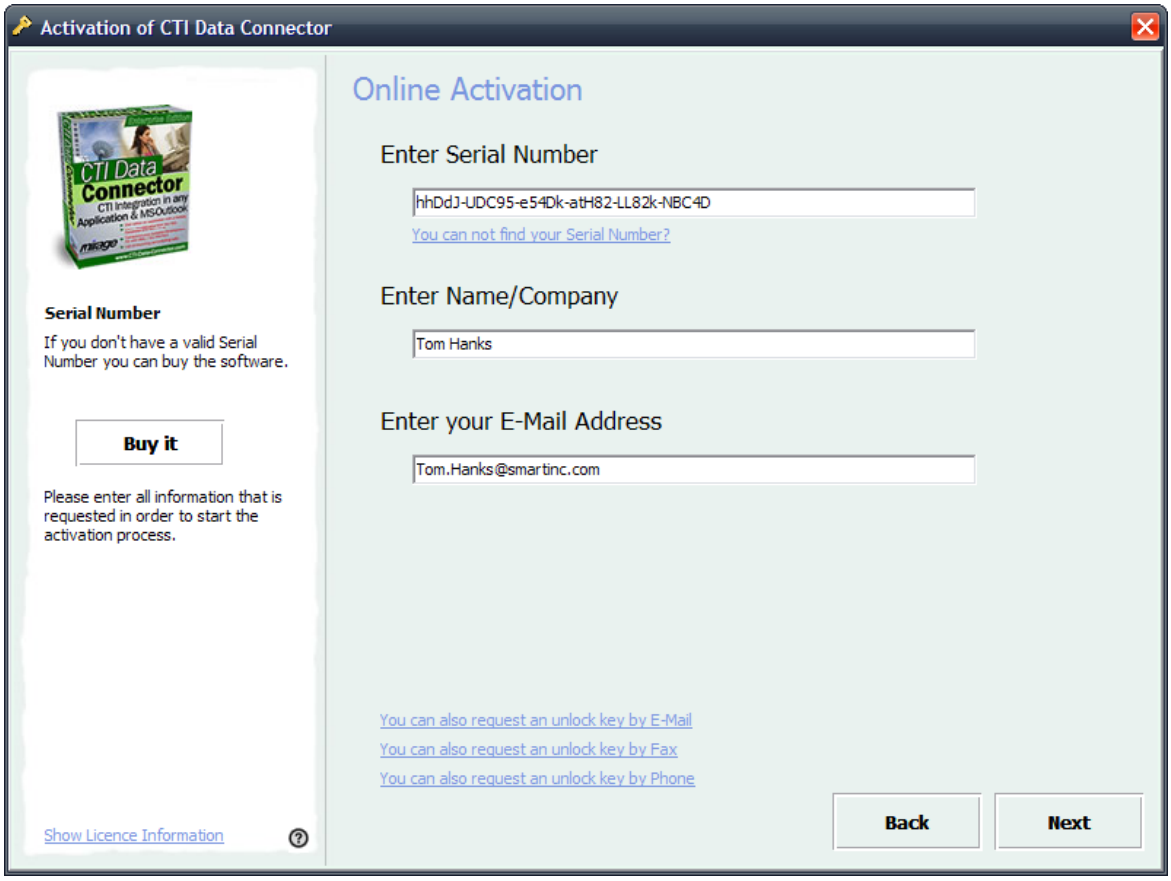

14.19.6.2 Activation by E-Mail, Phone, Fax

With either of this method, the customer has to send you the installation code 475 (8 digit hardware ID), **Serial Number,** name, e-mail address and you have to send back the Unlock Key 320 (Copy Protection Key). .

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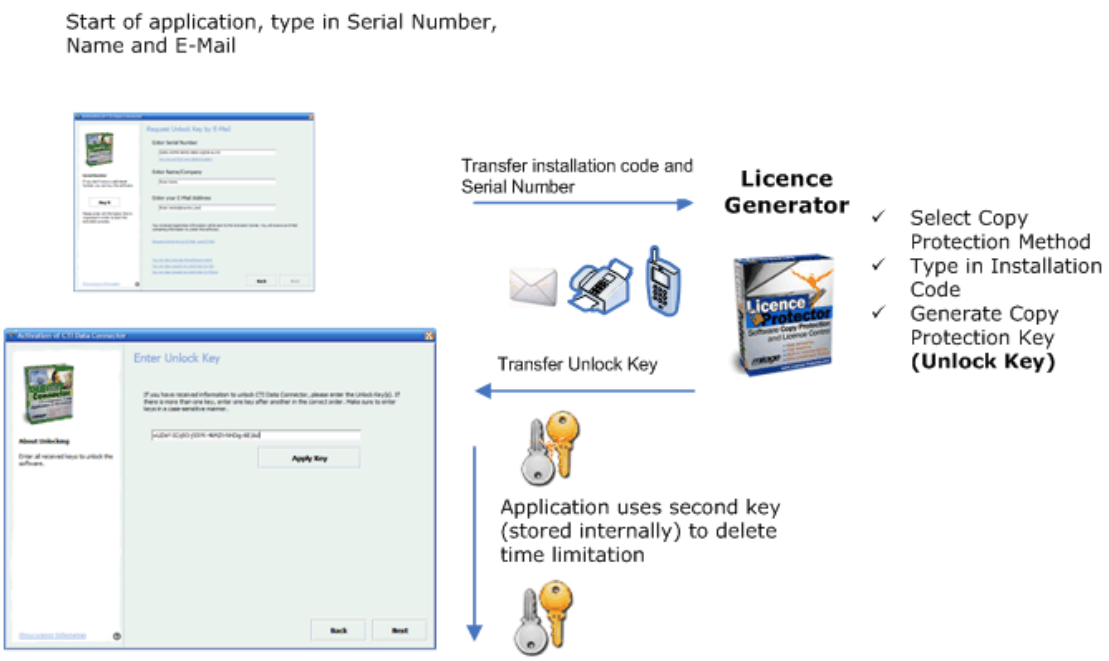

Note
You have to check if the Serial Number was already used or not. If the Web Activation server is installed but the customer sends the information via e-mail, Phone or Fax, then starting with version 2.5 the Unlock Key can be generated within the Web Activation interface 326 which ensures, that the key can not be used twice.

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Part XV

15 Integration in Online Shops / E-Commerce systems

Licence Protector 5 offers a generic integration in any shop and a ready to go integration in popular e-commerce systems.

E-Commerce integration

The following description does not cover how to make the setup for the e-commerce system. It describes the necessary steps to combine Licence Protector 5 with these shops.

- Avangate 596 (www.avangate.com)
- Cleverbridge 603 (www.cleverbridge.com)
- Element5/ShareIt 617 (www.element5.com , www.shareit.com)

Generic Shop Integration

In case you use a custom shop system or an e-commerce system which is not listed above use the Generic Shop integration 632

15.1 Avangate

The integration in the Avangate e-commerce system (www.avangate.com) can be done without programming - just by defining the desired action.

- Use Key Lists 596

15.1.1 Working with Key Lists

If your product has just **one** module and it is a Yes/No module or it is always a **single user** installation, then you could upload key lists which are easier to handle.

If you sell a network license 548 where each order can contain a different number of licenses, then it is not possible to work with uploaded keys. You have to create a Serial Number Key which is different per order and includes the number of licenses ordered. This option is not supported right now.

These steps are necessary to work with key lists:

- Build a key list with Serial Numbers 597
- Upload Serial Numbers 597
- Define Delivery Text 599

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- Upload Project Files 601
- Define Delivery Option 602

15.1.1.1 Build a key list with Serial Numbers

First you have to build a list with Serial Numbers which are uploaded to the shop. Depending on your sales create 100 or 1000 Serial Number keys to upload.

How to create a Key List see - Create a Key List with Serial Numbers. 308

15.1.1.2 Upload Serial Numbers

Login in the Avangate system and select **Electronic Delivery.**

Type in a **List Name** and select the *List Type*: **Static**

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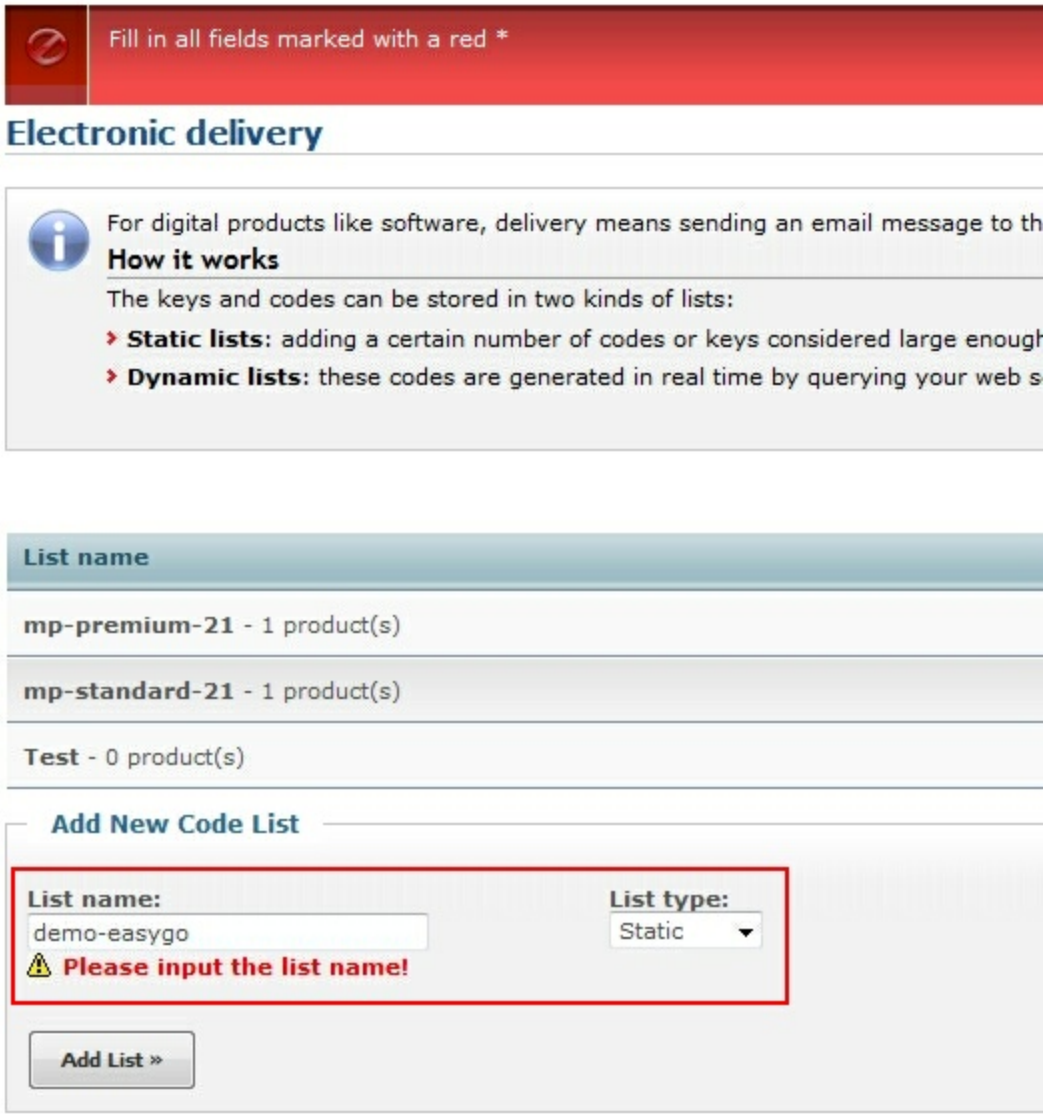

Select the button: Edit. From the key list with Serial Numbers you created - see build a key list with Serial Numbers 597 - copy and paste the keys in the field **Code**. .

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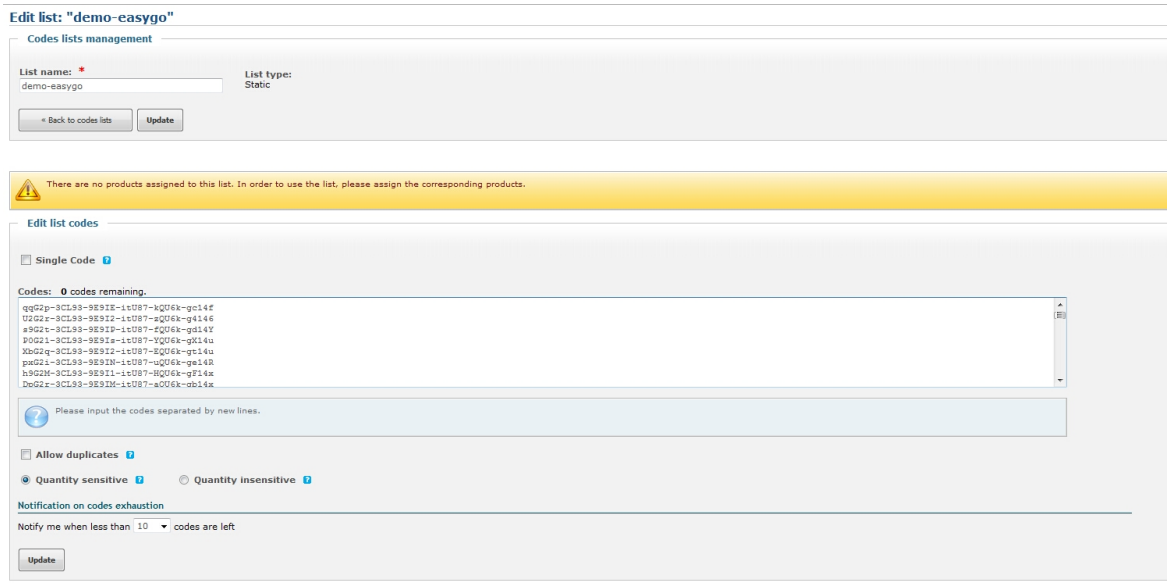

Add keys to key list

Important settings are:

- **Un**check *Single Code*
- **Un**check *Allow Duplicates*
- ***Select*** *Quantity Sensitive*

15.1.1.3 Define Delivery Text

Edit a product and select an **additional delivery information.** The Activation Key will be added automatically. You can add a delivery text for multiple languages.

Add Delivery Text information

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Dependent upon the Activation Key is a Serial Number Key 301 or an Activation Key for an additional module, you can use one of the following sample texts. The Activation Key is inserted with the variable **<Key>**.

- Serial Number Key - English
  Serial Number

  The Serial Number Key is your 'proof of purchase'. It can be used only once and requires an Internet connection.

  Start the application and select: I have a Serial Number and I want to activate (your product name). Enter the Serial Number Key from this e-mail (you can copy it using the clipboard), your name/company and your e-mail address. Press the button: Next. A dialog appears which verifies the Serial Number key online and activates the application.

  If you don't have an Internet connection use the option: You can also request an unlock key by e-mail.

  Help, how to activate the software, can be found by selecting the icon ?
  Backup your license file xy.lic.

- Serial Number Key - German

  Seriennummer

  Die Seriennummer ist ihr 'Kaufnachweis'. Diese kann nur einmal verwendet werden und benötigt eine Internet Verbindung

  Starten Sie die Anwendung und wählen Sie: Ich habe eine Seriennummer und möchte (Ihr Produktname) aktivieren. Geben Sie die Seriennummer von diesem e-mail (diese kann über die Zwischenablage kopiert werden), Name/Firma und Ihre e-mail Adresse ein. Drücken Sie die Schaltfläche: Weiter. Es erscheint ein Dialogfenster, das die Seriennummer online überprüft und die Software aktiviert.

  Wenn keine Internet Verbindung zur Verfügung steht wählen Sie die Option: Sie können auch per e-mail einen Freischaltschlüssel anfordern.

  Hilfe, wie die Software aktiviert werden kann, ist über das Symbol ? verfügbar.
  Sichern Sie die Lizenzdatei XY.lic.

- Activation Key - English
  Activation Key
  The Activation Key is your 'proof of purchase'. It can be used only once and requires an Internet connection.

  Start (your program name) - DESCRIBE HOW TO OPEN THE License Viewer - and select Show license Information. Press the button: Activation Key. Enter the Activation Key from this e-mail (you can copy it using the clipboard). Press the button: OK. A dialog appears which verifies the Activation Key online.

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Backup your license file XY.lic.

- Activation Key - German
  Aktivierungsschlüssel
  Der Aktivierungsschlüssel ist ihr 'Kaufnachweis'. Dieser kann nur einmal verwendet werden und benötigt eine Internet Verbindung.

  Starten Sie (Ihre Programm Name), BESCHREIBEN SIE WIE MAN DEN LIZENZ VIEWER AUFRUF- danach Lizenzinformationen anzeigen. Drücken Sie die Schaltfläche: Aktivierungsschlüssel. Geben Sie den Aktivierungsschlüssel von diesem e-mail (dieser kann über die Zwischenablage kopiert werden) ein. Drücken Sie die Schaltfläche: OK. Es erscheint ein Dialogfenster, das den Aktivierungsschlüssel online überprüft.
  Sichern Sie die Lizenzdatei xy.lic.

15.1.1.4 Upload Project Files

Select **Product Files** and then press the button **Browse**. Select your installation package and upload the file.

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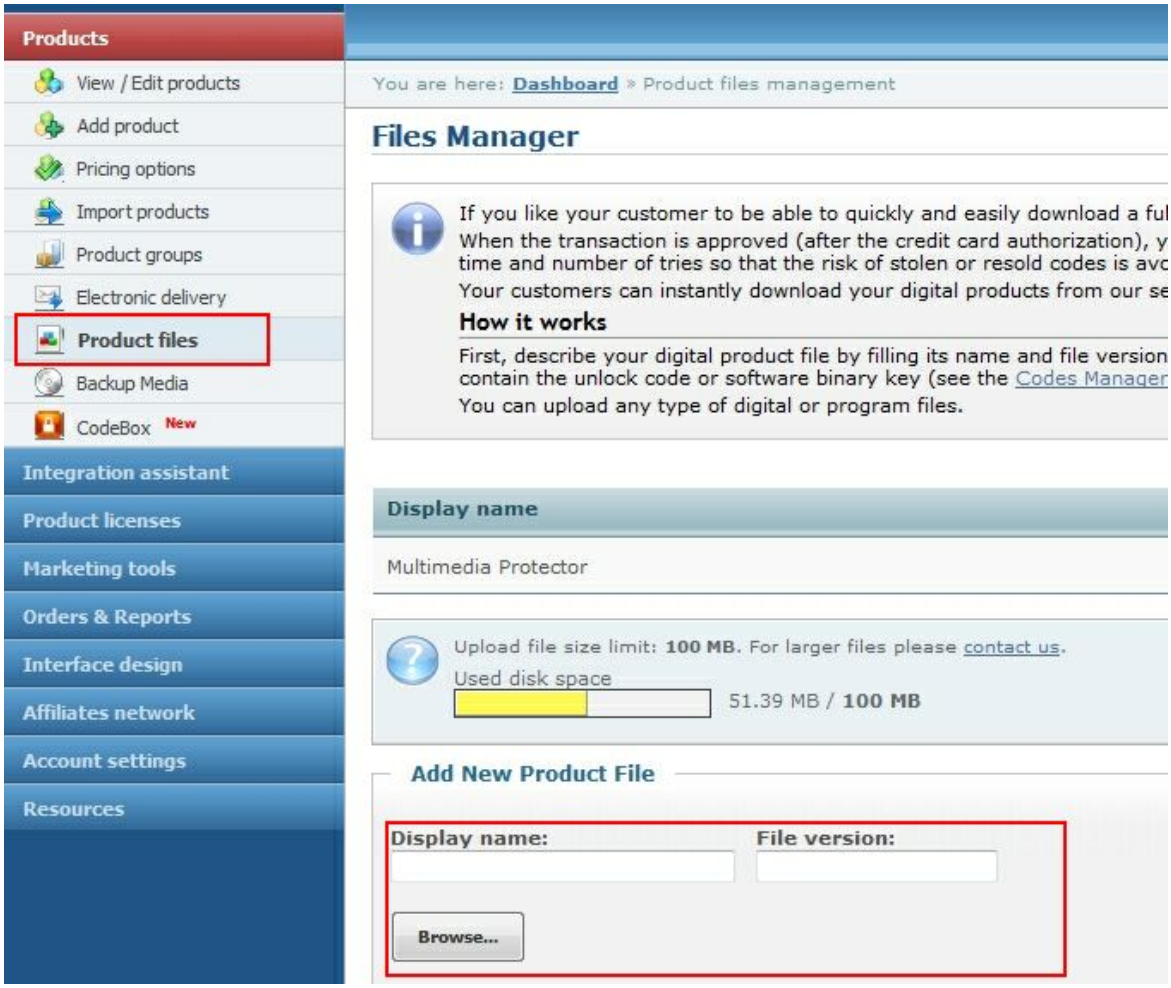

15.1.1.5 Define Delivery Option

Edit a product. In the TAB **Delivery** you specify that Avangate delivers your uploaded project files 601 by download link.

- **List name**: select the list with your keys - see: Upload Serial Numbers 597
- **File**: select your project file in the drop down list - see: Upload Project Files 601

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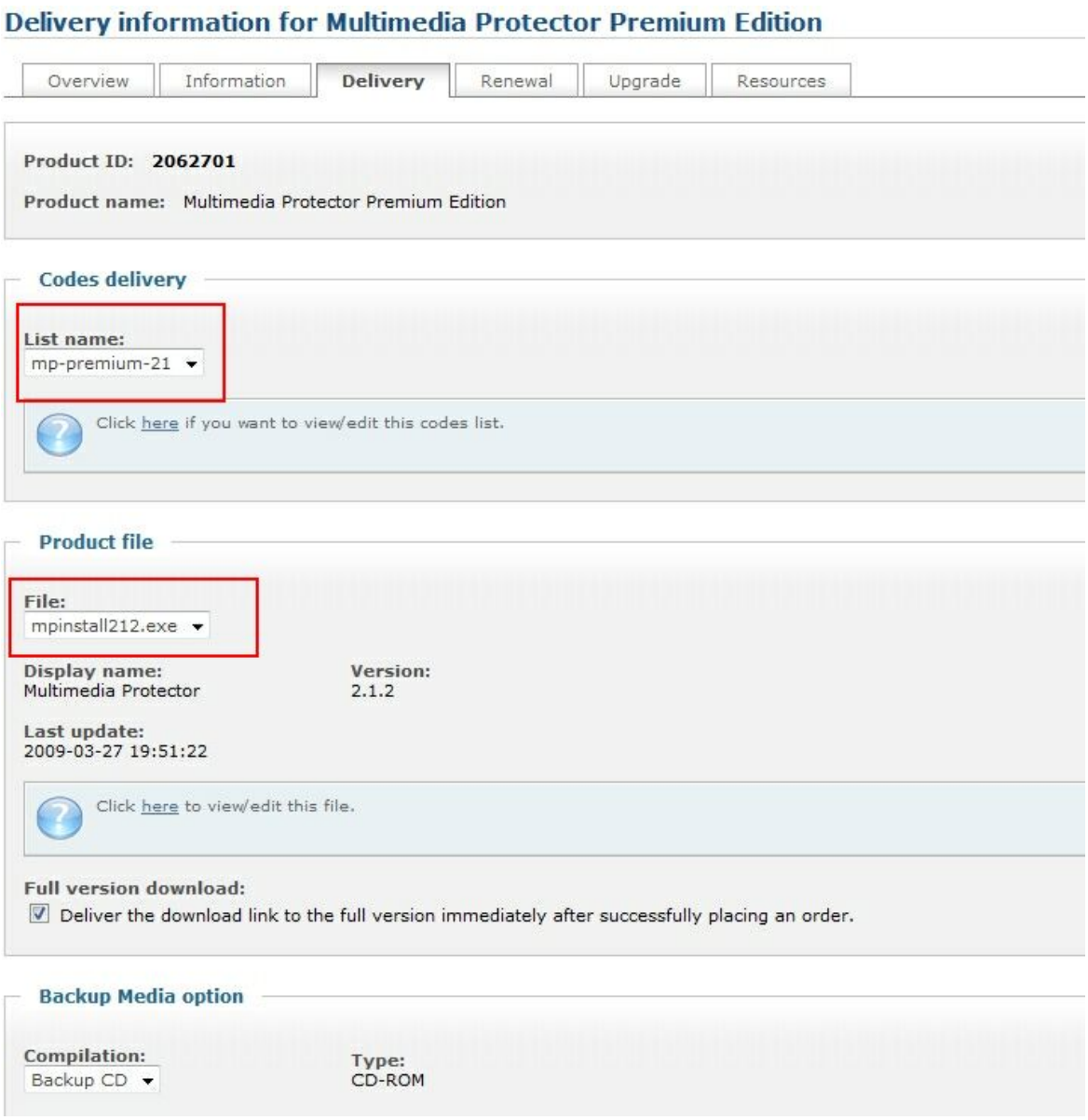

15.2 Cleverbridge

The integration in the cleverbridge e-commerce system (www.cleverbridge.com) can be done in multiple ways:

- Use an interactive communication with the Activation Server 6 604 (recommended)
- Use Key Lists 604 (single user license only)
- Use Automatic License Generator 609

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15.2.1 Use communication with the Activation Server

The cleverbridge shop can communicate with the Activation Server 6 using a https request. It generates a Serial Number / Keys and also stores the customer details on the Activation Server 6.

You find a detail explanation in the Activation Server 6 online help.

15.2.2 Use Key Lists

If your product has just **one** module and it is a Yes/No module or it is always a **single user** installation, then you could upload key lists which are easier to handle.

If you sell a network license 548 where each order can contain a different number of licenses, then it is not possible to work with uploaded keys. You have to create a Serial Number Key which is different per order and includes the number of licenses ordered. See chapter use communication with the Activation Server 6. 604

These steps are necessary to work with key lists:

- Build a key list with Serial Numbers 604
- Upload Serial Numbers 604
- Define Delivery Text 606
- Upload Project Files 608
- Define Delivery Option 609

15.2.2.1 Build a key list with Serial Numbers

First you have to build a list with Serial Numbers which are uploaded to the shop. Depending on your sales create 100 or 1000 Serial Number keys to upload.

How to create a Key List see - Create a Key List with Serial Numbers. 308

15.2.2.2 Upload Serial Numbers

Start the cleverbridge *Commerce Assistant* and edit a product. In the TAB **Delivery Details** you specify which keys are delivered.

Press the button *Add* and select **Cleverbridge delivers key.** Then select **Key List** and press the button **.**

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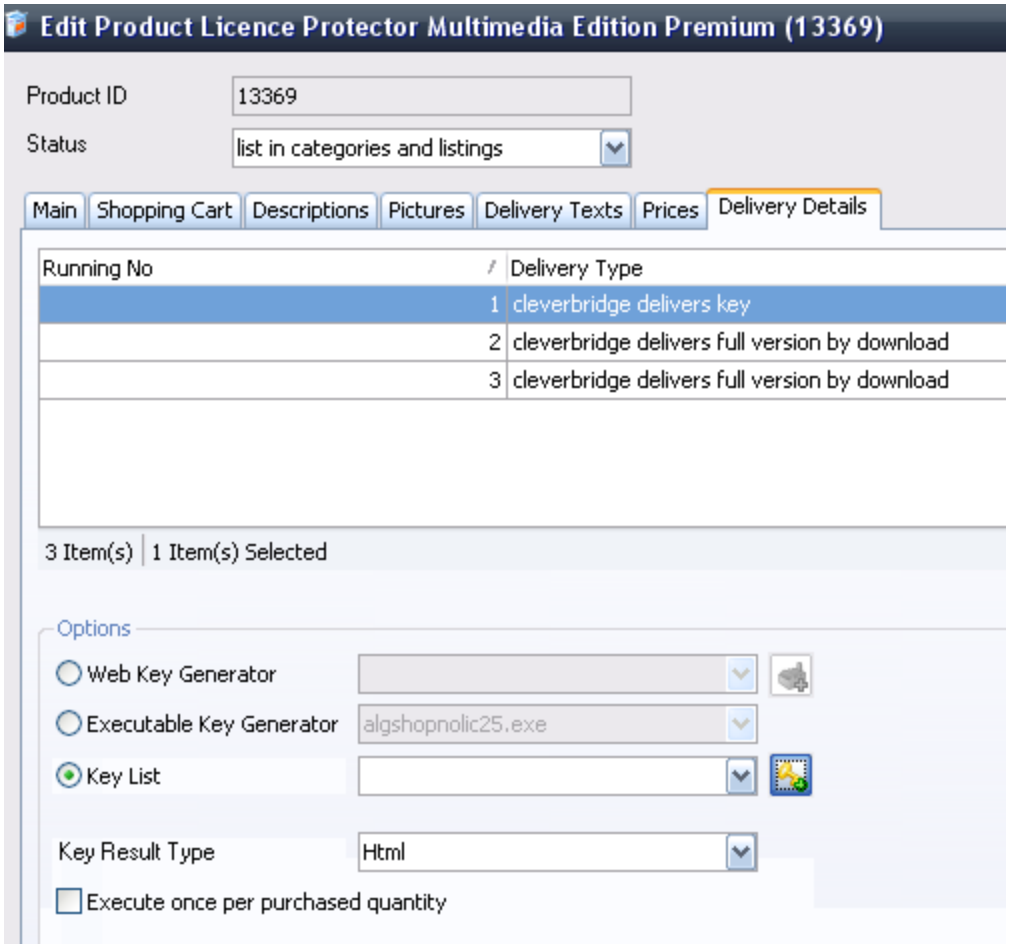

Delivery Details - select Key List

Type in a name for the key list and press the **Add** button - select the key list with Serial Numbers you created - see build a key list with Serial Numbers 604

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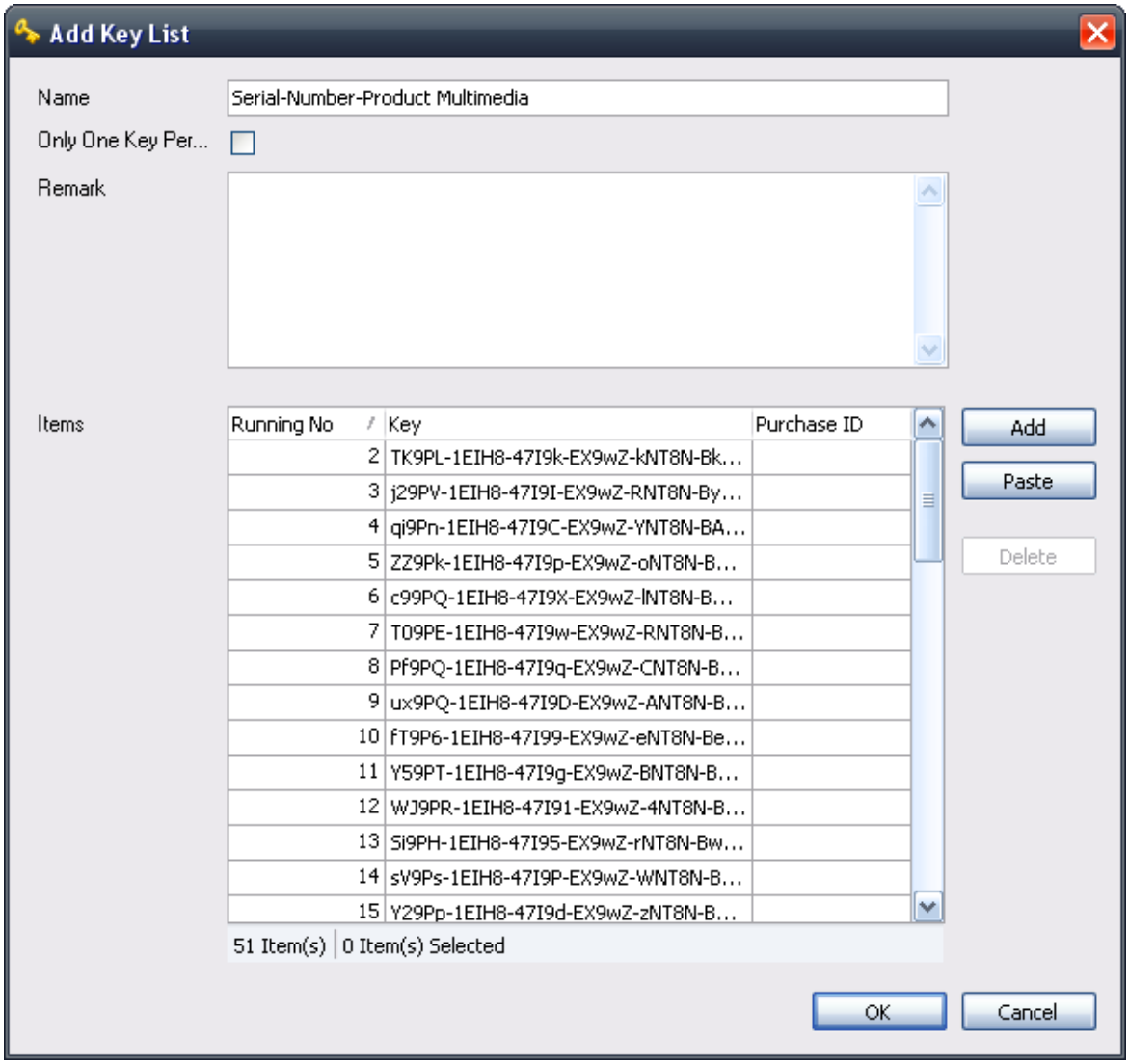

15.2.2.3 Define Delivery Text

Start the cleverbridge *Commerce Assistant.* Edit a product and add a **delivery text.** This text will include the Activation Key which will be generated after the order process and is used in the e-mail which is send out to the customer. The delivery text can be in HTML format.

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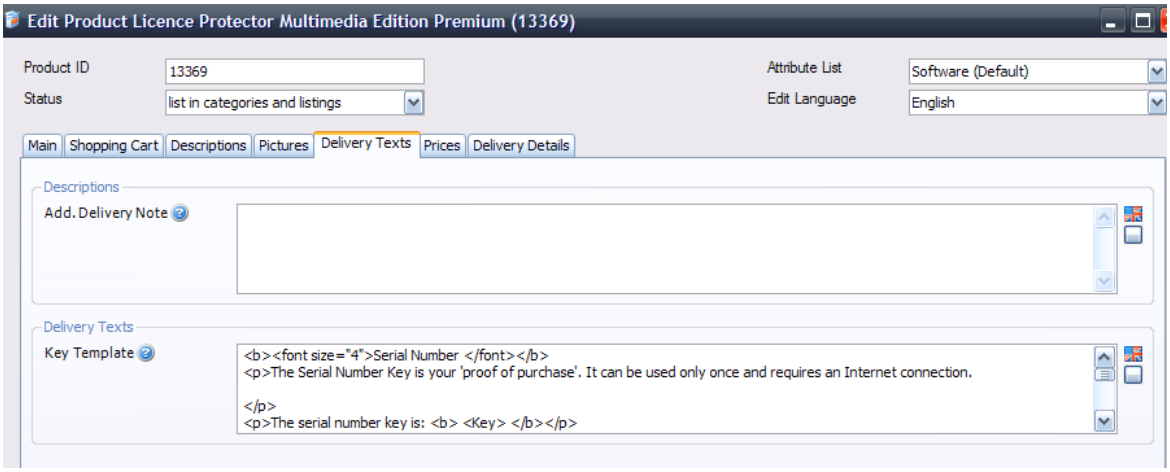

Add Delivery Text information

Dependent upon the Activation Key is a Serial Number Key or an Activation Key for an additional module, you can use one of the following sample texts. The Activation Key is inserted with the variable **<Key>**.

- Serial Number Key - English
  Serial Number
  The Serial Number Key is your 'proof of purchase'. It can be used only once and requires an Internet connection.

  The Serial Number key is: **<Key>**
  Start the application and select: I have a Serial Number and I want to activate (your product name).

  Enter the Serial Number Key from this e-mail (you can copy it using the clipboard), your name/company and your e-mail address. Press the button: Next. A dialog appears which verifies the Serial Number key online and activates the application.
  If you don't have an Internet connection use the option: You can also request an unlock key by e-mail.
  Help, how to activate the software, can be found by selecting the icon ?
  Backup your license file xy.lic.

- Serial Number Key - German
  Seriennummer Die Seriennummer ist ihr 'Kaufnachweis'. Diese kann nur einmal verwendet werden und benötigt eine Internet Verbindung
  Die Seriennummer lautet: **<Key>**
  Starten Sie die Anwendung und wählen Sie: Ich habe eine Seriennummer und möchte (Ihr Produktname) aktivieren<I>.

  Geben Sie die Seriennummer von diesem e-mail (diese kann über die Zwischenablage kopiert werden), Name/Firma und Ihre e-mail Adresse ein. Drücken

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Sie die Schaltfläche: Weiter. Es erscheint ein Dialogfenster, das die Seriennummer online überprüft und die Software aktiviert.
Wenn keine Internet Verbindung zur Verfügung steht wählen Sie die Option: Sie können auch per e-mail einen Freischaltschlüssel anfordern.
Hilfe, wie die Software aktiviert werden kann, ist über das Symbol ? verfügbar.
Sichern Sie die Lizenzdatei XY.lic.

- Activation Key - English

Activation Key
The Activation Key is your 'proof of purchase'. It can be used only once and requires an Internet connection.

The Activation Key is: **<Key>**

Start (your program name) - DESCRIBE HOW TO OPEN THE License Viewer - and select Show license Information. Press the button: Activation Key. Enter the Activation Key from this e-mail (you can copy it using the clipboard). Press the button: OK. A dialog appears which verifies the Activation Key online.
Backup your license file XY.lic.

- Activation Key - German

Aktivierungsschlüssel
Der Aktivierungsschlüssel ist ihr 'Kaufnachweis'. Dieser kann nur einmal verwendet werden und benötigt eine Internet Verbindung.

Der Aktivierungsschlüssel lautet: **<Key>**

Starten Sie (Ihre Programm Name), BESCHREIBEN SIE WIE MAN DEN LIZENZ VIEWER AUFRUF- danach Lizenzinformationen anzeigen. Drücken Sie die Schaltfläche: Aktivierungsschlüssel. Geben Sie den Aktivierungsschlüssel von diesem e-mail (dieser kann über die Zwischenablage kopiert werden) ein. Drücken Sie die Schaltfläche: OK. Es erscheint ein Dialogfenster, das den Aktivierungsschlüssel online überprüft.
Sichern Sie die Lizenzdatei xy.lic.

15.2.2.4 Upload Project Files

Start the cleverbridge *Commerce Assistant*. Select **Product Files** and then press the button **Upload Product File**. Select your installation package and upload the file.

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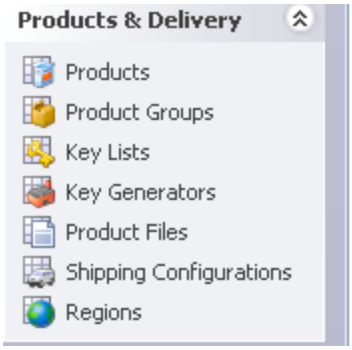
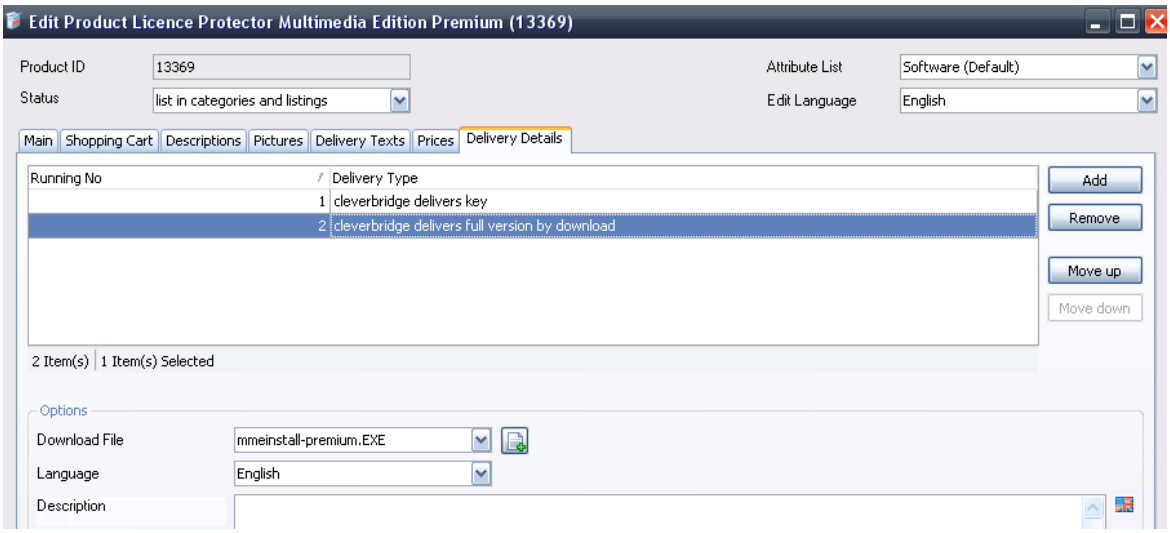


15.2.2.5 Define Delivery Option

Start the cleverbridge *Commerce Assistant* and edit a product. In the TAB **Delivery Details** you specify that cleverbridge delivers your uploaded project files 608 by download link.

Press the button *Add* and select **Cleverbridge delivers full version by download.** Then select Download File and select your uploaded project file 608 in the drop down list.



15.2.3 Use Automatic License Generator

These steps are necessary to integrate Licence Protector 5 using the Automatic License Generator

- Build the configuration file 610
- Send files to Cleverbridge 613
- Define Delivery Text 606
- Upload Project Files 608
- Define Delivery Details 616

If your product module is a **Yes/No** module or it is always a **single user** installation or fix quantity (e.g. product which always is sold with quantity=5), then you could upload key lists which are easier to handle. See - Working with Key Lists 604.

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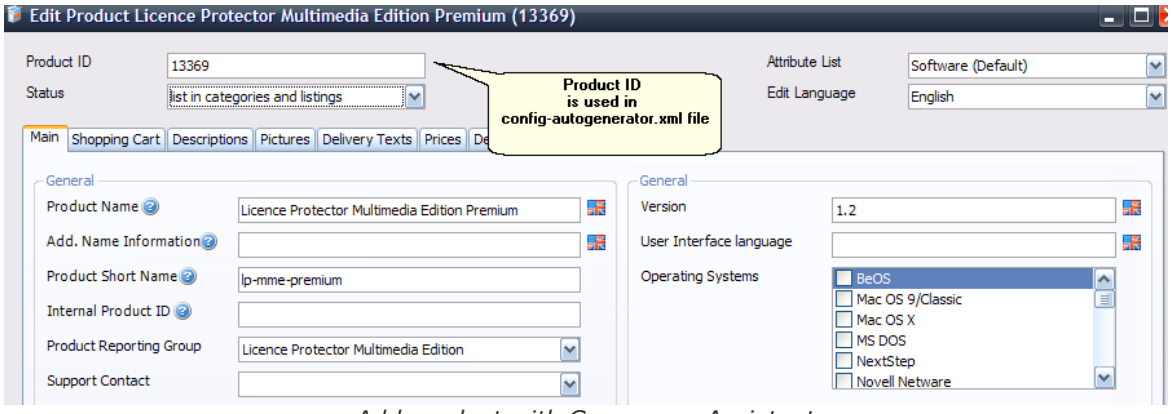
The add-on module Automatic License Generator 464 is required.

15.2.3.1 Build configuration file

You can define a product (article) you want to sell with the cleverbridge program *Commerce Assistant* (CA). This tutorial describes only the necessary definitions for Licence Protector 5.

First add a new product (article) in the Cleverbridge shop. You need the **ProductID** from the cleverbridge shop in the configuration file.



Add product with Commerce Assistant

You can create Activation Keys or license files. All details of the configuration files can be found in the chapter *Automatic License Generator.* 464

If you use EasyGo, you can use the default configuration file, which you find in the folder ... *EasyGo\Shop-Integration*.
If your main module 166 for EasyGo is a *Yes/No* module then use the file **config-autogenerator.xml**. If the main module is from type *user, PC or concurrent user*, then use config-easygo-network.xml. You can modify the file using any xml Editor. 523

The file uploaded to cleverbridge must always have the name **config-autogenerator.xml**. If you have multiple products you can **add any number of product definitions** to this file.

The settings in the configuration file are the same settings like you would use when you make a Serial Number manually in the Generator. 301

- Serial Number - sample Yes / No Module
  In the config-autogenerator file you have to replace

  - ProductID with the ProductID from cleverbridge
  - ProductName with your product/article name
  - ProjectFilename with your project filename

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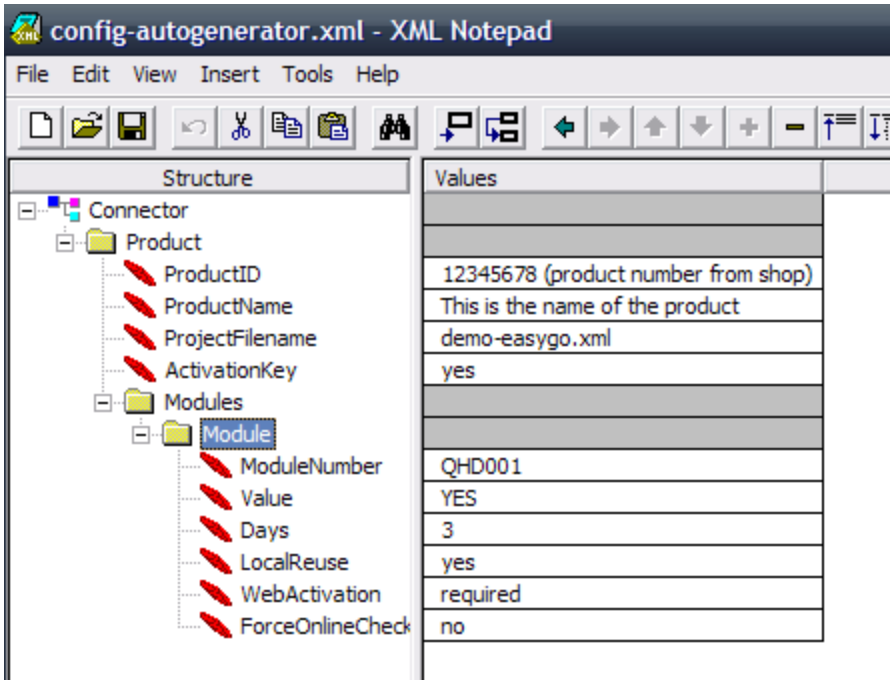
- ModuleNumber with your module number of the main module 166



Serial Number - Sample module per user / PC / concurrent or counter
In the config-autogenerator file you have to replace

- ProductID with the ProductID from cleverbridge
- ProductName with your product/article name
- ProjectFilename with your project filename
- ModuleNumber with your module number of the main module 166
- Value - should be 1 and is multiplied with the quantity of the order
- AbsoluteLics **must be yes** to replace the existing value in the license file (default would be to add the value)

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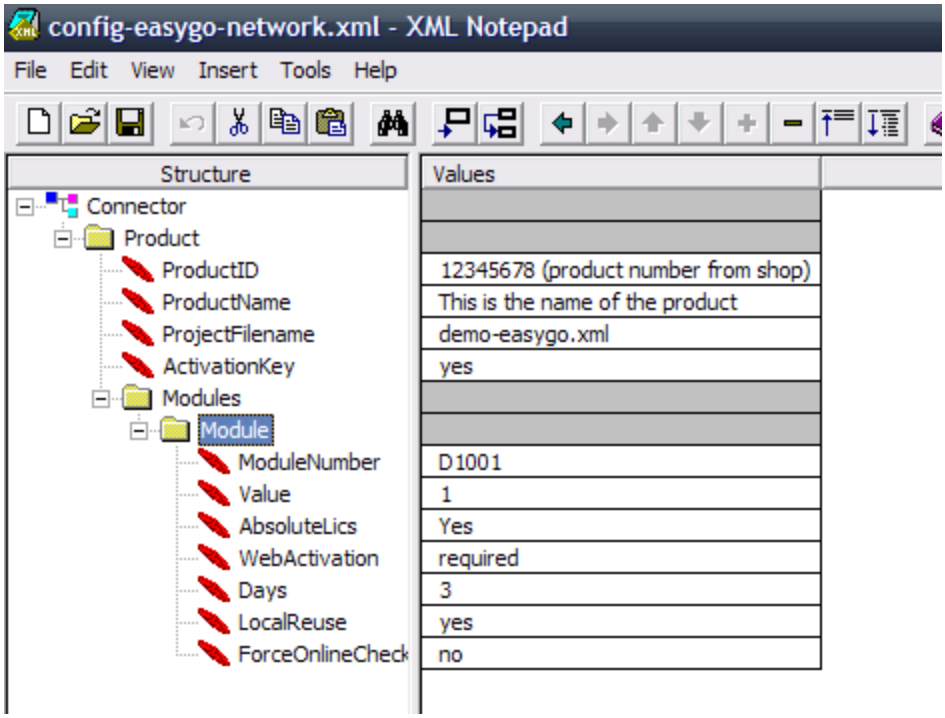

- Sample for Activation Key
  For each additional module you sell, you have to build an Activation Key. This is a sample to generate an Activation Key which adds 365 days to the module update subscription. The key is validated online and can be used multiple times on the same machine.

  In the config-autogenerator file you have to replace

  - ProductID with the ProductID from cleverbridge
  - ProductName with your product/article name
  - ProjectFilename with your project filename
  - ModuleNumber with your module number of the additional module

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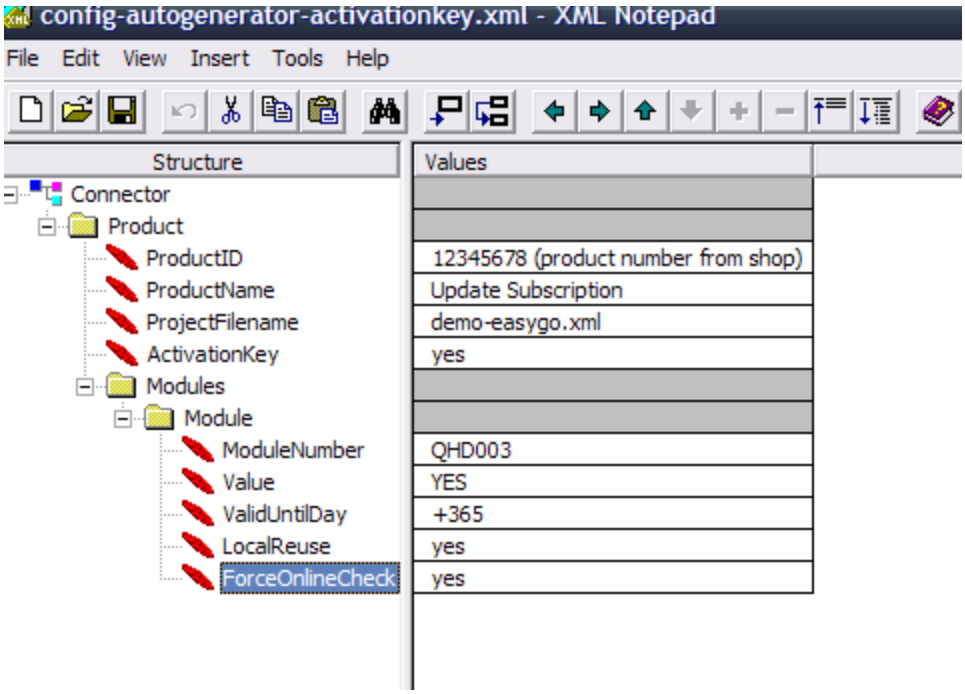

See also

How to create multiple keys for one product? 521

15.2.3.2 Send files to Cleverbridge

As it is not possible to directly upload the files, you have to e-mail the following files to cleverbridge (cs@cleverbridge.com):

- config-autogenerator.xml 610
- your project template(s) 182 referenced in the config-autogenerator.xml file
- the Automatic License Generator for cleverbridge. The name of the file is **algshopxy.exe** where xy is the version number - eg. algshop510.exe. This file can be found in the folder ..\Automatic Generator
- your license file *licprotector.lic* from the main directory

If you do have multiple applications and they use different versions of Licence Protector , you could use for each product a different algshop.exe file from different Licence Protector versions.

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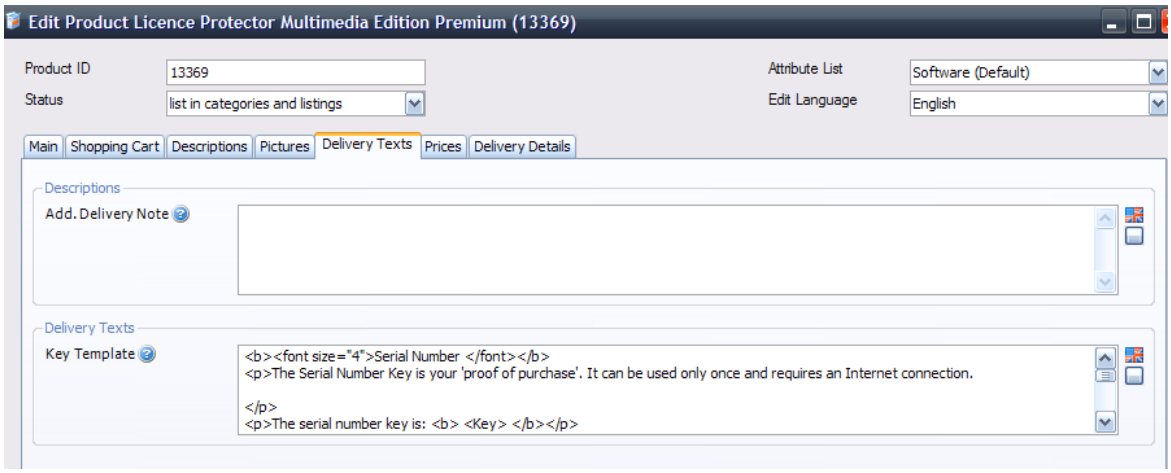
15.2.3.3 Define Delivery Text

Start the cleverbridge *Commerce Assistant.* Edit a product and add a **delivery text.** This text will include the Activation Key which will be generated after the order process and is used in the e-mail which is send out to the customer. The delivery text can be in HTML format.



Add Delivery Text information

Dependent upon the Activation Key is a Serial Number Key 301 or an Activation Key for an additional module, you can use one of the following sample texts. The Activation Key is inserted with the variable **<Key>**.

- Serial Number Key - English

  Serial Number
  The Serial Number Key is your 'proof of purchase'. It can be used only once and requires an Internet connection.

  The Serial Number key is: **<Key>**
  Start the application and select: I have a Serial Number and I want to activate (your product name).

  Enter the Serial Number Key from this e-mail (you can copy it using the clipboard), your name/company and your e-mail address. Press the button: Next. A dialog appears which verifies the Serial Number key online and activates the application.
  If you don't have an Internet connection use the option: You can also request an unlock key by e-mail.
  Help, how to activate the software, can be found by selecting the icon ?
  Backup your license file xy.lic.

- Serial Number Key - German

  Seriennummer Die Seriennummer ist ihr 'Kaufnachweis'. Diese kann nur einmal verwendet werden und benötigt eine Internet Verbindung
  Die Seriennummer lautet: **<Key>**

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Starten Sie die Anwendung und wählen Sie: Ich habe eine Seriennummer und möchte (Ihr Produktname) aktivieren<I>.

Geben Sie die Seriennummer von diesem e-mail (diese kann über die Zwischenablage kopiert werden), Name/Firma und Ihre e-mail Adresse ein. Drücken Sie die Schaltfläche: Weiter. Es erscheint ein Dialogfenster, das die Seriennummer online überprüft und die Software aktiviert.
Wenn keine Internet Verbindung zur Verfügung steht wählen Sie die Option: Sie können auch per e-mail einen Freischaltschlüssel anfordern.
Hilfe, wie die Software aktiviert werden kann, ist über das Symbol ? verfügbar.
Sichern Sie die Lizenzdatei XY.lic.

- Activation Key - English

Activation Key
The Activation Key is your 'proof of purchase'. It can be used only once and requires an Internet connection.

The Activation Key is: **<Key>**

Start (your program name) - DESCRIBE HOW TO OPEN THE License Viewer - and select Show license Information. Press the button: Activation Key. Enter the Activation Key from this e-mail (you can copy it using the clipboard). Press the button: OK. A dialog appears which verifies the Activation Key online.
Backup your license file XY.lic.

- Activation Key - German

Aktivierungsschlüssel
Der Aktivierungsschlüssel ist ihr 'Kaufnachweis'. Dieser kann nur einmal verwendet werden und benötigt eine Internet Verbindung.

Der Aktivierungsschlüssel lautet: **<Key>**

Starten Sie (Ihre Programm Name), BESCHREIBEN SIE WIE MAN DEN LIZENZ VIEWER AUFRUF- danach Lizenzinformationen anzeigen. Drücken Sie die Schaltfläche: Aktivierungsschlüssel. Geben Sie den Aktivierungsschlüssel von diesem e-mail (dieser kann über die Zwischenablage kopiert werden) ein. Drücken Sie die Schaltfläche: OK. Es erscheint ein Dialogfenster, das den Aktivierungsschlüssel online überprüft.
Sichern Sie die Lizenzdatei xy.lic.

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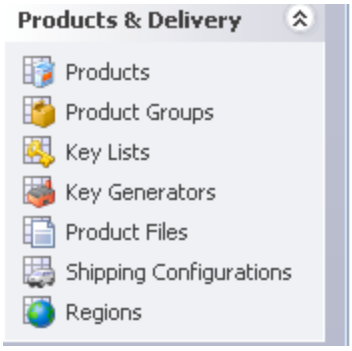
15.2.3.4 Upload Project Files

Start the cleverbridge *Commerce Assistant*. Select **Product Files** and then press the button **Upload Product File**. Select your installation package and upload the file.

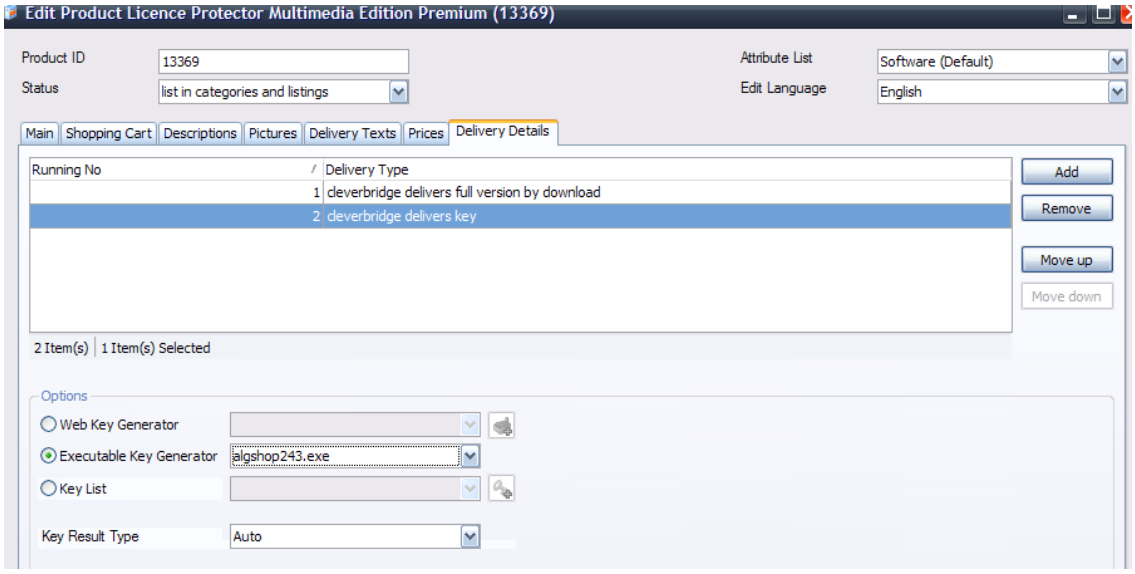


15.2.3.5 Define Delivery Details

Start the cleverbridge *Commerce Assistant.* In the TAB Delivery Details you specify the Automatic Generator, which the shop System invokes after the order process. See - Send files to Cleverbridge 613 - how to upload the necessary files.

- Add Key Generator

  Press the button *Add* and select **Cleverbridge delivers key.** Then select **Executable Key Generator** and select the latest Automatic licenseGenerator. By default it has the name: **algshopxy.exe** where xy is the version number - e.g. algshop25.exe.



Next step is to add your download package.

- Add Download Package

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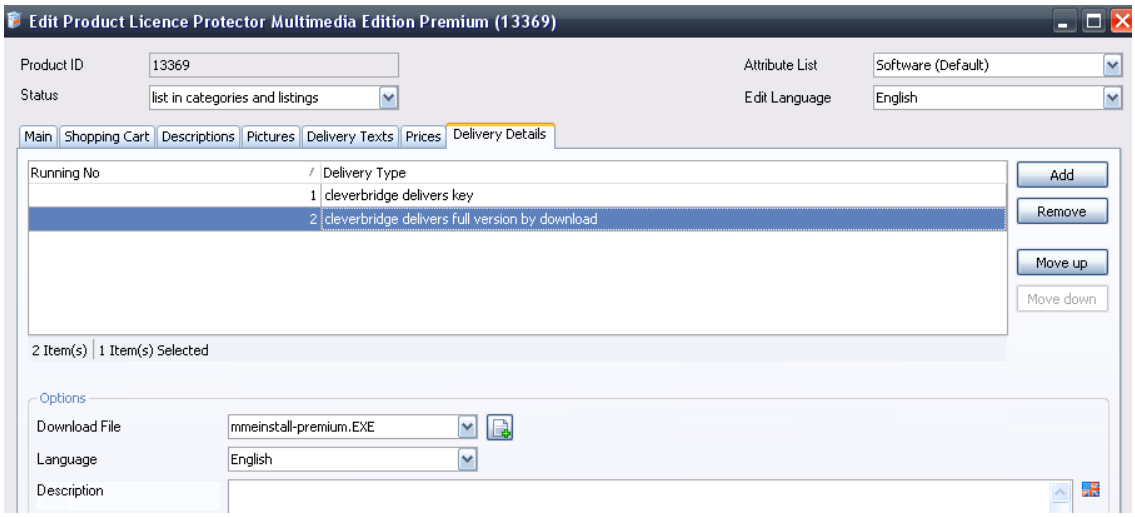
Press the button *Add* and select **Cleverbridge delivers full version by download.** Then select Download File and select your uploaded project file [608] in the drop down list.



15.3 ShareIt

The integration in the Element5 / Share-it! e-commerce system www.shareit.com) can be done in multiple ways:

- Use Key Lists [617] (single user license only)
- Use Automatic License Generator [622]

The Share-it! and element5 shop uses the same integration.

15.3.1 Working with Key Lists

If you sell a network license [548] where each order can contain a different number of licenses, then it is not possible to work with uploaded keys. You have to create a Serial Number Key which is different per order and includes the number of licenses ordered.

See chapter - Build configuration file [623]

These steps are necessary to work with key lists:

- Build a key list with Serial Numbers [604]
- Upload Serial Numbers [618]
- Define Delivery Text [619]
- Upload Project Files [621]
- Define Delivery Option [622]

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15.3.1.1 Build a key list with Serial Numbers

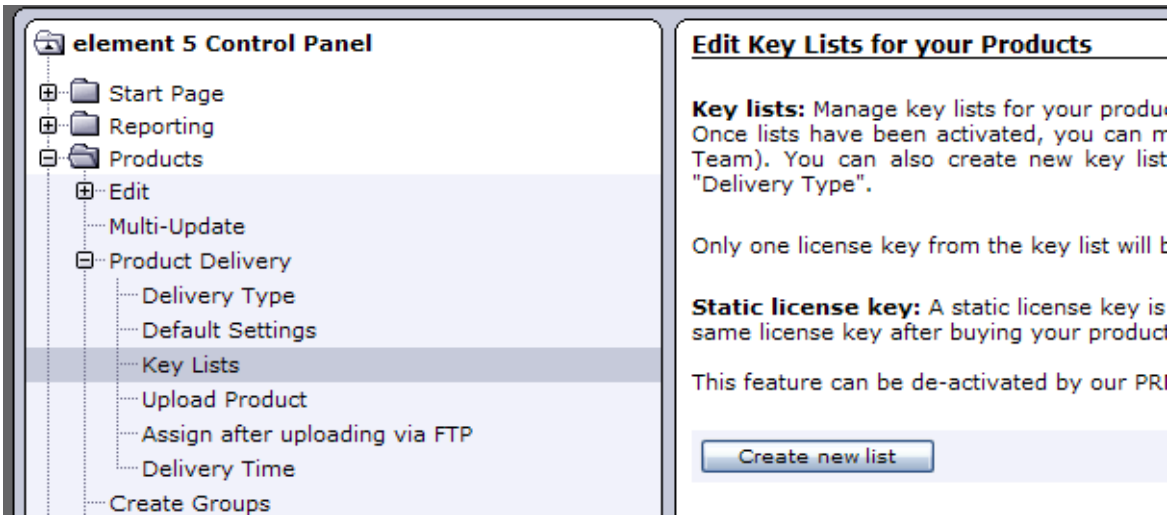
First you have to build a list with Serial Numbers which are uploaded to the shop. Depending on your sales create 100 or 1000 Serial Number keys to upload.

How to create a Key List see - Create a Key List with Serial Numbers. 308

15.3.1.2 Upload Serial Numbers

Start the Element5 / Share-it! *Control Panel*.

Select ***Key List***, and then *Create new list*.



Now open the key list with Serial Numbers you created - see build a key list with Serial Numbers 604 and copy all keys into the clipboard (CTRL+C). Go back to the control panel, type in a name for the key list and paste the clipboard (CTRL+V) with your Serial Number Keys.

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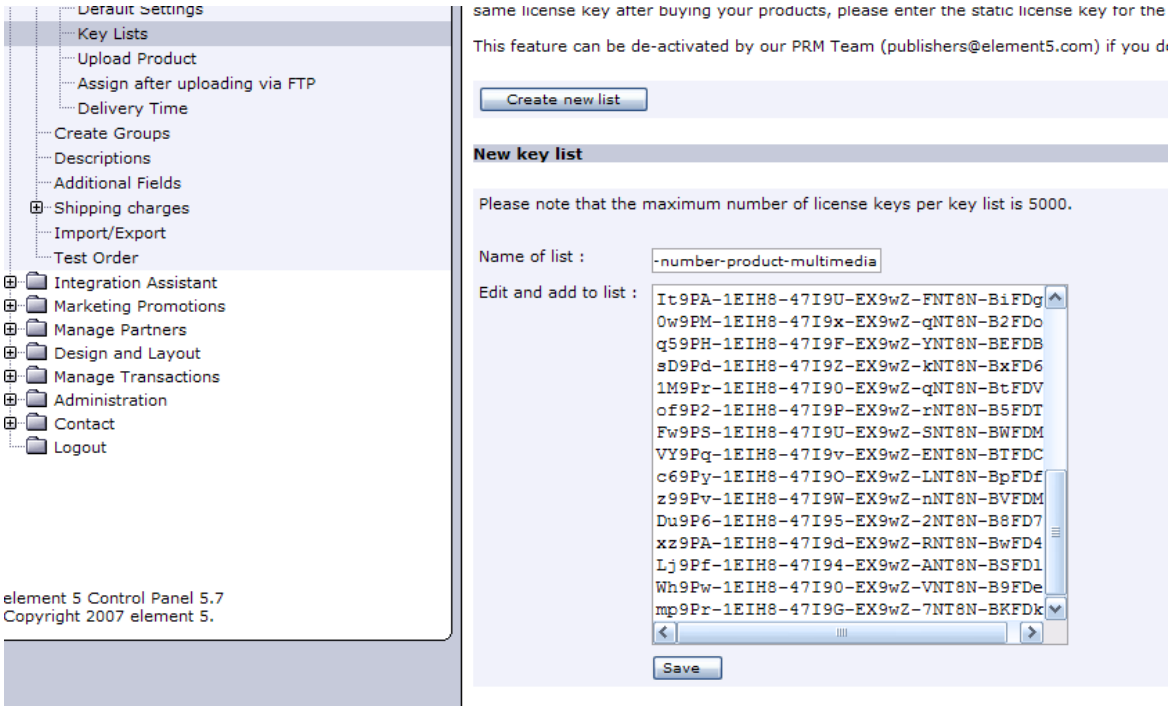
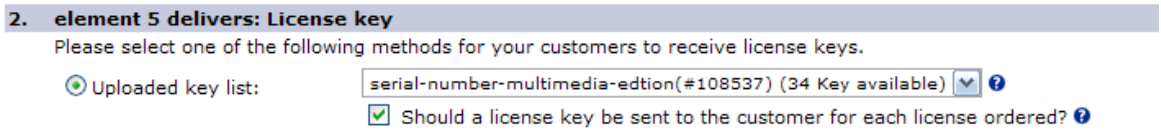


Copy key list from clipboard

The last step is to assign the key list to a product.

Select *Product Delivery*, ***Delivery Type***. On the right side select your product and press - *Show data.*

Press the button *Add* and select **element5 delivers: License Key.** Select your key list from *Uploaded Key list* and check *Should a license key be sent to the customer for each license ordered?*



15.3.1.3 Define Delivery Text

Start the Element5 / Share-it! *Control Panel.* Edit a product and add a **delivery text.** This text will include the Activation Key which will be generated after the order process and is used in the e-mail which is send out to the customer. The delivery text can be in HTML format.

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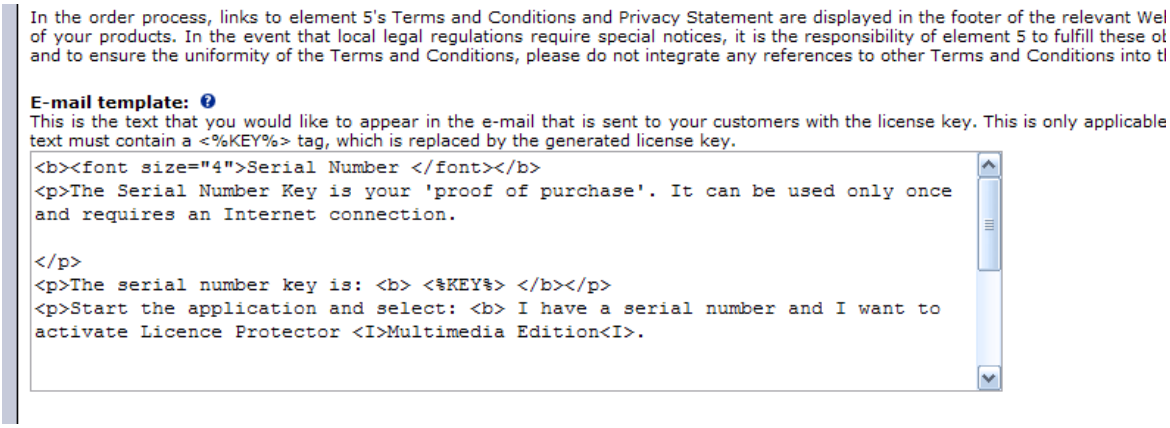

Add Delivery Text information

Dependent upon the Activation Key is a Serial Number Key 301 or an Activation Key for an additional module, you can use one of the following sample texts. The Activation Key is inserted with the variable **<%KEY%>**.

- Serial Number Key - English
  Serial Number
  The Serial Number Key is your 'proof of purchase'. It can be used only once and requires an Internet connection.

  The Serial Number key is: **<%KEY%>**
  Start the application and select: I have a Serial Number and I want to activate (your product name).

  Enter the Serial Number Key from this e-mail (you can copy it using the clipboard), your name/company and your e-mail address. Press the button: Next. A dialog appears which verifies the Serial Number key online and activates the application.
  If you don't have an Internet connection use the option: You can also request an unlock key by e-mail.
  Help, how to activate the software, can be found by selecting the icon ?
  Backup your license file xy.lic.

- Serial Number Key - German
  Seriennummer Die Seriennummer ist ihr 'Kaufnachweis'. Diese kann nur einmal verwendet werden und benötigt eine Internet Verbindung
  Die Seriennummer lautet: **<<%KEY%>**
  Starten Sie die Anwendung und wählen Sie: Ich habe eine Seriennummer und möchte (Ihr Produktname) aktivieren<I>.

  Geben Sie die Seriennummer von diesem e-mail (diese kann über die Zwischenablage kopiert werden), Name/Firma und Ihre e-mail Adresse ein. Drücken Sie die Schaltfläche: Weiter. Es erscheint ein Dialogfenster, das die Seriennummer online überprüft und die Software aktiviert.

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Wenn keine Internet Verbindung zur Verfügung steht wählen Sie die Option:
Sie können auch per e-mail einen Freischaltschlüssel anfordern.
Hilfe, wie die Software aktiviert werden kann, ist über das Symbol ?
verfügbar.
Sichern Sie die Lizenzdatei XY.lic.

- Activation Key - English
  Activation Key
  The Activation Key is your 'proof of purchase'. It can be used only once and requires an Internet connection.

  The Activation Key is: **<%KEY%>**

  Start (your program name) - DESCRIBE HOW TO OPEN THE License Viewer - and select Show license Information. Press the button:
  Activation Key. Enter the Activation Key from this e-mail (you can copy it using the clipboard). Press the button: OK. A dialog appears which verifies the Activation Key online.
  Backup your license file XY.lic.

- Activation Key - German
  Aktivierungsschlüssel
  Der Aktivierungsschlüssel ist ihr 'Kaufnachweis'. Dieser kann nur einmal verwendet werden und benötigt eine Internet Verbindung.

  Der Aktivierungsschlüssel lautet: **<%KEY%>**

  Starten Sie (Ihre Programm Name), BESCHREIBEN SIE WIE MAN DEN LIZENZ VIEWER AUFRUF- danach
  Lizenzinformationen anzeigen. Drücken Sie die Schaltfläche:
  Aktivierungsschlüssel. Geben Sie den Aktivierungsschlüssel von diesem e-mail (dieser kann über die Zwischenablage kopiert werden) ein. Drücken Sie die Schaltfläche: OK. Es erscheint ein Dialogfenster, das den Aktivierungsschlüssel online überprüft.
  Sichern Sie die Lizenzdatei xy.lic.

15.3.1.4 Upload Project Files

Start the Element5 / Share-it! *Control Panel*. Select **Upload Product** and then either select **Replace an existing file** or **Upload a new file**. Select your installation package and upload the file.

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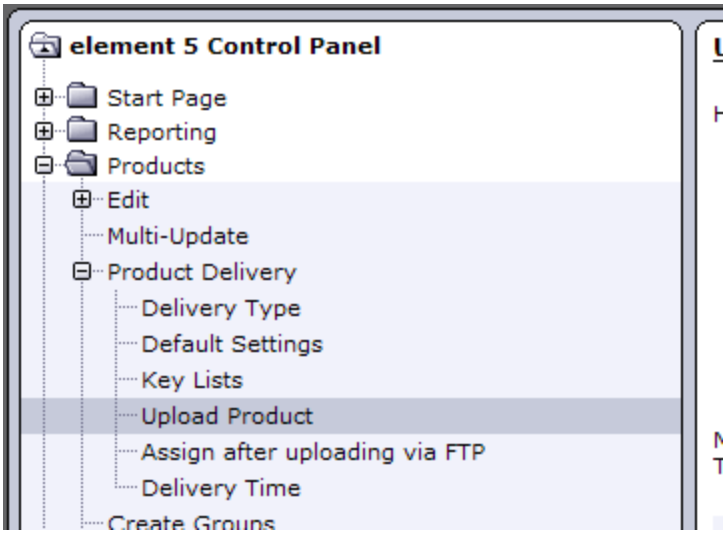
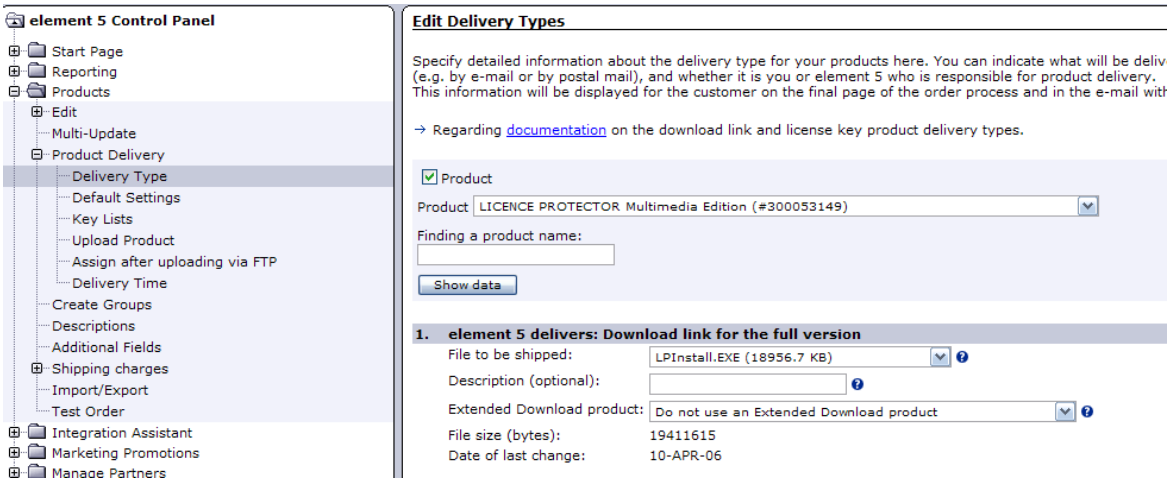


15.3.1.5 Define Delivery Type

Start the Element5 / Share-it! *Control Panel*. With **Delivery Type** you specify that Element5 / Share-it! delivers your uploaded project files 621 by download link.

Select *Product Delivery*, ***Delivery Type***. On the right side select your product and press - *Show data.*

Press the button *Add* and select **element5 delivers: download link for the full version full version.** Then select *File to be shipped* and select your uploaded project file 621 in the drop down list.



15.3.2 Use Automatic License Generator

These steps are necessary to integrate Licence Protector 5 using the Automatic License Generator

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- Build the configuration file 623
- Send files to Element5 / Share-it! 626
- Define Delivery Text 619
- Upload Project Files 621
- Define Delivery Details 629

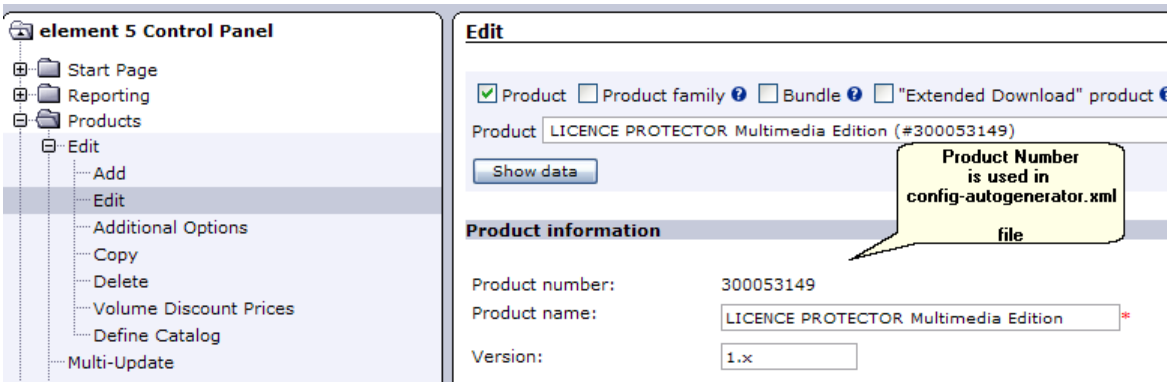
If your product module is a **Yes/No** module or it is always a **single user** installation or fix quantity (e.g. product which always is sold with quantity=5), then you could upload key lists which are easier to handle. See - Working with Key Lists 604.

The add-on module Automatic License Generator 464 is required.

15.3.2.1 Build configuration file

You can define a product (article) you want to sell with the Element5 / Share-it! program *Control Panel.* This tutorial describes only the necessary definitions for Licence Protector 5.

First add a new product (article) in the Element5 / Share-it! shop. You need the **Product Number** from the Element5 / Share-it! shop in the configuration file.



Add product with Control Panel

You can create Activation Keys or license files. All details of the configuration files can be found in the chapter *Automatic License Generator.* 464

If you use EasyGo, you can use the default configuration file, which you find in the folder ... *\EasyGo\Shop-Integration*.
If your main module 166 for EasyGo is a *Yes/No* module then use the file **config-autogenerator.xml**. If the main module is from type *user, PC or concurrent user*, then use config-easygo-network.xml. You can modify the file using any xml Editor. 523

The file uploaded to cleverbridge must always have the name **config-autogenerator.xml**. If you have multiple products you can **add any number of product definitions** to this file.

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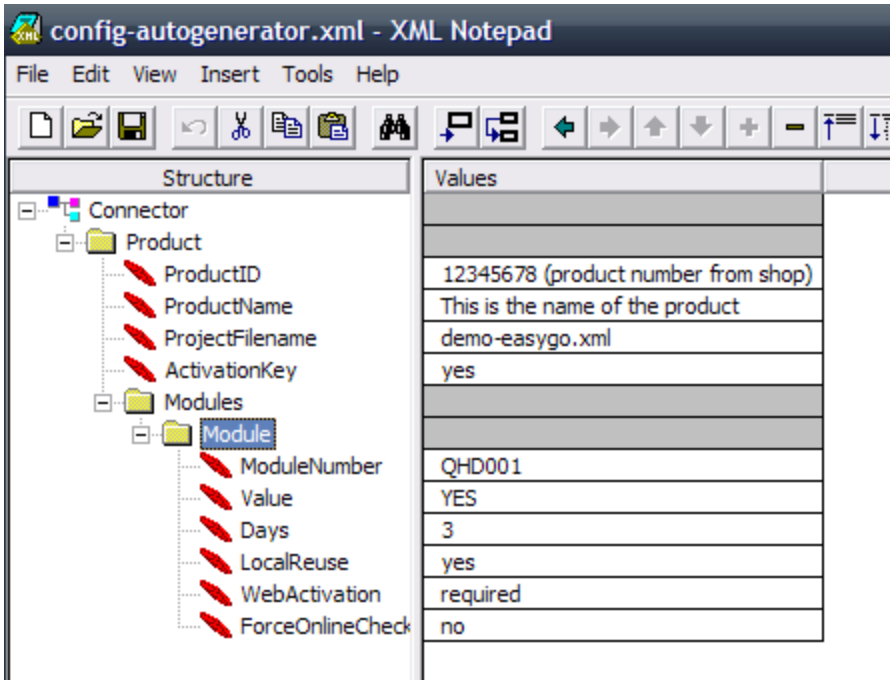
The settings in the configuration file are the same settings like you would use when you make a Serial Number manually in the Generator. 301

- Serial Number - sample Yes / No Module
  In the config-autogenerator file you have to replace

  - ProductID with the Product Number from Element5 / Share-it!
  - ProductName with your product/article name
  - ProjectFilename with your project filename
  - ModuleNumber with your module number of the main module 166



- Serial Number - Sample module per user / PC / concurrent or counter
  In the config-autogenerator file you have to replace

  - ProductID with the Product Number from Element5 / Share-it!
  - ProductName with your product/article name
  - ProjectFilename with your project filename
  - ModuleNumber with your module number of the main module 166
  - Value - should be 1 and is multiplied with the quantity of the order
  - AbsoluteLics **must be yes** to replace the existing value in the license file (default would be to add the value)

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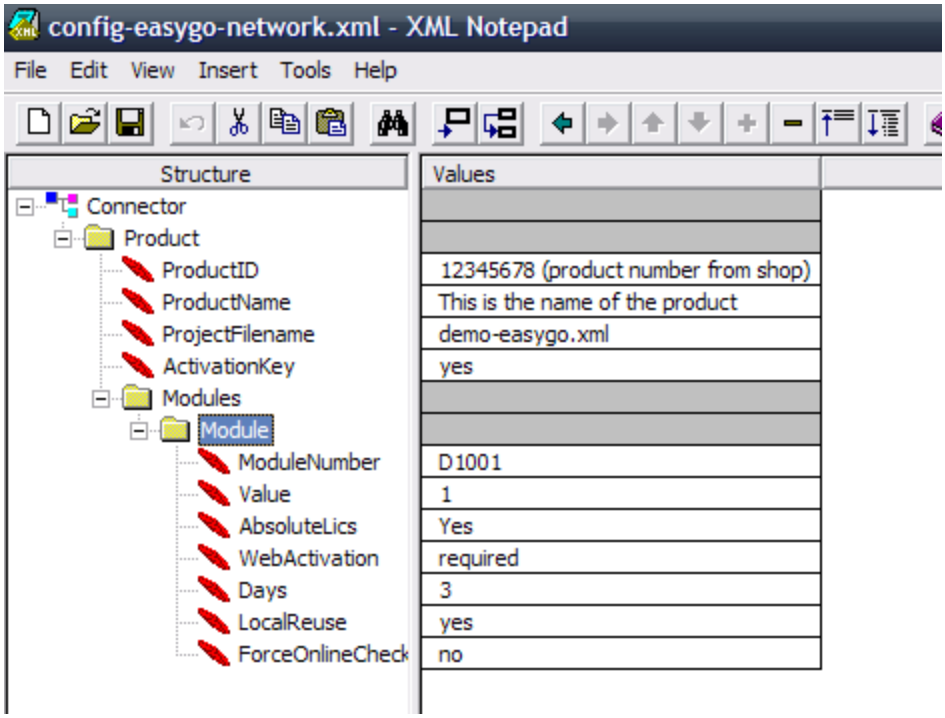

Sample for Activation Key

For each additional module you sell, you have to build an Activation Key. This is a sample to generate an Activation Key which adds 365 days to the module update subscription. The key is validated online and can be used multiple times on the same machine.

In the config-autogenerator file you have to replace

- ProductID with the Product Number from Element5 / Share-it!
- ProductName with your product/article name
- ProjectFilename with your project filename
- ModuleNumber with your module number of the **additional module**

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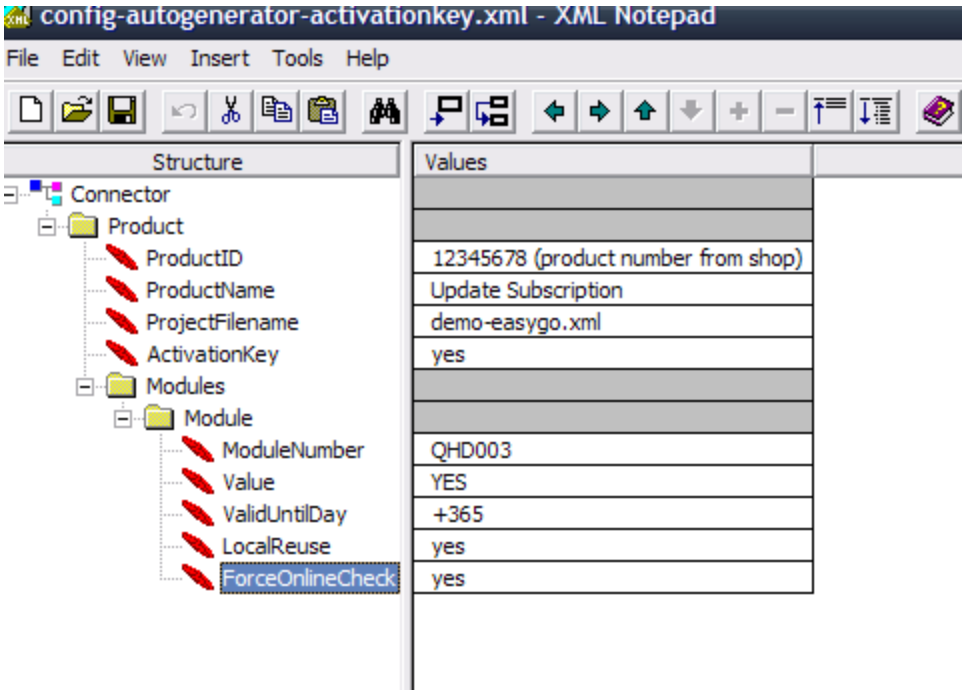

See also

How to create multiple keys for one product? 521

15.3.2.2 Send files to Element5 / Share-it!

As it is not possible to directly upload the files, you have to e-mail the following files to Element5 / Share-it! (authors@shareit.com or authors@element5.com)

- config-autogenerator.xml 610
- your project template(s) 182 referenced in the config-autogenerator.xml file
- the Automatic License Generator for cleverbridge. The name of the file is **algshopxy.exe** where xy is the version number - eg. algshop510.exe. This file can be found in the folder ..\Automatic Generator
- your license file *licprotector.lic* from the main directory

If you do have multiple applications and they use different versions of Licence Protector, you could use for each product a different algshop.exe file from different Licence Protector versions.

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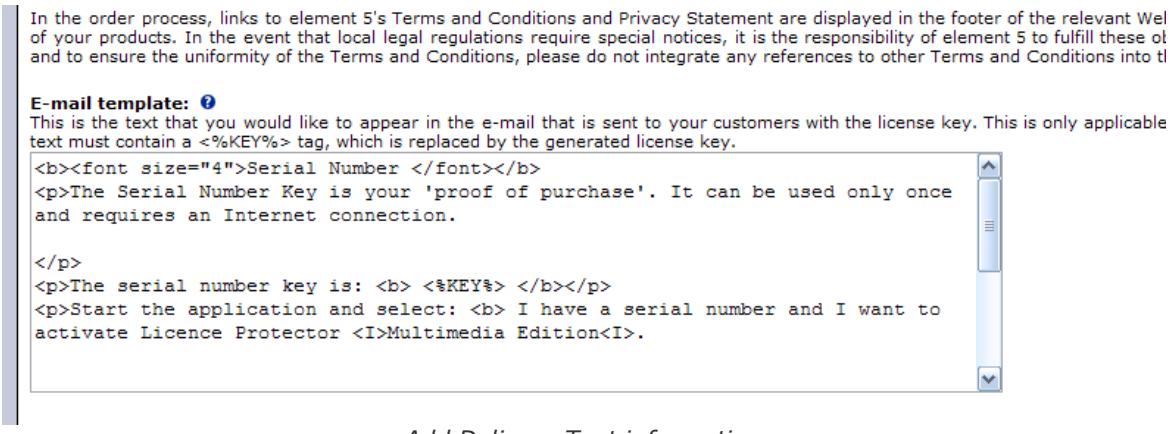
15.3.2.3 Define Delivery Text

Start the Element5 / Share-it! *Control Panel.* Edit a product and add a **delivery text.** This text will include the Activation Key which will be generated after the order process and is used in the e-mail which is send out to the customer. The delivery text can be in HTML format.



Add Delivery Text information

Dependent upon the Activation Key is a Serial Number Key 301 or an Activation Key for an additional module, you can use one of the following sample texts. The Activation Key is inserted with the variable **<%KEY%>**.

- Serial Number Key - English
  Serial Number
  The Serial Number Key is your 'proof of purchase'. It can be used only once and requires an Internet connection.

  The Serial Number key is: **<%KEY%>**
  Start the application and select: I have a Serial Number and I want to activate (your product name).

  Enter the Serial Number Key from this e-mail (you can copy it using the clipboard), your name/company and your e-mail address. Press the button: Next. A dialog appears which verifies the Serial Number key online and activates the application.
  If you don't have an Internet connection use the option: You can also request an unlock key by e-mail.
  Help, how to activate the software, can be found by selecting the icon ?
  Backup your license file xy.lic.

- Serial Number Key - German
  Seriennummer Die Seriennummer ist ihr 'Kaufnachweis'. Diese kann nur einmal verwendet werden und benötigt eine Internet Verbindung
  Die Seriennummer lautet: **<<%KEY%>**
  Starten Sie die Anwendung und wählen Sie: Ich habe eine Seriennummer und

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möchte (Ihr Produktname) aktivieren<I>.

Geben Sie die Seriennummer von diesem e-mail (diese kann über die Zwischenablage kopiert werden), Name/Firma und Ihre e-mail Adresse ein. Drücken Sie die Schaltfläche: Weiter. Es erscheint ein Dialogfenster, das die Seriennummer online überprüft und die Software aktiviert.
Wenn keine Internet Verbindung zur Verfügung steht wählen Sie die Option: Sie können auch per e-mail einen Freischaltschlüssel anfordern.
Hilfe, wie die Software aktiviert werden kann, ist über das Symbol ? verfügbar.
Sichern Sie die Lizenzdatei XY.lic.

- Activation Key - English

Activation Key
The Activation Key is your 'proof of purchase'. It can be used only once and requires an Internet connection.

The Activation Key is: **<%KEY%>**

Start (your program name) - DESCRIBE HOW TO OPEN THE License Viewer - and select Show license Information. Press the button: Activation Key. Enter the Activation Key from this e-mail (you can copy it using the clipboard). Press the button: OK. A dialog appears which verifies the Activation Key online.
Backup your license file XY.lic.

- Activation Key - German

Aktivierungsschlüssel
Der Aktivierungsschlüssel ist ihr 'Kaufnachweis'. Dieser kann nur einmal verwendet werden und benötigt eine Internet Verbindung.

Der Aktivierungsschlüssel lautet: **<%KEY%>**

Starten Sie (Ihre Programm Name), BESCHREIBEN SIE WIE MAN DEN LIZENZ VIEWER AUFRUF- danach Lizenzinformationen anzeigen. Drücken Sie die Schaltfläche: Aktivierungsschlüssel. Geben Sie den Aktivierungsschlüssel von diesem e-mail (dieser kann über die Zwischenablage kopiert werden) ein. Drücken Sie die Schaltfläche: OK. Es erscheint ein Dialogfenster, das den Aktivierungsschlüssel online überprüft.
Sichern Sie die Lizenzdatei xy.lic.

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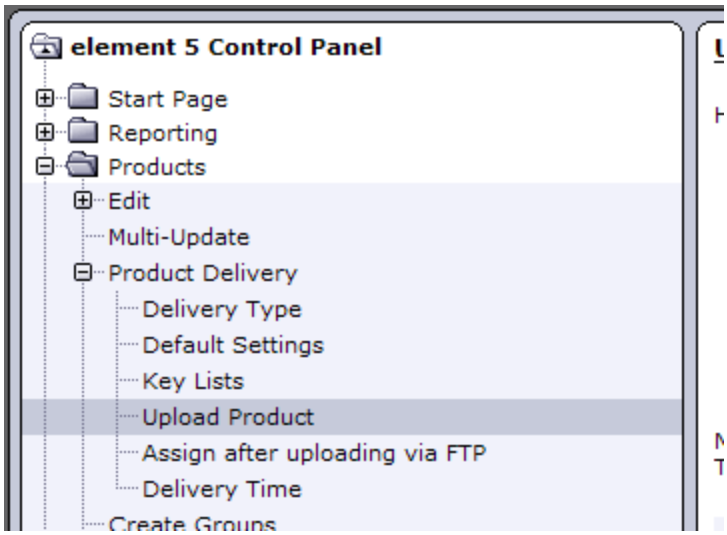
15.3.2.4 Upload Project Files

Start the Element5 / Share-it! *Control Panel*. Select **Upload Product** and then either select **Replace an existing file** or **Upload a new file**. Select your installation package and upload the file.



15.3.2.5 Define Delivery Details

Start the Element5 / Share-it! *Control Panel*. Within the option *Product Delivery* you specify the Automatic Generator, which the shop System invokes after the order process. See - Send files to Element5 / Share-it! 626 - how to upload the necessary files.

- Add Key Generator

  Press the button *Add* and select **element 5 delivers: License key.** Then select **Installed Key Generator** and select the latest Automatic License Generator. By default it has the name: **algshopxy.exe** where xy is the version number - e.g. algshop25.exe.

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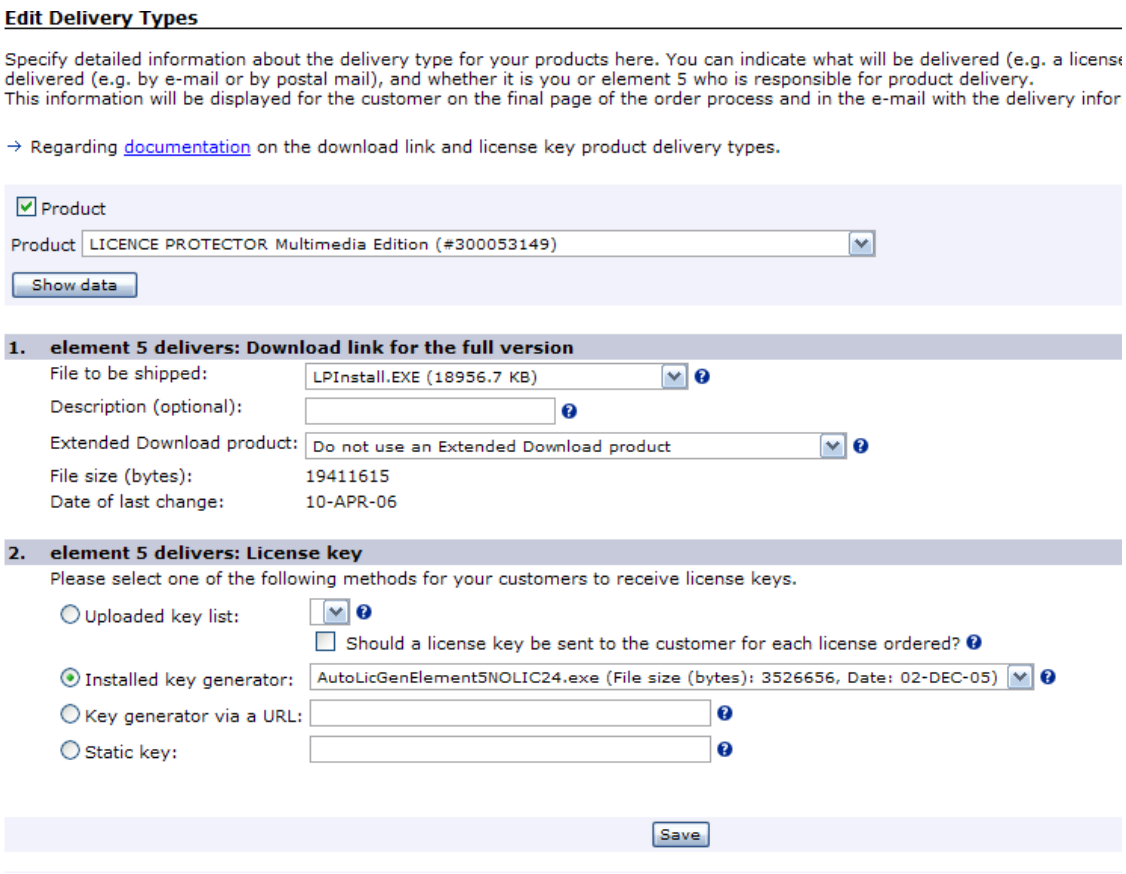

Add Download Package

Start the Element5 / Share-it! *Control Panel*. With **Delivery Type** you specify that Element5 / Share-it! delivers your uploaded project files 608 by download link.

Select *Product Delivery*, ***Delivery Type***. On the right side select your product and press - *Show data.*

Press the button *Add* and select **element5 delivers: download link for the full version full version.** Then select *File to be shipped* and select your uploaded project file 608 in the drop down list.

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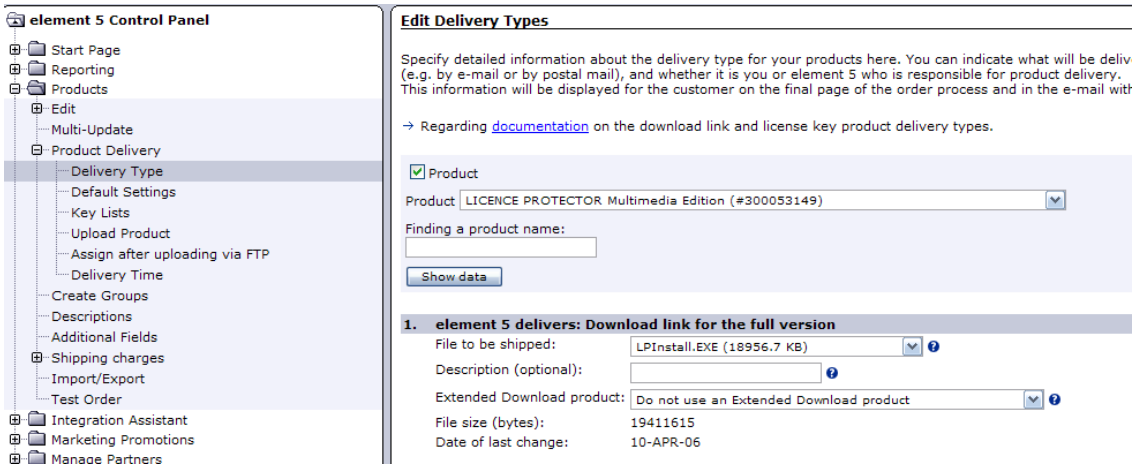

15.3.2.6 Special Options

In case you are not using EasyGo and you want to activate the copy protection automatically with the order process, your customer has to type in the installation code in the field *additional1* during the order process. You could automate this with the following scenario:

- The customer has your demo version installed
- You make a menu item like Help, Order. If order is selected, you use the GetInstCode method to obtain the installation code
- Make a link to element5 with the **installation code as a preset value for the field additional1**

https://secure.element5.com/esales/checkout.html?PRODUCT[180724]
=**1&ADDITIONAL1[180724]=1A4D3A15**&languageid=1

Then generate a complete license file using the filed additional1 for copy protection.

15.3.2.7 Field Mappings

The fields from an Element5 / Share-it! order are mapped as follows:

Element5 / Share-it!	Order file of Automatic License Generator
PURCHASE_ID	OrderID
REG_NAME if omitted then COMPANY if omitted then LASTNAME if omitted then EMAIL	RegistrationName
RESELLER	Manufacturer
REG_NAME	RegistrationName1
COMPANY	RegistrationName2

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LASTNAME	RegistrationName3
EMAIL	RegistrationName4
Reseller	Manufacturer
ADDITIONAL1	InstallationCode. If copy protection is 0 then this field is not used
PRODUCT_ID	ProductID
QUANTITY	Quantity

You can change this field mapping using the **Fieldmap-entries** in the product configuration file **config-autogenerator.xml** (see chapter Field Mappings Order file ->Configuration file)

In the sample in the product configuration section above, you find the default field mapping. If you want to switch some fields or Element5 / Share-it! adds new fields, you can adapt this new situation by creating new settings:

Example

InstallationCode
ADDITIONAL1

This is the standard setting (you probably will omit this entry). If someday there is a new info “RegistrationCode” in the order file than you can add the following entry:

InstallationCode
RegistrationCode

Note that your project configuration file does not need to contain standard mappings. If omitted, they are replaced by the built in values.

We strongly recommend setting **UseManufacturerFromOrder** to No. If the value is not set, the name of the reseller, who placed the order, is written to the field manufacturer in the license file. This behaviour is designed for OEM software vendors, when the name of the reseller should be displayed in the license file.

15.4 Generic Shop Integration

There are different options to integrate License Protector in a shop or e-commerce system.

- Use Key Lists 604 (single user license only)
- Create keys after the order process using a https connection to the Activation Server 6

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Part XVI

16 Function Reference and Error Codes

The chapter provides an overview about all available API calls in Licence Protector 5.

Sample code sequences are in Delphi (Pascal) syntax. If you are not familiar with Pascal here are some hints to understand the included samples:

- Commands are separated by an semicolon
- Blocks are enclosed by keywords “begin” and “end”
- The operator for variable allocation is “:=”. The operator for compare is “=”

Licence Protector comes in 3 editions

- Starter Edition
- Basic Edition
- Professional Edition

Each function is marked with to indicate, for which Edition the function is available.
If a function is only available as an option (for example the concurrent user feature is an option for the Basic Edition), then this is indicated as follows .

16.1 Error Codes

Depending on the application type, there are different error or return codes

- Licence Protector DLL 635
- Automatic License Generator 637
- Activation Server 6
- Other Errors 638

For each error message a language specific text can be retrieved with GetErrorMessage 683.

See also
If found no answer for my questions 525

16.1.1 DLL - Error and Return codes

Each call of Licence Protector 5 gives you a return code. The following return codes are supported. **You can use the constant value in your Source code instead of the return code.**

The function GetErrorMessage gives an appropriate error message for each return code which could be used in the user dialog.

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Return Code	Short description Constant value in the DLL	Error Message
0	lpLicencePassed	No error occurred
1	lpLicenceDemoMode	This version of %modulname% is a demo version
2	lpLicFileNotRegistered	The license file %filename% could not be found or was not opened
3	lpModuleIsNo	Module $1 is set to 'no'
4	lpDoNoContinue	Do not continue. This can e.g. happen if a product activation was not successful
16	lpLicenceExpired	The license of %modulname% has expired
17	lpDemolicenceExpired	The demo license of %modulname% has expired. Flag Demoversion 189 is set to true
32	lpTooManyModuleUser	There is no free license of %modulname% available See common reasons for this error
64	lpUserIsDeactivated	The license of user %username% was deactivated. Please contact your system administrator
128	lpNoLicFileAccess	The license file %filename% could not be accessed, e.g. the user has no write permission
256	lpModuleNotFound	The module %ModuleID% could not be found in the license file
257	lpKeyAlreadyUsed	This Activation KeyActivation Key was already used. Request a new license key
258	lpKeyNotReadable	The Activation KeyActivation Key could not be read
300	lpModuleIsLocked	The license is locked
512	lpInvalidLicence	The license file is damaged or incomplete
1024	lpInvalidInstCode	This is a copy protection violation. The Installation Code of the license file doesn’t match with the %ID%. See common reasons for this error
2048	lpInvalidLicFile	The file %filename% is not a valid license file See common reasons for this error
3001 to 3099		Errors in combination with the Activation Server see Activation Server error codes
4096	lpNoUser	The user name for the module % ModuleID% %modulname% is missing

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4097	lpNoItem	The item name for the module % ModuleID% %modulname% is missing
4098	lpEntryNotFound	Entry in module %ModuleID% could not be found.
4099	lpInvalidType	Invalid type of module %ModuleID%.
4100	lpModuleExists	Module %ModuleID% already exists.
4101	lpInvalidParameter	Invalid Parameter %Parametername%.
4102	lpInsufficientlicense	The operation is not covered with your license / Edition - e.g. with a Starter Edition you try to add multiple modules or use a copy protection which is not possible with your Edition
5000	lpUserCancel	User cancel.
8192	lpUnsupportedVersion	This version of the license file % filename% is not supported
8193	lpUnknownLanguage	This language is not supported.
8194	lpNotImplemented	Not available in this version
16382	lpSysdateChanged	The system date was tampered and the application is locked. You can unlock the application with an Activation KeyActivation Key.
16383	lpLicTampered	The license file was tampered! See Tamper Detection - Reset Application 419
16384	lpUnhandledError	This is an unknown error. Click here 638 for possible reasons for this error.

See also

Return codes Automatic License Generator 637
Activation Server 6 error codes
Other Errors 638
If found no answer for my questions 525

16.1.2 Automatic Licence Generator - Return Codes

Each call of Automatic License Generator 464 in batch mode provides a return code.

Return Code	Description
0	Success, output files successfully written
1	No product in product configuration

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2	Product configuration could not be read. Check for a XML error
3	No Modules for an project found
4	Loading of module failed
5	Inconsistent product data
6	Inconsistent module data
7	Order file could not be read. Check for a XML error
8	Inconsistent order data
9	Order process failed
10	Writing of files failed
11	Licence expired. Perhaps no of projects exhausted.

If the Automatic License Generator is executed in a shell (e.g. using DOS CMD), you will get a detailed description in case of an error.

- Error 9

Either the project file:

- is missing
- is wrong
- the right read and create a file is missing

If this error occurs on the Activation Server 6, then check necessary rights for ASP Service.

16.1.3 Activation Server - error codes

See online help: Activation Server - error codes

16.1.4 Other Errors

These are errors which are not Error Return Codes 635 of the DLL but can occur in other situations:

- **Automation object not found** - Either the Licence Protector DLL is not registered or the wrong DLL is referenced in the Code - see Add the LicProtector 76 510.dll 76

- EasyGo Screen - **unknown Error** (error code 16384). Either the Licence Protector DLL is not registered or the wrong DLL is referenced in the Code - see Add the LicProtector 76 510.dll- 76 Most likely you used the wrong ReadKey for this license file - Check:

  - ReadKey 185 in license file template

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- ReadKey 162 in PreapareAndCheck

- Decryption failed because the wrong security level is set with SecurityLevel 110 or PrepareAdvanced 729

- Call to dllregisterserver failed with error code 0x80004005 - Either the Licence Protector DLL is not registered or the wrong DLL is referenced in the Code - see Add the LicProtector 76 510.dll 76

EasyGo Screen

The activation key cannot be applied. The installation code of the license file does not match with code 0

The Unlock Key 320 is was made using a wrong installation code.

Example
Instcodes:
01: 3F523F50
02: 3DED554A
03: 280EAE6E
04: 280EAE6E
..

If you create an Unlock Key and use 3F523F50 (=Code1) for Netbios Name (=Code 4) then you get this error.

This is not a valid Serial Number after typing in a Serial Number

Check the following settings
- The status Activation is not set to required - See Create Serial Number Key 301
- The module ID has wrong characters like lower case letters - see module ID 187
- The Activation Key was made for a different project

If you cannot find out the problem, activate the log file within the Licence Viewer 281 (available in EasyGo on the Start Screen 222 - *Show License Information*), *button Options*.

Online Activation Failed
This error occurs during Online activation of the product. It indicates that your project data is not uploaded on the Activation Server 6.

Check if your URL to the Activation Server is correct - see license file template, Web

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Service URL 210. If the activation never works and you always get this error, then this is 99% due to a wrong URL.

Otherwise it is a typical message when a firewall blocks the online activation. If it is a company wide firewall the system administrator would have to open port 80.

- There is no free license of module xy available

This error occurs if you use a module type 203 per PC, user or concurrent user and there is no free license available. See error screen sample 272.

It can also occur

- using a Terminal Server, Citrix or Remote PC session as each session counts a separate license per PC or license per concurrent user. See Network License 548.
- on a local PC installation with a license per user and multiple users on the PC start the application
- if a USB flash drive is used

If you use EasyGo, click on Show License 281 information. You would see all PC's or users holding the license. It is possible to deactivate a license 286 if it is no longer necessary.

See also: How to add Add additional users / licenses within a network 554

See also
List of Return / Error Codes of the DLL 635

16.1.5 I found no answer for my question

If you did not find an answer for your questions in the tutorial search in the extensive Online Knowledge Base.

Browse Online Knowledge Base

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16.2 Commands in Alphabetical Order

Find below a reference in alphabetical order.

See also
Function reference grouped by application range 825

16.2.1 ActivateEntry

Name	**ActivateEntry**
Purpose	Activates an existing entry (user, computer, item) in the specified module.

Params

Parameter	*Type*	*Example*	*Note*
ModuleID	String	D1001	Unique ModuleID – identifies the module to be tested
Entryname	String	John	Name of the entry (user or computer or item)

Returncode

Returncode Type Integer	*Note*
0	The entry was successfully activated
256	The Module was not found
4098	The Entry was not registered in that module
4099	This module type does not have entries
32	There is no free license.
All other values – see return codes	The operation was not successful

Usage	Activates an entry. It doesn't matter if it is already activated!

Sample

```
iRes := lic.ActivateEntry('D1001', 'John');
if iRes = 0 then
begin
```

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	`<< successful >>`
	`...`
	`end`
	`else`
	`begin`
	`<< an Error occurred >>`
	`...`

See also	ExistsEntry, IsEntryActivated, DeactivateEntry, GetEntriesOfModule, RemoveDeactivated

.

16.2.2 AddModule

This command allows to add a new module in an license file. Use DeleteModule 664 to delete an existing module.

Name	**AddModule**
Purpose	Generates a new Module in the license file.

Params

Parameter	*Type*	*Example*	*Note*
ModuleID	String	D1009	Unique ModuleID – identifies the new module, this input is mandatory
ModuleName	String	My New Module	Name of the new module
ModuleType	Integer	2	Type of the new module: 1 = User, 2 = Computer, 3 = Counter, 4 = Yes/No, 5 = Item, 6 = Concurrent User (only possible if the necessary license exists)
licenses	Integer	10	Number of users or computers etc. In a Yes/No-Module 1 for yes and 0 for no.
IsDemo	Boolean	False	Runs that module as a demo?
Expires	Date	0	Date when this module will expire, 0 for unlimited
NoOfDays	Integer	10	Number of days this module will run after the first usage
MaxDate	Date	2004-12-31	Max date when this module will no longer work, even if there are open days, 0 for unlimited
Tag	String	Test	The tag value of that module
AllowDeactivate	Boolean	True	Can users, computers or items be deactivated In that module?

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<table>
<tr><td></td><td>
<table>
<tr><td>WebActivation</td><td>Integer</td><td>0</td><td>Activation status of the new module (0-3). Details 195</td></tr>
<tr><td>ModuleVerification</td><td>Integer</td><td>0</td><td>Enable regular online validation - Details 197</td></tr>
<tr><td>ActivationStateAfterCPon</td><td>Integer</td><td>2</td><td>see Activation Status 198 after product activation</td></tr>
<tr><td>Workflow</td><td>Integer</td><td>1</td><td>see Workflow 211</td></tr>
</table>
</td></tr>
<tr><td>Returncode</td><td>
<table>
<tr><th>Returncode Type Integer</th><th>Note</th></tr>
<tr><td>0</td><td>The new module was successfully created</td></tr>
<tr><td>4100</td><td>The ModuleID already exists in the license file</td></tr>
<tr><td>4101</td><td>One or more parameters are invalid</td></tr>
<tr><td>4099</td><td>This module type does not exists</td></tr>
<tr><td>4102 637</td><td>Your Licence Protector Edition does not allow to create modules</td></tr>
<tr><td>All other values – see return codes</td><td>The operation was not successful</td></tr>
</table>
</td></tr>
<tr><td>Usage</td><td>Created a complete new module in the license file</td></tr>
<tr><td>Sample</td><td>

```
   iRes := lic.AddModule('D1009', 'My new module', 2, 10, false, 0, 10,
0, 'My tag', true,0,2,1);
   if iRes = 0 then
   begin
      << successful >>
       ...
   end
   else
   begin
      << an Error occurred >>
      ...
```

</td></tr>
<tr><td>See also</td><td>DeleteModule 664, ExistsModule 671, 670 GetModuleList 707, GetVal 710, SetVal 791</td></tr>
</table>

You can change additional module information with SetVal 791 or retrieve it with GetVal 710.

If you are using EasyGo with PrepareAndCheck you have to set

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- Activation State 198 after product activation with SetVal, SAC 715 - and the value you use in your template (typically 2)
- Workflow with SetVal, WFL 715 - and the value you use in your template

16.2.3 ApplyActivationKey

This function allows to store / apply an Activation Key in the license file in case that the License Viewer 296 is not used.

Invoking this command **without** the parameter *Activation Key* will pop-up a dialog to type in a key. If you want to use your own dialog just provide as parameter the Activation Key.

<table>
<tr><td>Name</td><td>ApplyActivationKey</td></tr>
<tr><td>Purpose</td><td>Insert an Activation Key to change the properties of a module or to change the Copy Protection. Former ReadActivationKey</td></tr>
<tr><td>Params</td><td>
<table>
<tr><th>Parameter</th><th>Type</th><th>Example</th><th>Note</th></tr>
<tr><td>Activation Key</td><td>String</td><td>dO8uc-G1iC9-jOGeA-BqgEX-U71lD-0V1VX</td><td>A key that is 35 characters long or an empty string to open a window</td></tr>
</table>
</td></tr>
<tr><td>Returncode</td><td>
<table>
<tr><th>Returncode
Type Integer</th><th>Note</th></tr>
<tr><td>0</td><td>The Activation Key was successfully added to the license file</td></tr>
<tr><td>258</td><td>The Activation Key could not be read, possibly a wrong key</td></tr>
<tr><td>257</td><td>This Activation Key was already used</td></tr>
<tr><td>Other return codes</td><td>Operation failed, see list of return codes</td></tr>
</table>
</td></tr>
<tr><td>Usage</td><td>Add a received Activation Key to the license file or open a dialog to let the user enter a needed key. Note: Only those keys with appropriate installation codes could be applied.</td></tr>
<tr><td>Sample</td><td>

```
iRes := lic.ApplyActivationKey(sTheNewKey);
if iRes <> 0 then
begin
   << an error occurred >>
   ...
end
else
begin
   << everything is fine, continue >>
   ...
```

</td></tr>
<tr><td>See also</td><td>ApplyActivationKeyForProjec 645 t, ApplyInvisibleKey 646</td></tr>
</table>

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See also
Format of a Key 300
Create Keys 299

16.2.4 ApplyActivationKeyForProject

Name	**ApplyActivationKeyForProject**
Purpose	Insert an Activation Key to change the properties of a module or to change the Copy Protection. The difference to standard ApplyActivationKey is that a project name for a potential Web Activation check of the key can be delivered. This is only necessary if a different project name then the one stored in the license file should be used

Params

Parameter	*Type*	*Example*	*Note*
Projectname	String	Demo Project	If empty the Projectname of the license file is used
Activation Key	String	**dO8uc-G1iC9-jOGeA-BqgEX-U71lD-0V1VX**	A key that is 35 characters long or an **empty string** to open a window

Returncode

Returncode Type Integer	*Note*
0	The Activation Key was successfully added to the license file
258	The Activation Key could not be read, possibly a wrong key
257	This Activation Key was already used
Other return codes	Operation failed, see list of return codes

Usage	Same as ApplyActivationKey. If the key have to be checked with the Web Activation server the Projectname is used to determine the Web Activation project on the server. If Projectname is empty then the internal Projectname of the license file is used. This is exactly the same as if ApplyActivationKey is used. Check Web Activation Documentation for further details.

Sample

```
iRes := lic.ApplyActivationKeyForProject('My Project', sTheNewKey);
if iRes <> 0 then
begin
```

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```
      << an error occurred >>
      ...
   end
   else
   begin
      << everything is fine, continue >>
      ...
```

See also: ApplyActivationKey 644, ApplyInvisibleKey 646

See also

Format of a Key 300
Create Keys 299

16.2.5 ApplyInvisibleKey

Name	**ApplyInvisibleKey**
Purpose	Insert an Activation Key to change the properties of a module or to change the Copy Protection. The difference to ApplyActivationKey 644 is that this key is displayed in the License Viewer with *********

Params

Parameter	*Type*	*Example*	*Note*
Activation Key	String	**dO8uc-G1iC9-jOGeA-BqgEX-U71lD-0V1VX**	A key that is 35 characters long or an **empty string** to open a window

Returncode

Returncode Type Integer	*Note*
0	The Activation Key was successfully added to the license file
258	The Activation Key could not be read, possibly a wrong key
257	This Activation Key was already used
Other return codes	Operation failed, see list of return codes

Usage	Add a received Activation Key to the license file or open a dialog to let the user enter a needed key. Note: Only those keys with appropriate installation codes could be applied. The entered key is in License Viewer only displayed as a sequence of stars not as the real characters. This may be useful to use general keys that should not be copied to other systems.
Sample	

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	`iRes := lic.ApplyInvisibleKey(sTheNewKey);`
	`if iRes <> 0 then`
	`begin`
	`  << an error occurred >>`
	`  ...`
	`end`
	`else`
	`begin`
	`  << everything is fine, continue >>`
	`  ...`

See also	ApplyActivationKey 644, ApplyActivationKeyForProject 645

See also
Format of a Key 300
Create Keys 299

16.2.6 AppVersion

The command retrieves or changes the field application version 200, 207 which is stored in the license file. This information is sent to theActivation Server 6 and can be viewed per transaction.

Name	**AppVersion**
Purpose	Property to get or set the application version in the license file.
Params	None
Returncode	***Returncode Type String*** / ***Note*** Value / Version number of the application
Usage	Change / Retrieve the application version in the license file

Sample	`If lic.AppVersion = '3.0' then`
	`begin`
	
	`end;`
	`….`

See also	Generator 377, Project Template 200

Version information in the License Viewer

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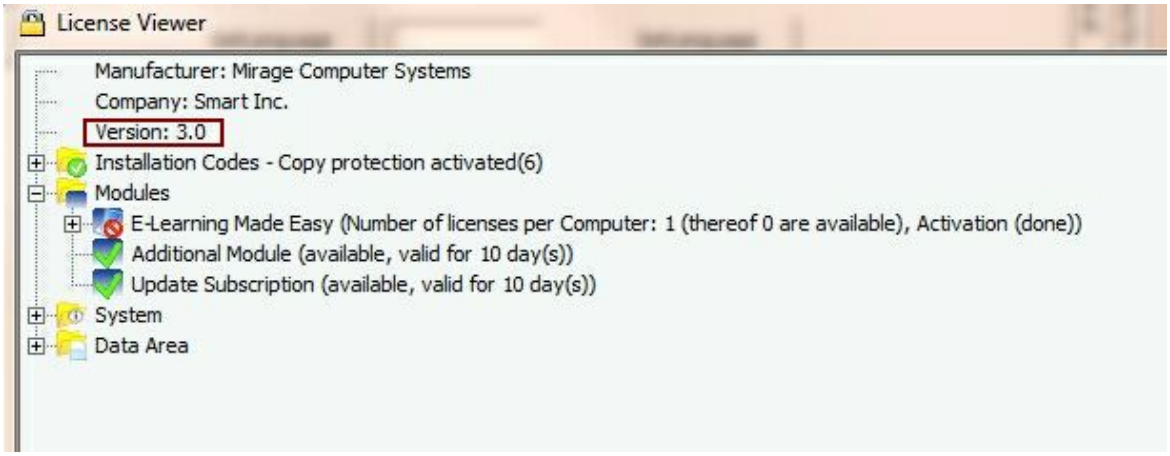

- Version of the Licence Protector DLL 715
- Version of the license file 702

16.2.7 BeginCache

This command starts the cache mode for **reading and writing**. The license file is **loaded into the computer memory** and every DLL command, reading a license file value, reads the value from the memory. If a DLL command modifies a license file value, the value is changed in the memory and **not on the hard disk**. The cache mode can be changed with BeginReadCache 649, which would save changes in the license file to the hard disk.

Use this command, if values from multiple modules have to be changed to speed up the access time significantly.

Name	**BeginCache**
Purpose	Reads and writes all license file values in cache mode
Params	None
Returncode	***Returncode Type Integer*** / ***Note***
	0 / The read and write cache was successfully activated. CacheMode 674 i to 3
	Other return codes / Cache activation failed, see list of return codes 635
Usage	Speed up reading of multiple values in a license file

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Sample	`iRes := lic.BeginCache;`
	`<< start reading values>>`
	`iRes := lic.EndCache;`

See also	GetCacheMode 674, BeginReadCache 649, EndCache 669, RefreshCache 743, RevertCache 750, WriteCache 824

Use this command only in a single user installation environment and not for a network license

16.2.8 BeginReadCache

This command starts the cache mode for **reading**. The license file is **loaded into the computer memory** and every DLL command, reading a license file value, reads the value from the memory. If a DLL command modifies a license file value, the complete license file is **updated on the hard disk**. The cache mode can be changed with BeginCache 648.

Use this command, if values from multiple modules are retrieved to speed up the access time significantly.

Name	**BeginReadCache**
Purpose	Reads all license file values in cache mode
Params	None
Returncode	***Returncode Type Integer*** / ***Note*** 0 / The read cache was successfully activated. CacheMode 674 is set to 1 Other return codes / Cache activation failed, see list of return codes 635
Usage	Speed up reading of multiple values in a license file

Sample	`iRes := lic.BeginReadCache;`
	`<< start reading values>>`
	`iRes := lic.EndCache;`

See also	GetCacheMode 674, BeginCache 648, EndCache 669, RefreshCache 743, RevertCache 750, WriteCache 824

16.2.9 CheckInterval

Name	**CheckInterval**
Purpose	Gets the interval between two automatic checks at a concurrent user module

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<table>
<tr><td>Params</td><td>
<table>
<tr><th>Parameter</th><th>Type</th><th>Example</th><th>Note</th></tr>
<tr><td>ModuleID</td><td>String</td><td>D1001</td><td>Unique ModuleID – identifies the module to be tested</td></tr>
</table>
</td></tr>
<tr><td>Returncode</td><td>
<table>
<tr><th>Returncode
Type Integer</th><th>Note</th></tr>
<tr><td>-1</td><td>An error occurred</td></tr>
<tr><td>>= 0</td><td>The seconds between two automatic checks in an activated concurrent user module</td></tr>
</table>
</td></tr>
<tr><td>Usage</td><td>E.g. if you want to show the interval in a setting dialog</td></tr>
<tr><td>Sample</td><td>

```
iSec := lic.CheckInterval('D1006');
if iSec < 0 then
begin
    iErr := lic.LastReturnCode;
    << react on error code >>
    ...
end
else
begin
    << use the interval information >>
    ...
```

</td></tr>
<tr><td>See also</td><td>Concurrent user modules, SetCheckInterval</td></tr>
</table>

16.2.10 CheckLicChanged

This command was replaced by the Tamper Detection 565 feature and should not be used in applications using a DLL version 2.5 and above.

<table>
<tr><td>Name</td><td>CheckLicChanged</td></tr>
<tr><td>Alternative if property can not be used</td><td>Get_CheckLicChanged → WordBool
Set_CheckLicChanged(WordBool)</td></tr>
<tr><td>Purpose</td><td>Property to get or set the license file manipulation checking at function Validate</td></tr>
<tr><td>Params</td><td>None</td></tr>
<tr><td>Returncode</td><td>
<table>
<tr><th>Returncode
Type Boolean</th><th>Note</th></tr>
<tr><td>True</td><td>Checking is enabled</td></tr>
<tr><td>False</td><td>Checking is not enabled</td></tr>
</table>
</td></tr>
</table>

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Usage	Activate the license file manipulation checking implicitly at function Validate.
Sample	Get: bIsCheckOn := lic.**CheckLicChanged**; << use Boolean bIsCheckOn >> Set: lic.**CheckLicChanged** := true;
See also	Validate, LicFileChanged

16.2.11 CheckLicenceID

Name	**CheckLicenceID**
Purpose	Compares the delivered ID with the license file ID.
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** licenseID / Integer / 123 / The license file ID can be displayed with the License Viewer or in the License Generator
Returncode	***Returncode Type Integer*** / ***Note*** 0 / The license ID matches the license ID in the license file 1024 / The license ID does **not** matches the license ID in the license file All other values – see return codes / The operation was not successful
Usage	E.g. if you want to implement a hardware independent copy protectionCopy Protection mechanism.

Sample	iRes := lic. **CheckLicenceID**(iNr);
	if iRes = 0 then
	begin
	<< *it matches, you can continue…*>>
	...
	end
	else
	begin
	<< *it does not match or there was an error* >>
	...

See also	Copy ProtectionCopy Protection, GetLicFileID

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16.2.12 CheckModule

Command to make an online **validation** of a module and **download** a license file. It will connect to the Activation Server 6, download the license file (if specified) and check if the module / license was **locked**.

See also CheckModuleSubscription 654 which includes a grace period.

Name	**CheckModule**
Purpose	Contacts the Activation Server 6 to validate a license. This function has to be used to implement “Moving licenses” and ongoing checks (“renting your software”).

Params

Parameter	*Type*	*Example*	*Note*
Projectname	String	Demo Project	projectname, if empty the internal projectname of the license file is used – identifies the project on the Activation Server
Module ID	String	QHD001	ModuleID – identifies the module
ID	String	yuGEI-5EPc3-9E7Il-3tI8X-7QU5k-6h14R	Identifier which is used to check and register this activation. Should be a **unique ID** like Serial Number, Invoice Number
ForceCheck	Boolean	False	If true, CheckModule will **always** connect to the Activation Server 6, even if it is not necessary regarding the current values
RequestLicData	Boolean	True	If set to true, the license file is **downloaded** from the Activation Server 6
Name	String	default	name to identify the license file. One ID can store multiple files using different names like default-backup-January2010 default-backup-February2010
Encryption Code	String	this is like a password string	ensures, that a file can only be downloaded when a password is provided. The password has to be set

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				with the command UploadLic 814. Should be maximum **40 characters**.
	DownloadFull	Boolean	true	If true, the complete license file is downloaded. Otherwise only the **changes** made on the Activation Server 6 are downloaded and updated in the local license file. **To only check a license it should be set to false**

Returncode

Returncode Type Integer	***Note***
0	CheckModule was successful: The online-Validation succeeded or it was not necessary to check the state online
3001	The Activation Server 6 was not reachable.
3010	That ID is already used e.g. by another computer.
3018	That ID is locked.
3002-3999	Errors on the Activation Server 6, see Activation Server 6 error codes
Other return codes	Operation failed, see list of return codes 635

Usage

Used to validate the license.

Sample

```
   iRes := lic.CheckModule('', 'QHD001', 'yuGEI-5EPc3-9E7Il-3tI8X-7QU5k-
6h14R',true, true);
   if iRes = 0 then
   begin
      << license successfully validated >>
      ...
   end
   else if iRes = 3001 then
   begin
      << Activation Server 6 could not be reached, please check connection >>
      ...
   end
   else if iRes = 3010 then
   begin
      << that license is already in usage. First transfer the license
from the other PC to use it on this PC >>
      ...
   end
   else if iRes = 3018 then
   begin
      << that license is locked on the Activation Server 6.>>
      ...
   end
   else
   begin
      << other errors >>>
      ...
```

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See also	licenseVerification, NextVerification, Deactivatelicense, SetVerificationID, SetVerificationProduct, WebServiceURL, ShowWAStartPage, ShowWAProgressPage, ShowWAResultPage, UseLocalProxy, UseLocalIEProxy, LocalProxyServer, LocalProxyPort, Projectname

16.2.13 CheckModuleSubscription

Command to make an online **validation** of a module, considering a **grace period** if no Internet connection is available and **download** a license file. It will connect to the Activation Server 6, download the license file (if specified) and check if the module / license was **locked**.

For a complete description see chapter regular online checks 541.

Grace Period

- If a connection to the Activation Server 6 fails, a grace period starts. You will get as a return value = 0 (OK)
- If a connection can be established during the grace period, you get the real return value and the grace period is reset
- If a connection cannot be established after the end of the grace period, you get an error code (e.g. 3001)

The grace period will only start when there is no connection to the Activation Server 6 but not on other errors like license is locked.

Setting the Grace Period

You can either set the grace period in the project template using <SubGraceDays> 197, SetSubGraceDays 790 or with the command SetVal, Token SGD 711

Additional API commands

- Use SetSubGraceDays 790 to overwrite the default value of the template <SubGraceDays> 197
- Use GetVal, Token SGD 715 to retrieve the number of grace time in full days (integer value) - set with SetSubGraceDays 790
- Use GetRemainingSubgraceDays 708 to retrieve the remaining grace time as an exact double value (e.g. 2.8765 days)
- Use GetVal, Token SGP 715 to retrieve the expiry date/time of the grace period (date/time value)

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Name	**CheckModuleSubscription**
Purpose	Contacts the Activation Server 6 to validate a license. This function has to be used to implement “Moving licenses” and ongoing checks (“renting your software”).

Params

Parameter	*Type*	*Example*	*Note*
Projectname	String	Demo Project	projectname, if empty the internal projectname of the license file is used – identifies the project on the Activation Server
Module ID	String	QHD001	ModuleID – identifies the module
ID	String	yuGEI-5EPc3-9E7Il-3tI8X-7QU5k-6h14R	Identifier which is used to check and register this activation. Should be a **unique ID** like Serial Number, Invoice Number
ForceCheck	Boolean	False	If true, CheckModuleSubscription will **always** connect to the Activation Server 6, even if it is not necessary regarding the current values
RequestLicData	Boolean	True	If set to true, the license file is **downloaded** from the Activation Server 6
Name	String	default	name to identify the license file. One ID can store multiple files using different names like default-backup-January2010 default-backup-February2010
Encryption Code	String	this is like a password string	ensures, that a file can only be downloaded when a password is provided. The password has to be set with the command UploadLic 814. Should be maximum **40 characters**.
DownloadFull	Boolean	true	If true, the complete license file is downloaded. Otherwise only the **changes** made on the Activation Server 6 are downloaded and updated in the local license file. **To only check a license it should be set to false**

Returncode

Returncode	*Note*

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	Type Integer
	0 — CheckModuleSubscription was successful. The online-Validation succeeded or it was not necessary to check the state online. Will also return 0 if connection failed and grace period is active
	3001 — The Activation Server 6 was not reachable.
	3010 — That ID is already used e.g. by another computer.
	3018 — That ID is locked.
	3002-3999 — Errors on the Activation Server 6, see Activation Server 6 error codes
	Other return codes — Operation failed, see list of return codes 635
Usage	Used to validate the license.
Sample	

```
   iRes := lic.CheckModuleSubscription(‘’, ‘QHD001’, ‘yuGEI-5EPc3-9E7Il-
3tI8X-7QU5k-6h14R’,true, true);
   if iRes = 0 then
   begin
      << license successfully validated >>
      ...
   end
   else if iRes = 3001 then
   begin
      << Activation Server 6 could not be reached, please check connection >>
      ...
   end
   else if iRes = 3010 then
   begin
      << that license is already in usage. First transfer the license
from the other PC to use it on this PC >>
      ...
   end
   else if iRes = 3018 then
   begin
      << that license is locked on the Activation Server 6.>>
      ...
   end
   else
   begin
      << other errors >>>
      ...
```

See also	GetRemainingSubgraceDays 708, SetSubGraceDays 790, Getval - Token SGD 715, SGP 715

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16.2.14 CheckSysdateChanged

Enables checking, if the system date is modified back **more than 1 day**. See error screen - System date was tampered 275

This option will stop the application if the date was turned back.

- CheckSysdateChanged Command

Name	**CheckSysdateChanged**
Alternative if property can not be used	Get_CheckSysdateChanged → WordBool Set_CheckSysdateChanged(WordBool)
Purpose	Property to get or set the date manipulation checking at function Prepare
Params	None
Returncode	***Returncode Type Boolean*** / ***Note*** True / Checking is enabled False / Checking is not enabled
Usage	Activate the date manipulation checking implicitly at function Prepare**. Has to be set before using Prepare**.

Sample	`Get:`
	`  bIsCheckOn := lic.`**`CheckSysdateChanged`**`;`
	`  << use Boolean bIsCheckOn >>`
	
	`Set:`
	`  lic.`**`CheckLicChanged`**` := true;`

See also	Prepare, SysdateChanged

To unlock the system date lock, you can use **any Activation Key** - e.g. a key which sets demo version to true or a key without any settings. To open the license file despite the error message, use PrepareForce 738 and then open the License Viewer so that the user can type in a key. The command PrepareAndCheck 162 will offer the License Viewer by default.

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If your application is in evaluation mode 68 and the application is uninstalled and then reinstalled, this is automatically detected. The application will have the same number of days left like before the uninstall process. *CheckSysdateChanged* is an **additional** test to the test in evaluation mode.

If you want to control that the system date check is **only done when the version is in evaluation mode**, you need additional checks.

- Check System Date only when in Evaluation / Demo mode

  Do not use CheckSysdateChanged. Instead use this test sequence

  - After the main license check with PrepareAndCheck 162 test your main module if it is in evaluation mode or a demo version
  - Check demo version: ValidateEx 173
  - Check time limited mode: NoOfDays 727
  - Only if the version is a demo version or NoOfDays is >0 then check if the System Date was modified with SysDateChanged 809
  - This command gives you full control to decide if you want to continue or not. In case the system date was changed and you do not want to continue display an error page with ShowStartErrorPage 802 using error number 16382 (which will display this page 275) or display your own error message

See also

How to unlock system date lock? 523

16.2.15 DeactivateEntry

Users / PCs / items can be deactivated using the License Viewer 286 or with command DeactivateEntry.

The license is then available again for another user / PC / item (RemainingLicenses 744 is increased) and the user / PC / item can never use the module again.

Name	**DeactivateEntry**
Purpose	Deactivates an existing entry (user, computer, item) in the specified module.

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Params

Parameter	*Type*	*Example*	*Note*
ModuleID	String	D1001	Unique ModuleID – identifies the module to be tested
Entryname	String	John	Name of the entry (user or computer or item)

Returncode

Returncode Type Integer	*Note*
0	The entry was successfully deactivated
256	The Module was not found
4098	The Entry was not registered in that module
4099	This module type does not have entries
All other values – see return codes	The operation was not successful

Usage

Deactivates an entry. It doesn't matter if it is already deactivated!

Sample

```
iRes := lic.DeactivateEntry('D1001', 'John');
if iRes = 0 then
begin
   << successfully deactivated >>
    ...
end
else
begin
   << an Error occurred >>
   ...
```

See also

ExistsEntry, IsEntryActivated, ActivateEntry, GetEntriesOfModule, RemoveDeactivated

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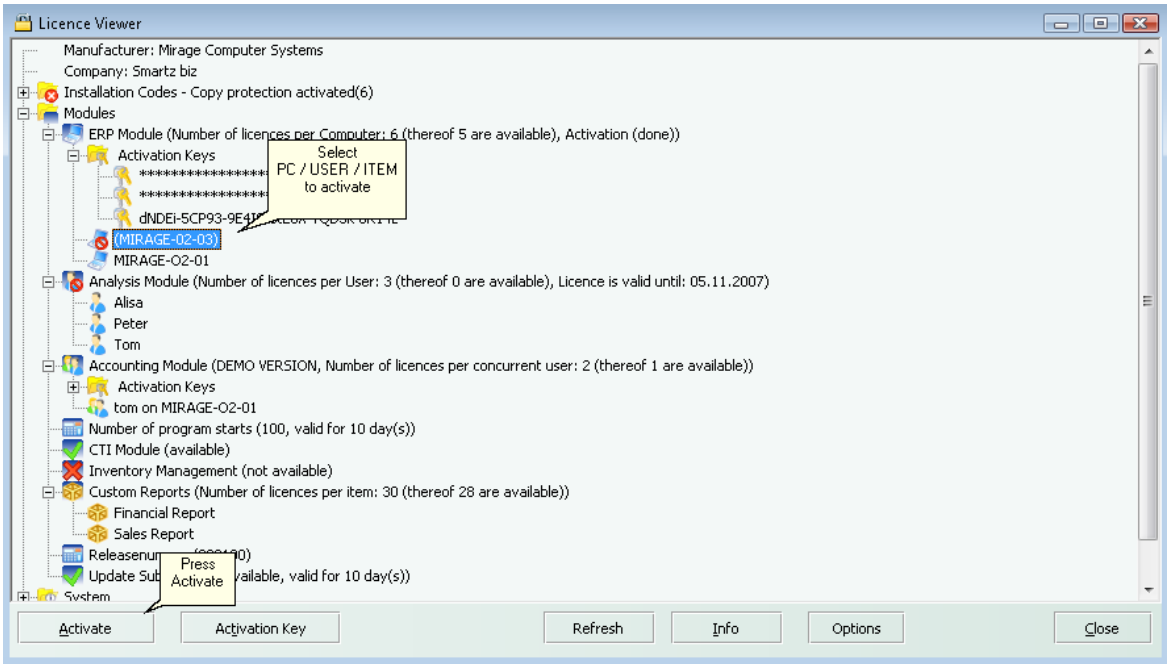

Deactivated PC

You can remove the user / PC / item from the license file using RemoveDeactivated 746. The user / PC / item can then reuse the module again.

16.2.16 ConcurrentUserLevel

Defines the method how concurrent user testing is done.

The Light version disables the heartbeat 466 and allows to manually add (with Prepare) or remove a user 745.

Name	**ConcurrentUserLevel**
Alternative if property can not be used	Get_ConcurrentUserLevel → Integer Set_ ConcurrentUserLevel (Integer)
Purpose	Property to get or set the concurrent user level of the licence
Params	None
Returncode	***Returncode Type Integer*** / ***Note*** 0 / Heartbeat (default)

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	1	Light (no heartbeat)
Usage	Read or set the level for all concurrent user modules in the licence.	
Sample	Get: bIsHearbeat := (lic.**ConcurrentUserLevel = 0**) << use Boolean bIsHearbeat >> Set: lic.**ConcurrentUserLevel**:= 1; // use no heartbeat	
See also	Concurrent User mechanism 465	

For a network license, use a **configuration file** where you can change the following values if required.

- Share Mode 110
- ConcurrentUserLevel 660
- SetCheckInterval 756
- SetLogging 769
- SetBackupInterval 753
- SetWebRequestTimeOutInSec 799

16.2.17 DeactivateModule

Command to make an online **deactivation** of a module and **upload** a license file. It will **always** connect to the Activation Server 6, upload the license file (if specified), **lock** the license on the server and lock the license in the local license file.

To find out, if a module / license is deactivated, use GetVerificationOfModule 716 (result: frozen = 2)

Name	**DeactivateModule**			
Purpose	Contacts the Activation Server 6 to validate a license. This function has to be used to implement “Moving licenses” and ongoing checks (“renting your software”).			
Params	***Parameter***	***Type***	***Example***	***Note***
	Projectname	String	Demo Project	projectname, if empty the internal projectname of the license file is used –

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				identifies the project on the Web Activation Server
	Module ID	String	QHD001	ModuleID – identifies the module
	ID	String	yuGEI-5EPc3-9E7Il-3tI8X-7QU5k-6h14R	Identifier which is used to check and register this activation. Should be a **unique ID** like Serial Number, Invoice Number
	SendLicData	Boolean	True	If set to true, the license file is **uploaded** to the Activation Server 6
	Name	String	Default	name to identify the license file. One ID can store multiple files using different names like default-backup-January2010 default-backup-February2010
	Encryption Code	String	this is like a password string	ensures, that a file can only be downloaded when a password is provided. The password is also used with the commands UploadLic 814, DownloadLic 665. Should be maximum **40 characters**.

Returncode

Returncode Type Integer	***Note***
0	DeactivateModule was successful
3001	The Activation Server 6 was not reachable.
3015	That ID could not be found in the database
3030	The deactivation failed on the Activation Server 6
3002-3999	Errors on the Activation Server 6, see Activation Server 6 error codes
Other return codes	Operation failed, see list of return codes 635

Usage

Used to validate the license.

Sample

```
   iRes := lic.Module('', 'QHD001', 'yuGEI-5EPc3-9E7Il-3tI8X-7QU5k-
6h14R',true, true,'default','this is like a password string');
   if iRes = 0 then
   begin
      << license successfully validated >>
      ...
   end
   else if iRes = 3001 then
```

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	begin
	<< Activation Server 6 *could not be reached, please check connection* >>
	...
	end
	else if iRes = 3010 then
	begin
	<< *that license is already in usage. First transfer the license from the other PC to use it on this PC* >>
	...
	end
	else if iRes = 3018 then
	begin
	<< *that license is locked on the* Activation Server 6.>>
	...
	end
	else
	begin
	<< *other errors* >>>
	...

See also	licenseVerification, NextVerification, Deactivatelicense, SetVerificationID, SetVerificationProduct, WebServiceURL, ShowWAStartPage, ShowWAProgressPage, ShowWAResultPage, UseLocalProxy, UseLocalIEProxy, LocalProxyServer, LocalProxyPort, Projectname

16.2.18 DeleteConfig

See full description - Store data in the license file 562

Name	**DeleteConfig**
Purpose	Deletes the value of the ID with the specified name in the data area of the license file
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** Configname / String / DBPassword / Unique ID
Returncode	***Returncode Type Integer*** / ***Note*** All values / See list of return codes
Usage	Delete the ID including its value

Sample	iRes := lic.Delete**Config**('DBPassword');
	if iRes <> 0 then
	begin
	<< *an Error occured* >>
	...
	end
	else
	begin
	...

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See also	Store data, 562 SetConfig 757, GetConfig 675, ExistsConfig, 670 IsConfigVisible 719

16.2.19 DeleteModule

This command allows to delete an existing module. To add a new module in an license file use AddModule 642.

Name	**DeleteModule**
Purpose	Removes a module from the license file completely.
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** ModuleID / String / D1008 / Unique ModuleID – identifies the module to be removed
Returncode	***Returncode Type Integer*** / ***Note*** 0 / Module successfully removed 256 / Module was not found in that license file Other value / Error occurred, see list of return codes
Usage	To remove an obsolete module from your license file.

Sample	`iRes := lic.DeleteModule('D1008');`
	`if iRes = 256 then`
	`  << Module already deleted >>`
	`if iRes = 0 then`
	`  << Module succesfully deleted >>`
	`...`

See also	AddModule 642, ExistsModule 671, GetModuleList 707, GetVal, SetVal

You can change module information with SetVal 791 or retrieve it with GetVal 710

16.2.20 DiffPct

Name	**DiffPct**
Purpose	Gets the tolerance in percent that is allowed for a client to do an automatic validate at a concurrent user module

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<table>
<tr><td>Params</td><td>
<table>
<tr><th>Parameter</th><th>Type</th><th>Example</th><th>Note</th></tr>
<tr><td>ModuleID</td><td>String</td><td>D1006</td><td>Unique ModuleID – identifies the module to be tested</td></tr>
</table>
</td></tr>
<tr><td>Returncode</td><td>
<table>
<tr><th>Returncode
Type Integer</th><th>Note</th></tr>
<tr><td>-1</td><td>An error occurred</td></tr>
<tr><td>>= 0</td><td>The tolerance in percent in an activated concurrent user module</td></tr>
</table>
</td></tr>
<tr><td>Usage</td><td>E.g. if you want to show the interval in a setting dialog</td></tr>
<tr><td>Sample</td><td>

```
iPct := lic.DiffPct('D1006');
if iPct < 0 then
begin
    iErr := lic.LastReturnCode;
    << react on error code >>
    ...
end
else
begin
    << use the interval information >>
    ...
```

</td></tr>
<tr><td>See also</td><td>Concurrent user modules, SetDiffPct</td></tr>
</table>

16.2.21 DownloadLic

This command allows you to download a complete license file (including all hidden information) from the Activation Server 6. It can be uploaded with the command UploadLic 814.
Values (e.g. a module or data area information) which are removed on the server, are still available in the local file. To download a one to one copy use DownloadWholeLic 667

This command requires a license file which was opened using one of the Prepare commands 920.

<table>
<tr><td>Name</td><td>DownloadLic</td></tr>
<tr><td>Purpose</td><td>Downloads the license file from to the Activation Server 6. A unique ID is necessary to store the license file on the Activation Server 6. If the ID already exists, the data is overwritten.</td></tr>
<tr><td>Params</td><td>
<table>
<tr><th>Parameter</th><th>Type</th><th>Example</th><th>Note</th></tr>
<tr><td>Projectname</td><td>String</td><td>demo-easygo</td><td>Project name. If empty the internal project name of the license file is used</td></tr>
</table>
</td></tr>
</table>

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	ModuleID	String	QHD001	module ID - If ModuleID is empty a CheckLicence call is used to locate the Activation
	ID	String	IV0078	unique ID to store the license file. Could be a customer ID or a Serial number
	Name	String	default	name to identify the license file. One ID can store multiple files using different names like default-backup-January2010 default-backup-February2010
	Encryption Code	String	this is like a password string	ensures, that a file can only be downloaded when a password is provided. The password has to be set with the command UploadLic 814. Should be maximum **40 characters**.
	DownloadFull	Boolean	true	If true, the complete license file is downloaded. Otherwise only the **changes** made on the Activation Server 6 are downloaded and updated in the local license file. Values removed on the server will not be removed in the local file

Returncode

Returncode Type Integer	***Note***
0	license file successfully downloaded
3001	The Activation Server 6 was not reachable.
3014	Most likely wrong encryption code or the length of the encryption code exceeds 40 characters or problem with the time difference between client and Activation Server 6
3015	Key / ID does not exist. An ID was used where no license file is assigned on the Activation Server 6 . The ID must match the ID used with UploadLic 814
3040	Name of the license file in combination with the used ID does not exist or the length of the encryption code exceeds 40 characters
3002-3999	Errors on the Activation Server 6, see Activation Server 6 error codes
Other return codes	Operation failed, see list of return codes 635

Usage	Used to download a license file or only modifications. The license file can be edited on the Activation Server 6 and the file has first to be uploaded using the command UploadLic.

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Sample	iRes := lic.DownloadLic('', 'QHD001', 'IV0078', 'Default', 'mypassword76RS',true);
	
	if iRes = 0 then
	begin
	<< Licence successfully downloaded >>
	...
	end
	
	else if iRes = 3001 then
	begin
	<< Activation Server 6 could not be reached, please check connection >>
	...
	end
	else
	begin
	<< other errors >>>
	...

See also	UploadLic 814, WebRegisterEXT, DownloadWholeLic 667

- User or PC names stored in the license file, are not downloaded. This is to ensure that the file can be downloaded on a new PC
- The hardware ID of the PC, which uploaded the file, is replaced with the hardware ID of the PC, which downloads the file

Example

- PC A has copy protection turned on with code 2 = 170D9F7C
- PC B downloads the file. Copy protection code 2 is turned on but with the hardware ID of PC B = 180A9B6A

16.2.22 DownloadWholeLic

This command allows you to download a complete license file (including all hidden information) from the Activation Server 6. It can be uploaded with the command UploadLic 814.
It downloads a **1 to 1 copy** of the file on the server. Values (e.g. a module or data area information) **which are removed on the server, are also removed in the local license file.**

This command requires a license file which was opened using one of the Prepare commands 920.

Name	**DownloadWholeLic**
Purpose	Downloads the license file from to the Activation Server 6. A unique ID is necessary to store the license file on the Activation Server 6. If the ID already exists, the data is overwritten.

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Params

Parameter	*Type*	*Example*	*Note*
Projectname	String	demo-easygo	Project name. If empty the internal project name of the license file is used
ModuleID	String	QHD001	module ID - If ModuleID is empty a CheckLicence call is used to locate the Activation
ID	String	IV0078	unique ID to store the license file. Could be a customer ID or a Serial number
Name	String	default	name to identify the license file. One ID can store multiple files using different names like default-backup-January2010 default-backup-February2010
Encryption Code	String	this is like a password string	ensures, that a file can only be downloaded when a password is provided. The password has to be set with the command UploadLic 814. Should be maximum **40 characters**.

Returncode

Returncode Type Integer	*Note*
0	license file successfully downloaded
3001	The Activation Server 6 was not reachable.
3014	Most likely wrong encryption code or the length of the encryption code exceeds 40 characters or problem with the time difference between client and Activation Server 6
3015	Key / ID does not exist. An ID was used where no license file is assigned on the Activation Server 6 . The ID must match the ID used with UploadLic 814
3040	Name of the license file in combination with the used ID does not exist or the length of the encryption code exceeds 40 characters
3002-3999	Errors on the Activation Server 6, see Activation Server 6 error codes
Other return codes	Operation failed, see list of return codes 635

Usage

Used to download a complete license file or only modifications. The license file can be edited on the Activation Server 6 and the file has first to be uploaded using the command UploadLic.

See also

UploadLic 814, WebRegisterEXT, DownloadLic 665

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- User or PC names stored in the license file, are not downloaded. This is to ensure that the file can be downloaded on a new PC
- The hardware ID of the PC, which uploaded the file, is replaced with the hardware ID of the PC, which downloads the file

Example

- PC A has copy protection turned on with code 2 = 170D9F7C
- PC B downloads the file. Copy protection code 2 is turned on but with the hardware ID of PC B = 180A9B6A

16.2.23 EndCache

This command ends the cache mode. If write commands have been cached, EndCache saves the updates to the disk.

Use this command, after you have activated the cache mode with BeginCache 648 or BeginReadCache 649.

Name	**EndCache**
Purpose	Terminates cache mode
Params	None
Returncode	***Returncode Type Integer*** / ***Note***
	0 / The cache mode successfully terminated. CacheMode 674 is set to 0
	Other return codes / Cache mode termination failed, see list of return codes 635
Usage	Terminates cache mode

Sample	`iRes := lic.BeginCache;`
	`<< start reading values>>`
	`iRes := lic.`**`EndCache`**`;`

See also	GetCacheMode 674, BeginReadCache 649, BeginCache 648, RefreshCache 743, RevertCache 750, WriteCache 824

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16.2.24 ExistsConfig

See full description - Store data in the license file 562

Name	**ExistsConfig**
Purpose	Checks if the ID with the specified name exists in the data area
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** Configname / String / DBPassword / Unique ID
Returncode	***Returncode Type Boolean*** / ***Note*** True / This ID exists in the license False / This ID does not exist in the license
Usage	Use to check if that ID already exists in the data area of the license file

Sample	`bOk := lic.ExistsConfig('DBPassword');`
	`if bOk then`
	`begin`
	`  << use the information >>`
	`  ...`
	`end`
	`else`
	`begin`
	`  ...`

See also	Store data, 562 SetConfig 757, GetConfig 675, DeleteConfig 663, IsConfigVisible 719

16.2.25 ExistsEntry

Find out if a user / PC / item is using a license of a module.

Name	**ExistsEntry**
Purpose	Checks if an entry (user, computer, item) is registered in a module
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** ModuleID / String / D1001 / Unique ModuleID – identifies the module to be tested Entryname / String / John / Name of the entry (user or computer or item)

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Returncode	***Returncode Type Boolean*** / ***Note*** True / This entry exists in the specified module False / This entry does not exists in the specified module (or an error occurs)
Usage	E.g. if you want to check if a user is already in the module registered

Sample	`bOk := lic.ExistsEntry('D1001', 'John');`
	`if bOk then`
	`begin`
	`  << use the information >>`
	`  ...`
	`end`
	`else`
	`begin`
	`  ...`

See also	IsEntryActivated, DeactivateEntry, ActivateEntry, GetEntriesOfModule, RemoveDeactivated

To retrieve **all** entries of a module use GetEntriesOfModule 683

16.2.26 ExistsModule

Find out if a module exists in the license file

Name	**ExistsModule**
Purpose	Checks if a module exists in the license file. It does not validate 818 a module.
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** ModuleID / String / D1001 / Unique ModuleID – identifies the module to be tested
Returncode	***Returncode Type Boolean*** / ***Note*** True / This module exists in the license file False / This module does not exists in the license file
Usage	E.g. if you want to check if a user is already in the module registered

Sample	`bOk := lic.ExitsModule('D1001');`
	`if bOk then`
	`begin`

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	`<< use the information >>`
	`...`
	`end`
	`else`
	`begin`
	`...`

See also	GetModuleList 707, AddModule 642, DeleteModule 664,

To retrieve **all** modules of a license file use GetModuleList 707

16.2.27 ExpiredOn

Name	**ExpiredOn**
Purpose	Gets the date when the module expires.
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** ModuleID / String / D1001 / Unique ModuleID – identifies the module to be tested
Returncode	***Returncode Type Date*** / ***Note*** **1899-12-30** representing 0 as float value / The module **never expires** or an error occurred. Check LastReturncode! Other dates / Date when that module expires
Usage	E.g. to show the user when a part of your software isn't usable any more.

Sample	`dtExpire := lic.`**`ExpiredOn`**` ('D1006');`
	`if dtExpire = 0 then`
	`begin`
	`  iErr := lic.LastReturnCode;`
	`  if iErr <> 0 then`
	`  begin`
	`  << react on error code >>`
	`  ...`
	`  end`
	`  else`
	`  begin`
	`  << module never expires >>`
	`  ...`
	`  end`
	`end`
	`else`
	`begin`
	`  << module expires at dtExpire >>`
	`  ...`

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See also	Validate 818, RemainingDays 743

16.2.28 GetActionsOfLastPrepareAndCheck

This command can be used to find out, if the command PrepareAndCheck 162 did just a regular license check or

- If a Serial Number was used, but the activation is not completed (e.g. activation by e-mail, fax)
- If an activation was completed (e.g. an Unlock Key was typed in)
- If a Serial Number was used and the activation was completed (online activation)

It also delivers as a return value which product activation option (online, e-mail, fax, phone) was used.

This information is useful if you want to implement an action which should done **only once directly after the product activation**. A sample would be to upload a license file after the product is activated (using UploadLic 814).

The return value is given only **once** after the above described events. Otherwise the return value is always empty

Name	**GetActionsOfLastPrepareAndCheck**
Purpose	Gets the customer's name from within the license file.
Params	None
Returncode	

Returncode Type String	***Note***
Empty	regular license check
A[X]	Serial Number was used
U[X]	Activation completed
A[X]U	Serial Number was used and activation completed

[X] indicates the product activation option which was used

0	Online
1	e-mail
2	Fax
3	Phone

Example:

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	A1 = Serial Number was typed in using e-mail Activation U2 = Unlock Key was typed and the selected activation option was Fax A3U = Activation by phone, Serial Number + Unlock Key
Usage	Extract the customer to display or use it inside the application code.

Sample	`sCust := lic.GetActionsOfLastPrepareAndCheck ;`
	`<< >>`
	`...`

See also	GetWebActivation 717

To find out, if a product was activated or not you can use GetWebActivation 717.

16.2.29 GetBackUpInterval

Retrieve the value in seconds of the license file back. It can be set with SetBackupInterval 753.

Name	**GetBackupInterval**
Purpose	Retrieve the value in seconds which was set with SetBackupInterval 753.
Params	None
Returncode	***Returncode Type Integer*** / ***Note*** 0-x / 0 = backup is off Any other value is backup interval in seconds
See also	SetBackupInterval 753

16.2.30 GetCacheMode

This command retrieves the mode of the cache. The cache mode has to be activated first using BeginReadCache 649 or BeginCache 648

Name	**GetCacheMode**

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Purpose	This command retrieves the mode of the cache
Params	None
Returncode	***Returncode Type Integert*** / ***Note***
	0 / Cache is turned off
	1 / Cache is in Read mode - opened with BeginReadCache 649
	2 / Cache is in Read and Write mode - opened with BeginCache 648
	Other return codes / Cache mode could not be retrieved, see list of return codes 635
Usage	Find out if the cache is turned on or not

Sample	`iRes := lic.BeginCache;`
	`<< start reading values>>`
	`iRes := lic.GetCacheMode;`
	`<< start reading values>>`
	`iRes := lic.EndCache;`

See also	EndCache 669, BeginReadCache 649, BeginCache 648, RefreshCache 743, RevertCache 750, WriteCache 824

16.2.31 GetConfig

See full description - Store data in the license file 562

Name	**GetConfig**
Purpose	retrieve a value from the data area using the ID configname
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note***
	Configname / String / DBPassword / Unique ID
Returncode	***Returncode Type String*** / ***Note***
	Empty / ID does not exist or the value string is empty. If you are not sure use ExistsConfig 670 to check if the ID exists.
	Full String / The value assigned to the ID configname
Usage	Read the content of the config

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Sample	<pre>sRes := lic.**GetConfig**('DBPassword');
	if sRes <> '' then
	begin
	  << *e.g. use the read value to open the database connection* >>
	  ...
	end
	else
	begin
	  << to be sure that the config exists do a ExistsConfig call >>
	  if ExistsConfig('DBPassword') then
	  begin
	  << *the value really is empty* >>
	  ...
	  end
	  else
	  begin
	  << *the config DBPassword does not exist* >>
	  ...
	  end;
	  ...</pre>

See also	Store data, 562 SetConfig 757, DeleteConfig 663, ExistsConfig 670, IsConfigVisible 719

16.2.32 GetCopyProtection

GetCopyProtection allows you to find out, which hardware ID is used for copy protection. If the license file has no copy protection enabled, the return value is 0.

Name	**GetCopyProtection**
Purpose	Gets the active type of Copy Protection
Params	none
Returncode	***Returncode Type Integer*** / ***Note*** 0 / No copy protection (or usage of licenseID) 1 to X / 1 = Volume ID 2 = MAC address etc. Complete list of all installation codes / hardware IDs 475
Usage	E.g. to check what type of copy protection is used

Sample	<pre>iProt := lic.**GetCopyProtection**;
	<< *in iProt is now the copy protection type* >>
	...</pre>

See also	copy protection, GetInstcode, Prepare

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See also GetInstCode 684 to retrieve the installation code.

16.2.33 GetCRC32

Name	**GetCRC32**
Purpose	Calculate CRC32 checksums for the LicProtector.dll and any other file.
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** Filename / String / C:\temp\myfile.exe / Absolute path to the file that has to be calculated. My be empty for testing the LicProtector.dll.
Returncode	***Returncode Type String*** / ***Note*** Hex / CRC32 checksum as hex-string
Usage	E.g. to check whether a file was manipulated

Sample	`sCRC32 := lic.GetCRC32('c:\temp\myapp.txt');`
	`<< in sCRC32 is now the checksum as hex-string >>`
	`...`

See also	

16.2.34 GetCUIsRunning

Name	**GetCUIsRunning**
Purpose	Checks if the concurrent user module for the user is running on the local Licence Protector instance
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** ModuleID / String / D1006 / Unique ModuleID – identifies the module to be tested Name / String / Tom / The user or item name to check for UseWindowsUser / Boolean / False / Determines if the windows login name should be used as name
Returncode	***Returncode Type Integer*** / ***Note***

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	<table><tr><td>-1</td><td>An error occurred (e.g. the module is unknown) Attention: LastReturnCode does not work!</td></tr><tr><td>0</td><td>Module is not running</td></tr><tr><td>1</td><td>Module is running</td></tr></table>
Usage	E.g. to check whether the concurrent user module for the user is already activated on that client

Sample	`iRun := lic.GetCUIsRunning('D1006', '', true);`
	`if iRun = 1 then`
	`begin`
	`  << Module D1006 already runs >>`
	`  ...`
	`end`
	`else`
	`begin`
	`  << Module does not exist or is not running >>`
	`  ...`

See also	Concurrent user modules, GetCULastValidate, GetCUNextValidate, GetCURunCounter

16.2.35 GetCULastValidate

Name	**GetCULastValidate**
Purpose	Gets the time of the last automatic validate for the concurrent user module on the local Licence Protector instance
Params	<table><tr><th>*Parameter*</th><th>*Type*</th><th>*Example*</th><th>*Note*</th></tr><tr><td>ModuleID</td><td>String</td><td>D1006</td><td>Unique ModuleID – identifies the module to be tested</td></tr><tr><td>Name</td><td>String</td><td>Tom</td><td>The user or item name to check for</td></tr><tr><td>UseWindowsUser</td><td>Boolean</td><td>False</td><td>Determines if the windows login name should be used as name</td></tr></table>
Returncode	<table><tr><th>*Returncode Type DateTime*</th><th>*Note*</th></tr><tr><td>1899-12-30 00:00:00 representing 0 as float value</td><td>The module is not running or an error occurred (e.g. the module is unknown) Attention: LastReturnCode does not work!</td></tr></table>

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	Other times: Time of last validate on that client
Usage	E.g. to show the time in a kind of system settings dialog

Sample	`dtTime := lic.GetCULastValidate('D1006', '', true);`
	`if dtTime = 0 then`
	`begin`
	`  << no usable time due to an error >>`
	`  ...`
	`end`
	`else`
	`begin`
	`  << show the time or use it in calculations>>`
	`  ...`

See also	Concurrent user modules, GetCUIsRunning, GetCUNextValidate, GetCURunCounter, CheckInterval, SetCheckInterval

16.2.36 GetCUNextValidate

Name	**GetCUNextValidate**
Purpose	Gets the time of the planned next automatic validate for the concurrent user module on the local Licence Protector instance
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** ModuleID / String / D1006 / Unique ModuleID – identifies the module to be tested Name / String / Tom / The user or item name to check for UseWindowsUser / Boolean / False / Determines if the windows login name should be used as name
Returncode	***Returncode Type DateTime*** / ***Note*** 1899-12-30 00:00:00 representing 0 as float value / The module is not running or an error occurred (e.g. the module is unknown) Attention: LastReturnCode does not work! Other times / Time of the next validate on that client
Usage	E.g. to show the time in a kind of system settings dialog
Sample	`dtTime := lic.GetCUNextValidate('D1006', '', true);`

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	`if dtTime = 0 then`
	`begin`
	`  << no usable time due to an error >>`
	`  ...`
	`end`
	`else`
	`begin`
	`  << show the time or use it in calculations>>`
	`  ...`

See also	Concurrent user modules, GetCUIsRunning, GetCULastValidate, GetCURunCounter, CheckInterval, SetCheckInterval

16.2.37 GetCURunCounter

Name	**GetCURunCounter**
Purpose	Gets the number of times an automatic validate for the concurrent user module has taken place on the local Licence Protector instance
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** ModuleID / String / D1006 / Unique ModuleID – identifies the module to be tested Name / String / Tom / The user or item name to check for UseWindowsUser / Boolean / False / Determines if the windows login name should be used as name
Returncode	***Returncode Type Integer*** / ***Note*** -1 / An error occurred (e.g. the module is unknown) Attention: LastReturnCode does not work! >= 0 / Number of times an automatic validate has taken place
Usage	E.g. to show the number in a kind of system settings dialog

Sample	`iRun := lic.`**`GetCURunCounter`**`('D1006', '', true);`
	`if iRun = -1 then`
	`begin`
	`  << an error occurred or no valid module >>`
	`  ...`
	`end`
	`else`
	`begin`
	`  << use the extracted information in iRun>>`
	`  ...`

See also	Concurrent user modules, GetCUIsRunning, GetCULastValidate, GetCURunCounter, CheckInterval, SetCheckInterval

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16.2.38 GetCustomer

Retrieve the customer name from the license file.

Name	**GetCustomer**
Purpose	Gets the customer's name from within the license file.
Params	None
Returncode	***Returncode Type String*** / ***Note*** Empty / No customer set in license file Other value / The customer's name
Usage	Extract the customer to display or use it inside the application code.

Sample	`sCust := lic.GetCustomer;`
	`<< use sCust >>`
	`...`

See also	GetManufacturer

16.2.39 GetEasyGoProperty

Retrieve the value of a property which was set with SetEasyGoProperty 140.

Name	**GetEasyGoProperty**
Purpose	Retrieve the value of a property which was set with SetEasyGoProperty 140.
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** Property / String / ActionAfterSuccess / defines the screen which is changed. For a complete li of all properties see SetEasyGoProperty 140 Parameter / String / / not in use - leave empty
Returncode	***Returncode Type Integer*** / ***Note***

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	0-x	for a complete list of all values see SetEasyGoProperty 140
Sample	`sValue := lic.GetEasygoProperty('ActionAfterSuccess','');`	
See also	SetEasyGoProperty 140	

16.2.40 GetEndVerificationOfModule

Get the date, when the **last** online check will be due (online check is terminated). After this date, the regular online check is terminated. This date can be set with SetEndVerificationOfModule 764.

The next planned online check can be retrieved with NextVerificationOfModule 726.

For a complete description see chapter regular online checks 541.

Name	**GetEndVerificationOfModule**
Purpose	Property to get and set the date when the last online verification for the specified **module** will occur. After this date no online checks are done.
Params	

Parameter	*Type*	*Example*	*Note*
ModuleID	String	QHD001	Unique ModuleID

Returncode

Returncode Type Integer	*Note*
0	There is no information when the last online check will be done. Probably there was no successful CheckModuleSubscription 654 or CheckModule 652 before.
A date	Date, when the last online check is due

Usage	Inform the user when the last online check will be done

Sample	`dtLastCheck := lic.End`**`VerificationOfModule('QHD001');`**
	`if ...`
	`end`

See also	NextVerificationOfModule 726, CheckModuleSubscription 654, CheckModule 652, DeactivateModule 661, SetVerificationIDOfModule 798, VerificationOfModule 854, SetEndVerificationOfModule 764

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16.2.41 GetEntriesOfModule

Name	**GetEntriesOfModule**
Purpose	Gets a list of all activated or deactivated entries (user, computer, item) in the specified module.
Params	

Parameter	*Type*	*Example*	*Note*
ModuleID	String	D1001	Unique ModuleID – identifies the module to be tested
Activated	Boolean	True	Return the activated or the deactivated entries
Separator	String	;	Separator string e.g. a semicolon

Returncode

Returncode Type String	*Note*
Empty	No users or an error occured
Full String	All users of the selected kind separated by the specified separator string e.g. John;Mary;Todd

Usage: Show you a list of all registered entries in that module

Sample:

```
sRes := lic.GetEntriesOfModule('D1001', false, ';');
iErr := lic.LastReturnCode;
if iErr <> 0 then
begin
   << react on error code >>
   ...
end
else
begin
   << process the list >>
   ...
```

See also: ExistsEntry, IsEntryActivated, ActivateEntry, DeactivateEntry, RemoveDeactivated

To check if a specific user / PC / item is using a license of a module use ExistsEntry 670

16.2.42 GetErrorMessage

Name	**GetErrorMessage**
Purpose	Gets the error message for the specified returncode in the current language
Params	

Parameter	*Type*	*Example*	*Note*

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	ErrorCode	Integer	2	ErrorCode, see list of return codes

Returncode	***Returncode Type String***	***Note***
	Empty	Specified ErrorCode is not valid (see list of return codes)
	Message	The message in the set language

Usage	E.g. show an error in your dialog schema.

Sample	`sMsg := lic.GetErrorMessage(2);`
	`<< use the extracted message >>`
	`...`

See also	SetLanguage, LastReturncode. It is possible to use this command before a license file has been opened.

16.2.43 GetInstCode

You can use this function to display the Installation Code 67 / Hardware ID to the user, if you don't want to use the License Viewer 281 or EasyGo. The hardware IDs are retrieved from the PC, where the **license file is stored.**

InstallationCode = **GetInstCode(CopyProtectType)**

The value 0 (No Copy Protection) in the function **GetInstCode** retrieves a default value. The value is **B3F5AA23**. You can use it as an indication, that the license file has no Copy Protection. A better and recommended way to determine the type of activated copy protection is to use GetCopyProtection() 676 which delivers 0 for none, 1 for VolumeID, 2 for MAC address and 3 for Hostname.

Note
If an installation code can not be retrieved (e.g. no MAC address available) you get an empty string as return value.

Name	**GetInstCode**
Purpose	Gets the installation code for the specified type

Params	***Parameter***	***Type***	***Example***	***Note***
	copy protection type	Integer	2	0 = no copy protection 1 = Volume ID 2 = MAC address etc. Complete list of all installation codes / hardware IDs 475

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Returncode	<table><tr><th>***Returncode Type String***</th><th>***Note***</th></tr><tr><td>Empty</td><td>Operation failed, no installation code could be computed</td></tr><tr><td>B3F5AA23</td><td>Code for **no copy protection**</td></tr><tr><td>Other code (always 8 characters long)</td><td>Computed code of the specified type</td></tr></table>
Usage	E.g. compute installation code for a routine to request a new license file

Sample	<pre>sCode := lic.**GetInstCode**(1);
	if sCode = '' then
	begin
	  << *computing the installation code failed* >>
	  ...
	end
	else
	begin
	  << *use the installation code* >>
	  ...</pre>

See also	GetCopyProtection 676

To use this command, the license file must have been opened 920 with one of the prepare commands.

16.2.44 GetKeyAbsoluteDays

This command analyzes an Activation Key and gives as a result, if the key value for the **number of days** will be added or if the key value will overwrite the existing value in the license file.

Name	**GetKeyAbsoluteDays**
Purpose	This command analyzes an Activation Key and gives as a result, if the key value for the **number of days** will be added or if the key value will overwrite the existing value in the license file.
Params	<table><tr><th>***Parameter***</th><th>***Type***</th><th>***Example***</th><th>***Note***</th></tr></table>

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	Key	String	HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh	Must be a Licen Protector Activat Key

Returncode	***Returncode Type Boolean***	***Note***
	True	the license file value for the expiry date will be **overwritten** with the new value in the key (number of days)
	False	the key value with number of days will be **added** to the value in the licer file

Usage	When the user types in a key you could use this information in your application logic

Sample	`bOk := lic.GetKeyAbsoluteDays('HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh');`
	`if bOk then`
	`begin`
	`  << license file value will be overwritten >>`
	`  ...`
	`end`
	`else`
	`begin`
	`  ...`

See also	Commands to analyze an Activation Key 858

To use this command, the license file must have been opened 920 with one of the prepare commands.

See Analyze an Activation Key 858 for an overview about all commands.

16.2.45 GetKeyAbsoluteLics

This command analyzes an Activation Key and gives as a result, if the key value for the **number of licenses** will be added or if the key value will overwrite the existing value in the license file.

Name	**GetKeyAbsoluteLics**
Purpose	This command analyzes an Activation Key and gives as a result, if the key value for the number of licenses will be added or if the key value will overwrite the existing value in the license file

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<table>
<tr><td>Params</td><td>
<table>
<tr><th>Parameter</th><th>Type</th><th>Example</th><th>Note</th></tr>
<tr><td>Key</td><td>String</td><td>HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh</td><td>Must be a Licen Protector Activat Key</td></tr>
</table>
</td></tr>
<tr><td>Returncode</td><td>
<table>
<tr><th>Returncode
Type
Boolean</th><th>Note</th></tr>
<tr><td>True</td><td>the license file value will be overwritten with the new value in the key</td></tr>
<tr><td>False</td><td>the key value will be added to the value in the license file</td></tr>
</table>
</td></tr>
<tr><td>Usage</td><td>When the user types in a key you could use this information in your application logic</td></tr>
<tr><td>Sample</td><td>

```
   bOk := lic.GetKeyAbsoluteLics('HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-
Aj8Eh');
   if bOk then
   begin
       << license file value will be overwritten >>
       ...
   end
   else
   begin
       ...
```

</td></tr>
<tr><td>See also</td><td>Commands to analyze an Activation Key 858</td></tr>
</table>

To use this command, the license file must have been opened 920 with one of the prepare commands.

See Analyze an Activation Key 858 for an overview about all commands.

16.2.46 GetKeyActivation

This command analyzes an Activation Key and gives as a result the value for the activation status.

<table>
<tr><td>Name</td><td>GetKeyActivation</td></tr>
<tr><td>Purpose</td><td>This command analyzes an Activation Key and gives as a result the value for the activation status.</td></tr>
<tr><td>Params</td><td>
<table>
<tr><th>Parameter</th><th>Type</th><th>Example</th><th>Note</th></tr>
</table>
</td></tr>
</table>

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<table>
<tr><td></td><td>
<table>
<tr><td>Key</td><td>String</td><td>HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh</td><td>Must be a Licen Protector Activat Key</td></tr>
</table>
</td></tr>
<tr><td>Returncode</td><td>
<table>
<tr><th>Returncode Type Integer</th><th>Note</th></tr>
<tr><td>0</td><td>Activation status = none</td></tr>
<tr><td>1</td><td>Activation status = required</td></tr>
<tr><td>2</td><td>Activation status = done</td></tr>
<tr><td>3</td><td>Activation status = unchanged</td></tr>
<tr><td>-1</td><td>Value not defined. Key without Activation status (turn on/off copy prote tamper detection, reset run number) - use GetKeyType 698 to get detail</td></tr>
</table>
</td></tr>
<tr><td>Usage</td><td>When the user types in a key you could use this information in your application logic . Activation status = required would be the value for a Serial Number</td></tr>
<tr><td>Sample</td><td>

```
   iKeyactivationstatus := lic.GetKeyActivation(HX4a7-5CYE0-11CFy-
6sjwX-kcC3Q-Aj8Eh);
   if iKeyactivationstatus = 0 then
    << activation status is not changed >>
   ...
   end
```

</td></tr>
<tr><td>See also</td><td>Commands to analyze an Activation Key 858</td></tr>
</table>

To use this command, the license file must have been opened 920 with one of the prepare commands.

See Analyze an Activation Key 858 for an overview about all commands.

16.2.47 GetKeyCopyProtectionType

This command analyzes an Activation Key and gives as a result the type of copy protection (installation code number), which will be set with this key. This command can only be used for keys which turn copy protection on (Unlock Key).

- Use GetKeyType 698 to analyze if the key is from type = 1
- Use GetKeyInstCode 689 to retrieve the value of the installation code

Name	**GetKeyCopyProtectionType**

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<table>
<tr><td>Purpose</td><td>This command analyzes an Activation Key and gives as a result the type of copy protection (installation code number), which will be set with this key. This command can only be used for keys which turn copy protection on (Unlock Key).</td></tr>
<tr><td>Params</td><td>
<table>
<tr><th>Parameter</th><th>Type</th><th>Example</th><th>Note</th></tr>
<tr><td>Key</td><td>String</td><td>HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh</td><td>Must be a Licen Protector Activat Key</td></tr>
</table>
</td></tr>
<tr><td>Returncode</td><td>
<table>
<tr><th>Returncode Type Integer</th><th>Note</th></tr>
<tr><td>-1</td><td>Key without copy protection</td></tr>
<tr><td>0</td><td>Key which turns off copy protection</td></tr>
<tr><td>1 to X</td><td>Key which turns on copy protection
1 = Volume ID
2 = MAC address etc.
Complete list of all installation codes / hardware IDs 475</td></tr>
</table>
</td></tr>
<tr><td>Usage</td><td>When the user types in a key you could use this information in your application logic</td></tr>
<tr><td>Sample</td><td>

```
   iKeyinstcodetype := lic.GetKeyCopyProtectionType('HX4a7-5CYE0-
11CFy-6sjwX-kcC3Q-Aj8Eh');

    << in iKeyinstcodetype will change the copy protection to type
x >>

   end
```

</td></tr>
<tr><td>See also</td><td>Commands to analyze an Activation Key 858</td></tr>
</table>

To use this command, the license file must have been opened 920 with one of the prepare commands.

See Analyze an Activation Key 858 for an overview about all commands.

16.2.48 GetKeyInstCode

This command analyzes an Activation Key and gives as a result the 8 digit installation code, which will be set with this key. This command can only be used for keys which turn copy protection on (Unlock Key). For all other keys, the license file ID is retrieved as an hex value. If no ID is set or the ID=0 then the result value will be

- Use GetKeyType 698 to analyze if the key is from type = 1
- Use GetKeyCopyProtectionType 688 to retrieve the installation code number

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Name	**GetKeyInstCode**
Purpose	This command analyzes an Activation Key and gives as a result the 8 digit installation code, which will be set with this key. This command can only be used for keys which turn copy protection on (Unlock Key).
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** Key / String / HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh / Must be a Licence Protector Activatio Key
Returncode	***Returncode Type String*** / ***Note*** Empty / No installation code could be retrieved (license file ID = 0 and no copy protection code is set) Other code (always 8 characters long) / Installation code which will be set for this license file. It it is not a copy protection key (use GetKeyType 698)
Usage	When the user types in a key you could use this information in your application logic

Sample	`scode := lic.GetKeyInstCode('HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh');`
	`if sCode = '' then`
	`begin`
	`<< No installation code could be retrieved >>`
	`...`
	`end`
	`else`
	`begin`
	`<< use the installation code >>`
	`...`

See also	Commands to analyze an Activation Key 858

To use this command, the license file must have been opened 920 with one of the prepare commands.

See Analyze an Activation Key 858 for an overview about all commands.

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16.2.49 GetKeyIsSerial

This command analyzes an Activation Key and gives as a result, if the key is a Serial Number 301 (which can be used for product activation) or not.

<table>
<tr><td>Name</td><td>GetKeyIsSerial</td></tr>
<tr><td>Purpose</td><td>Retrieve the value of a Yes/No Activation Key</td></tr>
<tr><td>Params</td><td>
<table>
<tr><th>Parameter</th><th>Type</th><th>Example</th><th>Note</th></tr>
<tr><td>Key</td><td>String</td><td>HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh</td><td>Must be a Licen Protector Activat Key</td></tr>
</table>
</td></tr>
<tr><td>Returncode</td><td>
<table>
<tr><th>Returncode Type Boolean</th><th>Note</th></tr>
<tr><td>True</td><td>The key is a Serial Number</td></tr>
<tr><td>False</td><td>The key is not a Serial Number</td></tr>
</table>
</td></tr>
<tr><td>Usage</td><td>When the user types in a key you could use this information in your application logic</td></tr>
<tr><td>Sample</td><td>

```
   bOK := lic.GetKeyIsSerial('HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-
Aj8Eh');

    if bOk then
   begin
       << key is a Serial Number >>
       ...
   end
   else
   begin
       ...
```

</td></tr>
<tr><td>See also</td><td>Commands to analyze an Activation Key 858</td></tr>
</table>

16.2.50 GetKeyLicences

This command analyzes an Activation Key and gives as a result the number of users, computers, concurrent users, counter value, item counter value.

Name	**GetKeyLicences**
Purpose	Retrieve the number of users, computers, concurrent users, counter value, item counter value of an Activation Key

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Params	<table><tr><th>Parameter</th><th>Type</th><th>Example</th><th>Note</th></tr><tr><td>Key</td><td>String</td><td>HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh</td><td>Must be a Licen Protector Activat Key</td></tr></table>
Returncode	<table><tr><th>Returncode Type Integer</th><th>Note</th></tr><tr><td>-1</td><td>Key without number of licenses (turn on/off copy protection, tamper detection, reset run number).</td></tr><tr><td>0</td><td>Number of licenses = unchanged. It the module type 698 is from typ Yes/No then it is always 0. Use GetKeyYesNo 699</td></tr><tr><td>1-x</td><td>Number of licenses</td></tr></table>
Usage	When the user types in a key you could use this information in your application logic

Sample	`iKeynumber := lic.GetKeyLicences('HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh');`
	`<< application logic >>`
	`end`

See also	Commands to analyze an Activation Key 858

To use this command, the license file must have been opened 920 with one of the prepare commands.

See Analyze an Activation Key 858 for an overview about all commands.

16.2.51 GetKeyDemo

This command analyzes an Activation Key and gives as a result the value for the Demoversion flag.

Name	**GetKeyDemo**
Purpose	This command analyzes an Activation Key and gives as a result the value for the Demoversion flag.
Params	<table><tr><th>Parameter</th><th>Type</th><th>Example</th><th>Note</th></tr></table>

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	<table><tr><td>Key</td><td>String</td><td>HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh</td><td>Must be a Licen Protector Activat Key</td></tr></table>
Returncode	<table><tr><td>Returncode Type Integer</td><td>Note</td></tr><tr><td colspan="2">Key with license per PC, User or Concurrent User</td></tr><tr><td>-1</td><td>Demo version status is unchanged . Also key without demo version stat (turn on/off copy protection, tamper detection, reset run number) - use GetKeyType 698 to get details</td></tr><tr><td>1</td><td>Demo version status is set to Yes</td></tr><tr><td>0</td><td>Demo version status is set to No</td></tr></table>
Usage	When the user types in a key you could use this information in your application logic

Sample	<pre>iKeydemoversion := lic.GetKeyDemo(HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh);
	if iKeydemoversion = 0 then
	<< demoversion status is not changed >>
	...
	end</pre>

See also	Commands to analyze an Activation Key 858

To use this command, the license file must have been opened 920 with one of the prepare commands.

See Analyze an Activation Key 858 for an overview about all commands.

16.2.52 GetKeyExpiryDate

This command analyzes an Activation Key and gives as a result the expiry date, which will overwrite the value in the license file

Name	**GetKeyExpiryDate**
Purpose	This command analyzes an Activation Key and gives as a result the expiry date, which will overwrite the value in the license file
Params	<table><tr><td>Parameter</td><td>Type</td><td>Example</td><td>Note</td></tr><tr><td>Key</td><td>String</td><td>HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh</td><td>Must be a Licen Protector Activat</td></tr></table>

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				Key

Returncode	***Returncode Type DateTime***	***Note***
	30.12.1899 (12/18/1899)	Empty = The date will not be changed
	Other value	The date, which will be written into the license file
	29.12.1899 (29/18/1899)	Value not defined. Key without a date information (turn on/off copy protection, tamper detection, reset run number) - use GetKeyType 698 t details

Usage	When the user types in a key you could use this information in your application logic
Sample	`dtKeyexpirydate := lic.GetKeyExpiryDate('HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh');` `<< application logic >>`
See also	Commands to analyze an Activation Key 858

To use this command, the license file must have been opened 920 with one of the prepare commands.

See Analyze an Activation Key 858 for an overview about all commands.

16.2.53 GetKeyLocalReuse

This command analyzes an Activation Key and gives as a result, if the key can be used multiple times on the same machine, which allows a reinstallation.

Name	**GetKeyLocalReuse**
Purpose	This command analyzes an Activation Key and gives as a result, if the key can be used multiple times on the same machine, which allows a reinstallation.

Params	***Parameter***	***Type***	***Example***	***Note***
	Key	String	HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh	Must be a Licen Protector Activat Key

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Returncode	***Returncode Type Boolean*** / ***Note*** True: the key will allow a reinstallation False: the key will **not** allow a reinstallation
Usage	When the user types in a key you could use this information in your application logic

Sample	`bOk := lic.GetKeyLocalReuse('HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh');`
	`if bOk then`
	`begin`
	`  << key can be used on this machine multiple times >>`
	`  ...`
	`end`
	`else`
	`begin`
	`  ...`

See also	Commands to analyze an Activation Key 858

To use this command, the license file must have been opened 920 with one of the prepare commands.

See Analyze an Activation Key 858 for an overview about all commands.

16.2.54 GetKeyDays

This command analyzes an Activation Key and gives as a result the number of days the key will add to the expiry date in the license file

Name	**GetKeyDays**
Purpose	This command analyzes an Activation Key and gives as a result the number of days the key will add to the expiry date in the license file
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** Key / String / HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh / Must be a Licen Protector Activat Key
Returncode	***Returncode Type Integer*** / ***Note***

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	0	Unchanged - the expiry date will not be changed in the license f
	0-x	Number of days **added** to the license file. If the expiry date in the licens is in the past, then the days are added to **today's date**
	-1	Value not defined. Key without a date information (turn on/off copy protection, tamper detection, reset run number) - use GetKeyType 698 t details
Usage	When the user types in a key you could use this information in your application logic	

Sample	`iKeynumberdays := lic.GetKeyDays('HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh');`
	`<< application logic >>`
	`end`	

See also	Commands to analyze an Activation Key 858	

To use this command, the license file must have been opened 920 with one of the prepare commands.

See Analyze an Activation Key 858 for an overview about all commands.

16.2.55 GetKeyModule

This command analyzes an Activation Key and retrieves the moduleID 194.

Name	**GetKeyModule**
Purpose	Retrieve the module ID of an Activation Key
Params	

Parameter	*Type*	*Example*	*Note*
Key	String	HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh	Must be a Licence Protector Activation Key

Returncode

Returncode Type String	*Note*
Empty	This key has no module ID. It could e.g. be an Unlock Key or a key to turn on/off Copy Protection. You could use GetKeyType 698 to find out, what type of key it is

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	QHD001	The module ID the Activation Key was made for
Usage	When the user types in a key you could use this information for which module the key was made for	

Sample	`sKeymodule := lic.GetKeyModule('HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh');`
	`if sKeymodule = '' then`
	`begin`
	`<< this is a key without a module ID >>`
	`...`
	`end`
	`else`
	`begin`
	`<< use the module ID >>`
	`...`	

See also	Commands to analyze an Activation Key 858	

To use this command, the license file must have been opened 920 with one of the prepare commands.

See Analyze an Activation Key 858 for an overview about all commands.

16.2.56 GetKeyForceOnlineCheck

This command analyzes an Activation Key and gives as a result, if the key will be sent to the Activation Server 6 for online validation.

Name	**GetKeyForceOnlineCheck**
Purpose	This command analyzes an Activation Key and gives as a result, if the key will be sent to the Activation Server 6 for online validation.

Params

Parameter	*Type*	*Example*	*Note*
Key	String	HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh	Must be a Licen Protector Activat Key

Returncode

Returncode Type Boolean	*Note*
True	the key will be sent to Activation Server 6 for online validation
False	the key will **not** be sent to Activation Server 6 for online validation

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Usage	When the user types in a key you could use this information in your application logic

Sample	<pre>bOk := lic.GetKeyForceOnlineCheck('HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh');
	if bOk then
	begin
	<< key does not connect to the Internet >>
	...
	end
	else
	begin
	...</pre>

See also	Commands to analyze an Activation Key 858

To use this command, the license file must have been opened 920 with one of the prepare commands.

See Analyze an Activation Key 858 for an overview about all commands.

16.2.57 GetKeyType

This command analyzes an Activation Key and gives as a result the type of a key (e.g. turn on Copy Protection).

Name	**GetKeyType**
Purpose	Retrieve the type of an Activation Key

Params

Parameter	*Type*	*Example*	*Note*
Key	String	HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh	Must be a Licen Protector Activat Key

Returncode

Returncode Type Integer	*Note*
0	it is a standard Activation Key for a module
1	key to turn on copy protection (Unlock Key) - see also GetKeyInstCode 689 GetKeyCopyProtectionType 688
2	key to turn off copy protection
3	key to reset the local run number 419

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	4	key to reset the global run number 419
	5	key to turn on tamper detection 419
	6	key to turn off tamper detection 419
Usage	When the user types in a key you could use this information in your application logic	

Sample	`iKeytype := lic.GetKeyType(HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh);`
	`if iKeytype = 0 then`
	`<< analyze the key >>`
	`...`
	`end`	

See also	Commands to analyze an Activation Key 858	

To use this command, the license file must have been opened 920 with one of the prepare commands.

See Analyze an Activation Key 858 for an overview about all commands.

16.2.58 GetKeyYesNo

This command analyzes an Activation Key from type Yes/No. For all other keys uses GetKeyLicences 691.

Name	**GetKeyYesNo**			
Purpose	Retrieve the value of a Yes/No Activation Key			
Params	***Parameter***	***Type***	***Example***	***Note***
	Key	String	HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh	Must be a Licen Protector Activat Key
Returncode	***Returncode Type Integer***	***Note***		
	-1	Value = unchanged		
	0	Values = No		
	1	Value = Yes		
Usage	When the user types in a key you could use this information in your application logic			

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Sample	`iKeynumber := lic.GetKeyYesNo('HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh');`
	`<< application logic >>`
	`end`

See also	Commands to analyze an Activation Key 858

To use this command, the license file must have been opened 920 with one of the prepare commands.

See Analyze an Activation Key 858 for an overview about all commands.

16.2.59 GetLanguage

Retrieves the language, which was either defined with SetLanguage 108 or the user selected in the activation screens (requires SetRegisterLanguages 134.)

Name	**GetLanguage**
Purpose	This command retrieves the language, which is used by the Licence Protector 5 user interface
Params	None
Returncode	***Returncode Type Integer*** / ***Note*** 1-x / complete list of all languages see SetLanguage 108
Usage	Synchronize the language of Licence Protector 5 and main application

Sample	`iRes := lic.GetLanguage;`
	`<< change language of own application>>`
	`...`

See also	SetLanguage 108, SetRegisterLanguages 134

16.2.60 GetLastRunNoDate

Name	**GetLastRunNoDate**
Purpose	Gets the date of the local Run Number token.
Params	None

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Returncode	***Returncode Type DateTime*** / ***Note*** 0 / An error occurred Other value / The date of the local Run Number token
Usage	Check whether a local Run Number entry may be too old and should be verified by an online check.

Sample	`dtLastDate := lic.GetLastRunNoDate;`
	`<< use dtLastDate >>`
	`...`

See also	TamperDetection, licenseTampered

16.2.61 GetLicFileDate

Name	**GetLicFileDate**
Purpose	Gets the date when this license file was created.
Params	None
Returncode	***Returncode Type DateTime*** / ***Note*** 0 / An error occurred Other value / The date when this license file was created
Usage	Extract the creation date to display or use it inside the application code.

Sample	`dtCreated := lic.GetLicFileDate;`
	`<< use dtCreated >>`
	`...`

See also	GetLicFileID, GetLicFileVersion

16.2.62 GetLicFileID

Retrieve the license file ID 202

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Name	**GetLicFileID**
Purpose	Gets the license ID of the license file
Params	None
Returncode	***Returncode Type Integer*** / ***Note*** The ID / The ID of the license file
Usage	You want to implement a hardware independent Copy Protection.

Sample	`iID := lic.GetLicFileID;`
	`<< use the extracted ID >>`
	`...`

See also	CheckLicenceID, Copy Protection, GetLicFileDate, GetLicFileVersion

16.2.63 GetLicFileVersion

Licence Protector version which was used to create or modify the **license file**

Name	**GetLicFileVersion**
Purpose	Gets the version of the license file
Params	None
Returncode	***Returncode Type Integer*** / ***Note*** The version / e.g. 2200 for major version 2, minor version 1, no patches
Usage	You want to check if the license file is up-to-date

Sample	`iVersion := lic.GetLicFileVersion;`
	`<< use the extracted version >>`
	`...`

See also	GetLicFileID, GetLicFileDate

- Version of the application 647

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- Version of the Licence Protector DLL 715

16.2.64 GetLPComputername

This command retrieves the computer name (hostname) of the PC, on which the application is running. In a Terminal Server / Citrix environment it is the computer name, which runs the Terminal Server / Citrix session.

This value could be used to check, if the computername is already added in the license file - retrieve all computer names from the license file with GetEntriesOfModule 683 - delete values with DeactivateEntry 658 and RemoveDeactivated 746 .

Name	**GetLPComputername**
Purpose	This command retrieves the computer name (hostname) of the PC, on which the application is running.
Params	None
Returncode	***Returncode Type String*** / ***Note*** mirage-01-office2 / hostname of the PC
Usage	retrieve system information

Sample	`sComputername := lic.GetLPComputername;`
	`<< use the name in the application logic >>`
	`...`

See also	GetEntriesOfModule 683, DeactivateEntry 658, RemoveDeactivated 746

16.2.65 GetLPWindowsUser

This command retrieves the windows user name of the user, who runs the application.

This value could be used to check, if the user is already added in the license file - retrieve all user names from the license file with GetEntriesOfModule 683 - delete values with DeactivateEntry 658 and RemoveDeactivated 746 .

Name	**GetLPWindowsUser**
Purpose	This command retrieves the windows user name of the user, who runs the application.
Params	None
Returncode	***Returncode Type String*** / ***Note***

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	tom: windows login name
Usage	retrieve system information

Sample	`sUsernamee := lic.GetLPWindowsUser;`
	`<< use the name in the application logic >>`
	`...`

See also	GetEntriesOfModule 683, DeactivateEntry 658, RemoveDeactivated 746

16.2.66 GetMailActivatorBlock

Licence Protector comes with an e-mail Activator Service. This services needs an encrypted text block in the e-mail to analyze the e-mail. The block is automatically created, if you use EasyGo in your application (PrepareAndCheck 162). In case an own GUI 495 is used, an the e-mail Activator Service is required, then the encrypted block can be built with GetMailActivatorBlock.

Sample of an encoded text block

--- STARTBLOCK ---
r1yHz0o1fJtiu22uC7q1nwgMT1enzQz1dbiw1130NQ11yPOKj1\nkbfGy1qKJ210RL8yg1fEe
CQ1pDLPk1AbFNg21l3xS1j0CHA0TX\niyO1PLlOW0ZwBRb1eoGeC1CncMa1wLo1Y2an
uCm2eXON01k7qg\nA1R8TqH133MLl2dCwvd1xLN4C1zSanD2aj8mH1cbaNu1tdCH61\nB
hzhh0NaitV1fso4D1A5i8N1A9tpc1MvRzO1344WH2eYqd01Sj\nsWt0ZHUge0ViRP41CrA9
Y1yKN8v1R8FAs1dfsMG
--- ENDBLOCK ---

Name	**GetMailActivatorBlock**
Purpose	Creates an encrypted text block for e-mail activation
Params	

Parameter	*Type*	*Example*	*Note*
Serial	String	lsGER-5EP93-9E7lw-3tl8X-pQU5k-6S14H	Serial Number or unique ID
Project	String	demo-easygo	project name 207
Name	String	Smart Inc.	company name or user nam provided in the registration screen

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Email	String	tom.hanks@smartinc.com	e-mail address provided in th registration screen
ModuleID	String	QHD001	ModuleID of the module, which is activated
CompanyID	String		all fields in green represent the values explained in SendCustomerInfo 753
CompanyName	String		
FirstName	String		
LastName	String		
Salutation	String		
AcademicTitle	String		
JobTitle	String		
StreetAddress1	String		
StreetAddress2	String		
ZIP	String		
City	String		
State	String		
Country	String		
Phone1	String		
Phone2	String		
WebAddress	String		
Newsletter1	Boolean		a
Newsletter2	Boolean		
Newsletter3	Boolean		
Newsletter4	Boolean		
Customer1	String		

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	Customer2	String		
	ForEMail	Boolean	False	Defines if a word-wrap is replaced with \n (value = false) or with %0D%0A (valu = true)

Returncode	***Returncode Type String***	***Note***
	Encoded Text block	The text block may not be changed in any way

Usage	Create an e-mail which is sent to the e-mail Activator Service
Sample	`lic.GetMailActivatorBlock('IsGER-5EP93-9E7Iw-3tI8X-pQU5k-6S14H','demo-easygo','Smart Inc.','tom.hanks@smartinc.com','QHD001','ID678','Tom','Hanks','Mr.','','CTO','Abbey Road 33','','NW8 9AY','London','','United Kingdom','','','',true,false,false,false,'','',false);`
See also	

16.2.67 GetManufacturer

Name	**GetManufacturer**
Purpose	Gets the manufacturer's name from within the license file.
Params	None

Returncode	***Returncode Type String***	***Note***
	Empty	No manufacturer value set in license file
	Other value	The manufacturer

Usage	Extract the manufacturer to display or use it inside the application code.

Sample	`sMF := lic.GetManufacturer;`
	`<< use sMF >>`
	`...`

See also	GetCustomer

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16.2.68 GetModuleList

This command is used to retrieve **all** modules of a license file.

<table>
<tr><td>Name</td><td>GetModuleList</td></tr>
<tr><td>Purpose</td><td>Gets the list of all modules inside the license file</td></tr>
<tr><td>Params</td><td>
<table>
<tr><th>Parameter</th><th>Type</th><th>Example</th><th>Note</th></tr>
<tr><td>WithNames</td><td>Boolean</td><td>True</td><td>Should all module names also be returned</td></tr>
<tr><td>WithTypes</td><td>Boolean</td><td>False</td><td>Should all module types 714 also be returned</td></tr>
</table>
</td></tr>
<tr><td>Returncode</td><td>
<table>
<tr><th>Returncode Type String</th><th>Note</th></tr>
<tr><td>List of modules</td><td>The modules are separated by semicolon (;)
Without names and types:
D1001;D1002;D1006;D1003;D1004;D1005
With names:
D1001;ERP Module;D1002;Analysis Module;D1006;Accounting Module;D1003;Number of Employees;D1004;CTI Module;D1005;Custom Reports
With names and types:
D1001;ERP Module;U;D1002;Analysis Module;S;D1006;Accounting Module;R;D1003;Number of Employees;C;D1004;CTI Module;Y;D1005;Custom Reports;I</td></tr>
</table>
</td></tr>
<tr><td>Usage</td><td>To see which modules are already inside your license file.</td></tr>
<tr><td>Sample</td><td><pre>sList := lic.GetModuleList(false, false);
<< use the sList … >>
...</pre></td></tr>
<tr><td>See also</td><td>AddModule 642, DeleteModule 664, ExistsModule 671</td></tr>
</table>

To check if a specific module is available in the license file use ExistsModule 671

16.2.69 GetOpenShareMode

Retrieve the mode how file sharing for a network license is handled. The value can be set with SetOpenSharedMode 772.

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Name	**GetOpenShareMode**
Purpose	Retrieve file sharing mode
Params	None
Returncode	***Returncode Type Integer*** / ***Note*** 0-2 / values see SetOpenShareMode 772
See also	SetOpenShareMode 772

16.2.70 GetRemainingSubGraceDays

Retrieve the remaining days of the grace period - details see CheckModuleSubscription 654

Name	**GetRemainingSubGraceDays**
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** ModuleID / String / D1001 / Unique ModuleID – identifies the module to b tested
Returncode	***Returncode Type String*** / ***Note*** Double / Remaining days of the grace period as a **double value - 0.5 = 12 hou** -1 = no grace period is activate (there could be a grace period but it ha started yet)
Usage	E.g. implement a good and bad value anti-cracker strategy
Sample	`iGraceDays := lic.GetRemainingSubGraceDays ('D1001');` `...`
See also	CheckModuleSubscription 654, Getval - Token SGD 715, SGP 715, SetSubGraceDays 790

If you need the days as an **integer** value (e.g. 2 days) then use GetVal, Token SGD 715
To retrieve the expiry date of the grace period use GetVal, Token SGP 715

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16.2.71 GetSerial

Returns the Serial Number of a module.

Name	**GetSerial**
Purpose	Gets the Serial Number for the specified module
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** ModuleID / String / QHD001 / If the module ID is empty the main module is
Returncode	***Returncode Type String*** / ***Note*** Serial Number / Serial Number of the module Empty / No Serial Number was used for this Module

Sample	`sSerial := lic.GetSerial('QHD001');`
	`<< >>`
	`...`

See also	

16.2.72 GetSignalState

Check if usage metrics 427 is turned on or off. Can be changed with SetSignalState 789

Name	**GetSignalState**
Purpose	Retrieve the value of a property which was set with SetSignalState 789
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** Property / Integer / 0 / Check if usage metrics is turned on or off
Returncode	***Returncode Type Integer*** / ***Note*** 0, 3 / 0 = Usage Metrics is off 3 = Usage Metrics is on
See also	SetSignalState 789

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16.2.73 GetTagValue

Returns the ASCII value which is stored in the field TagValue 209 of a module.

Name	**GetTagValue**
Purpose	Gets the tag for the specified module
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** ModuleID / String / D1001 / Unique ModuleID – identifies the module to be tested
Returncode	***Returncode Type String*** / ***Note*** Tag / The set tag
Usage	E.g. implement a good and bad value anti-cracker strategy

Sample	`sTag := lic.GetTagValue('D1001');`
	`<< use the tag as good value and replace the bad value >>`
	`...`

See also	TagValue 209

16.2.74 GetVal

This command allows to read a lot of properties of the license file and modules. To modify these values see SetVal() 791

Name	**GetVal**
Purpose	Gets values from modules or the license file
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** ModuleID / String / D1001 / Unique ModuleID – identifies the module to be tested. If empty the call is supposed to return a value from the license file Token / String / TLI / The token. **See Token List** 711
Returncode	***Returncode*** / ***Note***

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	Type String | Value | The extracted value as string
Usage	Read a value to check it before altering it. Note that most of the values readable by GetVal are accessible with another function. If there is another function we recommend to use that other function e.g. use GetManufacturer instead of GetVal('', 'OEM')

Sample	`sVal := lic.GetVal('D1001', 'TLI');`
	`<< in the string sVal now is the value of total licenses of module D1001,`
	`You must convert the string to an integer to use that value…>>`
	`...`

See also	Altering modules, Token list, SetVal, AddModule, DeleteModule

See also

Token List GetVal 711
SetVal 791

16.2.74.1Token List

To alter some modules you can use the function SetVal() 791. To retrieve the information, use GetVal() 710.

Its parameters are a **module ID** and a **token**. If you call SetVal() with an empty module ID, it is supposed to change a value inside the license. Take a look in the token list to see which tokens could be used:

Token	Changed value	Data type	Purpose	Similar function
Tokens for the whole license *(Parameter ModuleID of SetVal/GetVal has to be an empty string)*				
CST	Customer	String		GetCustomer 681
OEM	Manufacturer	String		GetManufacturer 706
FID	FileID	Integer		GetLicFileID 701
VSN	Version	Integer	Version of the license file format	GetLicFileVersion 702
CPT	CopyProtectType	Integer		GetCopyProtection 676

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ICO	InstCode	String	With GetVal this token retrieves the hardware ID (8 digit code), which has been used for copy protection. Using SetVal you can activate copy protection . B3F5AA23 is the code for no InstCode	Retrieve the hardware ID of the computer with GetInstcode 684
LTG	Tag	String		
MID	Main module ID	String	Change the main module ID - default ID is set in the project template 203	
PRJ	Projectname	String		`Projectname`
WSU	WebServiceURL	String		`WebServiceURL`
SWS	ShowWAStartPage	Boolean	GetVal() returns '`true`' or '`false`' SetVal() accepts values '`true`', '`false`', '`1`', '`0`', '`on`', '`off`', '`yes`', '`no`'	`ShowWAStartPage` 806
SWP	ShowWAProgressPage	Boolean	GetVal() returns '`true`' or '`false`' SetVal() accepts values '`true`', '`false`', '`1`', '`0`', '`on`', '`off`', '`yes`', '`no`'	`ShowWAProgressPage` 804
SWR	ShowWAResultPage	Boolean	GetVal() returns '`true`' or '`false`' SetVal() accepts values '`true`', '`false`', '`1`', '`0`', '`on`', '`off`', '`yes`', '`no`'	`ShowWAResultPage` 805
LVI	LicenceVerification	Integer	values see LicenceVerification 950 - details see Regular online check 541	
NVI	NextVerification	Date	set next online verification date - details see Regular online check 541	
EVI	EndVerification	Date	set end verification date - details see Regular online check 541	
VER	Application Version	String	Application Version number - can also be added in the License Generator, screen License Main. 377	`AppVersion` 647
VID	VerificationID	String	see command SetVerificationID 957	
VPR	VerificationProduct	String	see command SetVerificationProduct 796	
RES	Reseller	String	Name of the reseller - can also be added in the License Generator, screen License Main. 377	
SEL	SecurityLevel	Integer		
TDM	TamperDetectionMode	Integer		

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TDG	TamperDetection GraceTimes	Integer		
CLC	TamperDetection	Boolean		
ALW	AllowSetVal	Boolean		
URL	AllowChangeWASURL	Boolean		
Commands for license file upload 525 (UploadLic 814)				
LUI	ID for upload	String	ID used for upload	
LUJ	Project Name	String	Project name used for upload	
LUL	Name	String	Name to identify the license file	
LUM	Module ID	String	Module ID used for upload	
LUP	Date / TIME	Date	Date / Time of the last upload	
Tokens for a module				
ALW	Allow	Boolean	GetVal() returns 'true' or 'false' SetVal() accepts values 'true', 'false', '1', '0', 'on', 'off', 'yes', 'no'	
CHI	CheckInterval	Integer		CheckInterval 649 value
CSK	CopyProtectionSwitchOnKey	String	value available for backward compatibility and is no longer in use	
CSO	CopyProtectionSwitchOffKey	String	value available for backward compatibility and is no longer in use	
DMO	Demo	Boolean	GetVal() returns 'true' or 'false' SetVal() accepts values 'true', 'false', '1', '0', 'on', 'off', 'yes', 'no'	Demo flag 173
DPC	DiffPct	Integer		DiffPct, 664 SetDiffPct 761
EMV	EndModuleVerification	Date	set end verification date - details see Regular online check 541	see also token NMV, MVI, MVD
EXO	ExpiredOn	Date	Accepted values are in ISO-format YYYY-MM-DD 1899-12-30 is the value for an empty date	ExpiredOn 672 value
LAM	Last Activation Date	Date	Date, when the product was activated 1899-12-30 is the value for an empty date	
LAT	Last ActivationMeth	Integer	Retrieves the method, how a module activation was done	

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	od		-1 = none 0 = Online 1 = e-mail 2 = Fax 3 = Phone	
MOI	ModuleID	String	Get or Set a module ID	
TLI	Totallicenses/Value	String	Set the value of a module - e.g. Yes/No or number of licenses for a network or counter module	Totallicenses 813
LTY	licenseType	String	Values are 'U' → license per named user 'S' → license per computer 'C' → Counter 'Y' → yes/no 'I' → license per item 'R' → Concurrent user	
NMV	NextModuleVerification	Date	set next online verification date - details see Regular online check 541	see also token MVI, EMV, MVD
NOD	NoOfDays	Integer		NoOfDays 721
MEO	MaxExpiredOn	Date		
MON	ModuleName	String		ModuleName 725
KYS	Keys	String	All standard keys for that module, separated by semicolon, including hidden keys 646	
MYS	Keys	String	All standard keys for that module, separated by semicolon. Hidden keys 646 are displayed as *****	
MVD	ModuleVerificationID	String	used in case the ID is left empty in the CheckModuleSubscription 654 or CheckModule 652 command	see also token NMV, EMV, MVI
MVI	ModuleVerification	Integer	Values are 0 = off 1 = ongoing / enabled 2 = frozen 3 = deactivated details see Regular online check 541	see also token NMV, EMV, MVD
REM	RegisteredEMail	String	e-mail address of the registration. If multiple modules are registered, the e-mail address is saved per module	
RNM	RegisteredCustomerName	String	if multiple modules are registered, the name is saved per module. The main customer name in the license file can be retrieved with token CST	

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SAC	ActivationState after copy protection is turned on	Integer	Details see activation status after product activation 198	
SGD	Grace Days	Integer	Number of days for the grace period in case the online validation with CheckModuleSubscription 654 fails. Return value is integer (e.g. 2 days). Definition of grace days done with SetSubGraceDays 790	0 = no grace days
SGP	Grace Period - Expiry Date	Date	Expiry Date of the grace period	
SNR	SerialNumber	String	Retrieves the Serial Number	GetSerial 709
TAG	Tag	String		GetTagValue 710
WFL	EasyGoWorkflow	Integer	Workflow defined in the project template 211 or with SetRegisterSettings 116.	
WST	WebActivation	Integer	0 = none 1 = required 2 = done 3 = erroneous	GetWebActivation 717

If you want to activate copy protection using a DLL command, the workflow would be

- Use PrepareForce 738 to open the license file
- SetVal, Token CPT to set the copy protection type 477 (e.g. 2 = MAC Address)
- Use GetInstcode 684 to retrieve the installation code
- SetVal, Token ICO using as parameter the 8-digit installation code retrieved with GetInstcode
- Quit

16.2.75 GetVersion

Version of the Licence Protector DLL

Name	**GetVersion**
Purpose	Gets the current version of Licence Protector
Params	none
Returncode	***Returncode Type String*** | ***Note***

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	Version	The extracted version e.g. '2.4.0.911'
Usage		

Sample	`sVer := lic.GetVersion;`
	`<< in the string sVer now is the version as dot separated string >>`
	`...`	

See also		

- Version of the application 647
- Version of the license file 702

16.2.76 GetVerificationOfModule

Get the status of the regular online check, which was either set using SetVerificationOfModule 797 or in the project template using <ModuleVerification 197>. If a module was locked using DeactivateModule 661 or TransferLicense 812, then the status is 2=frozen.

For a complete description see chapter regular online checks 541.

Name	**GetVerificationOfModule**
Purpose	Property to get the state of the license regarding online verifications used in combination with CheckModuleSubscription 654 or CheckModule 652
Params	
Returncode	
Usage	You can check the main parameter of the CheckLicence functionality

Parameter	*Type*	*Example*	*Note*
ModuleID	String	QHD001	Unique ModuleID

Returncode Type Integer	*Note*
0 = off	Regular online verification is off
1 = ongoing	Regular online verification is on
2 = frozen	A failed online verification has locked that license. A successful checkModuleSubscription 654 or PrepareAndCheck 162 can reactivate it it
3 = deactivated	The regular online verification was terminated within the Key Details on the Activation Server 6 or with setEndVerificationOfModule 764

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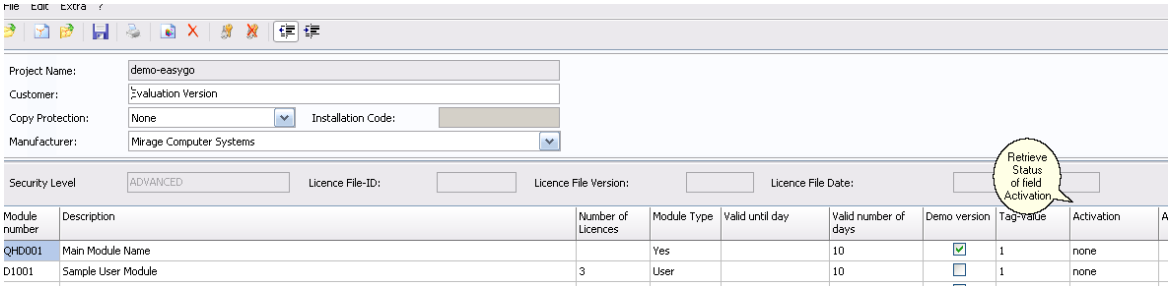
Sample	`iLicModuleVerification := lic.GetVerificationOfModule('QHD001');`
	`if iLicModuleVerification = 0 then`
	`begin`
	`  << online Verification is Off >>`
	`  ...`
	`end`

See also	CheckModuleSubscription 654, CheckModule, 652 DeactivateModule, 664 NextVerificationOfModule 726, VerificationOfModule 854, SetVerificationOfModule 797, SetVerificationIDOfModule 798

16.2.77 GetWebActivation

Retrieves the status of the field **Activation** for an module.



Generator - field Activation

The field changes in the following situations:

- Delivery with license file = none
- Type in a Serial Number = required
- Type in an Unlock Key or the Activation Server sends the Unlock Key during online activation = done
- Problem during online activation = erroneous

Name	**GetWebActivation**
Purpose	Get the activation state for a module.
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** ModuleID / String / D1001 / Unique ModuleID – identifies the module which is queried
Returncode	***Returncode Type Integer*** / ***Note***

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	Web activation state: 0 = none, 1 = required, 2 = done, 3 = erroneous -1 = wrong ModuleID was used
Usage	Determines the state of the module regarding activation on Web Activation Server. If this valus is 0 (none) no further action is required If this valus is 1 (required) or 3 (erroneous) a web activation (with WebRegister) should be done If this value is 2 (done) no further action is required because that module is already activated. Notice: The web activation state is only a status information what to do. It triggers no automatic action. If a module has state 1 there is no implicit WebRegister call.

Sample	`iWA := lic.GetWebActivation('D1001');`
	`if (iWA = 1) or (iWA = 3) then`
	`begin`
	`  << call WebRegister for module D1001>>`
	`End`
	`Else`
	`Begin`
	`  << no activation necessary or activation already done>>`
	`end`
	`...`

See also	WebRegister

16.2.78 GetWebRequestTimeoutInSec

Retrieve the value in seconds of the license file back. It can be set with SetWebRequestTimeoutInSec 799.

Name	**GetWebRequestTimeoutInSec**
Purpose	Retrieve the value in seconds which was set with SetWebRequestTimeoutInSec 799.
Params	None
Returncode	***Returncode Type Integer*** / ***Note*** 0-x / 0 = default = 30 seconds Any other value is backup interval in seconds
See also	SetWebRequestTimeoutInSec 799.

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16.2.79 IsConfigVisible

See full description - Store data in the license file 562

Name	**IsConfigVisible**
Purpose	Checks if the config with the specified name is visible inside License Viewer
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** Configname / String / DBPassword / Unique configname
Returncode	***Returncode Type Boolean*** / ***Note*** True / This config exists and is visible inside License Viewer False / This config does not exist or is not be displayed in License Viewer
Usage	Use to check if that config will be displayed in License Viewer

Sample	`bOk := lic.IsConfigVisible('DBPassword');`
	`if bOk then`
	`begin`
	`  << the config is visible inside License Viewer >>`
	`  ...`
	`end`
	`else`
	`begin`
	`  ...`

See also	Store data, 562 SetConfig 757, GetConfig 675, DeleteConfig 663, ExistsConfig 670

16.2.80 IsEntryActivated

Name	**IsEntryActivated**
Purpose	Checks if an registered entry (user, computer, item) in a module is activated (= in use)
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** ModuleID / String / D1001 / Unique ModuleID – identifies the module to be tested Entryname / String / John / Name of the entry (user or computer or item)

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Returncode	***Returncode Type Boolean*** / ***Note*** True / This entry is activated in the specified module False / This entry is deactivated or does not exist in the specified module (or an error occurs)
Usage	E.g. if you want to check if a user is already activated in the module

Sample	`if lic.ExistsEntry('D1001', 'John') then`
	`begin`
	`  if not lic.IsEntryActivated('D1001', 'John') then`
	`  begin`
	`  << the entry John exists and is deactivated >>`
	`  ...`
	`  end`
	`end`
	`else`
	`begin`
	`  ...`

See also	ExistsEntry, DeactivateEntry, ActivateEntry, GetEntriesOfModule, RemoveDeactivated

16.2.81 IsKeyValid

This command validates, if the Activation Key is a valid key for the product.

Name	**IsKeyValid**
Purpose	This command validates, if the Activation Key is a valid key for the product.
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** Key / String / HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh / Must be a Licen Protector Activat Key
Returncode	***Returncode Type Boolean*** / ***Note*** True / The Activation Key can be used for this product False / The Activation Key cannot be used for this product
Usage	Use this function before you use a command like ApplyActivationKey 644 or any other command, which uses an Activation Key as a parameter
Sample	

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	bOk := lic.**IsKeyValid**('HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh');
	if bOk then
	begin
	<< *it is a valid Activation Key* >>
	...
	end
	else
	begin
	...

See also	Commands to analyze an Activation Key 858

To use this command, the license file must have been opened 920 with one of the prepare commands.

See Analyze an Activation Key 858 for an overview about all commands.

16.2.82 LastReturnCode

Name	**LastReturnCode**
Purpose	Get the last occurred return code
Params	None
Returncode	***Returncode*** ***Type Integer*** / ***Note*** Returncode / The last occurred returncode
Usage	An operation failed, You can check the cause by getting the last returncode
Sample	iRes := lic.**LastReturnCode**; << use returncode e.g. with GetErrorMessage >> ...
See also	List of return codes, GetErrorMessage

16.2.83 LicenceTampered

Name	**LicenceTampered**
Purpose	Property to check whether the license file is tampered. This property is identical with LicFileChanged.
Params	None

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Returncode	***Returncode Type Boolean*** / ***Note*** True / It is established that the license file is tampered e.g. an old file replaces a new one False / Tampering could not be established
Usage	You want to check explicitly if a manipulation takes place.

Sample	`bTampered := lic.LicenceTampered;`
	`if bTampered then`
	`begin`
	`  << Manipulation!!! React now ... >>`
	`  ...`
	`end`
	`else`
	`  << it seems ok >>`
	`  ...`

See also	TamperDetection, licenseTampered, ResetLocalRunNo, ResetGlobalrunNo, RemoveLocalRunNo, Validate

16.2.84 LicFileChanged

Name	**LicFileChanged**
Purpose	Obsolete: Use licenseTampered instead. Checks if the license file is tampered
Params	None
Returncode	***Returncode Type Boolean*** / ***Note*** True / It is established that the license file is tampered e.g. an old file replaces a new one False / Tampering could not be established
Usage	You want to check explicitly if a manipulation takes place.

Sample	`bTampered := lic.LicFileChanged;`
	`if bTampered then`
	`begin`
	`  << Manipulation!!! React now ... >>`
	`  ...`
	`end`
	`else`
	`  << it seems ok >>`
	`  ...`

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See also	licenseTampered, TamperDetection. CheckLicChanged, Validate

16.2.85 LicFileKey

Name	**LicFileKey**
Comment	Obsolete: Use GetLicFileID

16.2.86 LicFileVersion

Name	**LicFileVersion**
Comment	Obsolete: Use GetLicFileVersion

16.2.87 LocalProxyPort

Name	**LocalProxyPort**
Purpose	Property to get or set the information of the proxy port that is used to reach the Web Activation.
Params	None
Returncode	***Returncode Type Integer*** / ***Note*** Port / e.g. 8080
Usage	Change the connection setting individually for every user.

Sample	`lic.UseLocalProxy := true; // use a proxy`
	`lic.UseLocalIEProxy := false; // but not the proxy from Internet Explorer`
	`lic.LocalProxyServer := '192.168.1.1'; // set the proxy`
	`lic.LocalProxyPort := 80; // set the port of this proxy server`

See also	Web Activation, WebServiceURL, WebRegister, ApplyActivationKey, ApplyActivationKeyForProject, ShowWAStartPage, ShowWAProgress Page ShowWAResultPage, UseLocalProxy, LocalProxyServer, UseLocalIEProxy, Projectname

16.2.88 LocalProxyServer

Name	**LocalProxyServer**

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Purpose	Property to get or set the information of the proxy server that is used to reach the Web Activation.
Params	None
Returncode	***Returncode Type String*** / ***Note*** Servername or IP address / Computername or IP address. UseLocalProxy has to be on, UseLocalIEProxy has to be off.
Usage	Change the connection setting individually for every user.

Sample	`lic.UseLocalProxy := true; // use a proxy`
	`lic.UseLocalIEProxy := false; // but not the proxy from Internet Explorer`
	`lic.LocalProxyServer := '192.168.1.1'; // set the proxy`
	`lic.LocalProxyPort := 80; // set the port of this proxy server`

See also	Web Activation, WebServiceURL, WebRegister, ApplyActivationKey, ApplyActivationKeyForProject, ShowWAStartPage, ShowWAProgress Page ShowWAResultPage, UseLocalProxy, UseLocalIEProxy, LocalProxyPort, Projectname

16.2.89 LockIsError

Property to enable a special check if a module is locked or not after a license transfer 571. Especially useful to find out if a license file was restored after a license transfer was done in combination with the command validate 818, which would return an error code 300.

Not required if EasyGo is used.

Name	**LockIsError**
Purpose	Property to enable / disable special check for locked license
Params	None
Returncode	***Returncode Type Boolean*** / ***Note*** True / Check is enabled False / Check is disabled
Usage	Allows to send e-mails without restriction of text size
Sample	`lic.LockIsError := true;`
See also	Validate 818 - Return code 300

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16.2.90 MainModuleID

Retrieve the main module ID of the license file. It is defined in the project template using <MainModuleID> 203

Name	**MainModuleID**
Purpose	Property to get or set the main module ID 203 in the license file. The main module ID can also be defined in the license file template 203
Params	None
Returncode	***Returncode Type String*** / ***Note*** Value / The main module ID is required for some actions like license transfer
Usage	Change the projectname in the license file

Sample	`If lic.MainModuleID = '' then`
	`begin`
	`  lic.MainModuleID := 'QHD001';`
	`end;`
	`….`

See also	SetVerificationIDOfModule 798

16.2.91 ModuleName

Name	**ModuleName**
Purpose	Gets the name of the specified module
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** ModuleID / String / D1001 / Unique ModuleID – identifies the module to be tested
Returncode	***Returncode Type String*** / ***Note*** Name / The name of the module *Empty* / The module with the selected ModuleNumer does not exist
Usage	E.g. show the available modules
Sample	`sName := lic.ModuleName('D1001');`

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	`<< use the name to show it >>` `...`
See also	

16.2.92 NextVerificationOfModule (Get / Set)

Date, when the next planned online check 543 is due. The regular online check will terminate on the the date, which is specified with EndVerificationOfModule. 682

For a complete description see chapter regular online checks 541.

Name	**GetNextVerificationOfModule** **SetNextVerificationOfModule**
Purpose	Property to get and set the date when the next online verification for the specified **module** has to take place. This date is monitored with CheckModuleSubscription 654 or CheckModule 652.
Params	

Parameter	*Type*	*Example*	*Note*
ModuleID	String	QHD001	Unique ModuleID

Returncode	
Returncode Type Integer	***Note***
0	There is no information about the next Verification. Probably there was no successful CheckModuleSubscription 654 or CheckModule 652 before.
A date	The next online verification has to be executed on that date at the latest.

Usage	Inform the user when the next online check has to be done.

Sample	`dtNextVerification := lic.NextVerificationOfModule('QHD001');`
	`if dtNextVerification > 0 then`
	`begin`
	`  << tell your user that the next online Verification has to be executed on that date >>`
	`  ...`
	`end`

See also	EndVerificationOfModule 682. 682, CheckModuleSubscription 654, CheckModule 652, DeactivateModule 661, GetVerificationOfModule 716

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16.2.93 NoOfDays

Name	**NoOfDays**
Purpose	Get the number of days of a trial period
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** ModuleID / String / D1001 / Unique ModuleID – identifies the module to be tested
Returncode	***Returncode Type Integer*** / ***Note*** -1 / An error occurred, check LastReturnCode 0 / No trial period 1 to 2147483648 / Number of days of the trial period. Consideration: It's the value of the plain license file, activation keyActivation Keys are not attended.
Usage	E.g. show a dialog like "Your are on day x of your 30 days trial period"
Sample	
See also	RemainingDays 743, ExpiredOn 672

```
   iDays := lic.NoOfDays('D1001');
   if iDays = -1 then
   begin
      iRes := lic.LastReturncode;
      << an error occurred >>
      ...
end
else if iDays = 0 then
begin
   << no no of day limitation for that module >>
   ...
end
else
begin
   << show the dialog >>
   ...
```

16.2.94 Prepare

Name	**Prepare**
Purpose	Prepares the Licence Protector instance for usage and opens the license file
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note***

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<table>
<tr><td></td><td>
<table>
<tr><td>license file</td><td>String</td><td>F:\mylic.lic</td><td>The full path to the license file. See details for UNC pathnames</td></tr>
<tr><td>ProjectSecure Key or ReadKey</td><td>String</td><td>I am a project secure key</td><td>Security Level BASIC:
The project secure key for that license file. Can contain any characters. The minimum length is 6 characters, the recommended length is 15 and greater
Security Level ADVANCED:
The Read Key for that license file. It can not be chosen freely but has to be created using the Create Project Keys function in License Generator.</td></tr>
</table>
</td></tr>
<tr><td>Returncode</td><td>
<table>
<tr><th>Returncode Type Integer</th><th>Note</th></tr>
<tr><td>0</td><td>The license file was successfully opened</td></tr>
<tr><td>2</td><td>The license file could not be found or was not opened</td></tr>
<tr><td>16382</td><td>If CheckSysdateChanges is set to true and Licence Protector 5 recognizes that the date was manipulated then you get this error code.</td></tr>
<tr><td>16384 or 2048</td><td>The file to open is not a valid license file or it has another security level: You can not open a license file of security level ADVANCED using its PSK. You need its Read Key.</td></tr>
<tr><td>Other return codes</td><td>Prepare failed, see list of return codes</td></tr>
</table>
</td></tr>
<tr><td>Usage</td><td>Important function in order to use Licence Protector 5. Dependant of property SecurityLevel Prepare acts as PrepareSimple for Security Level BASIC (=0, default) or PrepareAdvanced for Security Level ADVANCED (=1).</td></tr>
<tr><td>Sample</td><td>

```
   lic.SecurityLevel := 0; // the following Prepare acts as
PrepareSimple and needs a PSK
                           // at 1, Prepare would act as PrepareAdvanced
and needs a                           ReadKey
   iRes := lic.Prepare(sMyLicfile, 'I am a project secure key');
   if iRes <> 0 then
   begin
      << an error occurred >>
      ...
   end
   else
   begin
      << everything is fine, continue >>
      ...
```

</td></tr>
</table>

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See also	PrepareAdvanced, PrepareSimple, SysdateChanged, CheckSysdateChanged, Validate, Quit, PrepareForce

You have to set the SecurityLevel 110 before you can use this command

16.2.95 PrepareAdvanced

Name	**PrepareAdvanced**
Purpose	Prepares the Licence Protector instance for usage and opens the license file using Security Level ADVANCED 207
Params	

Parameter	*Type*	*Example*	*Note*
license file	String	F:\mylic.lic	The full path to the license file. See details for UNC pathnames
ReadKey	String	r1lkYAp1xGQN81fBrcZ1dfXtw1doy3Z1l4KHy0N2yvL0ZBDcX274DHV1BfV7s0RFpjZ1NOmMf1qXGsu1MqTXK1t4Tsq1c7jQq1iP3VM1NNx6	The ReadKey for that license file. It is created using function “Create Project Keys” in License Generator and stored in the Key-file.

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		j1s64YK299TY71YSrbK0NdSom29inxM29bPTJ1mmLNV0SNdC41xCbdT2adSqt2aazQL1dslWy1fGXFi11YWOv1fFhLt2acufE1hRGXY1VxH0R0ViybX0Xmcnz1lm76W1gQqQe21grLU1VAc401UqH8l0YHwOD1S46cC20	

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<table>
<tr><td></td><td>
<table>
<tr><td></td><td></td><td>hVpD1cf
A
Yk299ixt</td><td></td></tr>
</table>
</td></tr>
<tr><td>Returncode</td><td>
<table>
<tr><th>Returncode
Type Integer</th><th>Note</th></tr>
<tr><td>0</td><td>The license file was successfully opened</td></tr>
<tr><td>2</td><td>The license file could not be found or was not opened</td></tr>
<tr><td>16382</td><td>If CheckSysdateChanges is set to true and Licence Protector 5 recognizes that the date was manipulated then you get this error code.</td></tr>
<tr><td>16384 or 2048</td><td>The file to open is not a valid license file or it has another security level: You can not open a license file of security level ADVANCED using its PSK. You need its Read Key.</td></tr>
<tr><td>Other return codes</td><td>Prepare failed, see list of return codes</td></tr>
</table>
</td></tr>
<tr><td>Usage</td><td>Important function in order to use the Licence Protector 5</td></tr>
<tr><td>Sample</td><td>

```
   iRes := lic.PrepareAdvanced(sMyLicfile,
‘r1lkYAp1xGQN81fBrcZ1dfXtw1doy3Z1l4KHy0N
2yvL0ZBDcX274DHV1BfV7s0RFpjZ1NOmMf1qXGsu1MqTXK1t4Tsq1c7jQq1iP3VM1NNx6j1s
64YK299TY71YSrb
K0NdSom29inxM29bPTJ1mmLNV0SNdC41xCbdT2adSqt2aazQL1dslWy1fGXFi11YWOv1fFhL
t2acufE1hRGX
Y1VxH0R0ViybX0XmcNz1lm76W1gQqQe21grLU1VAc401UqH8l0YHwOD1S46cC20hVpD1cfAY
k299ixt’);
   if iRes <> 0 then
   begin
      << an error occurred >>
      ...
   end
   else
   begin
      << everything is fine, continue >>
      ...
```

</td></tr>
<tr><td>See also</td><td>Prepare, PrepareSimple, SysdateChanged, CheckSysdateChanged, Validate, Quit, PrepareForce</td></tr>
</table>

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16.2.96 PrepareAndCheck

This is the main command to invoke the EasyGo dialogs and perform the **complete basic license testing**:

- open the license file with the EasyGo screens
- check if it is a time limited trial version - in case the trial expired, displays the screen: Evaluation period expired 253
- check if the system date was tampered with (only if CheckSysdateChanged 112 was used). In case of an error displays the screen: System date was tampered 275
- check if the product is activated - otherwise offers to use one of the specified activation methods 228
- check if copy protection is OK - in case of an error displays the screen: copy protection violation 264 and try an automatic reactivation
- check if network license is OK - in case of an error displays the screen: No free license available 272
- check if a user / PC was deactivated -in in case of an error displays the screen: Network license -deactivated 272

See List of Return / Error Codes 635 and Other Errors 638.

Name	**PrepareAndCheck**
Purpose	Opens the license file and executes the EasyGo form.

Params

Parameter	*Type*	*Example*	*Note*
license file 66	String	F:\mylic.lic	The full path to the license file . See details for UNC pathnames
ProjectSecureKey/ ReadKey	String	I am a project secure key	The project secure key for that license file. See details - Read Key 166 Note: Using a PSK is supported for backward compatibility but should not be used.
ModuleID	String	QHD001	Unique ModuleID – identifies the module to be tested in EasyGo functionality - see details main module 166

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	Name	String		The user or item name to check the module for. Normally, you would pass this information only if you have an own user administration. Default option is to use the automatic function - UseWindowsUser = true
	UseWindows User	Boolean	True	Determines if the windows login name or hostname should be used as name for the license. Concurrent User uses a combination of username and PC name. If the module is an Item Counter, provide the name for the item counter in the field Name and set UseWindowsUser to false
	Quit	Boolean	False	Controls whether the Licence Protector 5 object is available (for further calls) an the license file is not closed or if it is not needed any more and therefore quit. On false (no quit) the Quit 179 has to be made explicitly at end of the application. For concurrent user testing 552 quit must be set to false. If you need any other testing after PrepareAndCheck also set quit to false
	TagValue	String, **output**	Empty	A variable which can absorb the Tag value of the main module. For details see Using the TAG value 459 (Anti Hacker Strategies)
Returncode	***Returncode***	***Note***		

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	Type Integer
	0 — The license file was successfully opened and the main module was successfully checked or even activated. It is also possible that the main module is in an evaluation state.
	2 — The license file could not be found or was not opened
	4 — EasyGo screen terminated by closing the screen with X (close button) or using the END button
	16 — Trial or full version expired
	32 — No more free license (only when using network license per computer, user or concurrent user)
	1024 — This is a copy protection violation. The Installation Code of the license file doesn't match with the %ID%. See common reasons for this error
	2048 — The file %filename% is not a valid license file or file cannot be opened See common reasons for this error
	3010 — Online Activation - The Serial Number was already used on another PC
	16382 — If CheckSysdateChanges is set to true and Licence Protector 5 recognizes that the date was manipulated then you get this error code.
	Other return codes — Prepare or Validate failed, see list of return codes 635
Usage	Important function in order to use Licence Protector 5
Sample	
See also	EasyGo, SetRegisterSettings, SetRegisterHelp, SysdateChanged, CheckSysdateChanged, Validate, ValidateEx, Quit, PrepareForce, PrepareAdvanced

```
   iRes := lic.PrepareAndCheck(sMyLicfile,
'XTIORHjmV65XFlH/pRYBjxlRJnhCL....', 'D1001', '', true, false,
sTagVariable);
   if iRes <> 0 then
   begin
      << an error occurred >>
      ...
   end
   else
   begin
      << everything is fine, continue >>
      ...
```

Some compilers (known for Visual Studio C++ 2007 an newer) crash when using this command. The reason is the tag value parameter. Use **PrepareAndCheckNT** 735 instead. The command has the same parameters but **no tag value parameter.**

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You can terminate your application if the error code is not 0. 0 means that everything is OK. The activation does not indicate the status of the license (e.g. trial version, activation done) because EasyGo handles everything automatically.

If you do a manual system date modification check with SysDateChanged 809, you have to call this command even if the status code of PrepareAndCheck is not 0. SysDateChanged 809 generates an internal flag that the application was started today even when the start fails, e.g. because the license expired. The flag is set automatically if CheckSysDateChanged 112 is used instead.

If you need status information about a module, use GetWebActivation 717, RemainingDays 744, RemainigLicenses 744 - list of commands 171 to retrieve module information.

If the version expires, the number of licenses are not sufficient or copy protection is violated, this is indicated with an different error code.

You have to set the SecurityLevel 110 before you can use this command

The PrepareAndCheck command would display screens indicating that an online validation is done. The screens can be suppressed using ShowWAStartPage 806, ShowWAProgressPage 804 and ShowWAResultPage 806

The command SetRegisterSerialNo 776 would display this Serial Number as a default value in the activation dialogues

See also

Module ID 166
Read Key 166
Open multiple license files at the same time 167

16.2.97 PrepareAndCheckNT

Some compilers (known for Visual Studio C++ 2007 an newer) crash when using PrepareAndCheck 162. The reason is the tag value parameter. Use **PrepareAndCheckNT** instead. The command has the same parameters but **no tag value parameter.**

Name	**PrepareAndCheckNT**

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Purpose	Opens the license file and executes the EasyGo form.

Params

Parameter	*Type*	*Example*	*Note*
license file 66	String	F:\mylic.lic	The full path to the license file . See details for UNC pathnames
ProjectSecureKey/ ReadKey	String	I am a project secure key	The project secure key for that license file. See details - Read Key 166 Note: Using a PSK is supported for backward compatibility but should not be used.
ModuleID	String	QHD001	Unique ModuleID – identifies the module to be tested in EasyGo functionality - see details main module 166
Name	String		The user or item name to check the module for. Normally, you would pass this information only if you have an own user administration. Default option is to use the automatic function - UseWindowsUser = true
UseWindows User	Boolean	True	Determines if the windows login name or hostname should be used as name for the license. Concurrent User uses a combination of username and PC name. If the module is an Item Counter, provide the name for the item counter in the field Name and set UseWindowsUser to false
Quit	Boolean	False	Controls whether the Licence Protector object is available (for further calls) an the license file

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				is not closed or if it is not needed any more and therefore quit. On false (no quit) the Quit 179 has to be made explicitly at end of the application. For concurrent user testing 552 quit must be set to false. If you need any other testing after PrepareAndCheck also set quit to false

Returncode

Returncode Type Integer	***Note***
0	The license file was successfully opened and the main module was successfully checked or even activated. It is also possible that the main module is in an evaluation state.
2	The license file could not be found or was not opened
4	EasyGo screen terminated by closing the screen with X (close button) or using the END button
16	Trial or full version expired
32	No more free license (only when using network license per computer, user or concurrent user)
1024	This is a copy protection violation. The Installation Code of the license file doesn't match with the %ID%. See common reasons for this error
2048	The file %filename% is not a valid license file or file cannot be opened See common reasons for this error
3010	Online Activation - The Serial Number was already used on another PC
16382	If CheckSysdateChanges is set to true and Licence Protector 5 recognizes that the date was manipulated then you get this error code.
Other return codes	Prepare or Validate failed, see list of return codes 635

Usage: Important function in order to use the Licence Protector 5

Sample:

```
   iRes := lic.PrepareAndCheckNT(sMyLicfile,
'XTIORHjmV65XFlH/pRYBjxlRJnhCL....', 'D1001', '', true, false);
   if iRes <> 0 then
   begin
```

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```
      << an error occurred >>
      ...
   end
   else
   begin
      << everything is fine, continue >>
      ...
```

See also	EasyGo, SetRegisterSettings, SetRegisterHelp, SysdateChanged, CheckSysdateChanged, Validate, ValidateEx, Quit, PrepareForce, PrepareAdvanced

16.2.98 PrepareForce

This command allows to open a license file even if one of the following major errors occur:

- Copy Protection error
- Tamper Detection 565 error
- System Date manipulation 112 with CheckSysdateChanged 112

In case of an error with the command Prepare, this command allows to open the license file and e.g. display the License Viewer 281 to type in a key.

You have to set the SecurityLevel 110 before you can use this command

Name	**PrepareForce**
Purpose	Prepares the Licence Protector instance for usage and opens the license file. If a license file can't be opened due to major errors, this command allows to open the file and e.g. display the License Viewer to type in a key

Params

Parameter	*Type*	*Example*	*Note*
license file	String	F:\mylic.lic	The full path to the license file. See details for UNC pathnames
ProjectSecureKey or ReadKey	String	I am a project secure key	Security Level BASIC: The project secure key for that license file. Can contain any characters. The minimum length is 6 characters, the recommended length is 15 and greater Security Level ADVANCED: The Read Key for that license file. It can not be chosen freely but has to be created using the Create Project Keys function in License Generator.

Returncode

Returncode Type Integer	*Note*

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	<table><tr><td>0</td><td>The license file was successfully opened</td></tr><tr><td>2</td><td>The license file could not be found or was not opened</td></tr><tr><td>16382</td><td>If CheckSysdateChanges is set to true and Licence Protector 5 recognizes that the date was manipulated then you get this error code.</td></tr><tr><td>16384 or 2048</td><td>The file to open is not a valid license file or it has another security level: You can not open a license file of security level ADVANCED using its PSK. You need its Read Key.</td></tr><tr><td>Other return codes</td><td>Prepare failed, see list of return codes</td></tr></table>
Usage	Normally Prepare should be used! PrepareForce can be used for administration tools that have to be able to open every known license file. Dependant of property SecurityLevel PrepareForce can open license files with Security Level BASIC (=0, default) or files with Security Level ADVANCED (=1). Note: PrepareForce can't open license files where the PSK is unknown. Only the Installation Code is ignored.

Sample	<pre>lic.**SecurityLevel** := 0; *// the following PrepareForce uses SecurityLevel BASIC and needs a PSK*
	// at 1, PrepareForce uses SecurityLevel ADVANCED and needs a ReadKey
	iRes := lic.**PrepareForce**(sMyLicfile, 'I am a project secure key');
	if iRes <> 0 then
	begin
	<< an error occurred >>
	...
	end
	else
	begin
	<< everything is fine, continue >>
	...</pre>

See also	Prepare, PrepareSimple, PrepareAdvanced, SysdateChanged, CheckSysdateChanged, Validate, Quit

16.2.99 PrepareSimple

Name	**PrepareSimple**
Purpose	Prepares the Licence Protector instance for usage and opens the license file using Security Level BASIC
Params	<table><tr><th>*Parameter*</th><th>*Type*</th><th>*Example*</th><th>*Note*</th></tr><tr><td>license file</td><td>String</td><td>F:\mylic.lic</td><td>The full path to the license file. See details for UNC pathnames</td></tr></table>

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<table>
<tr><td></td><td>
<table>
<tr><td>ProjectSecure Key</td><td>String</td><td>I am a project secure key</td><td>The project secure key for that license file. Can contain any characters. The minimum length is 6 characters, the recommended length is 15 and greater</td></tr>
</table>
</td></tr>
<tr><td>Returncode</td><td>
<table>
<tr><th>Returncode Type Integer</th><th>Note</th></tr>
<tr><td>0</td><td>The license file was successfully opened</td></tr>
<tr><td>2</td><td>The license file could not be found or was not opened</td></tr>
<tr><td>16382</td><td>If CheckSysdateChanges is set to true and Licence Protector 5 recognizes that the date was manipulated then you get this error code.</td></tr>
<tr><td>16384 or 2048</td><td>The file to open is not a valid license file or it has another security level: You can not open a license file of security level ADVANCED using its PSK. You need its Read Key.</td></tr>
<tr><td>Other return codes</td><td>Prepare failed, see list of return codes</td></tr>
</table>
</td></tr>
<tr><td>Usage</td><td>Important function in order to use the Licence Protector 5</td></tr>
<tr><td>Sample</td><td>

```
iRes := lic.PrepareSimple(sMyLicfile, 'I am a project secure key');
if iRes <> 0 then
begin
   << an error occurred >>
   ...
end
else
begin
   << everything is fine, continue >>
   ...
```

</td></tr>
<tr><td>See also</td><td>Prepare, PrepareAdvanced, SysdateChanged, CheckSysdateChanged, Validate, Quit, PrepareForce</td></tr>
</table>

.

16.2.10 ProjectName

The command retrieves or changes the project name, 207 which is stored in the license file.

Name	**Projectname**
Purpose	Property to get or set the projectname in the license file.
Params	None

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Returncode	***Returncode Type String*** / ***Note*** Value / This is the name of the project, used to identify the project on the Web Activation configuration
Usage	Change the projectname in the license file

Sample	`If lic.Projectname = '' then`
	`begin`
	`  lic.Projectname := 'MyProject';`
	`end;`
	`….`

See also	Web Activation, WebServiceURL, WebRegister, ApplyActivationKey, ApplyActivationKeyForProject, ShowWAStartPage, ShowWAProgress Page ShowWAResultPage, UseLocalProxy, LocalProxyServer, LocalProxyPort, UseLocalIEProxy

16.2.10 Quit

Closes the license file and terminates the testing. Should be used at the end of the application.

Name	**Quit**
Purpose	Ends the usage of Licence Protector 5 and frees its used resources.
Params	None
Returncode	***Returncode Type Integer*** / ***Note*** 0 / The license file was successfully closed Other return codes / Prepare failed, see list of return codes
Usage	Important function in order to end the usage of Licence Protector 5. Generally used at closing the application.

Sample	`iRes := lic.Quit;`
	`<< ignore the result and continue closing the application >>`
	`...`

See also	Prepare, Validate

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For concurrent user testing 465 quit may be used only at the end of the application. It removes **all users from all modules**. If you want to terminate the user of a single module (only in concurrent user mode), use the command StopConcurrentUsage 808.

16.2.10.2 ReadActivationKey

Name	**ReadActivationKey**
Comment	Obsolete: Use ApplyActivationKey

16.2.10.3 Refresh

Name	**Refresh**
Purpose	Reloads the already prepared license file into the Licence Protector object.
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** — None
Returncode	***Returncode Type Integer*** / ***Note*** — 0: ok; Other return codes: Operation failed, see list of return codes
Usage	Refresh should be used to explicitly reload the license file.
Sample	
See also	Prepare

```
iRes = lic.Refresh;
if iRes <> 0 then
begin
   << an error occurred >>
   ...
end
else
begin
   << everything is fine, continue >>
   ...
```

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16.2.10.4 RefreshCache

This command rereads the license file from the hard disk into the cache. The cache mode has to be activated first using BeginReadCache 649 or BeginCache 648. If write commands have been cached, RefreshCache **saves the updates to the disk** before the license file is loaded into the memory.

Name	**RefreshCache**
Purpose	Update the cache and save values to the hard disk
Params	None
Returncode	***Returncode Type Integer*** / ***Note*** 0 / The cache was successfully updated with the latest license file values Other return codes / Cache activation failed, see list of return codes 635
Usage	Update the cache

Sample	`iRes := lic.BeginCache;`
	`<< start reading values>>`
	`iRes := lic.RefreshCache;`
	`<< start reading values>>`
	`iRes := lic.EndCache;`

See also	GetCacheMode 674, BeginReadCache 649, BeginCache 648, EndCache 669, RevertCache 750, WriteCache 824

16.2.10.5 RemainingDays

Name	**RemainingDays**
Purpose	Gets the remaining days to the date when the module expires.
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** ModuleID / String / D1003 / Unique ModuleID – identifies the module to be tested
Returncode	***Returncode Type Integer*** / ***Note***

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	-1	The module never expires (**no time limitation**)
	0 to 2147483648	Days that are left to use the module. **If the module has expired then the return value is 0** and you got a return code of 16 or 17 at the preceding validate 818, validateEx 820 or ValidatesYes 945
Usage	E.g. to show the user when a part of your software isn't usable any more.	
Sample		

```
iRes := lic.Validate('D1003', '', false);
if ((iRes = 0) or (iRes = 1)) then
begin
   iDays := lic.RemainingDays ('D1003');
   if iDays = -1 then
   begin
      << module never expires >>
    ...
   end
   else
   begin
      << module expires in iDays >>
      ...
   end
end
else
begin
   << an error occurred, perhaps the module already has expires >>
   ...
```

See also	Validate 818, ExpiredOn 672, NoOfDays 727

16.2.10 RemainingLicences

Name	**RemainingLicences**
Purpose	Gets the remaining licenses of the module.

Params	*Parameter*	*Type*	*Example*	*Note*
	ModuleID	String	D1005	Unique ModuleID – identifies the module to be tested

Returncode	*Returncode Type Integer*	*Note*
	-1	It is a module type that has no number of licenses
	>= 0	licenses left, between 0 and TotalLicences 813 A counter-module always returns the value of TotalLicences 813
Usage	E.g. to show the user how many items or users are left for using a part of your software.	
Sample		

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	`iLics := lic.Remaininglicences ('D1005');`
	`<< use the extracted value >>`
	`...`

See also	TotalLicences 813, Module types

16.2.10 RemoveAllItems

Removes (deletes) **all** users, PCs or items from a module. The license for each item is then available again.

Sample
6 user license: 4 users are using a license and 2 licenses are free. After using *RemoveAllItems* all 6 licenses are available again.

Name	**RemoveAllItems**
Purpose	Physically removes all users, PCs or items from a module.
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** ModuleID / String / D1001 / Unique ModuleID – identifies the module to be tested
Returncode	***Returncode Type Integer*** / ***Note*** 0 / All users, PCs or items are removed Other return codes / Operation failed, see list of return codes
Usage	Remove all users or items (not only the deactivated ones) from the license file by calling *RemoveAllItems.*

Sample	`iRes := lic.RemoveAllItems('D1001');`
	`if iRes <> 0 then`
	`begin`
	`<< an error occurred >>`
	`...`
	`end`
	`else`
	`begin`
	`<< module is now empty, no items or modules in it anymore, continue >>`
	`...`

See also	ExistsEntry, DeactivateEntry, ActivateEntry, GetEntriesOfModule, IsEntryActivated, RemoveDeactivated

If you want to remove only a single item / user, then

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- Deactivate 658 the item / user
- Remove the deactivated item / user with command RemoveDeactivated 746.

16.2.10 RemoveDeactivated

Removes all **deactivated** users / PCs / items from a module. The users / PCs / items can be deactivated using the License Viewer 286 or with DeactivateEntry 658.

Name	**RemoveDeactivated**
Purpose	Physically removes all deactivated users, PCs or items from a module.
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** ModuleID / String / D1001 / Unique ModuleID – identifies the module to be tested
Returncode	***Returncode Type Integer*** / ***Note*** 0 / All deactivated users, PCs or items are removed Other return codes / Operation failed, see list of return codes
Usage	Deactivate users or items and finally remove them from the license file by calling *RemoveDeactivated*

Sample	`iRes := lic.RemoveDeactivated('D1001');`
	`if iRes <> 0 then`
	`begin`
	`  << an error occurred >>`
	`  ...`
	`end`
	`else`
	`begin`
	`  << everything is fine, continue >>`
	`  ...`

See also	ExistsEntry, DeactivateEntry, ActivateEntry, GetEntriesOfModule, IsEntryActivated, RemoveAllItem 745

You can remove **all** users / PCs / items independent of the fact if they are deactivated or not with the command RemoveAllItems 745

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16.2.10 RemoveExpiryWarningCommit

This command removes **all** confirmations, the user checked, for time dependent warnings, defined with SetRegisterExpiryWarning 778.

Name	**RemoveExpiryWarningCommit**			
Purpose	Removes all user confirmations			
Params	Name	String	myapp-m1	Removes the user confirmation for a nar / ID set with SetRegisterExpiryWa ing 778
Returncode	None			
Sample	lic.RemoveExpiryWarningCommit			
See also	SetRegisterSetExpiryWarning 778, SetRegisterClearExpiryWarnings 773			

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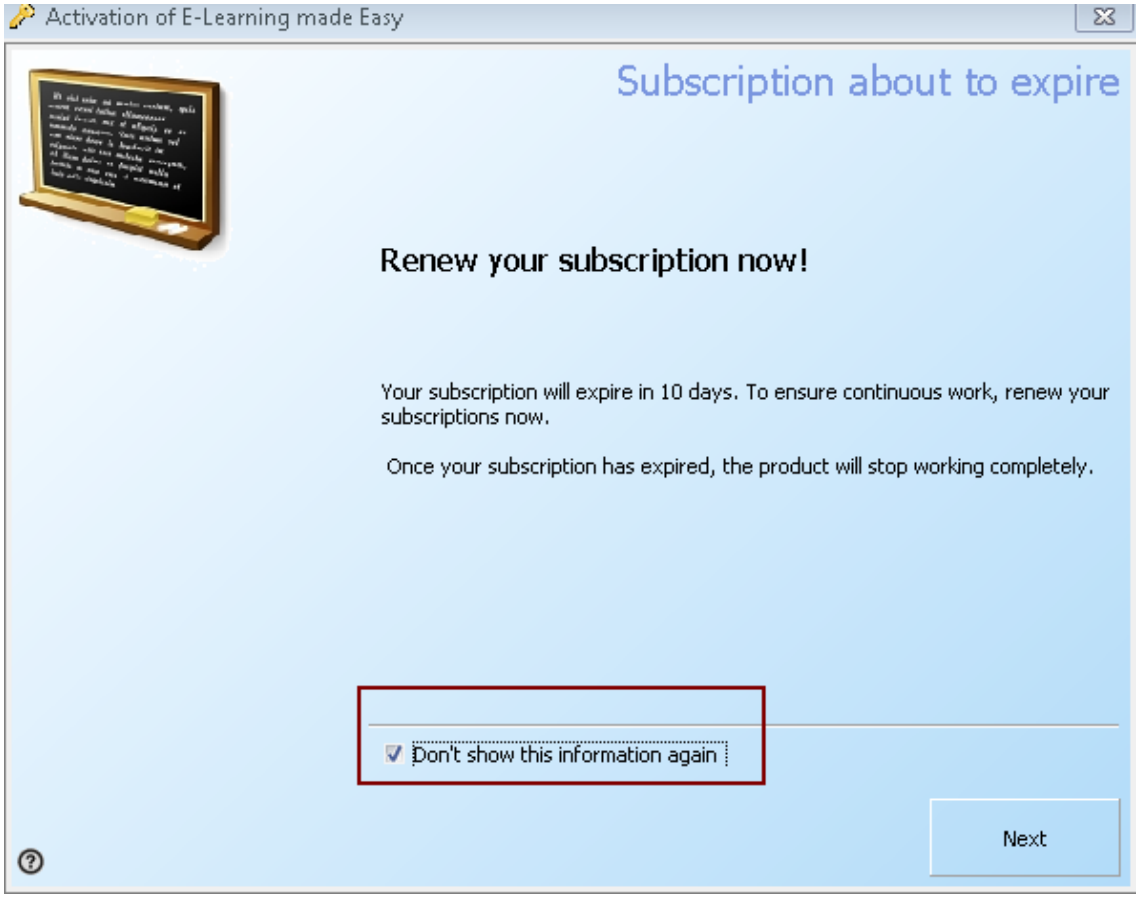

16.2.11 RemoveLocalRunNo

Name	**RemoveLocalRunNo**
Purpose	Removes the local Run Number token in the Windows Registry and sets the local value to 0.
Params	none
Returncode	***Returncode Type Integer*** / ***Note*** 0 / Local Run Number was successfully removed Other return codes / Operation failed, see list of return codes
Usage	Clean up the Run Number infrastructure

Sample	`iRes := lic.RemoveLocalRunNo;`
	`if iRes <> 0 then`
	`begin`
	`  << an error occurred >>`
	`  ...`

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	end
	else
	begin
	<< *everything is fine, continue* >>
	...

See also	TamperDetection, licenseTampered, ResetLocalRunNo, ResetGlobalrRunNo

You have to disable the license testing first (StopConcurrentUsage 808) before you use this command.

16.2.11 ResetLocalRunNo

Name	**ResetLocalRunNo**
Purpose	Sets the local Run Number. The token in the Windows Registry is updated or even created.
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** RunNumber / Integer / 0 / Run Number value to set locally. If this value is 0 then the Run Number value of the license file is used
Returncode	***Returncode Type Integer*** / ***Note*** 0 / Local Run Number was successfully set Other return codes / Operation failed, see list of return codes
Usage	Set the local Run Number. Can be used in combination with Tamper Detection Mode manually after a successful WegRegister call.

Sample	`iRes := lic.ResetLocalRunNo(0);`
	`if iRes <> 0 then`
	`begin`
	`  << an error occurred >>`
	`  ...`
	`end`
	`else`
	`begin`
	`  << everything is fine, continue >>`
	`  ...`

See also	TamperDetection, licenseTampered, RemoveLocalRunNo, ResetGlobalRunNo

You have to disable the license testing first (StopConcurrentUsage 808) before you use this command.

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16.2.11.1 ResetGlobalRunNo

Name	**ResetGlobalRunNo**
Purpose	Sets the Run Number in the license file and therefore resets the whole installation.
Params	

Parameter	*Type*	*Example*	*Note*
RunNumber	Integer	0	Run Number to set.
ResetDays	Integer	2	Number of days beginning from today, an application's local Run Number is reset

Returncode

Returncode Type Integer	*Note*
0	Total Run Number was successfully set
Other return codes	Operation failed, see list of return codes

Usage: Set the Run Number in the license file and allows all installations that use this license file to be locally reset during the defined amount of days. Can be used to allow a reinstallation.

Sample:

```
iRes := lic.ResetGlobalRunNo(0, 5);
if iRes <> 0 then
begin
   << an error occurred >>
   ...
end
else
begin
   << everything is fine, continue >>
   ...
```

See also: TamperDetection, licenseTampered, RemoveLocalRunNo, ResetGlobalRunNo

You have to disable the license testing first (StopConcurrentUsage 808) before you use this command.

16.2.11.2 RevertCache

This command rereads the license file from the hard disk into the cache. The cache mode has to be activated first using BeginReadCache 649 or BeginCache 648. If write commands have been cached, RevertCache **does not save the** updates to the disk before the license file is loaded into the memory. **All changes of the cache are lost**.

Name	**RevertCache**

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Purpose	Update the cache and do NOT save values to the hard disk
Params	None
Returncode	***Returncode Type Integer*** / ***Note*** 0 / The cache was successfully updated with the latest license file values Other return codes / Cache activation failed, see list of return codes 635
Usage	Update the cache

Sample	`iRes := lic.BeginCache;`
	`<< start reading values>>`
	`iRes := lic.RevertCache;`
	`<< start reading values>>`
	`iRes := lic.EndCache;`

See also	GetCacheMode 674, BeginReadCache 649, BeginCache 648, EndCache 669, RefreshCache 743, WriteCache 824

16.2.11 RunsOnVirtualMachine

This command gives a feedback, if the application is started on a Virtual Machine.

Name	**RunsOnVirtualMachine**
Purpose	This command allows to find out, if the application is running on a virtual machine.
Params	None
Returncode	***Returncode Type Integer*** / ***Note*** 0 / no virtual machine 1 / application runs on VMware 2 / application runs on Virtual PC 3 / application runs on Sun Virtual Box 4 / application runs on Wine 5 / application runs on Parallels - (tested with MAC Parallels Desktop versi 7 and Windows Parallels Desktop version 4)

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Usage	Allows to implement a different program logic for virtual machines, e.g. don't allow to start the application or use regular online checks 541

Sample	`iRes := lic.RunsOnVirtualMachine;`
	`if iRes <> 0 then`
	`  << Virtual Machine>>`
	`...`
	`end`

See also	

See also

Virtual Machine 584

16.2.11 SecurityLevel

Licence Protector 5 is always backward compatible. The latest version can always read old license files. As there are 2 options for the personal encryption, you have to specify the method.

Define the security level 207 according to the specification in the project template. This information is mandatory. We recommend using **Advanced** which works with a set of 3 keys. The security level has to be the same like defined in the project template 191.

Name	**SecurityLevel**
Purpose	Property to set the security level of a license file.
Params	None
Returncode	***Returncode Type Integer*** / ***Note*** 0 / The security level is BASIC (only used for backward compatibility) 1 or other return codes / The security level is **ADVANCED - this is the recommended level**
Usage	Sets the Security Level before calling Prepare or PrepareForce

Sample	`lic.SecurityLevel := 1; << this license file is an ADVANCED one >>`
	`iRes := lic.Prepare(sMyLicfile, 'r1lkYAp1xGQN81fBrcZ1dfXtwldoy3Z1l4KHy0N`
	`2yvL0ZBDcX274DHv1Bfv7s0RFpjZ1NOmM1qXGsu1MqTXK1t4Tsq1c7jQq1iP3VM1Nk6j1s64Yk299TY71YSrb`
	`k0NdSom29inxM29bPTJ1mmLNv0SNdC41xCbdT2adSqt2aazQL1dsIWy1fGXFi11YW0v1fFhLt2acufE1hRGX`
	`Y1VxH0R0MybX0XmtNv1lm76W1gQqQe21grLU1VAc401UqH8l0YHwOD1S46cC20hVpD1cfAYk299ixt');`
	`....`

See also	Prepare, PrepareForce, PrepareAdvanced, PrepareSimple

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Do not use the Project Secure Key (in the sample: What a beautiful morning) when the SecurityLevel is *Advanced*. Use the ReadKey 166 within the PrepareAndChec 162 k command.

16.2.11 SetBackupInterval

Activates a continuous backup of the license file. Default is off. Details 560

Name	**SetBackupInterval**
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note***
	Seconds / Integer / 30 / 0 = no backup (default) x = activate backup in seconds where 10 seconds is the smallest value possible
Returncode	***Returncode Type Integer*** / ***Note***
	0 / Command was successful
	Other return codes / Error occurred, see list of return codes 635
See also	GetBackupInterval 674

- Use a value between 30 to 60 seconds
- The backup file is only updated when there is a change in the license file
- The backup file update could be delayed to seconds + 50%*seconds

16.2.11 SendCustomerInfo

This command sends a complete address to the Activation Server 6. The address information is independent of an activation - this allows to send the address information e.g. for a demo version.

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If you want to **link** the address to an activation, use the field **ID.** If you use EasyGo, the ID must be the Serial Number. See: How can I retrieve the Serial Number. 516

If you use your own activation scenario, the ID must be the same like used with WebRegisterExt 821.

Name	**SendCustomerinfo**
Purpose	Sends the customers info to the Web Activation server without showing the activation screen.

Params

Parameter	*Type*	*Example*	*Note*
Projectname	String	Demo Project	projectname, if empty the internal projectname of the license file is used – identifies the project on the Web Activation Server
ID / Serial Number	String	ID12345	Serial Number / ID to connect the address data to a key, product activation or license file
Company ID	String	D938736	Company or customer ID which is used in an ERP or CRM system to link the address to the ERP/CRM system
CompanyName	String	Blue River Inc.	The customer's company name
FirstName	String	Tom	The first name of the customer
LastName	String	Sullivan	The last name of the customer
Salutation	String	Mr.	The salutation of the customer
AcademicTitle	String		The academic title of the customer
JobTitle	String	CEO	The job title of the customer
StreetAddress 1	String	852 Dewes Lane	The first part of the customer's address
StreetAddress 2	String		The second part of the customer's address (if needed)
ZIP	String	11230	The zip code of the customer's address
City	String	Brooklyn	The city of the customer's address
State	String	NY	The state of the customer's address
Country	String	United States	The country of the customer's address

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	Phone1	String	646.296.1572	The customer's main phone
	Phone2	String		The customer's alternative phone
	Email	String	tom@blueriver-inc.com	The customer's eMail address
	Language	String	English	The customer's language
	WebAddress	String	http://www.blueriver-inc.com	The customer's web address
	Newsletter1	Boolean	True	Subscribe to newsletter 1
	Newsletter2	Boolean	False	Subscribe to newsletter 2
	Newsletter3	Boolean	True	Subscribe to newsletter 3
	Newsletter4	Boolean	False	Subscribe to newsletter 4
	Customer1	String	OD-7653	Custom field 1 e.g. to link the address to an ERP system
	Customer2	String		Custom field 2
	ShowConnection Mask	Integer	0	0 = do not show the connection screen 1 = show the connection screen 2 = use the ShowWA…Page values

Returncode

Returncode Type Integer	***Note***
0	The customer's data has been successfully sent
Other return codes	Operation failed, see list of return codes

Usage

Set the Run Number in the license file and allows all installations that use this license file to be locally reset during the defined amount of days. Can be used to allow a reinstallation.

Sample

```
     iRes := lic.SendCustomerinfo('', 'invoice10321', 'Blue River
Inc.', 'Tom', 'Sullivan', 'Mr.', '', 'CEO', '852 Dewes Lane', '',
'11230', 'Brooklyn', 'NY', 'United States', '646.296.1572', '' ,
'tom@bluriver-inc.com', 'English', 'http://www.blueriver-inc.com', true,
false, true, false, 'special', '', 0);
   if iRes <> 0 then
   begin
      << an error occurred >>
      ...
   end
   else
   begin
      << data successfully sent >>
      ...
```

See also

Web Activation, WebServiceURL, ShowWAStartPage, ShowWAProgressPage, ShowWAResultPage, UseLocalProxy, UseLocalIEProxy, LocalProxyServer, LocalProxyPort,

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	Projectname, GetWebActivation

16.2.11.8 SetCheckInterval

You can overwrite the default interval 471 with an own interval.

Name	**SetCheckInterval**
Purpose	Sets the interval for automatic validates in a concurrent user module.
Params	

Parameter	*Type*	*Example*	*Note*
ModuleID	String	D1006	Unique ModuleID of a concurrent user module
Interval	Integer	120	The interval in seconds

Returncode

Returncode *Type Integer*	*Note*
0	Interval successfully set
> 0	Error occurred, see list of return codes

Usage	To change the current checking interval.
Sample	

```
iRes := lic.SetCheckInterval ('D1006', 120);
if iRes <> 0 then
begin
   << an error occurred >>
   ...
end
else
begin
   << interval successfully set to 2 minutes >>
   ...
```

See also	Concurrent user, CheckInterval

For a network license, use a **configuration file** where you can change the following values if required.

- Share Mode 110
- ConcurrentUserLevel 660
- SetCheckInterval 756
- SetLogging 769

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- SetBackupInterval 753
- SetWebRequestTimeOutInSec 799

.

16.2.11 SetConfig

See full description - Store data in the license file 562

Name	**SetConfig**
Purpose	Save data in the license file
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** Configname / String / DBPassword / Unique configname Configvalue / String / Secret / The value as string IsVisible / Boolean / False / Don't show that config in License Viewer (recommended for passwords and other secret information)
Returncode	***Returncode Type Integer*** / ***Note*** All values / See list of return codes
Usage	Insert a new config with name, value and visibility information. If the config with the specified name does not exist it's automatically added. Update the value and visibility of an exisiting config.

Sample	`iRes := lic.SetConfig('DBPassword', 'secret', false);`
	`if iRes <> 0 then`
	`begin`
	`  << an Error occurred >>`
	`  ...`
	`end`
	`else`
	`begin`
	`  << the config is successfully added or updated >>`
	`  ...`

See also	Store data, 562 GetConfig 675, DeleteConfig 663, ExistsConfig 670, IsConfigVisible 719

If the ID (configname) already exists, the existing value (configvalue) is updated with the new value.

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16.2.12 SetCustomText

The text on **all screens** and for **each language** can be changed. This function is ideal to change a few line of text but it cannot be used to add a new language.

To change a line of text, specify the language ID, a text ID and the new text.

Name	**SetCustomText**
Purpose	Checks if an entry (user, computer, item) is registered in a module
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note***
	Language / String / 2 / see overview about all language IDs 108. Languag ID **cannot be 0**
	Index / Integer / 601 / see detail list below - defin language text. Range 1-9999
	Text / String / I have a Serial Number and I want to activate $product / Text for the selected language and Index. Replaces default text
Returncode	***Returncode Type Integer*** / ***Note***
	0 / Command was successful
	Other return codes / Error occurred, see list of return codes 635
Sample	`bOk := lic.SetCustomText(2,613, 'Activation by phone');`
See also	SetRegisterSettings 116; SetLanguage 108

Change the text for each language

To change a line of text, you have to search in the language text file. A good idea is to search the English translation and then use this number to find the text in another language. You have to change the text for each language used by your application.

Example 1:

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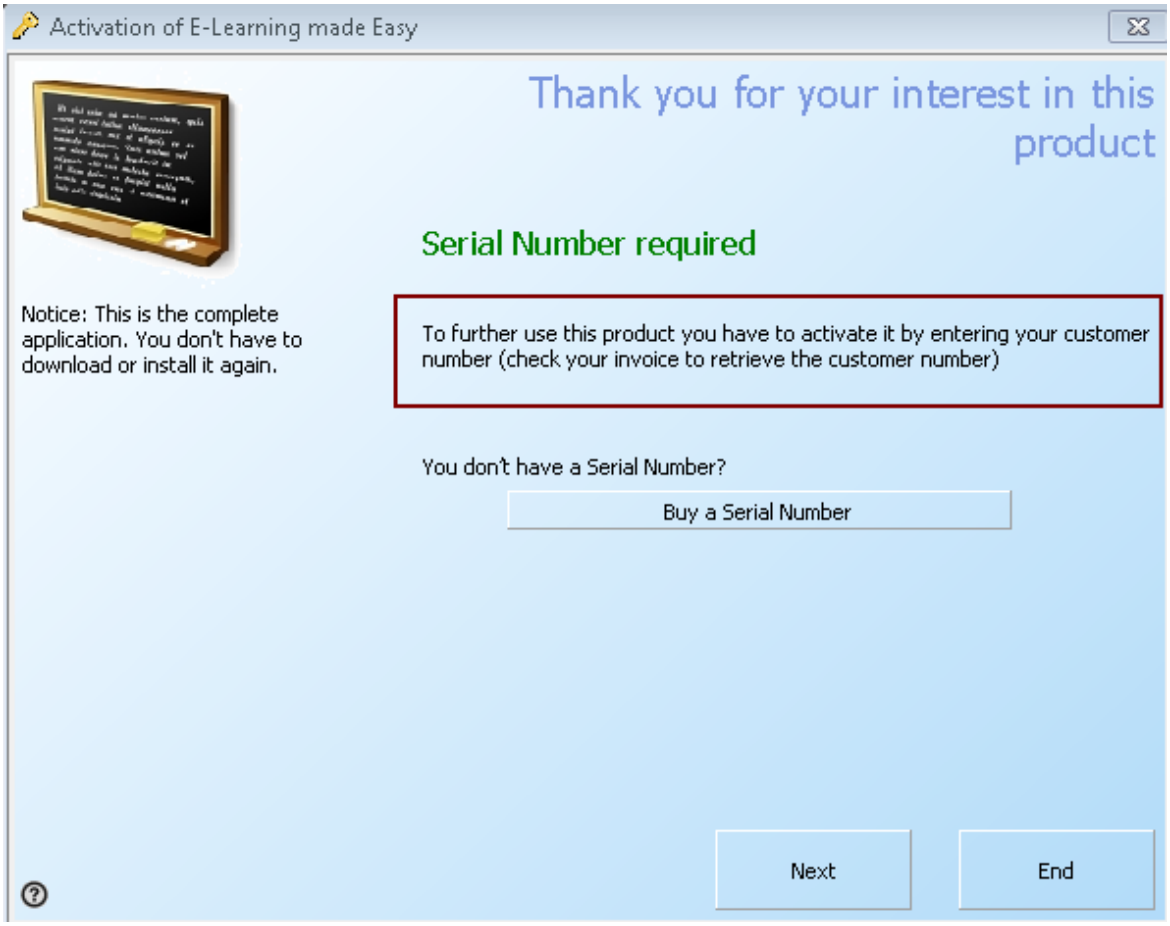
You want to change the following text in Danish language, which has language code 11.
Search in language Code 2 = English language
2**0613**, "Phone Activation"

To change the Danish translation
SetCustomText (11,613, 'Telefonaktivering')

Example 2:
You don't work with a Serial Number. Your unique ID is the customer number.

2**0657**, "To further use this product you have to activate it by entering a Serial Number."

To change the English translation
SetCustomText (2,657,'To further use this product you have to activate it by entering your customer number (check your invoice to retrieve the customer number)')



Of course you can change all the other text like: *Serial Number required* to *Customer Number* required or *Buy a Serial Number* to *Buy this product now*

SetCustomText (2,603,'You don't have a Customer Number?')

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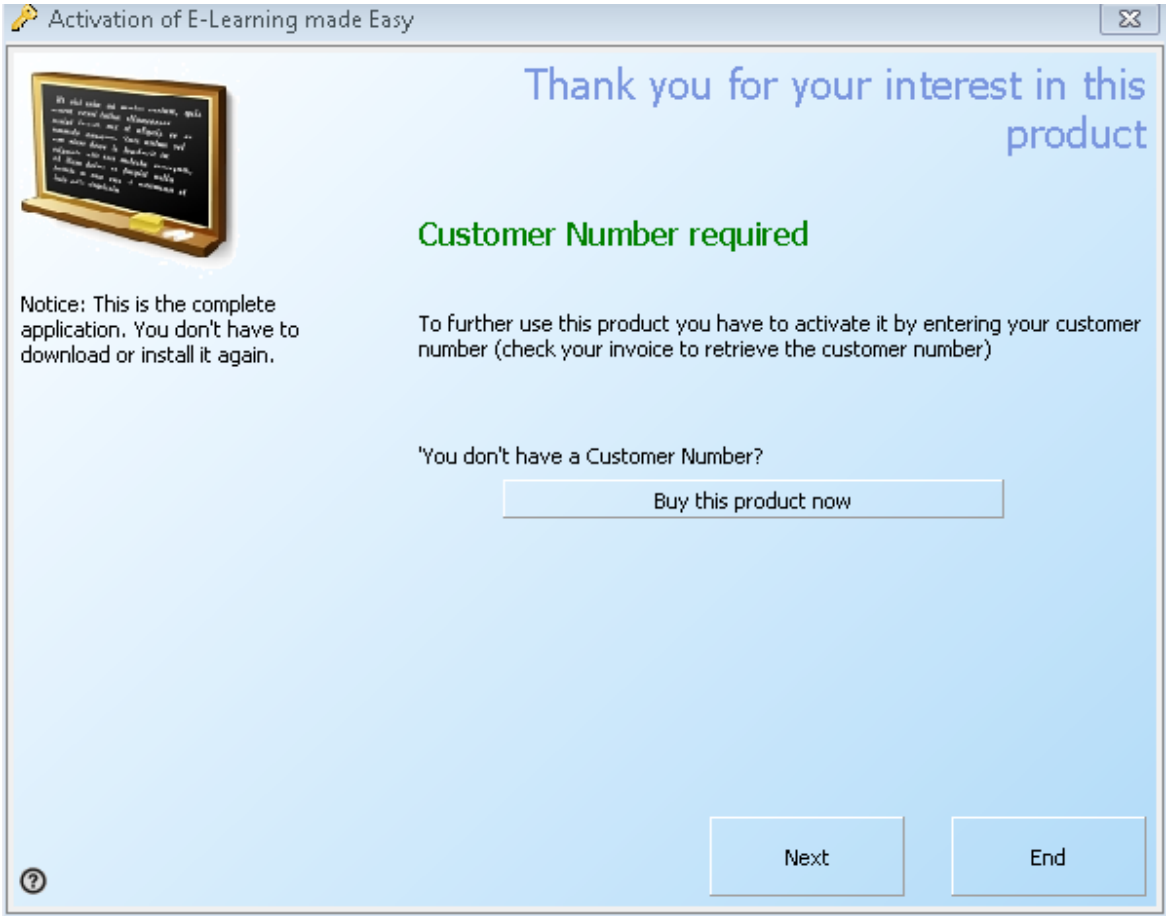
SetCustomText (2,604,'Buy this product now')
SetCustomText (2,656,'Customer Number required')



Text followed by a $ sign may never be changed. It is a variable. Examples are $product or $days. The name of the variable is the same in all languages.

Example

20744, "This is an evaluation version. You can evaluate **$product** for another **$days** day(s)."

The characters \n insert a new line.

Download language file

Download the latest language text file. It is a zip file which includes, depending on the character set, different TXT files. The English translation can be found in the file: *languagecommon_1252_WEUR.unicode*. Click here and save it on your hard disk.

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16.2.12 SetDiffPct

Name	**SetDiffPct**
Purpose	Sets the tolerance in percent for automatic validates in a concurrent user module.
Params	

Parameter	*Type*	*Example*	*Note*
ModuleID	String	D1006	Unique ModuleID of a concurrent user module
Pct	Integer	10	The tolerance in percent

Returncode

Returncode Type Integer	*Note*
0	Tolerance successfully set
> 0	Error occurred, see list of return codes

Usage: To change the current tolerance.

Sample:

```
iRes := lic.SetDiffPct ('D1006', 10);
if iRes <> 0 then
begin
   << an error occurred >>
   ...
end
else
begin
   << interval successfully set to 2 minutes >>
   ...
```

See also: Concurrent user, CheckInterval, DiffPct

16.2.12 SetEasyGoProperty

Allows to modify the layout / buttons / behaviour of some EasyGo screens 221.

Name	**SetEasyGoProperty**
Purpose	Allows to modify the layout / buttons / behaviour of some EasyGo screens 221.
Params	

Parameter	*Type*	*Example*	*Note*
Property	String	ActionAfterSuccess	defines the screen which is changed. For a complete li of all properties see below
Parameter	String		Additional parameter for some properties. Values depending on the field

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<table>
<tr><td></td><td>
<table>
<tr><td></td><td></td><td></td><td>Property. For a complete li see below</td></tr>
<tr><td>Value</td><td>String</td><td>1</td><td>defines the layout / buttons / behaviour of the screen. Values depending on the field Property. For a complete list see below</td></tr>
</table>
</td></tr>
<tr><td>Returncode</td><td>
<table>
<tr><td>Returncode
Type Integer</td><td>Note</td></tr>
<tr><td>0</td><td>Command was successful</td></tr>
<tr><td>Other return codes</td><td>Error occurred, see list of return codes 635</td></tr>
</table>
</td></tr>
<tr><td>Sample</td><td><pre>bOk := lic.SetEasygoProperty('ActionAfterSuccess','', '1');</pre></td></tr>
<tr><td>See also</td><td>GetEasyGoProperty 681</td></tr>
</table>

You can retrieve the actual value of each property using GetEasyGoProperty 681

Property List

The following properties are supported.

- ActionAfterSuccess

  Changes the screen which is displayed after a successful activation 251.

  ### Parameter

  <not used>

  ### Value

  - Value = 0 - the screen is suppressed and **does not appear**
  - Value = 1 - screen appears **without** the option to apply additional keys (**default**)

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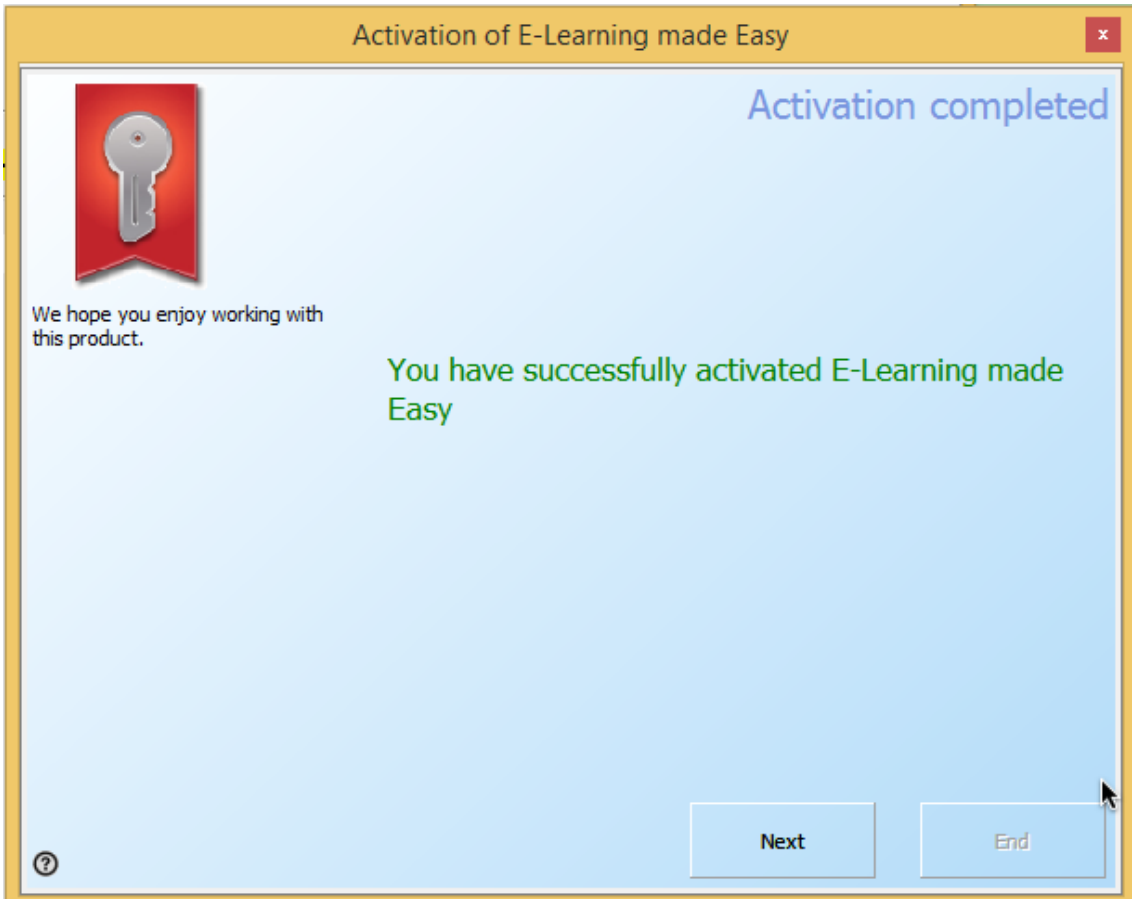

- Value = 2 - screen appears with an option to **apply additional keys**

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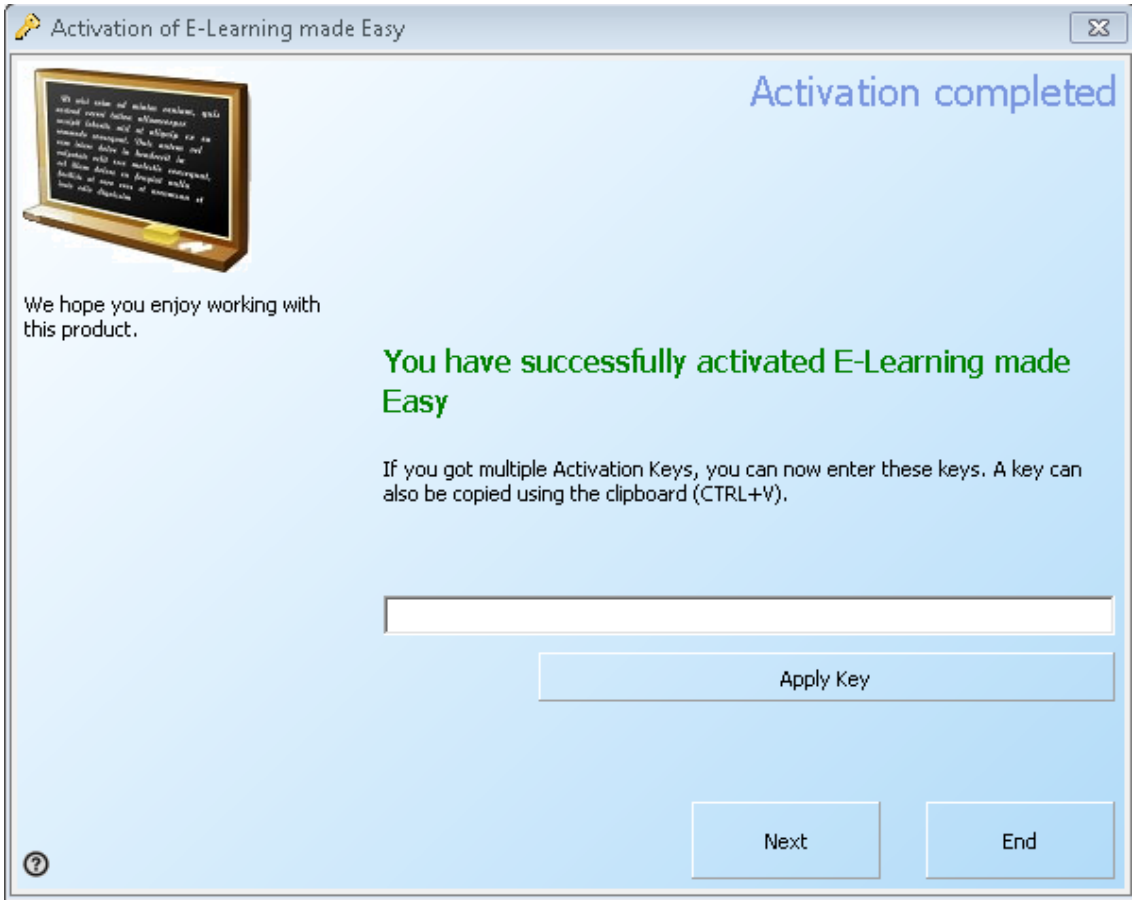

16.2.12 SetEndVerificationOfModule

Terminate a regular online check 541 on a specific date. After this date, the regular online check is terminated. The date, when the online check stops, can be retrieved with GetEndVerificationOfModule 682.

The next planned online check can be retrieved with NextVerificationOfModule 726.

For a complete description see chapter regular online checks 541.

Name	**SetEndVerificationOfModule**
Purpose	Property to get and set the date when the last online verification for the specified **module** will occur. After this date no online checks are done.
Params	

Parameter	*Type*	*Example*	*Note*

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	ModuleID | String | QHD001 | Unique ModuleID
Returncode	***Returncode Type Integer*** | ***Note*** 0 | There is no information when the last online check will be done. Probably there was no successful CheckModuleSubscription 654 or CheckModule 652 before. A date | Date, when the last online check is due
Usage	Inform the user when the last online check will be done

Sample	`dtLastCheck := lic.EndVerificationOfModule('QHD001');`
	`if ...`
	`end`

See also	NextVerificationOfModule 726, CheckModuleSubscription 654 CheckModule 652, DeactivateModule 661, SetVerificationIDOfModule 798, VerificationOfModule 854, GetEndVerificationOfModule 682

16.2.12 SendIntMetric

You can send metrics on **custom events** like

- every time a menu item is invoked, e.g. to analyze how often the menu help is used
- every time a document is opened
- every time a special workflow is triggered
- every time an error occurs

Name	**SendIntMetric**
Params	

Parameter	*Type*	*Example*	*Note*
ProjectName	String	easygo	If empty, project name from the template is used
ModuleID	String	QHD001	Unique ModuleID. Can be empty. Reporting not yet available on module level
MetricName	String	Menu: Help	The value you want to trace
Section	String	My App	This value can be used to group the result. Reporting not yet available for this feature
MetricValue	Integer	1	

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Returncode	<table><tr><th>*Returncode* *Type Integer*</th><th>*Note*</th></tr><tr><td>0</td><td></td></tr><tr><td>A date</td><td></td></tr></table>
Transaction Count	Counts as 1 transaction on the Activation Server 6
See also	SetSignalState 789, GetSignalState 709

Example
SendIntMetric('', '', 'Menu: Help', 'My APP', 1);
SendIntMetric('', '', 'Error: SQL Connection failed', 'Core1.DLL', 1);

Your can turn on / off the usage metric with SetSignalState 789

16.2.12 SetLanguage

Define the language for all screens and messages. The default language setting is English but we recommend defining the language even if only English is used. With language code = **0** the language, which is configured in the operating system, is used. If the operating system uses an unsupported language, the default language would be used.

The language, which is in use by Licence Protector 5, can be retrieved with GetLanguage 700.

As Licence Protector 5 supports Unicode, a screen with Chinese characters can be used on an English operating system.

Name	**SetLanguage**
Purpose	Sets the language for Activation Screens, messages and the License Viewer.
Params	<table><tr><th>*Parameter*</th><th>*Type*</th><th>*Example*</th><th>*Note*</th></tr><tr><td>Language</td><td>String</td><td>2</td><td>**Language configured in Windows** = 0 German – 1</td></tr></table>

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<table>
<tr><td></td><td>
<table>
<tr><th>Parameter</th><th>Type</th><th>Example</th><th>Note</th></tr>
<tr><td></td><td></td><td></td><td>English – 2 (Default language if this command is not used)
French – 3
Italian – 4
Portuguese European – 5 (no longer in use. Is converted to 6)
Portuguese - 6
Dutch – 7
Swedish – 8
Spanish – 9
Norwegian – 10
Danish - 11
Serbian - 12
Czech - 13
Polish - 14
Turkish - 15
Chinese simple - 16
Chinese traditional - 17
Greek - 18
Lithuanian - 19
Japanese - 20
Russian - 21
Vietnamese - 22
Bulgarian - 23</td></tr>
</table>
</td></tr>
<tr><td>Returncode</td><td>
<table>
<tr><th>Returncode Type Integer</th><th>Note</th></tr>
<tr><td>0</td><td>Language successfully set</td></tr>
<tr><td>8193</td><td>This language is not supported</td></tr>
<tr><td>Other value</td><td>Error occurred, see list of return codes 635</td></tr>
</table>
</td></tr>
<tr><td>Usage</td><td>To change the current language for messages and the License Viewer</td></tr>
<tr><td>Sample</td><td>

```
iRes := lic.SetLanguage(2);
if iRes <> 0 then
begin
   << an error occurred >>
   ...
end
else
begin
   << language successfully set to english >>
```

</td></tr>
</table>

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	. . .
See also	GetLanguage 700, SetRegisterLanguages 134

- It is possible to use this command before a license file has been opened.
- You can define, that the user gets a list with languages, where he can select the desired language during the first program start with the command SetRegisterLanguages 134.
- You can always create an own GUI of the end user screens for languages, which are not supported right now - e.g. Russian or Chinese. See chapter Custom-made User Interface 495

16.2.12 SetLicViewerButton

Defines the buttons, which are visible within the License Viewer 281. To invoke the License Viewer see ShowLicViewer 800 or for EasyGo see SetRegisterSettings (LicViewerAllowed 118) 116

Name	**SetLicViewerButton**
Purpose	Disables or removes a button from the License Viewer.

Params

Parameter	*Type*	*Example*	*Note*
Button	Integer	1	The button code: 1 = Activate/Deactivate - Button 2 = Activation Key - Button 3 = Info - Button 4 = Options - Button 5 = Help – Button (no longer in use) 6 = Transfer/Adopt/Deactivate – Button 7 = Refresh - Button
Value	Integer	0	The show/visible type: 0 = invisible 1 = visible but never active 2 = visible and active

Returncode

Returncode *Type Integer*	*Note*

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	0 — Button mode successfully set 4101 — A parameter is invalid. Only the values described above are valid. Other value — Error occurred, see list of return codes
Usage	To customize the License Viewer as a real viewer without the ability to change something. Only some administrative users will get the License Viewer with activated buttons to change things. Note: You can't disable or remove the Close – Button.

Sample	`iRes := lic.SetLicViewerButton(1 , 0); // do not show the activate button`
	`if iRes = 0 then`
	`iRes := lic.SetLicViewerButton(2 , 0); // do not show the enter key button`
	`if iRes = 0 then`
	`iRes := lic.SetLicViewerButton(3 , 0); // do not show the info button`
	`if iRes = 0 then`
	`iRes := lic.SetLicViewerButton(4 , 2); // show the options button`
	`if iRes = 0 then`
	`iRes := lic.SetLicViewerButton(5 , 2); // show the help button`
	`if iRes = 0 then`
	`iRes := lic.SetLicViewerButton(6 , 2); // show the Transfer/Adopt button`
	
	`if iRes <> 0 then`
	`begin`
	`<< an error occurred >>`
	`...`
	`end`
	`else`
	`begin`
	`<< Buttons successfully set, showing License Viewer>>`
	`lic.ShowLicViewer;`
	`...`

See also	ShowLicViewer 800

The help button is no longer available due to the fact that we do not distribute CHM files any longer.

16.2.12 SetLogging

Name	**SetLogging**
Purpose	Sets the logging parameters for this workstation.
Params	

Parameter	*Type*	*Example*	*Note*
bOn	Boolean	true	If bOn is set then the Logging on this client is activated. bOn = false will deactivate the logging.

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<table>
<tr><td></td><td>
<table>
<tr><th>Parameter</th><th>Type</th><th>Example</th><th>Note</th></tr>
<tr><td>sLogpath</td><td>String</td><td>C:\log\</td><td>Path in which all new Log-files will be stored. Only used when bOn is true</td></tr>
</table>
</td></tr>
<tr><td>Returncode</td><td>
<table>
<tr><td>Returncode
None</td><td></td></tr>
</table>
</td></tr>
<tr><td>Usage</td><td>To turn logging on or off
This call changes local registry values that control the Licence Protector logging.
Note: It is not possible to reactivate the logging after you have turned it off using SetLogging.
It is not possible to switch pathes during runtime. In this cases the application has to be restarted to have this changes take effect.
It is possible to use this command before a license file has been opened.</td></tr>
<tr><td>Sample</td><td><pre>lic.SetLogging(true, ‘c:\temp\log\’);
<< Logging now activated >>
…
<< Now deactivate the logging>>
lic.SetLogging(false, ‘’;
...</pre></td></tr>
<tr><td>See also</td><td>Error tracking</td></tr>
</table>

For a network license, use a **configuration file** where you can change the following values if required.

- Share Mode 110
- ConcurrentUserLevel 660
- SetCheckInterval 756
- SetLogging 769
- SetBackupInterval 753
- SetWebRequestTimeOutInSec 799

16.2.12 SetNewsletter

Define up to 4 newsletter fields as a checkbox. If selected, this information is collected during product activation and is sent to the Activation Server 6.

The newsletter information is sent if **online, e-mail** or **fax** is selected as activation option. It is not available for activation by phone.

The name of the newsletter can be defined for each language separately. The command has to be used for each newsletter (1-4) separately.

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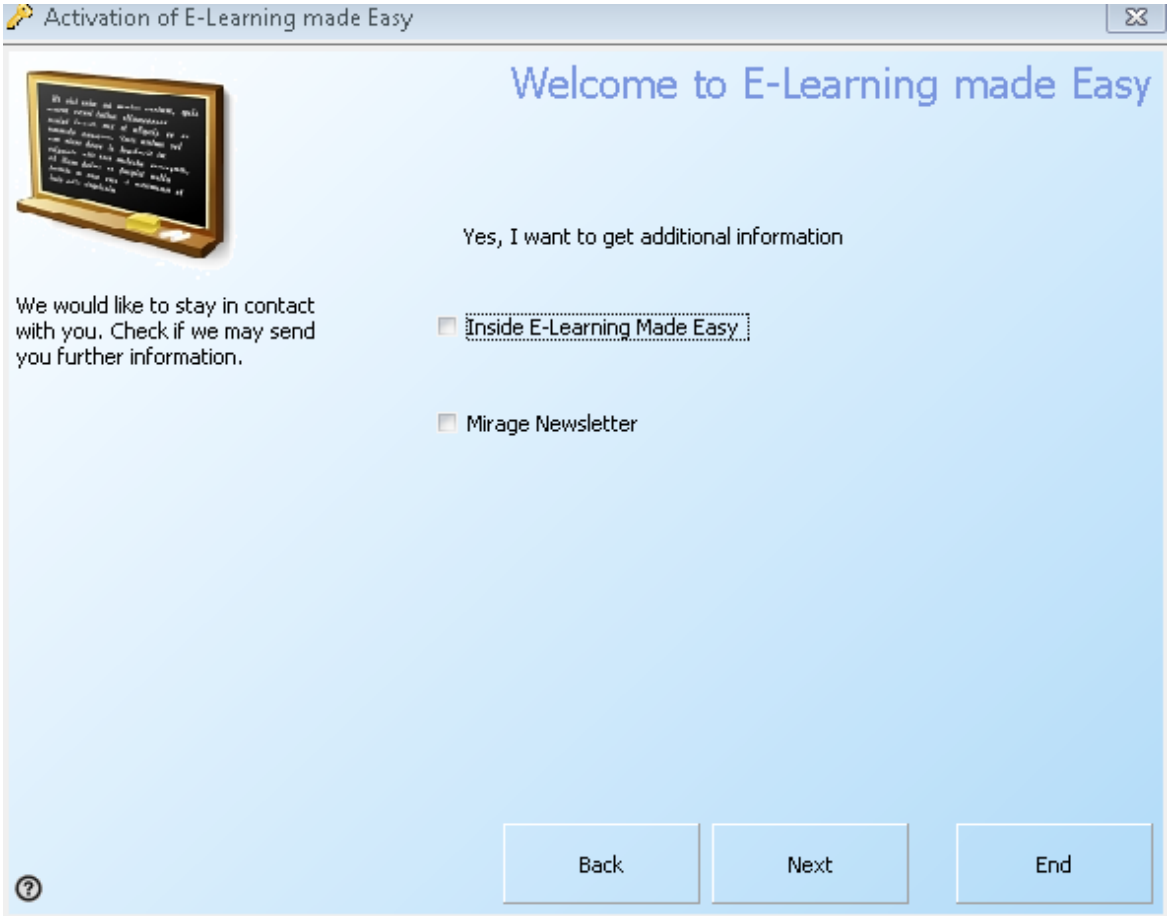

Newsletter Page

Name	**SetNewsletter**
Purpose	Checks if an entry (user, computer, item) is registered in a module

Params

Parameter	***Type***	***Example***	***Note***
No	Number	1	Newsletter Number 1-4
LanguageTexts	String	Licence Protector Newsletter	see detail example below - define language text

Returncode

Returncode Type Integer	***Note***
0	Command was successful
Other return codes	Error occurred, see list of return codes 635

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Sample	`bOk := lic.SetNewsletter(1, 'Licence Protector Newsletter%%1%%Inside Licence Protector%%3%%Licence Protector bulletin d'information%%9%%Licence Protector boletín de noticias');`
	
	`bOk := lic.SetNewsletter(2, 'Inside All-In-One Protector');`

See also	SetRegisterSettings 116

Define Language Text

- If only one Text is defined, then this text is used for all languages
- The text for each language can be defined using **%%languageId** - see overview about all language IDs 108
- The **first text entry** is always the **default text**. If no separate text for a language is defined, this text is used

Example
Licence Protector Newsletter%%1%%Inside Licence Protector%%3%%Licence Protector bulletin d'information%%9%%Licence Protector boletín de noticias

For German (ID 1), French (ID 3) and Spanish (ID 9) a separate newsletter text is used.
For all other languages, the text would be: Licence Protector Newsletter

16.2.12 SetOpenShareMode

Define the mode how file sharing for a network license is handled. The value can be retrieved with GetOpenSharedMode 707.
Default value is 0.

The command must be used **before** any Prepare command 920 (license file open).

Name	**SetOpenShareMode**
Purpose	Define the mode how file sharing for a network license is handled

Params

Parameter	*Type*	*Example*	*Note*
iMode	Integer	1	0 = license file is only locked for certain write operations (default) 1 = deny writing - while there is a read , the license file is locked for writing (recommended in larger installations or if you experience problems)

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	Parameter	***Type***	***Example***	***Note***
				2= share exclusive - other users can not open the file while an update on the license file is performed (not recommend)
Returncode	***Returncode Type Integer***	***Note***		
	0	Share Mode successfully set		
	Other value	Error occurred, see list of return codes 635		
See also	GetOpenShareMode 635			

For a network license, use a **configuration file** where you can change the following values if required.

- Share Mode 110
- ConcurrentUserLevel 660
- SetCheckInterval 756
- SetLogging 769
- SetBackupInterval 753
- SetWebRequestTimeOutInSec 799

16.2.13 SetRegisterClearExpiryWarnings

This command removes all time dependent warnings, defined with SetRegisterExpiryWarning 778.

Name	**SetRegisterClearExpiryWarnings**
Purpose	Deletes all time dependent warnings
Params	None
Returncode	None
Sample	lic.**SetRegisterClearExpiryWarnings** ;
See also	SetRegisterExpiryWarning 778, RemoveExpiryWarningCommit 747

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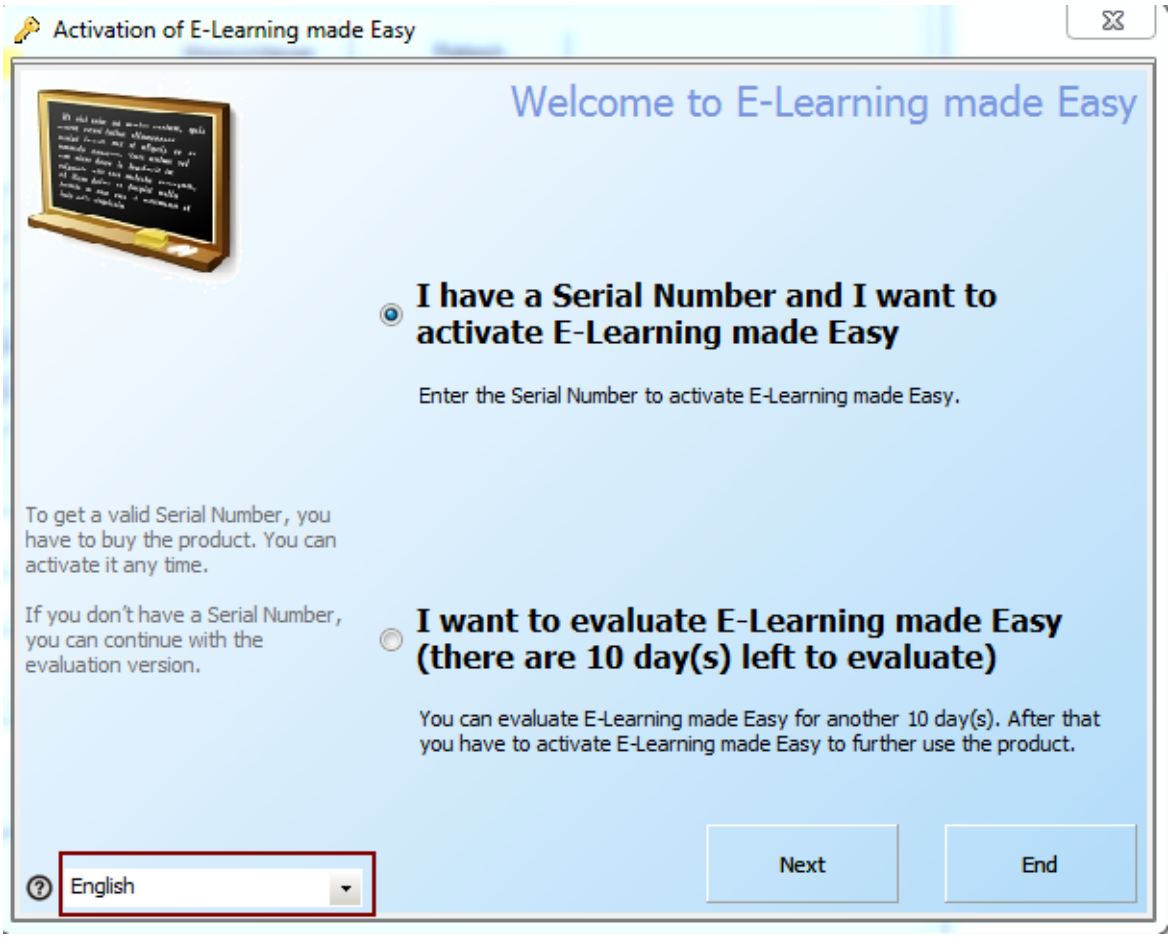
16.2.13 SetRegisterLanguages

If the user should be able to select a language via a drop down list, you can specify the languages which should be available.

A list box appears in all screens, to select a language



Select language

The language can also be selected, if the user clicks on the Help Icon .

Change language

The languages, which should be available in the drop down list, are defined using the language code separated by semicolon.

Example: **1;2;7** would allow to select German, English and Dutch.

If case the user changed the language, the new value can be retrieved with GetLanguage 700.

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The default language is set with SetLanguage 108.

Name	**SetRegisterLanguages**
Purpose	Sets all possible languages for the EasyGo page (PrepareAndCheck)
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** Languagelist / String / 2;9;3;4 / Languagecodes (separate by semicolon) One or more language code. Valid codes see SetLanguage 108
Returncode	***Returncode Type Integer*** / ***Note*** 0 / ok 8194 / Function is not implemented
Sample	`lic.SetRegisterLanguages('1;2;9');` …
See also	GetLanguage 700, SetRegisterSettings 116, SetLanguage 108, SetCustomText 136

16.2.13 SetRegisterLicTransfer

This command **enables** the license transfer option from PC A to PC B. If this command is not used, the license **cannot** be transferred at a later point of time. It also activates the option to download a license file 526 during activation.

It must be used **before** the command PrepareAndCheck 162

You can transfer only a single module or a **complete license file including all modules**. The license transfer needs an **online connection** to the Activation Server 6 and is therefore only available, if the product activation method was online.

Name	**SetRegisterLicTransfer**
Purpose	Adds the information on the Activation Server which is needed for a license transfer
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** TransferLicence / Boolean / true / true = enables a **complete license file** transfer including all modules and the complete license file content

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				false = only the **module** will be transferre
	File Description	String	default	name to identify the license file. One ID c store multiple files using different names like default-backup-January2010 default-backup-February2010
	Encryption Code	String	this is like a password string	ensures, that a file can only be download when a password is provided. The password is also used with the command UploadLic 814, DownloadLic 665. Should b maximum **40 characters**.

Returncode	***Returncode Type Integer***	***Note***
	0	Command was successful
	Other return codes	Error occurred, see list of return codes 635

Sample

```
   iRes := lic.SetRegisterLicTransfer(true, 'default', 'this is like a
password string');
   if iRes = 0 then
   begin
      << command successful >>
      ...
   end

   else
   begin
      << other errors >>>
      ...
```

See also: TransferLicence 812

16.2.13 SetRegisterSerialNo

This function can be used, to pass on a Serial Number to the EasyGo dialog (defined with SetRegisterSettings 116). It can be used in case your application has already stored the Serial Number. It saves the user to type in the Serial Number again.

Name	**SetRegisterSerialNo**

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<table>
<tr><td>Purpose</td><td>Pass over the Serial Number to the EasyGo dialog.</td></tr>
<tr><td>Params</td><td>
<table>
<tr><th>Parameter</th><th>Type</th><th>Example</th><th>Note</th></tr>
<tr><td>Serial Number</td><td>String</td><td>YkGEz-5EPj3-9E7In-3tI8X-RQU5k-6m140</td><td>Must be a Serial Number 301</td></tr>
<tr><td>AllowChange</td><td>Boolean</td><td>false</td><td>defines, if the user can change/modify the Serial Num in the activation dialog or not.</td></tr>
</table>
</td></tr>
<tr><td>Returncode</td><td>
<table>
<tr><th>Returncode
Type Integer</th><th>Note</th></tr>
<tr><td>0</td><td>Serial Number successfully set</td></tr>
<tr><td>Other value</td><td>Error occurred, see list of return codes</td></tr>
</table>
</td></tr>
<tr><td>Usage</td><td>To change the current language for messages and the licenseViewer</td></tr>
<tr><td>Sample</td><td>

```
   iRes := lic.SetRegisterSerialNo('YkGEz-5EPj3-9E7In-3tI8X-RQU5k-
6m140',false);
   if iRes <> 0 then
   begin
      << an error occurred >>
      ...
   end
   else
   begin
      << Start EasyGo dialog >>
      ...
```

</td></tr>
<tr><td>See also</td><td>SetRegisterSettings 116, PrepareAndCheck 162</td></tr>
<tr><td></td><td></td></tr>
</table>

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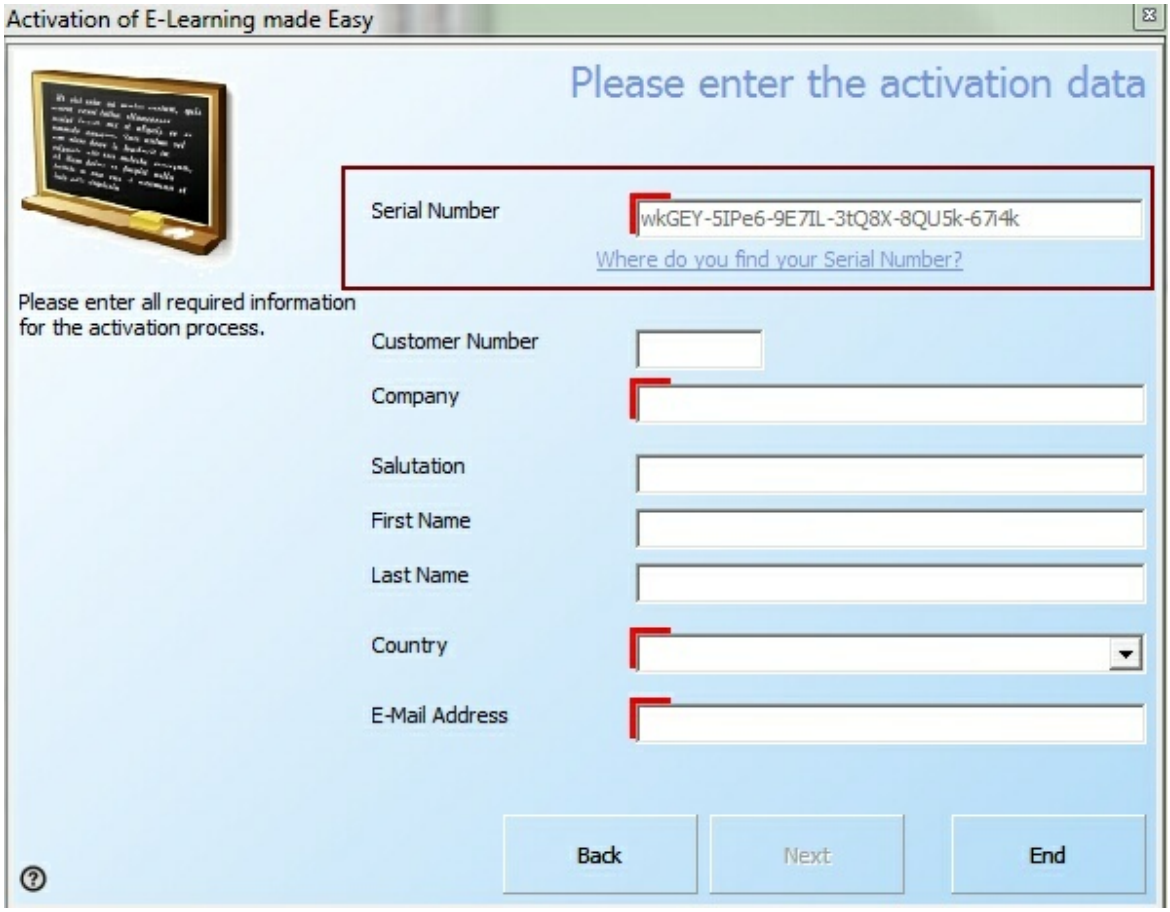

16.2.13 SetRegisterExpiryWarning

Defines a **time dependent** event to pop-up a message for **time limited full versions**. The number of events is not limited.

The following conditions have to be true that the message appears:

- product must be activated (status of activation = done)
- product must be time limited (subscription) 148
- the expiry date must be in the time frame defined. Alternatively a single date for the event can be defined
- user did not confirm the message yet
- the *Buy a Serial Number* button must be defined as the BuyURL in SetRegisterSettings 115

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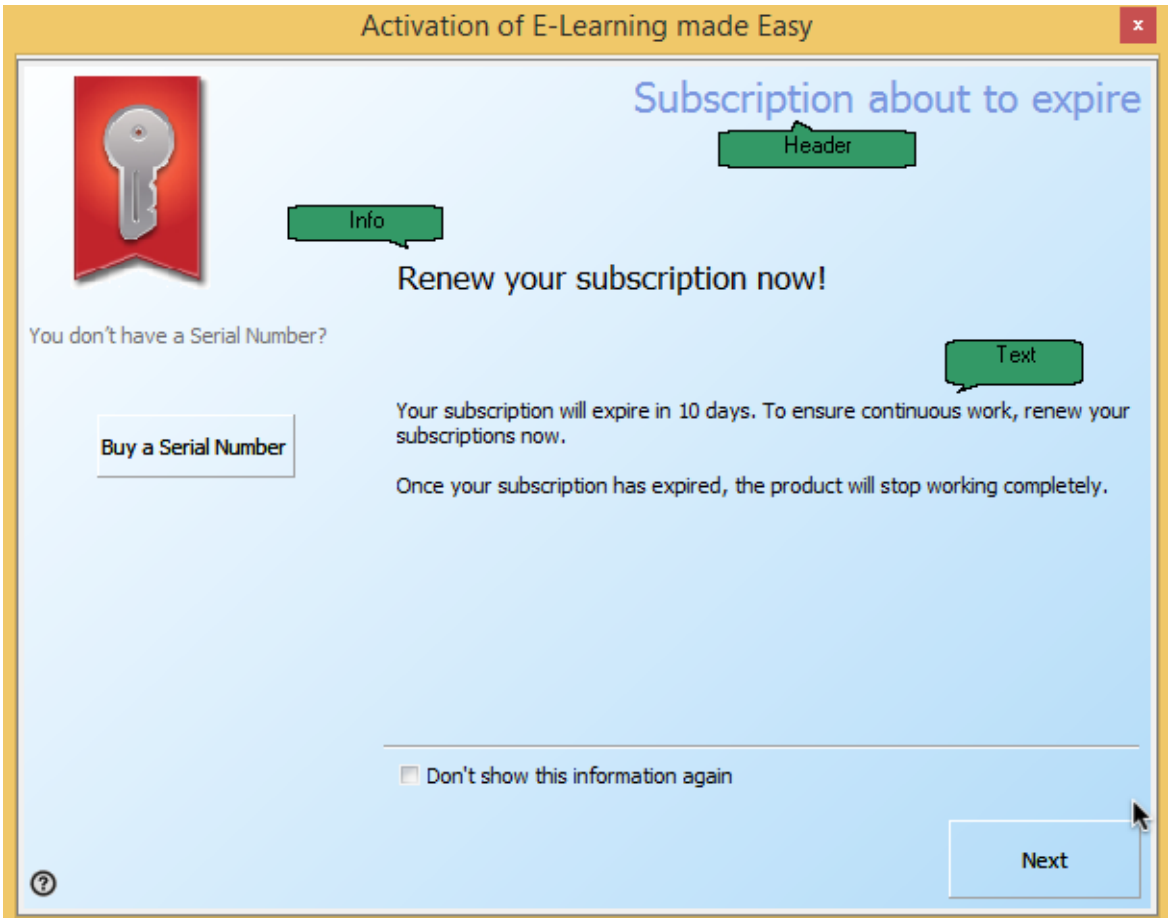

If the user confirms the message (by checking: *Don't show this information again*), then the message does not pop-up again.

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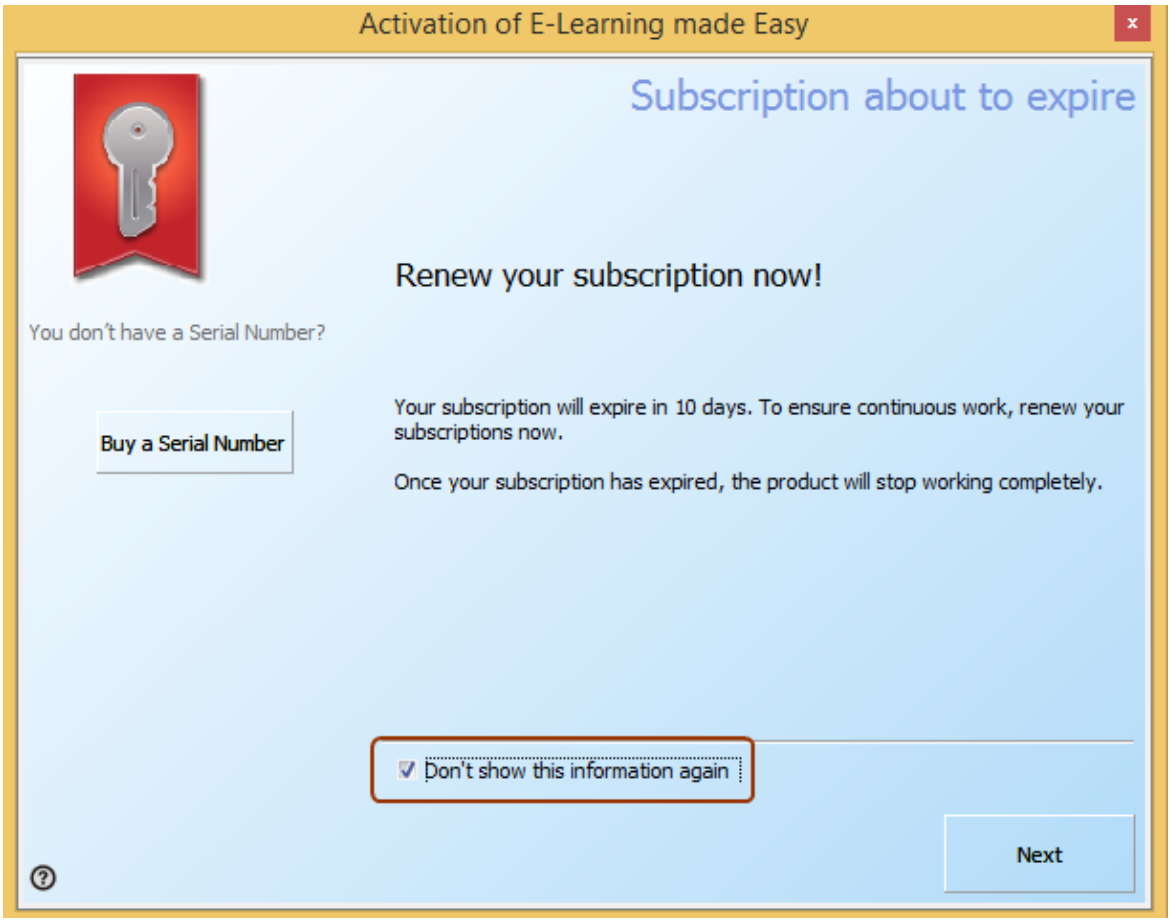

User confirms message

Before you configure the warning, retrieve the language, the user selected using [GetLanguage](#) 700

Name	**SetRegisterExpiryWarning**
Purpose	defines a time dependent event to pop-up a warning message
Params	

Parameter	*Type*	*Example*	*Note*
Name	String	myapp	Name or ID of the warning message. Stores information in the registry when user **confirms** the message hkey_current_user\software\LP\ExpWarn**myapp-m1**

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Parameter	*Type*	*Example*	*Note*
			You have to specify a new name for every message - e.g. myapp-m2, myapp-m3
DaysSince	Integer	10	**First** day, relative to the **expiry date**, when the message should appear.
DaysUpto	Integer	5	**Last day**, relative to the **expiry date**, when the message should appear.
Header	String	Subscription about to expire	Headline
Info	String	Renew your subscription now!	Subheader
Text	String	Your subscription will expire in 10 days. To ensure continuous work, renew your subscriptions now. \n\nOnce your subscription has expired, the product will stop working completely.	Tex information. Text is automatically wrapped. To include a line break use \n
EventDate	Date		**Instead** of using the expiry date to calculate the time frame, the event date is used. Example: You want to pop-up a message 10 days before Christmas. Set the expiry date to 12/24/2010.

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Returncode	<table><tr><th>***Returncode*** ***Type Integer***</th><th>***Note***</th></tr><tr><td>0</td><td>The event was set successfully</td></tr><tr><td>All other values – see return codes 635</td><td>The operation was not successful</td></tr></table>
Sample	`iRes := lic.`**SetRegisterExpiryWarning** `('myapp-m1',10,5,'`Subscription about to expire','Renew your subscription now!','Your subscription will expire in 10 days. To ensure continuous work, renew your subscriptions now.\n\nOnce your subscription has expired, the product will stop working completely.',0`);`
See also	RemoveExpiryWarningCommit 747, SetRegisterClearExpiryWarnings 773

- All events can be removed with SetRegisterClearExpiryWarnings 773
- All user confirmations can be removed with RemoveExpiryWarningCommit 747

16.2.13 SetRegisterSettings

This command defines the main settings of the activation screens, the workflow 145 and also the activation options.

Click on an image to see what you can customize.

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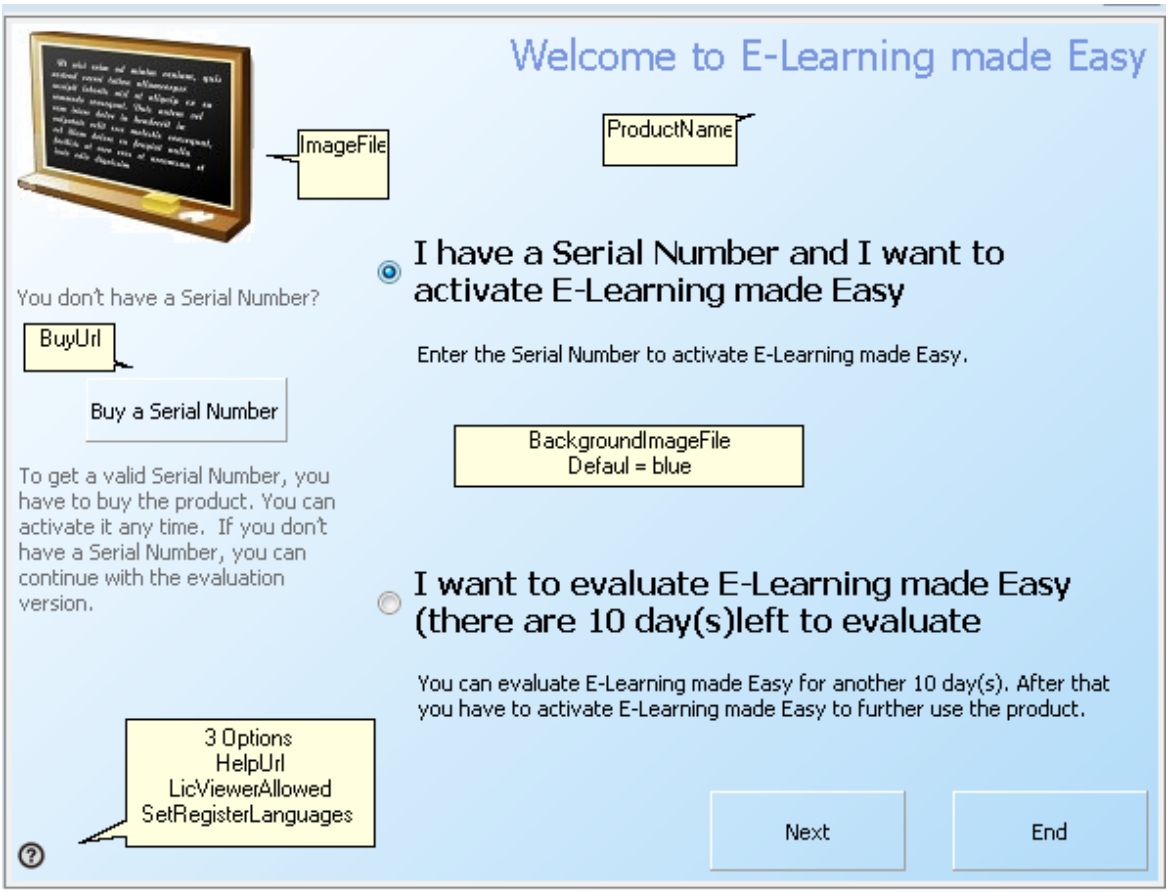
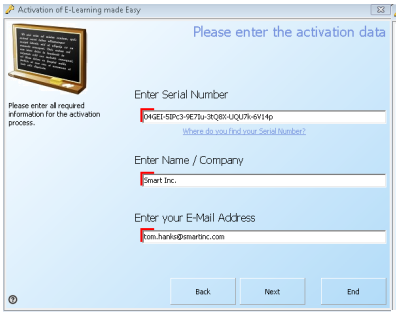
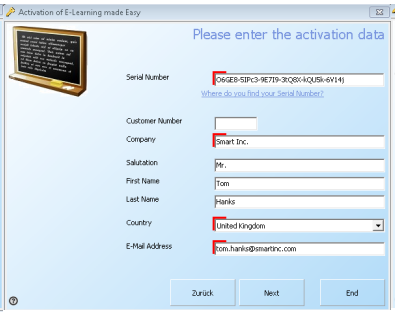


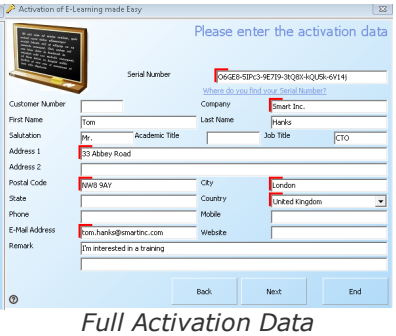
Welcome Screen



Standard Activation Data



Basic Activation Data



Full Activation Data

ActivationDataType

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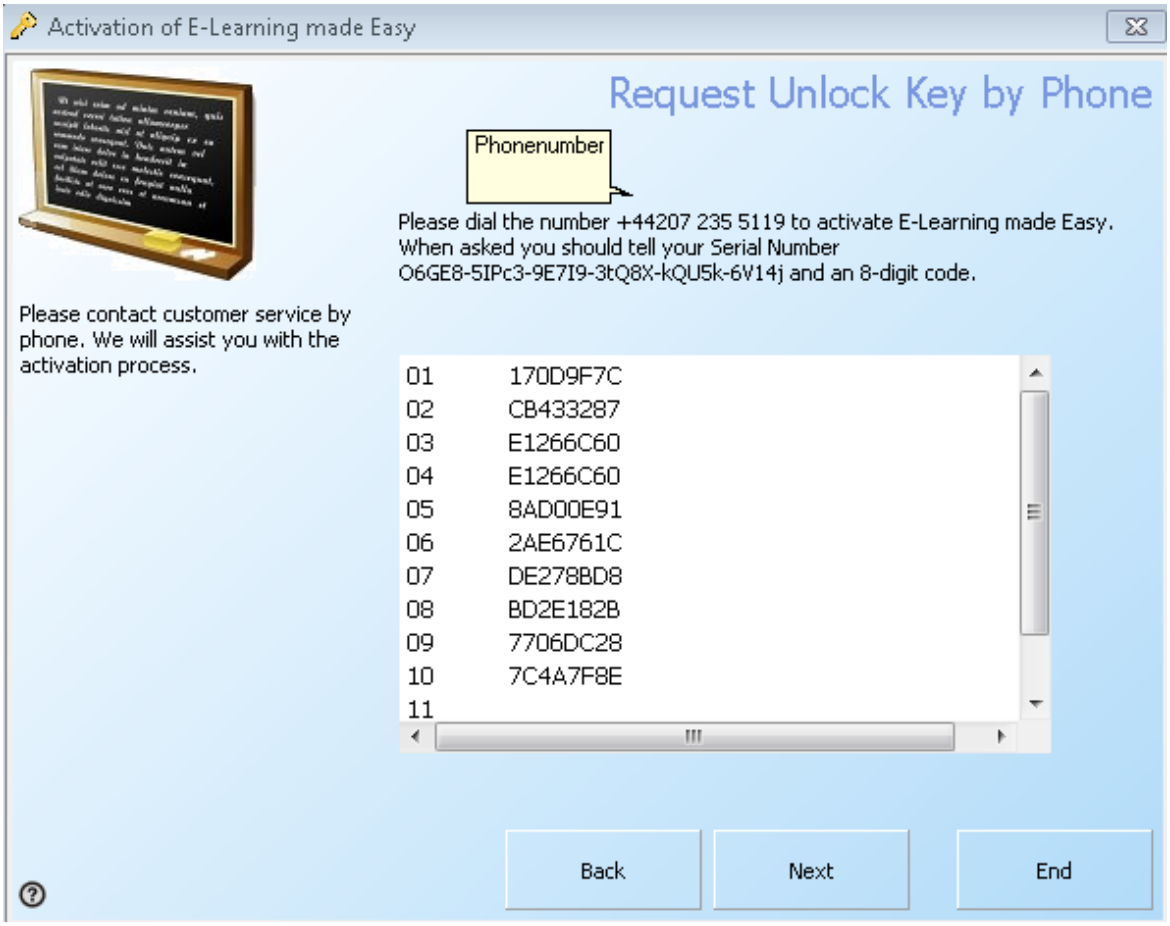

Activation by Phone

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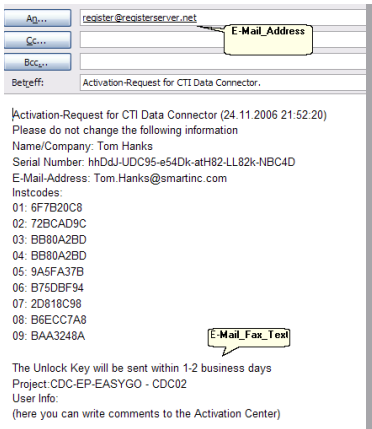
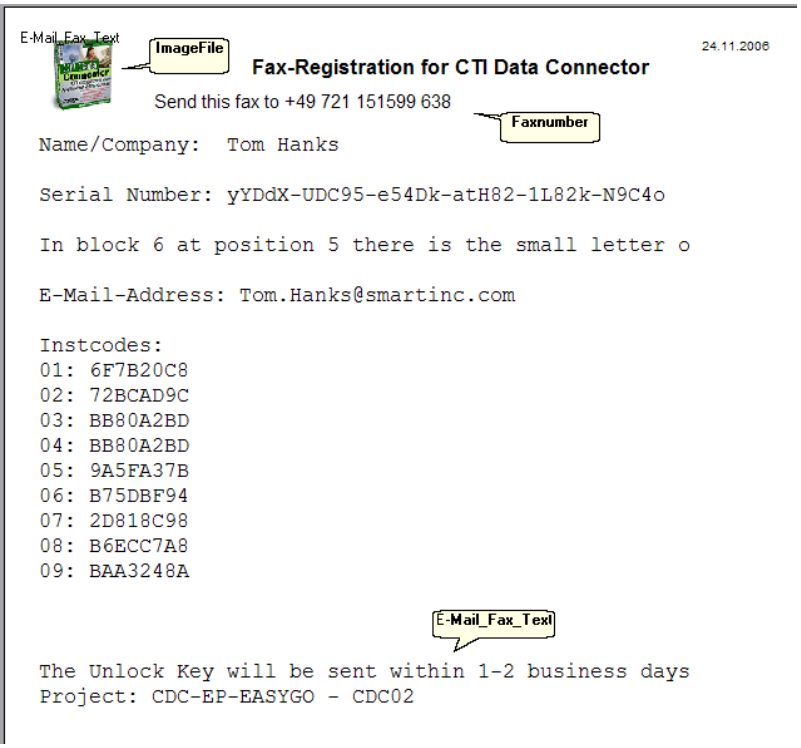


Modification Options E-Mail



Modification Options Fax

Name	**SetRegisterSettings**
Purpose	Set parameters for the EasyGo (PrepareAndCheck 162) functionality.

Params

Parameter	*Type*	*Example*	*Note*
ImageFile	String	"C:\program files\myapp\mylogo.jpg"	Absolute path to the logo image used in the EasyGo form. Notice: The Image has to be of format JPEG. Use a size of 175x115 to get the best result. The pixel in the left upper corner is used as transparency color . Sample registration images 122 Also see: Background Image 123
LicViewerAllowed	Boolean	True	Controls whether theLicense Viewer 281 is accessible in the EasyGo form. The icon

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			appears if the link is provided. The option is: *Show License Information* Notice: On the EasyGo error screen the License Viewer is always available independent of this parameter. You can enable or disable 291 buttons in the License Viewer.
SerialIsAK	Boolean	True	Controls whether the Serial Number 301 is a Licence Protector 5 Serial Number or an own ID 179
Manufacturer	String	My Company	Name of the manufacturer. Used in error screens
Productname	String	My Product	Name of the application which is displayed in the title bar. If value is empty the projectname 190 of the license file is used.
RegisterOnline 232	Boolean	True	Controls whether online registration is allowed. The WebServiceURL 210 in the license file is used for the activation.
RegisterBye-mail 237	Boolean	True	Controls whether registration by e-mail is allowed
e-mail_Address	String	activate@mycompany.com	e-mail-Address to which the e-mail registration has to be sent
sEMailSubject (Note: This parameter is available from version 2.6.4 onwards)	String	Activation Request for my product	Subject line in the e-mail. If empty, a default text is used.
RegisterByFax 243	Boolean	False	Controls whether registration by fax is allowed
Faxnumber	String	123456789	Fax-Number to which the registration form has to be sent

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RegisterByPhone 248	Boolean	False	Controls whether registration by phone is allowed
Phonenumber	String	987654321	Phone number which has to be called to receive the Unlock Key(s)
e-mail_Fax_Text	String		Additional text that appears on the registration e-mail or fax. May be empty.
DefaultMethod	Integer	0	Controls the primary registration method: 0 = Online (default) 1 = e-mail 2 = Fax 3 = Phone
BuyURL	String	http://myproduct.mycompany.com/buy.html	URL to buy the product. **If empty no BUY button is visible** EasyGo form. The BUY button is only visible until the Serial Number is typed in. Can also be a link to a file on the local hard disk, e.g. PDF order form
HelpURL	String	http://myproduct.mycompany.com/help.html	URL to provide additional help information for the registration process. The icon appears if the link is provided. See details for default help. 131
BackgroundImageFile	String	"C:\program files\myapp\background.png"	Absolute path to the image for the background. Must be png format. If this image is missing the background is light blue. See details 123
WorkflowType	Integer	1	defines a workflow 145 for a module. The default workflow is specified in the project template, TAG <EasyGoWorkflow> 211

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				and is used, if the field here is **empty (recommended)** Possible values 211
	ActivationDataType	Integer	0	Defines the activation data 229 to collect 0 = Standard 1 = Basic 2 = Full
	ContactAddress	String	support@mycompany.com	contact address which is displayed in error screens - example 264. If this string is empty the company name from the template (TAG <Manufacturers> 191) is used
	FullVersionIsTimeLimited	Boolean	false	True = Full Version is time limited - Details see workflow 145

Returncode

Returncode ***Type Integer***	***Note***
0	Command was successful
4	Do not continue - a major error occurred (e.g. insufficient network license) - terminate the application
Other value	Error occurred, see list of return codes 635

Usage

To customize the EasyGo form. This call is in most cases necessary and has to be done before calling PrepareAndCheck.

Sample

```
lic.SetRegisterSettings('c:\temp\myimage.jpg',          // ImageFile
                        true,                        // Allow License Viewer
                        true,                        // Serial is a Key
                           'My Company',                    // Manufacturer
                           'My Product',                     // Productname
                           true,                          // Register
Online
                           true,                          // Register By e-
mail
                           'activate@mycompany.com',               // e-
mail-Address
                        true,                         // Register By Fax
                           '012345/6789-1',                   // Faxnumber
                           false,                           // Register By
Phone
```

	``'', //
Phonenumber
'', // e-mail Fax Text
0, //
DefaultMethod
'http://www.mycompany.com/buymyproduct', //
Buy URL
Help URL '
http://www.helpserver.biz/onlinehelp/lp/easygo/5.0/activationhelp/index.html ',//

Background Image 'C:\program files\myapp\background.png'); //
Workflow Type 1, //
TimeLimitedFullVer. false, //
ContactAddress 'support@mycompany.com'
...``` |
| See also | SetCustomText 136, SetRegisterLanguages, 134 PrepareAndCheck 162, SetLanguage 108, SetRegisterSerialNo 776 |

Additional configuration options are available using

- SetNewsletter 132
- SetRegisterLanguages 134
- SetCustomText 136
- Workflow 145

You can provide the Serial Number for the Activation Screens using SetRegisterSerialNo 776 in case you use a generic Serial Number or you already have another screen, where the user typed in the Serial Number.

Important change if you upgrade from a version before 3.0
The parameter: *CopyProtectionSwitchOnKey* was replaced with a configuration setting in the project file to handle the status after the activation. 198

16.2.13 SetSignalState

Enable or disable usage metrics 427. Actual status can be retrieved with GetSignalState 709

Name	**SetSignalState**
Purpose	Retrieve the value of a property which was set with SetSignalState
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note***

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	Property	Integer	0	0 = turn metrics off 3 = turn metrics on
Returncode	***Returncode Type Integer***	***Note***		
	0	0 = successfull Error occurred, see list of return codes 635		
See also	GetSignalState 709			

16.2.13 SetSubGraceDays

Set the grace period - details see CheckModuleSubscription 654. You can also set the grace period in the project template using <SubGraceDays> 197

Name	**SetSubGraceDays**			
Params	***Parameter***	***Type***	***Example***	***Note***
	ModuleID	String	D1001	Unique ModuleID – identifies the module to b tested
	Days	Integer	5	set grace period in days
Returncode	***Returncode Type String***	***Note***		
	Integer	0 = command was successful Other values see list of return codes 635		
Usage	E.g. implement a good and bad value anti-cracker strategy			
Sample	`lic.SetSubGraceDays ('D1001',5);` `...`			
See also	CheckModuleSubscription 654, Getval - Token SGD 715, SGP 715, GetRemainingSubGraceDays 708			

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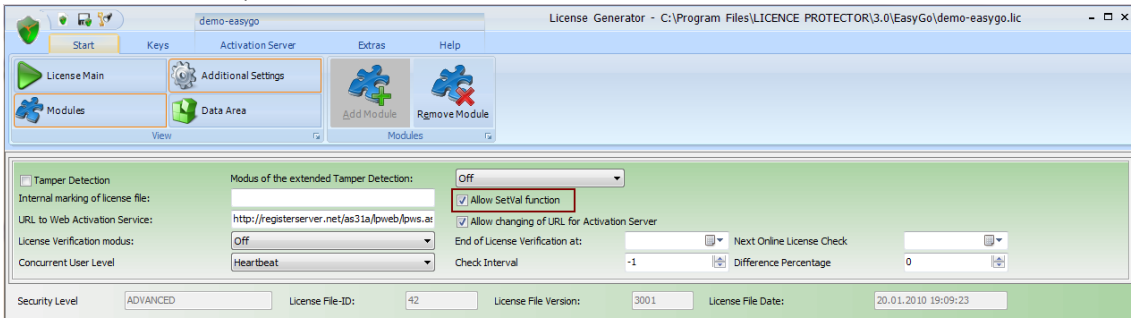
16.2.13 SetVal

This command allows to change a lot of properties of the license file and modules.

This command can be blocked for security reasons either in the license file template template 192 with the value AllowSetValSet <AllowSetVal>No</AllowSetVall>
or within the License Generator. To read the values use GetVal 710. See also Anti Hacker Strategies 207

Licence Generator,



Name	**SetVal**
Purpose	Sets values in modules or the license file

Params

Parameter	*Type*	*Example*	*Note*
ModuleID	String	D1001	Unique ModuleID – identifies the module to be tested. If empty the call is supposed to set a value from the license file
Token	String	TLI	The token. **See token list** 711
Value	String	200	The value as a string

Returncode

Returncode Type Integer	*Note*
0	The module or license was successfully changed
4101	One or more parameters are invalid, perhaps the token is unknown or the Value could not be converted to the required type
4099	This module type does not exists
4102 637	Your Licence Protector Edition does not allow to perform this operation
All other values – see	The operation was not successful

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	return codes
Usage	Alters a module or change values in the license.

Sample	`iRes := lic.SetVal('D1001', 'TLI', '200');`
	`<< the total licenses of module D1001 are set to 200 >>`
	`...`

See also	Altering modules, Token list, AddModule, DeleteModule, GetVal

See also

Token List SetVal 711
GetVal 710

16.2.138. Token List

To alter some modules you can use the function SetVal() 791. To retrieve the information, use GetVal() 710.

Its parameters are a **module ID** and a **token**. If you call SetVal() with an empty module ID, it is supposed to change a value inside the license. Take a look in the token list to see which tokens could be used:

Token	Changed value	Data type	Purpose	Similar function
Tokens for the whole license *(Parameter ModuleID of SetVal/GetVal has to be an empty string)*				
CST	Customer	String		GetCustomer 681
OEM	Manufacturer	String		GetManufacturer 706
FID	FileID	Integer		GetLicFileID 701
VSN	Version	Integer	Version of the license file format	GetLicFileVersion 702
CPT	CopyProtectType	Integer		GetCopyProtection 676
ICO	InstCode	String	With GetVal this token retrieves the hardware ID (8 digit code), which has been used for copy protection. Using SetVal you can activate copy protection .	Retrieve the hardware ID of the computer with GetInstcode 684

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			B3F5AA23 is the code for no InstCode	
LTG	Tag	String		
MID	Main module ID	String	Change the main module ID - default ID is set in the project template 203	
PRJ	Projectname	String		`Projectname`
WSU	WebServiceURL	String		`WebServiceURL`
SWS	ShowWAStartPage	Boolean	GetVal() returns 'true' or 'false' SetVal() accepts values 'true', 'false', '1', '0', 'on', 'off', 'yes', 'no'	`ShowWAStartPage` 806
SWP	ShowWAProgressPage	Boolean	GetVal() returns 'true' or 'false' SetVal() accepts values 'true', 'false', '1', '0', 'on', 'off', 'yes', 'no'	`ShowWAProgressPage` 804
SWR	ShowWAResultPage	Boolean	GetVal() returns 'true' or 'false' SetVal() accepts values 'true', 'false', '1', '0', 'on', 'off', 'yes', 'no'	`ShowWAResultPage` 805
LVI	LicenceVerification	Integer	values see LicenceVerification 950 - details see Regular online check 541	
NVI	NextVerification	Date	set next online verification date - details see Regular online check 541	
EVI	EndVerification	Date	set end verification date - details see Regular online check 541	
VER	Application Version	String	Application Version number - can also be added in the License Generator, screen License Main. 377	`AppVersion` 647
VID	VerificationID	String	see command SetVerificationID 957	
VPR	VerificationProduct	String	see command SetVerificationProduct 796	
RES	Reseller	String	Name of the reseller - can also be added in the License Generator, screen License Main. 377	
SEL	SecurityLevel	Integer		
TDM	TamperDetectionMode	Integer		
TDG	TamperDetection GraceTimes	Integer		
CLC	TamperDetection	Boolean		
ALW	AllowSetVal	Boolean		

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URL	AllowChangeWASURL	Boolean		
Commands for license file upload 525 (UploadLic 814)				
LUI	ID for upload	String	ID used for upload	
LUJ	Project Name	String	Project name used for upload	
LUL	Name	String	Name to identify the license file	
LUM	Module ID	String	Module ID used for upload	
LUP	Date / TIME	Date	Date / Time of the last upload	
Tokens for a module				
ALW	Allow	Boolean	GetVal() returns 'true' or 'false' SetVal() accepts values 'true', 'false', '1', '0', 'on', 'off', 'yes', 'no'	
CHI	CheckInterval	Integer		CheckInterval 649 value
CSK	CopyProtectionSwitchOnKey	String	value available for backward compatibility and is no longer in use	
CSO	CopyProtectionSwitchOffKey	String	value available for backward compatibility and is no longer in use	
DMO	Demo	Boolean	GetVal() returns 'true' or 'false' SetVal() accepts values 'true', 'false', '1', '0', 'on', 'off', 'yes', 'no'	Demo flag 173
DPC	DiffPct	Integer		DiffPct, 664 SetDiffPct 761
EMV	EndModuleVerification	Date	set end verification date - details see Regular online check 541	see also token NMV, MVI, MVD
EXO	ExpiredOn	Date	Accepted values are in ISO-format YYYY-MM-DD 1899-12-30 is the value for an empty date	ExpiredOn 672 value
LAM	Last Activation Date	Date	Date, when the product was activated 1899-12-30 is the value for an empty date	
LAT	Last ActivationMethod	Integer	Retrieves the method, how a module activation was done -1 = none 0 = Online 1 = e-mail 2 = Fax 3 = Phone	

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MOI	ModuleID	String	Get or Set a module ID	
TLI	Totallicenses/Value	String	Set the value of a module - e.g. Yes/No or number of licenses for a network or counter module	Totallicenses 813
LTY	licenseType	String	Values are 'U' → license per named user 'S' → license per computer 'C' → Counter 'Y' → yes/no 'I' → license per item 'R' → Concurrent user	
NMV	NextModuleVerification	Date	set next online verification date - details see Regular online check 541	see also token MVI, EMV, MVD
NOD	NoOfDays	Integer		NoOfDays 727
MEO	MaxExpiredOn	Date		
MON	ModuleName	String		ModuleName 725
KYS	Keys	String	All standard keys for that module, separated by semicolon, including hidden keys 646	
MYS	Keys	String	All standard keys for that module, separated by semicolon. Hidden keys 646 are displayed as *****	
MVD	ModuleVerificationID	String	used in case the ID is left empty in the CheckModuleSubscription 654 or CheckModule 652 command	see also token NMV, EMV, MVI
MVI	ModuleVerification	Integer	Values are 0 = off 1 = ongoing / enabled 2 = frozen 3 = deactivated details see Regular online check 541	see also token NMV, EMV, MVD
REM	RegisteredEMail	String	e-mail address of the registration. If multiple modules are registered, the e-mail address is saved per module	
RNM	RegisteredCustomerName	String	if multiple modules are registered, the name is saved per module. The main customer name in the license file can be retrieved with token CST	
SAC	ActivationState after copy protection is turned on	Integer	Details see activation status after product activation 198	

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SGD	Grace Days	Integer	Number of days for the grace period in case the online validation with CheckModuleSubscription 654 fails. Return value is integer (e.g. 2 days). Definition of grace days done with SetSubGraceDays 790	0 = no grace days
SGP	Grace Period - Expiry Date	Date	Expiry Date of the grace period	
SNR	SerialNumber	String	Retrieves the Serial Number	GetSerial 709
TAG	Tag	String		GetTagValue 716
WFL	EasyGoWorkflow	Integer	Workflow defined in the project template 211 or with SetRegisterSettings 116.	
WST	WebActivation	Integer	0 = none 1 = required 2 = done 3 = erroneous	GetWebActivation 717

If you want to activate copy protection using a DLL command, the workflow would be

- Use PrepareForce 738 to open the license file
- SetVal, Token CPT to set the copy protection type 477 (e.g. 2 = MAC Address)
- Use GetInstcode 684 to retrieve the installation code
- SetVal, Token ICO using as parameter the 8-digit installation code retrieved with GetInstcode
- Quit

16.2.13 SetVerificationProduct

Command no longer in use

Replaced with SetVerificationIDOfModule 798

Name	**SetVerificationProduct**
Purpose	Sets the Product for the CheckLicence call. That is needed for the “Adopt”-Button on the License Viewer
Params	

Parameter	*Type*	*Example*	*Note*
ID	String	D1001	This value is used for the next “Adopt” action

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Returncode	**Returncode Type Integer** / **Note** 0 / The Verification Product was successfully set All other values – see return codes / The operation was not successful
Usage	Sets the value that is necessary for the next implicit CheckLicence call triggered by the license Viewers “Adopt” button Notice: You should explicitly set the value in the CheckLicence call, even if you have set it with SetVerificationProduct Notice: A CheckLicence-call will do an implicit SetVerificationProduct

Sample	`iRes := lic.SetVerificationProduct('D1001');`
	`if iRes = 0 then`
	`begin`
	`<< Verification Product successfully set. license Viewers Adopt now has the necessary parameter. >>`
	`...`
	`end`

See also	SetVerificationID, CheckLicence, Deactivatelicense, licenseVerification, NextVerification

16.2.14 SetVerificationOfModule

Set the status of the regular online check. It could also be set to a default value in the project template using <ModuleVerification 197>.
You can retrieve the status using GetVerificationOfModule 716

For a complete description see chapter regular online checks 541.

Name	**SetVerificationOfModule**
Purpose	Property to set the state of the license regarding online verifications used in combination with CheckModuleSubscription 654 or CheckModule 652
Params	**Parameter** / **Type** / **Example** / **Note** ModuleID / String / QHD001 / Unique ModuleID Status / Integer / 1 / 0 = Regular online verification is off 1 = Regular online verification is enabled 2 = Frozen (license is locked) 3 = Regular online verification is terminated
Returncode	**Returncode** / **Note**

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	Type Integer 0 – The verification ot the product was successfully set All other values – see return codes – The operation was not successful

Sample	`iRes := lic.SetVerificationOfModule('QHD001',1);`
	
	`if iRes = 0 then`
	`begin`
	`<< Online verification enabled >>`
	`...`
	`end`

See also	CheckModuleSubscription 654, CheckModule, 652 DeactivateModule, 664 GetVerificationOfModule 716, NextVerificationOfModule 726, VerificationOfModule 854, SetVerificationIDOfModule 798

16.2.14 SetVerificationIDOfModule

Name	**SetVerificationIDOfModule**
Purpose	Sets the Serial Number / ID for the Transfer License Button 289 in the License Viewer
Params	**Parameter** / **Type** / **Example** / **Note** ModuleID / String / QHD001 / Should be the main module ID - retrieve it with MainModuleID 725 ID / String / yuGEI-5EPc3-9E7Il-3tI8X-7QU5k-6h14R / Identifier which was used to activate the product. Retrieve the Serial Number / ID with GetSerial 709
Returncode	**Returncode Type Integer** / **Note** 0 – The verification ot the product was successfully set All other values – see return codes – The operation was not successful
Usage	Sets the value that is necessary for the next implicit CheckLicence call triggered by the license Viewers “Adopt” button

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	Notice: You should explicitly set the value in the CheckLicence call, even if you have set it with SetVerificationProduct Notice: A CheckLicence-call will do an implicit SetVerificationProduct

Sample	`iRes := lic.SetVerificationIDOfModule('QHD001','yuGEI-5EPc3-9E7Il-3tI8X-7QU5k-6h14R');`
	`if iRes = 0 then`
	`begin`
	`<< License Viewer now has the necessary parameter. >>`
	`...`
	`end`

See also	VerificationOfModule 854

16.2.14 SetWebRequestTimeoutInSec

Defines the number of seconds until a request to the Activation Server 6 times out. The value has to be increased when license files with many modules are uploaded or downloaded or if the server is generally under high traffic.

If the server times out an error code 3001 is sent.

Name	**SetWebRequestTimeoutInSec**
Params	

Parameter	*Type*	*Example*	*Note*
Seconds	Integer	30	0 = default (30 seconds)

Returncode

Returncode Type Integer	*Note*
0	Command was successful
Other return codes	Error occurred, see list of return codes 635

See also	GetWebRequestTimeoutInSec 718

- Never use a value below 30 seconds
- Maximum should be 60 seconds

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16.2.14.5 ShowLicViewer

Invokes the inbuilt License Viewer 281. You can customize the buttons which are visible, with SetLicViewerButton 768. To invoke the licenseViewer in EasyGo see SetRegisterSettings (LicViewerAllowed 118) 116

Name	**ShowLicViewer**
Purpose	Shows the License Viewer.
Params	None
Returncode	None
Usage	To check the licenses, users and items and to add activation keyActivation Keys
Sample	`lic.ShowLicViewer;`
See also	Activation keyActivation Keys, License Viewer, SetLicViewerButton, SetLanguage, ShowLicViewerModule 800

To use the License Viewer, the license file needs to be **opened** first with one of the Prepare commands. See - open a license file 920.

16.2.14.6 ShowLicViewerModule

Display a Basic License Viewer 292 with license information.

Name	**ShowLicViewerModule**			
Params	***Parameter***	***Type***	***Example***	***Note***
	ModuleID	NSString	QHD001	Unique ModuleID – identifies the module / feature
Returncode	None			
See also	ShowLicViewer 800			

If the ModuleID is empty or the ModuleID does not exist, then the main MainModuleID 203 is used.

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16.2.14 ShowMessagePage

This command allows to display a message in a screen which uses the same design as EasyGo.

Tips

- Use GetLanguage 700 to retrieve the language the user selected
- Use SetRegisterSettings 116 to define the logo image
- Use ShowStartErrorPage 802 to display a standard **error** screen
- Use SetCustomerText 136 to change the wording on default screens

<table>
<tr><td>Name</td><td>ShowMessagePage</td></tr>
<tr><td>Purpose</td><td>Shows a message in an EasyGo-like screen</td></tr>
<tr><td>Params</td><td>
<table>
<tr><th>Parameter</th><th>Type</th><th>Example</th><th>Note</th></tr>
<tr><td>Title</td><td>String</td><td>‘Attention’</td><td>The title of the message.</td></tr>
<tr><td>Header</td><td>String</td><td>‘Something happened…’</td><td>The header of the message.</td></tr>
<tr><td>Text</td><td>String</td><td>‘This is a sample text’</td><td>The text of the message.</td></tr>
<tr><td>ShowLicViewer</td><td>Boolean</td><td>True</td><td>A link to open Licence Protector’s licenseViewer 281 can be displayed if true.</td></tr>
</table>
</td></tr>
<tr><td>Returncode</td><td>
<table>
<tr><th>Returncode Type Integer</th><th>Note</th></tr>
<tr><td>0</td><td>Ok</td></tr>
<tr><td>8194</td><td>Function is not implemented</td></tr>
</table>
</td></tr>
<tr><td>Usage</td><td>ShowMessagePage should be used to display messages in an EasyGo environment. SetRegisterSettings 116 should be used to set properties like the image on the side.</td></tr>
<tr><td>Sample</td><td><pre>   << you want to inform the user about something >>
   ShowMessagePage(‘Attention’, ‘Something happened…’, ‘This happened:…’, false);</pre></td></tr>
</table>

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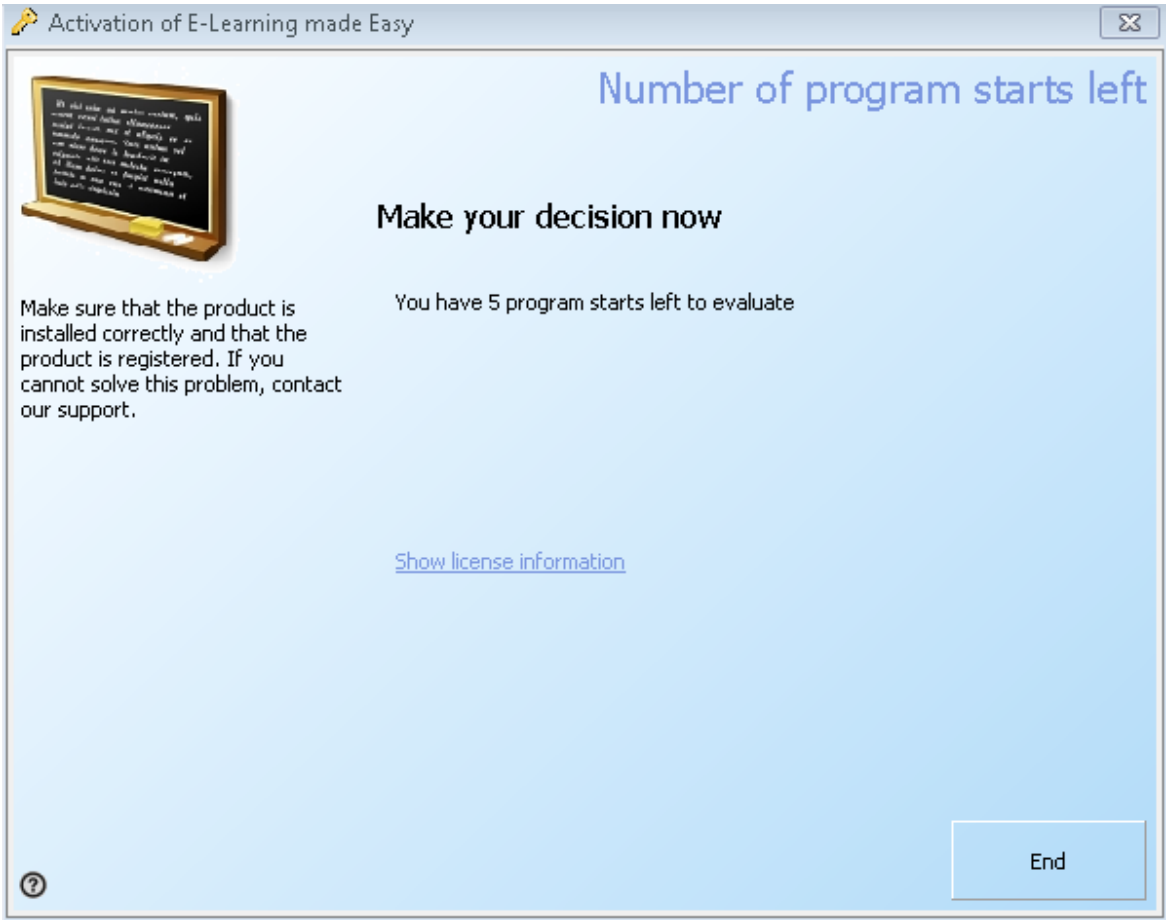
	. . .
See also	ShowStartErrorPage 802



Customized screen

16.2.14 ShowStartErrorPage

This command allows displaying an error message in a screen which uses the same design as EasyGo. The error number must be a valid error code - see list of error codes 635.

Use SetCustomerText 136 to change the wording on default screens

Example

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Error Code 32 (no free license) would pop-up this error screen 272.

Name	**ShowStartErrorPage**
Purpose	Shows a Licence Protector error message in an EsayGo-like page.

Params

Parameter	*Type*	*Example*	*Note*
ErrorNo	Integer	16	Errornumber

Returncode

Returncode Type Integer	*Note*
0	Ok
8194	Function is not implemented

Usage: ShowStartErrorPage should be used to display error messages in an EasyGo environment. SetRegisterSettings 116 should be used to set properties like the image on the side.

Sample

```
iRes := lic.Validate('D1001', '', true);
if iRes > 1 then
begin
   ShowStartErrorPage(iRes);
end
else
begin
   << successfully validated >>
   ...
...
```

See also: Error numbers, SetRegisterSettings, PrepareAndCheck (EasyGo)

Note

The user can terminate the screen only with the END button. The error code is always 0 (and not 4) to indicate, that the message was displayed properly.

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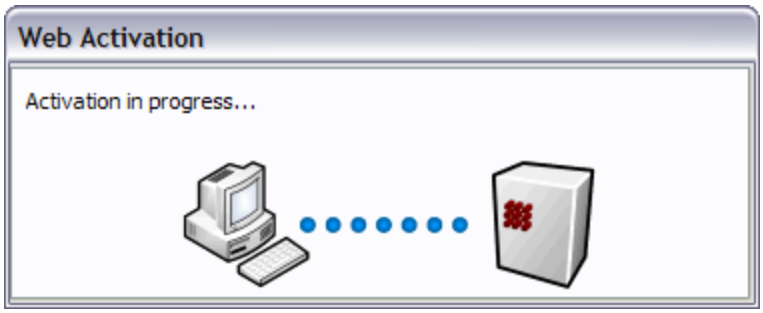
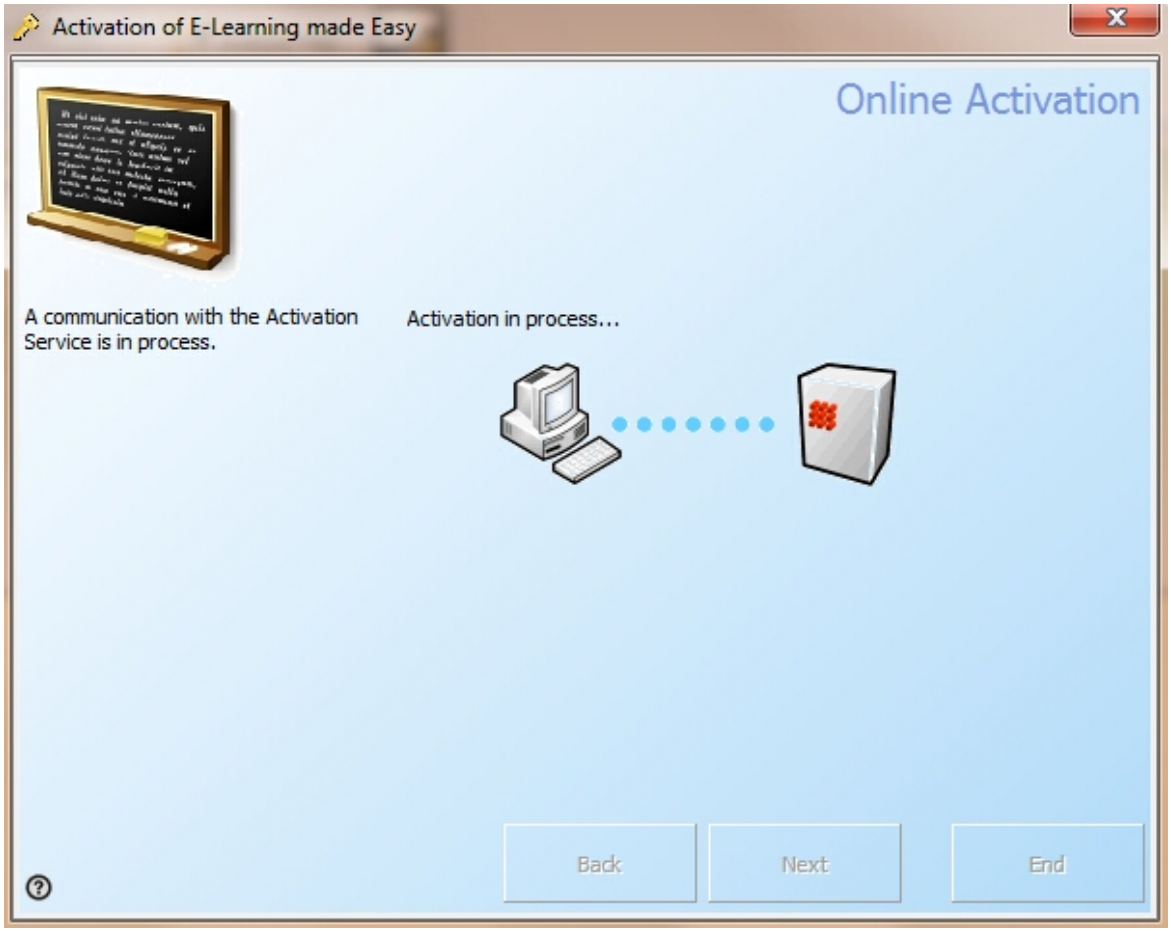
16.2.14 ShowWAProgressPage

Turn On / Off the following screen during the activation process.



or with EasyGo, the screen would look like this



Activation in progress

Name	**ShowWAProgressPage**
Purpose	Property to get or set the information if the Progress page on the Web Activation communication mask will be displayed

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Params	None
Returncode	**Returncode Type Boolean** / **Note** True: The Progress page will be shown False: The Progress page will not be shown. The information and possibility to change proxy settings is done by the application
Usage	Possibility to change the deployment settings.

Sample	`bShowPage := lic.ShowWAProgressPage;`
	`if not bShowPage then`
	`begin`
	`  << The page will not be displayed. >>`
	`  ...`
	`end`
	`else`
	`  << The page will be displayed. >>`
	`  ...`

See also	ShowWAStartPage 806, ShowWAResultPage 805

The setting is **stored** in the license file and will be used again for all following activation commands

A default value can be defined in the project template <ShowWASProgressPage> 193

See also

ShowWAResultPage 805
ShowWAStartPage 806

16.2.14 ShowWAResultPage

Turn On / Off the following screen during the Web Activation process.

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Name	**ShowWAResultPage**
Purpose	Property to get or set the information if the Result page on the Web Activation communication mask will be displayed
Params	None
Returncode	***Returncode Type Boolean*** / ***Note*** True / The Result page will be shown False / The Result page will not be shown. The information and possibility to change proxy settings is done by the application
Usage	Possibility to change the deployment settings.

Sample	`bShowPage := lic.ShowWAResultPage;`
	`if not bShowPage then`
	`begin`
	`  << The page will not be displayed. >>`
	`  ...`
	`end`
	`else`
	`  << The page will be displayed. >>`
	`  ...`

See also	ShowWAProgressPage 804, ShowWAStartPage 806

The setting is **stored** in the license file and will be used again for all following activation commands

A default value can be defined in the project template <ShowWAResultPage> 193

See also

ShowWAProgressPage 804
ShowWAStartPage 806

16.2.14 ShowWAStartPage

Turn On / Off the following screen during the Web Activation process. Depending on the type of the online process the text could vary (a module, a key, a license has to be activated online).

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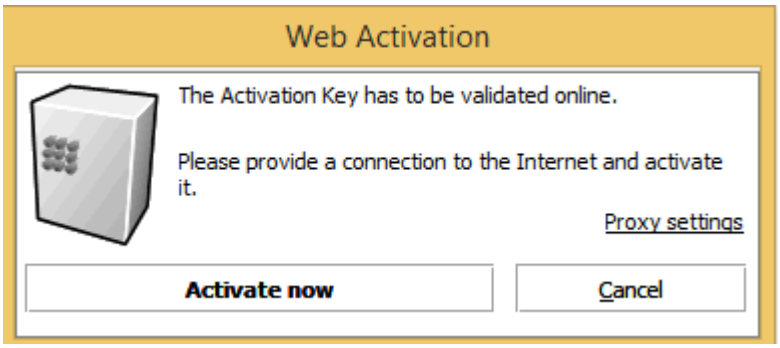
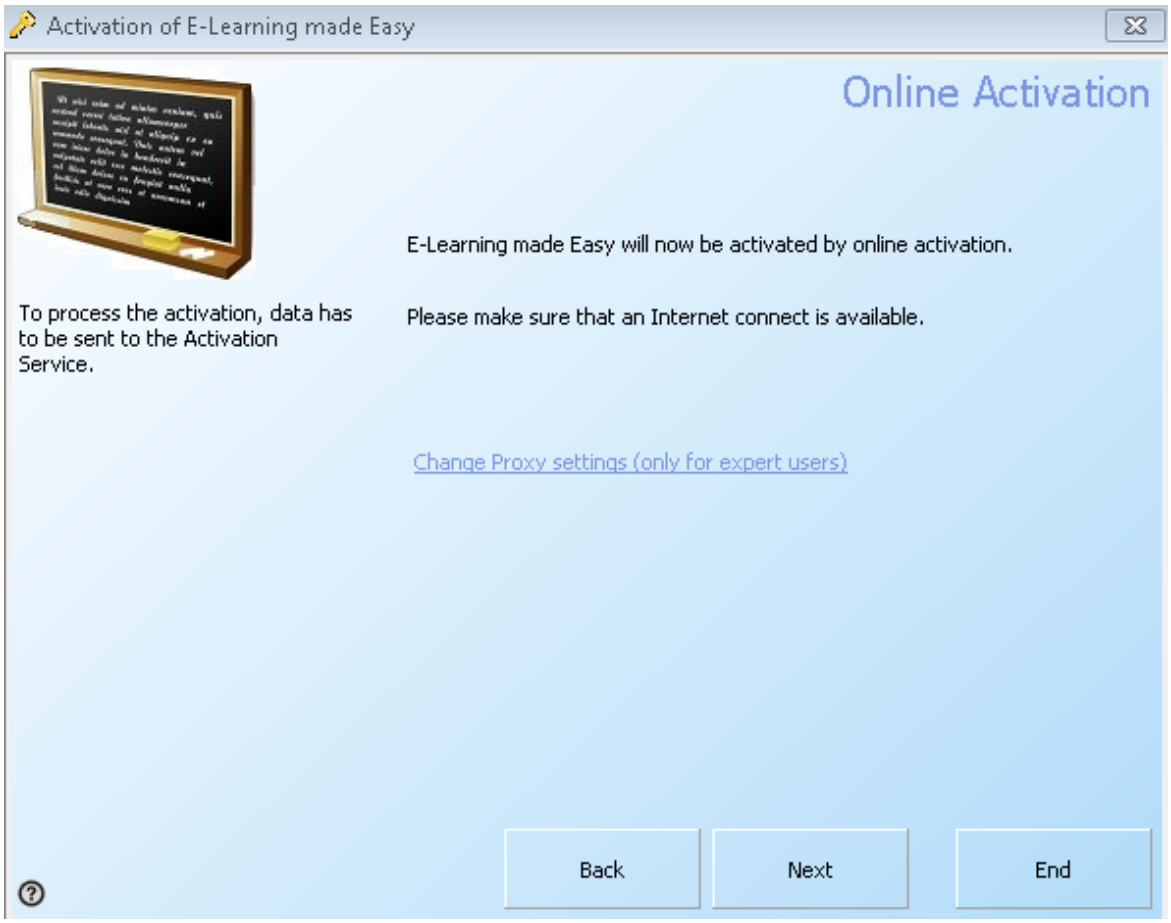


or with EasyGo, the screen would look like this



Online Activation - Change Proxy Server

Name	**ShowWASStartPage**
Purpose	Property to get or set the information if the Start page on the Web Activation communication mask will be displayed
Params	None

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Returncode	**Returncode Type Boolean** / **Note** True: The Start page will be shown False: The Start page will not be shown. The information and possibility to change proxy settings is done by the application
Usage	Possibility to change the deployment settings.

Sample	`bShowPage := lic.ShowWAStartPage;`
	`if not bShowPage then`
	`begin`
	`  << The page will not be displayed. >>`
	`  ...`
	`end`
	`else`
	`  << The page will be displayed. >>`
	`  ...`

See also	ShowWAProgressPage 804, ShowWAResultPage 805

The setting is **stored** in the license file and will be used again for all following activation commands

A default value can be defined in the project template <ShowWASStartPage> 193

See also

ShowWAProgressPage 804
ShowWAResultPage 805

16.2.15 StopConcurrentUsage

Name	**StopConcurrentUsage**
Purpose	Stops the concurrent usage of a module for a user
Params	**Parameter** / **Type** / **Example** / **Note** ModuleID / String / D1006 / Unique ModuleID – identifies the module to be tested Name / String / Tom / The user or item name to check for

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	UseWindowsUser | Boolean | False | Determines if the windows login name should be used as name
Returncode	***Returncode Type Integer*** | ***Note*** 0 | Ok, User no longer use this module 256 | Module with the specified user is not recognized as running concurrent user
Usage	An alternative for quit which stops all local concurrent users. StopConcurrentUsage only stops the specified user for the specified module and frees that one slot for other users.

Sample	`iRes := lic.StopConcurrentUsage('D1006', '', true);`
	`if iRes = 0 then`
	`begin`
	`  << successfully removed >>`
	`  ...`
	`end`
	`else if iRes = 256 then`
	`begin`
	`  << user on that module probably wasn't active >>`
	`  ...`
	`end`
	`else`
	`begin`
	`  << another error occurred >>`
	`  ...`

See also	Concurrent User Modules, Validate, Quit, GetCUIsRunning, GetCUNextValidate, GetCULastValidate, GetCURunCounter

If you want to remove the user from **all modules**, use QUIT 179 at the end of your application.

16.2.15 SysdateChanged

This command allows to check for system date modification - see details 113

Name	**SysdateChanged**
Purpose	Property to check whether the system date is tampered
Params	None
Returncode	***Returncode Type Boolean*** | ***Note*** True | The system date was manipulated

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	False: The system date was **not** manipulated
Usage	You want to check explicitly if a manipulation takes place.

Sample	`bTampered := lic.SysdateChanged;`
	`if bTampered then`
	`begin`
	`  << Manipulation!!! React now ... >>`
	`  ...`
	`end`
	`else`
	`  << it seems ok >>`
	`  ...`

See also	CheckSysdateChanged, Prepare

16.2.15 TakeOverLicFile

This command converts an old license file of a version 2.x and 3.x into version 4. The complete file structure of the old file (including keys, system data etc.) is transferred to the new file. Even old Serial Numbers can be used after the conversion is done.

It requires to **additionally install and register** the file LicProtector314.dll. 76 You need a license file version 4 to move a version 2.x or 3.x into the new file format.

Before you can use the API command, you have to **open the new** license with one of the Prepare commands 920.

Suggested workflow

- Open the new license file (version 4) with PrepareForce 738
- Open the old license file (version 2.x or 3.x) with PrepareForce 738
- Use TakeOverLicFile
- Close all license files using Quit 179

Name	**TakeOverLicFile**
Purpose	Converts license file version 2.x and 3.x into version 4.x

Params

Parameter	*Type*	*Example*	*Note*
File_to_take_over	String	F:\mylicv3.lic	**Old** license file name The full path to the **old** license file. See details for UNC pathnames

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	ReadKey_or_PSK	String	r1lkYAp1xGQN81fBrcZ1dfXtw1doy3Z1l4KH1...	ReadKey of the **old** license file. For license files created without an ReadKey (security level = 0) the PSK has to be used
	SecurityLevel	Integer	1	Security Level 110 • 1 = Advanced = default for projects using a ReadKey • 0 = Basic = old projects using a PSK
	File_to_take_over_has_at_least_version4	Boolean	False	Old license file is version 4 or higher Use **false** to convert license files from version 2.x and 3.x.
	Keep_PSK_of_file_to_take_over	Boolean	False	Defines if the PSK (key encryption) of new file should be used or if the PSK of the old file should be kept • Use **false** to keep the PSK if you want to use old Serial Numbers / Activation Keys with the new file • Use true to use the PSK generated with the new file template

Returncode

Returncode Type Integer	***Note***
0	License conversion was successful
Other return codes	Operation failed, see list of return codes 635

Usage

Used to validate the license.

Sample

```
   iRes := lic.TakeOverLicFile('F:\mylicv3.lic', 'r1lkYAp1xG
QN81fBrcZ...',1,false, false);
   if iRes = 0 then
   begin
      << license conversion successful >>
      ...
   end

      << other errors >>>
      ...
```

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See also	

Additional information

- PSK (Project Secure Key) is the encryption of the keys like Serial Number
- Read / Write Key is the encryption of the license file. Only in projects of version 1 and 2 the PSK was also used to encrypt license file

16.2.15 TamperDetection

Name	**TamperDetection**
Purpose	Property to get or set the license file manipulation detection Replaces property CheckLicChanged
Params	None
Returncode	***Returncode Type Boolean*** / ***Note*** True / Detection of manipulation is enabled False / Detection of manipulation is disabled
Usage	Switch on detection of manipulation of the license file.

Sample	`Get:`
	`  bIsCheckOn := lic.TamperDetection;`
	`  << use Boolean bIsCheckOn >>`
	
	`Set:`
	`  lic.TamperDetection := true;`

See also	Tamper Detection, licenseTampered, Validate

16.2.15 TransferLicence

Transfers a licence from PC A to PC B using EasyGo screens. This function requires the Activation Server 6.

- All screens, which handle the license transfer including error situations can be found here 260
- Implement license transfer - chapter Transfer a license from PC A to PC B 177
- Requires SetRegisterLicTransfer 114 to define additional settings if a complete license file should be moved

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Name	**TransferLicence**
Purpose	Transfers a license. Requires Activation Server 6

Params

Parameter	*Type*	*Example*	*Note*
Projectname	String	Demo Project	projectname, if empty the internal projectname of the license file is used – identifies the project on the Activation Server
Module ID	String	QHD001	ModuleID – identifies the module
ID	String	yuGEI-5EPc3-9E7Il-3tI8X-7QU5k-6h14R	Identifier which is used to check and register this activation. Should be a **unique ID** like Serial Number, Invoice Number. Retrieve the Serial Number with GetSerial 709

Returncode

Returncode Type Integer	*Note*
0	License transfer was successful
3001-3999	Errors on the Activation Server 6, see Activation Server 6 error codes
Other return codes	Operation failed, see list of return codes 635

Usage: Used to validate the license.

Sample

```
   iRes := lic.TransferLicence('', 'QHD001', 'yuGEI-5EPc3-9E7Il-3tI8X-7QU5k-
6h14R',true, true);
   if iRes = 0 then
   begin
      << license transfer successful >>
      ...
   end

      << other errors >>>
      ...
```

See also: SetRegisterLicTransfer 114

16.2.15 TotalLicences

Name	**TotalLicences**

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Purpose	Gets the total licenses of the module.
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** ModuleID / String / D1005 / Unique ModuleID – identifies the module to be tested
Returncode	***Returncode Type Integer*** / ***Note*** -1 / An error occurred, check LastReturncode 0 to 2147483648 / Total licenses of the module A yes-no-module returns 1 for yes, 0 for no
Usage	To check the numbers (in a counter and a yes-no-module) or to show the total amount of available licenses.

Sample	`iLics := lic.TotalLicences ('D1005');`
	`if iLics >= 0 then`
	`begin`
	`  << use the extracted value >>`
	`  ...`
	`end`
	`else`
	`begin`
	`  iRes = lic.LastReturncode;`
	`  << an error iRes occurred >>`
	`  ...`

See also	Remaininglicences, Module types

16.2.15 UploadLic

This command allows you to upload a complete license file (including all hidden information) to the Activation Server 6. It can be downloaded with the command DownloadLic 665.

This command requires a license file which was opened using one of the Prepare commands 920. A good idea is to upload a license file directly after an activation was done (see GetActionsOfLastPrepareAndCheck 673).

Name	**UploadLic**
Purpose	Uploads the license file up to the Activation Server 6. To identify the license, a unique ID is necessary .
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note***

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	Projectname	String	demo-easygo	Projekt Name. If empty the internal project name of the license file is used
	ModuleID	String	QHD001	module ID - If ModuleID is empty a CheckLicence call is used to locate the Activation
	ID	String	IV0078	unique ID to store the license file. Could be a customer ID or a Serial number. **A value is mandatory**
	Name	String	default	name to identify the license file. One ID can store multiple files using different names like default-backup-January2010 default-backup-February2010 If the name field is empty then the name: **default** is used
	Encryption Code	String	this is like a password string	ensures, that a file can only be downloaded when a password is provided in the DLL command DownloadLic. Should be maximum **40 characters**.
	bAllowCreate Activation	Boolean	true	True = Creates the license even if the unique ID does not exist on the Activation Server 6 False = Unique ID must exist on the Activation Server 6

Returncode	***Returncode Type Integer***	***Note***
	0	license file successfully uploaded
	3001	The Activation Server 6 was not reachable.
	3002-3999	Errors on the Activation Server 6, see Activation Server 6 error codes
	4101	Field ID is empty
	Other return codes	Operation failed, see list of return codes 635

Usage	Used to upload a complete license to the Activation Server 6. It can be edited on the Activation Server 6 and changes could be downloaded using the call DownloadLic.

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Sample	`iRes := lic.UploadLic('', 'QHD001', 'LV0078', 'Default', 'mypassword76RS','false');`
	
	`if iRes = 0 then`
	`begin`
	`<< Licence successfully uploaded for editing on the Activation Server 6 >>`
	`...`
	`end`
	
	`else if iRes = 3001 then`
	`begin`
	`<< Activation Server 6 could not be reached, please check connection >>`
	`...`
	`end`
	`else`
	`begin`
	`<< other errors >>>`
	`...`

See also	DownloadLic 665, WebRegisterEXT 821

The following values in the project.config file on the Activation Server 6 are important for the license file upload:

- LvsDefaultName
- LvsOverwriteServerChanges
- MultipleLVS

The date of the last successful file upload is displayed in the License Viewer 283

16.2.15 UseLocalIEProxy

Name	**UseLocalIEProxy**
Purpose	Property to get or set the information if the proxy configured in Internet Explorer is used for the Web Activation communication.
Params	None
Returncode	***Returncode Type Boolean*** / ***Note*** True / Yes the Internet Explorer proxy settings will be used False / No, LocalProxyServer and LocalProxyPort will be used
Usage	Change the connection setting individually for every user.

Sample	`lic.UseLocalProxy := true; // use a proxy`
	`lic.UseLocalIEProxy := false; // but not the proxy from Internet Explorer`
	`lic.LocalProxyServer := '192.168.1.1'; // set the proxy`

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	`lic.LocalProxyPort := 80; // set the port of this proxy server`
See also	Web Activation, WebServiceURL, WebRegister, ApplyActivationKey, ApplyActivationKeyForProject, ShowWAStartPage, ShowWAProgress Page ShowWAResultPage, UseLocalProxy, LocalProxyServer, LocalProxyPort, Projectname

16.2.15 UseLocalProxy

Name	**UseLocalProxy**
Purpose	Property to get or set the information if a proxy for the Web Activation communication is used
Params	None
Returncode	***Returncode Type Boolean*** / ***Note***
	True / Yes a proxy is used
	False / No no proxy is used
Usage	Change the connection setting individually for every user.

Sample	`lic.UseLocalProxy := true; // use a proxy`
	`lic.UseLocalIEProxy := false; // but not the proxy from Internet Explorer`
	`lic.LocalProxyServer := '192.168.1.1'; // set the proxy`
	`lic.LocalProxyPort := 80; // set the port of this proxy server`

See also	Web Activation, WebServiceURL, WebRegister, ApplyActivationKey, ApplyActivationKeyForProject, ShowWAStartPage, ShowWAProgress Page ShowWAResultPage, UseLocalIEProxy, LocalProxyServer, LocalProxyPort, Projectname

16.2.15 UseMapi

Property to enable MAPI for e-mail activation instead of mailto: . For full details see: Activation Options - additional information 143

If MAPI is not available on the end user system then mailto: is used. This is the default value.

Name	**UseMapi**
Purpose	Property to get or set the information to use MAPI
Params	None
Returncode	***Returncode*** / ***Note***

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	Type Boolean |
	True | MAPI is used
	False | MAPI is not used
Usage	Allows to send e-mails without restriction of text size
Sample	`lic.MAPI := true;`
See also	

16.2.16 Validate

Name	**Validate**
Purpose	Checks if a module could be used
Params	***Parameter*** | ***Type*** | ***Example*** | ***Note***
	ModuleID | String | D1001 | Unique ModuleID – identifies the module to be tested
	Name | String | Tom | The user or item name to check for
	UseWindowsUser | Boolean | False | Determines if the windows login name should be used as name
Returncode	***Returncode Type Integer*** | ***Note***
	All values | See list of return codes 635
Usage	To validate a module for a specified user or item

Sample	`iRes := lic.Validate('D1001', '', true);`
	`if iRes = 0 then`
	`begin`
	`  << successfully validated >>`
	`  ...`
	`end`
	`else if iRes = 1 then`
	`begin`
	`  << successfully validated, it's a demo version >>`
	`  ...`
	`end`
	`else`
	`begin`
	`  << validation failed, usage of module not allowed >>`
	`  ...`

See also	Prepare, Quit, ValidateEx, ValidatesYes

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Yes / No module

The return codes for a Yes/No module (module type 203 = 4) are:

- 0 = module is Yes
- 1 = module is Yes AND it is a demo version
- 3 = module is No

16.2.16 ValidateAndDecrease

Allows to decrease an counter module 203 by 1.

See chapter Limit number of program starts 547. To decrease the counter module for other values use SetVal, Token TLI 711.

Name	**ValidateAndDecrease**			
Purpose	Validates a counter module and decrease the number of licenses by 1.			
Params	***Parameter***	***Type***	***Example***	***Note***
	ModuleID	String	D1004	Unique ModuleID – identifies the module to be tested
Returncode	***Returncode Type Integer***	***Note***		
	All values	See list of return codes		
	32	Number of licenses is 0 and can't be decreased any more		
Usage	ValidateAndDecrease is intended to count down a counter modules (Type 3). If should not be used with other module types. ValidateAndDecrease could be used to allow a module or programme to be started only a limited number of times.			

Sample	`iRes := lic.ValidateAndDecrease('D1003');`
	`if iRes = 0 then`
	`begin`
	`  << successfully validated, the number of licenses is decreased by 1 >>`
	`  ...`
	`end`
	`else if iRes = 1 then`
	`begin`			

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```
      << successfully validated, it's a demo version and the number of
licenses is decreased by 1 >>
      ...
   end
   else if iRes = 32 then
   begin
      << successfully validated, but the number of licenses is 0 and can
not be decreased any further >>
      ...
   end
   else if iRes = 4096 then
   begin
      << D1003 seems to be not a Module of type 3. Use Validate instead…
>>
      ...
   end
   else
   begin
      << validation failed, usage of module not allowed >>
      ...
```

See also: Prepare, Quit, ValidateEx, Validate, ValidatesYes

16.2.16 ValidateEx

Name	**ValidateEx**
Purpose	Checks if a module is available **and returns the Tag value** of the specified module

Params

Parameter	*Type*	*Example*	*Note*
ModuleID	String	D1001	Unique ModuleID – identifies the module to be tested
Name	String	Tom	The user or item name to check for
UseWindowsUser	Boolean	False	Determines if the windows login name should be used as name
TagValue	String, **output**	Empty	A variable which can absorb the Tag value of the module

Returncode

Returncode Type Integer	***Note***
All values	See list of return codes 635

Usage: To validate a module for a specified user or item and get the Tag value at the same time

Sample

```
   sTag := '';
   iRes := lic.ValidateEx('D1001', '', true, sTag);
   if iRes = 0 then
   begin
```

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	`<< successfully validated, use sTag >>`
	`...`
	`end`
	`else if iRes = 1 then`
	`begin`
	`<< successfully validated, it's a demo version, use sTag >>`
	`...`
	`end`
	`else`
	`begin`
	`<< validation failed, usage of module not allowed >>`
	`...`

See also	Prepare, Quit, Validate, ValidatesYes

Some compilers (known for Visual Studio C++ 2007 an newer) crash when using this command. The reason is the tag value parameter. Use **Validate** 818 instead. The command has the same parameters but **no tag value parameter.**

Yes / No module

The return codes for a Yes/No module (module type 203 = 4) are:

- 0 = module is Yes
- 1 = module is Yes AND it is a demo version
- 3 = module is No

16.2.16 WebRegisterExt

Command to make an online **activation** of a module, **download** a license file and allow a license move. It will **always** connect to the Activation Server 6, download the license file (if specified) and activate the product. For activation, the workflow rule defined on the Activation Server 6 is used - see Project.config file

See also CheckModuleSubscription 654 which makes an online **validation** of a module.

Name	**WebRegisterExt**
Purpose	Contacts the Activation Server 6 to activate a module.
Params	

Parameter	*Type*	*Example*	*Note*
Projectname	String	demo-easygo	Projekt Name configured in the project.config file on the Activation Server 6. If empty

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				the internal project name of the license file is used
	ModuleID	String	QHD001	ModuleID – identifies the module
	ID	String	yuGEI-5EPc3-9E7Il-3tI8X-7QU5k-6h14R	Identifier which is used to check and register this activation. Should be a **unique ID** like Serial Number, Invoice Number
	eMail	String	john@mycompany.com	eMail address, currently only to be protocolled in the Web Activation server
	RequestLicData	Boolean	True	If set to true, the license file is **downloaded** from the Activation Server 6
	Name	String	default	name to identify the license file. One ID can store multiple files using different names like activation30
	Encryption Code	String	this is like a password string	ensures, that a file can only be downloaded when a password is provided in the DLL command DownloadLic. Should be maximum **40 characters**
	DownloadFull	Boolean	True	If true, the complete license file is downloaded it a license file exists for the specified ID and Name. Otherwise only the **changes** made on the Activation Server 6 are downloaded and updated in the local license file

Returncode

Returncode Type Integer	***Note***
0	Module successfully activated
3001	The Activation Server 6 was not reachable.
3002-3999	Errors on the Activation Server 6, see Activation Server 6 error codes
Other return codes	Operation failed, see list of return codes 635

Usage

Used to activate one or more modules.

Sample

```
   iRes := lic.WebRegisterExt('', 'QHD001', 'yuGEI-5EPc3-9E7Il-3tI8X-
7QU5k-6h14R',
'john@mycompany.com',True,'activation30','this mypassword76RS',true);
   if iRes = 0 then
   begin
      << Module D1001 successfully activated >>
      ...
```

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	``
	end
	else if iRes = 3001 then
	begin
	<< Web Activation could not be reached, please check connection >>
	...
	end
	else
	begin
	<< other errors >>>
	...
	``

See also	GetWebActivation, Web Activation, WebServiceURL, ShowWAStartPage, ShowWAProgressPage, ShowWAResultPage, UseLocalProxy, UseLocalIEProxy, LocalProxyServer, LocalProxyPort, Projectname

To send the customer name / address use SendCustomerInfo 753

- Ports and Proxy Settings

  The Online Activation uses an http request on Port 80 to communicate with the Activation Server. A router with a standard firewall (IP-Filter) will not detect the difference to a Browser request and let the activation pass. A local personal firewall like McAfee or Norton will pop-up and ask, if the request should be permitted. Only a 'real' application firewall will block the request and an administrator has to open port 80.

  Proxy settings are retrieved from the Browser but can be changed with the commands LocalProxPort 723, LocalProxyServer 723, UseLocalIIEProxy 816, UseLocalProxy 817.

  Only the Licence Protector DLL can communicate to the Activation Server 6

The WebRegisterExt command would display screens indicating that an online validation is done. The screens can be suppressed using ShowWAStartPage 806, ShowWAProgressPage 804 and ShowWAResultPage 806

16.2.16 WebServiceURL

Name	**WebServiceURL**
Purpose	Property to get or set the URL to reach the Web Activation
Params	None
Returncode	***Returncode*** / ***Note***

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	Type String | URL | This URL is used to reach the Web Activation service e.g. http://myapp.mycom.com/lpweb/lpws.asmx
Usage	To read or change the URL in the license file.

Sample	`sURL := lic.WebServiceURL;`
	`if sURL = '' then`
	`begin`
	`  << Wrong value, provide a valid value ... >>`
	`  Lic.WebServiceURL := 'http://mycom.com/hereitis/lpws.asmx';`
	`  ...`
	`end`
	`else`
	`  << it seems ok >>`
	`  ...`

See also	Web Activation, WebRegister, ApplyActivationKey, ApplyActivationKeyForProject, ShowWAStartPage, ShowWAProgressPage, ShowWAResultPage, UseLocalProxy, UseLocalIEProxy, LocalProxyServer, LocalProxyPort, Projectname

The URL is sent to the default port which is normally port 80 but you can configure any port for the http: request.

You can specify a specific port at the end of the servername with **:portname**

http://myapp.mycom.com**:728**/lpweb/lpws.asmx

16.2.16 WriteCache

This command **saves the modifications from the cache to the hard disk**. The cache mode has to be activated first using BeginReadCache 649 or BeginCache 648.

Name	**WriteCache**
Purpose	Save modified cache values to the hard disk
Params	None
Returncode	***Returncode Type Integer*** | ***Note*** 0 | The cache was successfully updated with the latest license file values Other return codes | Cache activation failed, see list of return codes 635

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Usage	Save modified cache values to the hard disk after DLL commands have modified values

Sample	`iRes := lic.BeginCache;`
	`<< start reading values>>`
	`iRes := lic.WriteCache;`
	`<< start reading values>>`
	`iRes := lic.EndCache;`

See also	GetCacheMode 674, BeginReadCache 649, BeginCache 648, EndCache 669, RevertCache 750, RefreshCache 743

16.3 Commands grouped by application range

Find below commands grouped by their application range. This helps to find all related commands for a specific task.

See also
Function reference in alphabetical order 641

16.3.1 Activation Server commands

Find below a summary of calls you can use to communicate with the Activation Server 6 or commands to modify activation settings.

Click on the ⊞ sign on the left side to get all DLL commands related to the *Activation Server*.

16.3.1.1 CheckLicence

Command no longer in use

Replaced with CheckModule 652

Allows to validate, if a license was locked or not. Details see chapter Lock a license / Regular online check.

Normally the test is done **without** a value for the parameter moduleID. Using a module ID creates the same workflow on the Activation Server 6 like a product activation with PrepareAndCheck 162 or WebRegisterExt 821 - e.g. copy protection is activated or additional keys like deleting Demo Version flag are sent.

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<table>
<tr><td>Name</td><td>CheckLicence
 </td></tr>
<tr><td>Purpose</td><td>Contacts the Activation Server 6 to validate a license. This function has to be used to implement “Moving licenses” and ongoing checks (“renting your software”).</td></tr>
<tr><td>Params</td><td>
<table>
<tr><th>Parameter</th><th>Type</th><th>Example</th><th>Note</th></tr>
<tr><td>Projectname</td><td>String</td><td>Demo Project</td><td>projectname, if empty the internal projectname of the license file is used – identifies the project on the Web Activation Server</td></tr>
<tr><td>ID</td><td>String</td><td>Abc</td><td>Identifier which is used to check and register this license</td></tr>
<tr><td>Module ID</td><td>String</td><td>D1001</td><td>This is the product-name / module ID for the config-autogenerator.xml. It may be empty.</td></tr>
<tr><td>ForceCheck</td><td>Boolean</td><td>False</td><td>If true, CheckLicence will always connect to the Activation Server 6, even if it is not necessary regarding the current values</td></tr>
</table>
</td></tr>
<tr><td>Returncode</td><td>
<table>
<tr><th>Returncode Type Integer</th><th>Note</th></tr>
<tr><td>0</td><td>CheckLicence successful: The online-Validation succeeded or it was not necessary to check the state online</td></tr>
<tr><td>3001</td><td>The Web Activation Server was not reachable.</td></tr>
<tr><td>3010</td><td>That ID is already used e.g. by another computer.</td></tr>
<tr><td>3018</td><td>That ID is locked.</td></tr>
<tr><td>3002-3999</td><td>Errors on the Web Activation Server, see Web Activation Documentation</td></tr>
<tr><td>Other return codes</td><td>Operation failed, see list of return codes</td></tr>
</table>
</td></tr>
<tr><td>Usage</td><td>Used to validate the license.</td></tr>
<tr><td>Sample</td><td>

```
iRes := lic.CheckLicence(‘’, ‘abc4711’, ‘’, false);
if iRes = 0 then
begin
   << license successfully validated >>
   ...
end
else if iRes = 3001 then
```

</td></tr>
</table>

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	begin
	  << Web Activation could not be reached, please check connection >>
	  ...
	end
	else if iRes = 3010 then
	begin
	  << that license is already in usage. Transfer license and then it is free for this computer >>
	  ...
	end
	else if iRes = 3018 then
	begin
	  << that license is locked on the Web Activation server.>>
	  ...
	end
	else
	begin
	  << other errors >>>
	  ...

See also	licenseVerification, NextVerification, Deactivatelicense, SetVerificationID, SetVerificationProduct, WebServiceURL, ShowWAStartPage, ShowWAProgressPage, ShowWAResultPage, UseLocalProxy, UseLocalIEProxy, LocalProxyServer, LocalProxyPort, Projectname

Ports and Proxy Settings

The Online Activation uses an http request on Port 80 to communicate with the Activation Server. A router with a standard firewall (IP-Filter) will not detect the difference to a Browser request and let the activation pass. A local personal firewall like McAfee or Norton will pop-up and ask, if the request should be permitted. Only a 'real' application firewall will block the request and an administrator has to open port 80.

Proxy settings are retrieved from the Browser but can be changed with the commands LocalProxPort 723, LocalProxyServer 723, UseLocalIEProxy 816, UseLocalProxy 817.

Only the Licence Protector DLL can communicate to the Activation Server 6

The CheckLicence command would display screens indicating that an online validation is done. The screens can be suppressed using ShowWAStartPage 806, ShowWAProgressPage 804 and ShowWAResultPage 806

The *CheckLicence* command triggers the activation workflow file on the server, e.g. activates copy protection and sends out the keys defined in this file.

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16.3.1.2 CheckModule

Command to make an online **validation** of a module and **download** a license file. It will connect to the Activation Server 6, download the license file (if specified) and check if the module / license was **locked**.

See also CheckModuleSubscription 654 which includes a grace period.

Name	**CheckModule**
Purpose	Contacts the Activation Server 6 to validate a license. This function has to be used to implement “Moving licenses” and ongoing checks (“renting your software”).

Params

Parameter	*Type*	*Example*	*Note*
Projectname	String	Demo Project	projectname, if empty the internal projectname of the license file is used – identifies the project on the Activation Server
Module ID	String	QHD001	ModuleID – identifies the module
ID	String	yuGEI-5EPc3-9E7Il-3tI8X-7QU5k-6h14R	Identifier which is used to check and register this activation. Should be a **unique ID** like Serial Number, Invoice Number
ForceCheck	Boolean	False	If true, CheckModule will **always** connect to the Activation Server 6, even if it is not necessary regarding the current values
RequestLicData	Boolean	True	If set to true, the license file is **downloaded** from the Activation Server 6
Name	String	default	name to identify the license file. One ID can store multiple files using different names like default-backup-January2010 default-backup-February2010
Encryption Code	String	this is like a password string	ensures, that a file can only be downloaded when a password is provided. The password has to be set with the command UploadLic 814. Should be maximum **40 characters**.

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<table>
<tr><td></td><td>
<table>
<tr><td>DownloadFull</td><td>Boolean</td><td>true</td><td>If true, the complete license file is downloaded. Otherwise only the changes made on the Activation Server 6 are downloaded and updated in the local license file. To only check a license it should be set to false</td></tr>
</table>
</td></tr>
<tr><td>Returncode</td><td>
<table>
<tr><th>Returncode Type Integer</th><th>Note</th></tr>
<tr><td>0</td><td>CheckModule was successful: The online-Validation succeeded or it was not necessary to check the state online</td></tr>
<tr><td>3001</td><td>The Activation Server 6 was not reachable.</td></tr>
<tr><td>3010</td><td>That ID is already used e.g. by another computer.</td></tr>
<tr><td>3018</td><td>That ID is locked.</td></tr>
<tr><td>3002-3999</td><td>Errors on the Activation Server 6, see Activation Server 6 error codes</td></tr>
<tr><td>Other return codes</td><td>Operation failed, see list of return codes 635</td></tr>
</table>
</td></tr>
<tr><td>Usage</td><td>Used to validate the license.</td></tr>
<tr><td>Sample</td><td>

```
   iRes := lic.CheckModule(‘’, ‘QHD001’, ‘yuGEI-5EPc3-9E7Il-3tI8X-7QU5k-
6h14R’,true, true);
   if iRes = 0 then
   begin
      << license successfully validated >>
      ...
   end
   else if iRes = 3001 then
   begin
      << Activation Server 6 could not be reached, please check connection >>
      ...
   end
   else if iRes = 3010 then
   begin
      << that license is already in usage. First transfer the license
from the other PC to use it on this PC >>
      ...
   end
   else if iRes = 3018 then
   begin
      << that license is locked on the Activation Server 6.>>
      ...
   end
   else
   begin
      << other errors >>>
      ...
```

</td></tr>
<tr><td>See also</td><td>licenseVerification, NextVerification, Deactivatelicense, SetVerificationID, SetVerificationProduct, WebServiceURL, ShowWAStartPage, ShowWAProgressPage, ShowWAResultPage,</td></tr>
</table>

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	UseLocalProxy, UseLocalIEProxy, LocalProxyServer, LocalProxyPort, Projectname

16.3.1.3 DeactivateModule

Command to make an online **deactivation** of a module and **upload** a license file. It will **always** connect to the Activation Server 6, upload the license file (if specified), **lock** the license on the server and lock the license in the local license file.

To find out, if a module / license is deactivated, use GetVerificationOfModule 716 (result: frozen = 2)

Name	**DeactivateModule**
Purpose	Contacts the Activation Server 6 to validate a license. This function has to be used to implement “Moving licenses” and ongoing checks (“renting your software”).

Params

Parameter	*Type*	*Example*	*Note*
Projectname	String	Demo Project	projectname, if empty the internal projectname of the license file is used – identifies the project on the Web Activation Server
Module ID	String	QHD001	ModuleID – identifies the module
ID	String	yuGEI-5EPc3-9E7Il-3tI8X-7QU5k-6h14R	Identifier which is used to check and register this activation. Should be a **unique ID** like Serial Number, Invoice Number
SendLicData	Boolean	True	If set to true, the license file is **uploaded** to the Activation Server 6
Name	String	Default	name to identify the license file. One ID can store multiple files using different names like default-backup-January2010 default-backup-February2010
Encryption Code	String	this is like a password string	ensures, that a file can only be downloaded when a password is provided. The password is also used with the commands

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<table>
<tr><td></td><td>
<table>
<tr><td></td><td></td><td></td><td>UploadLic 814, DownloadLic 665. Should be maximum 40 characters.</td></tr>
</table>
</td></tr>
<tr><td>Returncode</td><td>
<table>
<tr><th>Returncode Type Integer</th><th>Note</th></tr>
<tr><td>0</td><td>DeactivateModule was successful</td></tr>
<tr><td>3001</td><td>The Activation Server 6 was not reachable.</td></tr>
<tr><td>3015</td><td>That ID could not be found in the database</td></tr>
<tr><td>3030</td><td>The deactivation failed on the Activation Server 6</td></tr>
<tr><td>3002-3999</td><td>Errors on the Activation Server 6, see Activation Server 6 error codes</td></tr>
<tr><td>Other return codes</td><td>Operation failed, see list of return codes 635</td></tr>
</table>
</td></tr>
<tr><td>Usage</td><td>Used to validate the license.</td></tr>
<tr><td>Sample</td><td>

```
   iRes := lic.Module(‘’, ‘QHD001’, ‘yuGEI-5EPc3-9E7Il-3tI8X-7QU5k-
6h14R’,true, true,'default','this is like a password string');
   if iRes = 0 then
   begin
      << license successfully validated >>
      ...
   end
   else if iRes = 3001 then
   begin
      << Activation Server 6 could not be reached, please check connection >>
      ...
   end
   else if iRes = 3010 then
   begin
      << that license is already in usage. First transfer the license
from the other PC to use it on this PC >>
      ...
   end
   else if iRes = 3018 then
   begin
      << that license is locked on the Activation Server 6.>>
      ...
   end
   else
   begin
      << other errors >>>
      ...
```

</td></tr>
<tr><td>See also</td><td>licenseVerification, NextVerification, Deactivatelicense, SetVerificationID, SetVerificationProduct, WebServiceURL, ShowWAStartPage, ShowWAProgressPage, ShowWAResultPage, UseLocalProxy, UseLocalIEProxy, LocalProxyServer, LocalProxyPort, Projectname</td></tr>
</table>

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16.3.1.4 DownloadLic

This command allows you to download a complete license file (including all hidden information) from the Activation Server 6. It can be uploaded with the command UploadLic 814.
Values (e.g. a module or data area information) which are removed on the server, are still available in the local file. To download a one to one copy use DownloadWholeLic 667

This command requires a license file which was opened using one of the Prepare commands 920.

Name	**DownloadLic**
Purpose	Downloads the license file from to the Activation Server 6. A unique ID is necessary to store the license file on the Activation Server 6. If the ID already exists, the data is overwritten.

Params

Parameter	*Type*	*Example*	*Note*
Projectname	String	demo-easygo	Project name. If empty the internal project name of the license file is used
ModuleID	String	QHD001	module ID - If ModuleID is empty a CheckLicence call is used to locate the Activation
ID	String	IV0078	unique ID to store the license file. Could be a customer ID or a Serial number
Name	String	default	name to identify the license file. One ID can store multiple files using different names like default-backup-January2010 default-backup-February2010
Encryption Code	String	this is like a password string	ensures, that a file can only be downloaded when a password is provided. The password has to be set with the command UploadLic 814. Should be maximum **40 characters**.
DownloadFull	Boolean	true	If true, the complete license file is downloaded. Otherwise only the **changes** made on the Activation Server 6 are downloaded and updated in the local license file. Values removed on the server will not be removed in the local file

Returncode

Returncode	*Note*

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	Type Integer |
	0 | license file successfully downloaded
	3001 | The Activation Server 6 was not reachable.
	3014 | Most likely wrong encryption code or the length of the encryption code exceeds 40 characters or problem with the time difference between client and Activation Server 6
	3015 | Key / ID does not exist. An ID was used where no license file is assigned on the Activation Server 6 . The ID must match the ID used with UploadLic 814
	3040 | Name of the license file in combination with the used ID does not exist or the length of the encryption code exceeds 40 characters
	3002-3999 | Errors on the Activation Server 6, see Activation Server 6 error codes
	Other return codes | Operation failed, see list of return codes 635
Usage	Used to download a license file or only modifications. The license file can be edited on the Activation Server 6 and the file has first to be uploaded using the command UploadLic.
Sample	
See also	UploadLic 814, WebRegisterEXT, DownloadWholeLic 667

```
iRes := lic.DownloadLic('', 'QHD001', 'IV0078', 'Default', 'mypasswordR6',true);

if iRes = 0 then
begin
<< Licence successfully downloaded >>
...
end
else if iRes = 3001 then
begin
<< Activation Server 6 could not be reached, please check connection >>
...
end
else
begin
<< other errors >>>
...
```

- User or PC names stored in the license file, are not downloaded. This is to ensure that the file can be downloaded on a new PC
- The hardware ID of the PC, which uploaded the file, is replaced with the hardware ID of the PC, which downloads the file

Example

- PC A has copy protection turned on with code 2 = 170D9F7C
- PC B downloads the file. Copy protection code 2 is turned on but with the hardware ID of PC B = 180A9B6A

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16.3.1.5 EndVerificationOfModule

Get the date, when the **last** online check will be due (online check is terminated). After this date, the regular online check is terminated. This date can be set with SetEndVerificationOfModule 764.

The next planned online check can be retrieved with NextVerificationOfModule 726.

For a complete description see chapter regular online checks 541.

Name	**GetEndVerificationOfModule**
Purpose	Property to get and set the date when the last online verification for the specified **module** will occur. After this date no online checks are done.
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** ModuleID / String / QHD001 / Unique ModuleID
Returncode	***Returncode Type Integer*** / ***Note*** 0 / There is no information when the last online check will be done. Probably there was no successful CheckModuleSubscription 654 or CheckModule 652 before. A date / Date, when the last online check is due
Usage	Inform the user when the last online check will be done

Sample	`dtLastCheck := lic.EndVerificationOfModule('QHD001');`
	`if ...`
	`end`

See also	NextVerificationOfModule 726, CheckModuleSubscription 654 CheckModule 652, DeactivateModule 661, SetVerificationIDOfModule 798, VerificationOfModule 854, SetEndVerificationOfModule 764

16.3.1.6 GetVerificationOfModule

Get the status of the regular online check, which was either set using SetVerificationOfModule 797 or in the project template using <ModuleVerification 197>. If a module was locked using DeactivateModule 661 or TransferLicense 812, then the status is 2=frozen.

For a complete description see chapter regular online checks 541.

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Name	**GetVerificationOfModule**
Purpose	Property to get the state of the license regarding online verifications used in combination with CheckModuleSubscription 654 or CheckModule 652
Params	

Parameter	*Type*	*Example*	*Note*
ModuleID	String	QHD001	Unique ModuleID

Returncode

Returncode Type Integer	*Note*
0 = off	Regular online verification is off
1 = ongoing	Regular online verification is on
2 = frozen	A failed online verification has locked that license. A successful checkModuleSubscription 654 or PrepareAndCheck 162 can reactivate it it
3 = deactivated	The regular online verification was terminated within the Key Details on the Activation Server 6 or with setEndVerificationOfModule 764

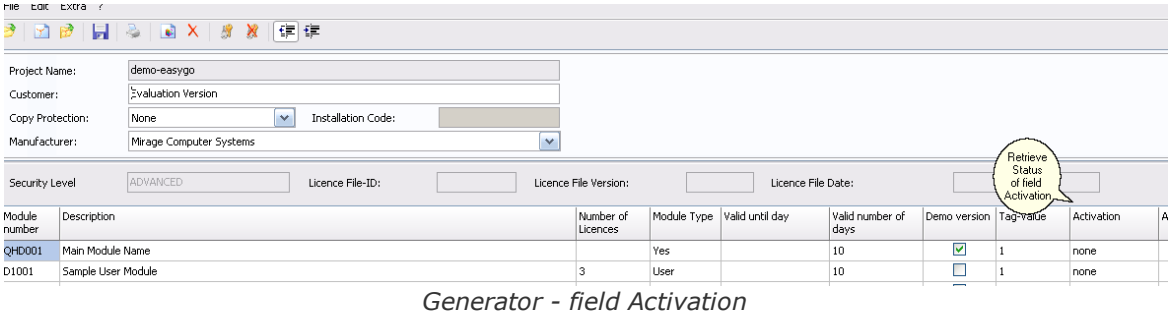
Usage	You can check the main parameter of the CheckLicence functionality
Sample	

```
iLicModuleVerification := lic.GetVerificationOfModule('QHD001');
if iLicModuleVerification = 0 then
begin
   << online Verification is Off >>
   ...
end
```

See also	CheckModuleSubscription 654, CheckModule, 652 DeactivateModule, 664 NextVerificationOfModule 726, VerificationOfModule 854, SetVerificationOfModule 797, SetVerificationIDOfModule 798

16.3.1.7 GetWebActivation

Retrieves the status of the field **Activation** for an module.



Generator - field Activation

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The field changes in the following situations:

- Delivery with license file = none
- Type in a Serial Number = required
- Type in an Unlock Key or the Activation Server sends the Unlock Key during online activation = done
- Problem during online activation = erroneous

<table>
<tr><td>Name</td><td>GetWebActivation</td></tr>
<tr><td>Purpose</td><td>Get the activation state for a module.</td></tr>
<tr><td>Params</td><td>
<table>
<tr><th>Parameter</th><th>Type</th><th>Example</th><th>Note</th></tr>
<tr><td>ModuleID</td><td>String</td><td>D1001</td><td>Unique ModuleID – identifies the module which is queried</td></tr>
</table>
</td></tr>
<tr><td>Returncode</td><td>
<table>
<tr><th>Returncode
Type Integer</th><th>Note</th></tr>
<tr><td>Web activation state</td><td>0 = none, 1 = required, 2 = done, 3 = erroneous
-1 = wrong ModuleID was used</td></tr>
</table>
</td></tr>
<tr><td>Usage</td><td>Determines the state of the module regarding activation on Web Activation Server.
If this valus is 0 (none) no further action is required
If this valus is 1 (required) or 3 (erroneous) a web activation (with WebRegister) should be done
If this value is 2 (done) no further action is required because that module is already activated.
Notice: The web activation state is only a status information what to do. It triggers no automatic action. If a module has state 1 there is no implicit WebRegister call.</td></tr>
<tr><td>Sample</td><td>

```
iWA := lic.GetWebActivation('D1001');
if (iWA = 1) or (iWA = 3) then
begin
   << call WebRegister for module D1001>>
End
Else
Begin
   << no activation necessary or activation already done>>
end
...
```

</td></tr>
<tr><td>See also</td><td>WebRegister</td></tr>
</table>

16.3.1.8 LocalProxyPort

Name	**LocalProxyPort**

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Purpose	Property to get or set the information of the proxy port that is used to reach the Web Activation.
Params	None
Returncode	***Returncode Type Integer*** / ***Note*** Port / e.g. 8080
Usage	Change the connection setting individually for every user.

Sample	`lic.UseLocalProxy := true; // use a proxy`
	`lic.UseLocalIEProxy := false; // but not the proxy from Internet Explorer`
	`lic.LocalProxyServer := '192.168.1.1'; // set the proxy`
	`lic.LocalProxyPort := 80; // set the port of this proxy server`

See also	Web Activation, WebServiceURL, WebRegister, ApplyActivationKey, ApplyActivationKeyForProject, ShowWAStartPage, ShowWAProgress Page ShowWAResultPage, UseLocalProxy, LocalProxyServer, UseLocalIEProxy, Projectname

16.3.1.9 LocalProxyServer

Name	**LocalProxyServer**
Purpose	Property to get or set the information of the proxy server that is used to reach the Web Activation.
Params	None
Returncode	***Returncode Type String*** / ***Note*** Servername or IP address / Computername or IP address. UseLocalProxy has to be on, UseLocalIEProxy has to be off.
Usage	Change the connection setting individually for every user.

Sample	`lic.UseLocalProxy := true; // use a proxy`
	`lic.UseLocalIEProxy := false; // but not the proxy from Internet Explorer`
	`lic.LocalProxyServer := '192.168.1.1'; // set the proxy`
	`lic.LocalProxyPort := 80; // set the port of this proxy server`

See also	Web Activation, WebServiceURL, WebRegister, ApplyActivationKey, ApplyActivationKeyForProject, ShowWAStartPage, ShowWAProgress Page ShowWAResultPage, UseLocalProxy, UseLocalIEProxy, LocalProxyPort, Projectname

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16.3.1.10NextVerificationOfModule

Date, when the next planned online check 543 is due. The regular online check will terminate on the the date, which is specified with EndVerificationOfModule. 682

For a complete description see chapter regular online checks 541.

Name	**GetNextVerificationOfModule** **SetNextVerificationOfModule**
Purpose	Property to get and set the date when the next online verification for the specified **module** has to take place. This date is monitored with CheckModuleSubscription 654 or CheckModule 652.
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** ModuleID / String / QHD001 / Unique ModuleID
Returncode	***Returncode Type Integer*** / ***Note*** 0 / There is no information about the next Verification. Probably there was no successful CheckModuleSubscription 654 or CheckModule 652 before. A date / The next online verification has to be executed on that date at the latest.
Usage	Inform the user when the next online check has to be done.

Sample	`dtNextVerification := lic.NextVerificationOfModule('QHD001');`
	`if dtNextVerification > 0 then`
	`begin`
	`  << tell your user that the next online Verification has to be executed on that date >>`
	`  ...`
	`end`

See also	EndVerificationOfModule 682. 682, CheckModuleSubscription 654, CheckModule 652, DeactivateModule 661, GetVerificationOfModule 716

16.3.1.11PrepareAndCheck

This is the main command to invoke the EasyGo dialogs and perform the **complete basic license testing**:

- open the license file with the EasyGo screens
- check if it is a time limited trial version - in case the trial expired, displays the screen: Evaluation period expired 253
- check if the system date was tampered with (only if CheckSysdateChanged 112 was used). In case of an error displays the screen: System date was tampered 275

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- check if the product is activated - otherwise offers to use one of the specified activation methods 228
- check if copy protection is OK - in case of an error displays the screen: copy protection violation 264 and try an automatic reactivation
- check if network license is OK - in case of an error displays the screen: No free license available 272
- check if a user / PC was deactivated -in in case of an error displays the screen: Network license -deactivated 272

See List of Return / Error Codes 635 and Other Errors 638.

Name	**PrepareAndCheck**
Purpose	Opens the license file and executes the EasyGo form.

Params

Parameter	*Type*	*Example*	*Note*
license file 66	String	F:\mylic.lic	The full path to the license file . See details for UNC pathnames
ProjectSecureKey/ ReadKey	String	I am a project secure key	The project secure key for that license file. See details - Read Key 166 Note: Using a PSK is supported for backward compatibility but should not be used.
ModuleID	String	QHD001	Unique ModuleID – identifies the module to be tested in EasyGo functionality - see details main module 166
Name	String		The user or item name to check the module for. Normally, you would pass this information only if you have an own user administration. Default option is to use the automatic function - UseWindowsUser = true
UseWindows User	Boolean	True	Determines if the windows login name or hostname should be

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			used as name for the license. Concurrent User uses a combination of username and PC name. If the module is an Item Counter, provide the name for the item counter in the field Name and set UseWindowsUser to false
Quit	Boolean	False	Controls whether the Licence Protector 5 object is available (for further calls) an the license file is not closed or if it is not needed any more and therefore quit. On false (no quit) the Quit 179 has to be made explicitly at end of the application. For concurrent user testing 552 quit must be set to false. If you need any other testing after PrepareAndCheck also set quit to false
TagValue	String, **output**	Empty	A variable which can absorb the Tag value of the main module. For details see Using the TAG value 459 (Anti Hacker Strategies)

Returncode

Returncode Type Integer	***Note***
0	The license file was successfully opened and the main module was successfully checked or even activated. It is also possible that the main module is in an evaluation state.
2	The license file could not be found or was not opened
4	EasyGo screen terminated by closing the screen with X (close button) or using the END button

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	<table><tr><td>16</td><td>Trial or full version expired</td></tr><tr><td>32</td><td>No more free license (only when using network license per computer, user or concurrent user)</td></tr><tr><td>1024</td><td>This is a copy protection violation. The Installation Code of the license file doesn't match with the %ID%. See common reasons for this error</td></tr><tr><td>2048</td><td>The file %filename% is not a valid license file or file cannot be opened See common reasons for this error</td></tr><tr><td>3010</td><td>Online Activation - The Serial Number was already used on another PC</td></tr><tr><td>16382</td><td>If CheckSysdateChanges is set to true and Licence Protector 5 recognizes that the date was manipulated then you get this error code.</td></tr><tr><td>Other return codes</td><td>Prepare or Validate failed, see list of return codes 635</td></tr></table>
Usage	Important function in order to use Licence Protector 5

Sample	<pre>iRes := lic.**PrepareAndCheck**(sMyLicfile, 'XTIORHjmV65XFlH/pRYBjxlRJnhCL....', 'D1001', '', true, false, sTagVariable);
	if iRes <> 0 then
	begin
	<< *an error occurred* >>
	...
	end
	else
	begin
	<< *everything is fine, continue* >>
	...</pre>

See also	EasyGo, SetRegisterSettings, SetRegisterHelp, SysdateChanged, CheckSysdateChanged, Validate, ValidateEx, Quit, PrepareForce, PrepareAdvanced

Some compilers (known for Visual Studio C++ 2007 an newer) crash when using this command. The reason is the tag value parameter. Use **PrepareAndCheckNT** 735 instead. The command has the same parameters but **no tag value parameter.**

You can terminate your application if the error code is not 0. 0 means that everything is OK. The activation does not indicate the status of the license (e.g. trial version, activation done) because EasyGo handles everything automatically.

If you do a manual system date modification check with SysDateChanged 809, you have to call this command even if the status code of PrepareAndCheck is not 0. SysDateChanged 809 generates an internal flag that the application was started today even

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when the start fails, e.g. because the license expired. The flag is set automatically if CheckSysDateChanged 112 is used instead.

If you need status information about a module, use GetWebActivation 717, RemainingDays 744, RemainigLicenses 744 - list of commands 171 to retrieve module information.

If the version expires, the number of licenses are not sufficient or copy protection is violated, this is indicated with an different error code.

You have to set the SecurityLevel 110 before you can use this command

The PrepareAndCheck command would display screens indicating that an online validation is done. The screens can be suppressed using ShowWAStartPage 806, ShowWAProgressPage 804 and ShowWAResultPage 806

The command SetRegisterSerialNo 776 would display this Serial Number as a default value in the activation dialogues

See also

Module ID 166
Read Key 166
Open multiple license files at the same time 167

16.3.1.12 ProjectName

The command retrieves or changes the project name, 207 which is stored in the license file.

Name	**Projectname**
Purpose	Property to get or set the projectname in the license file.
Params	None
Returncode	***Returncode Type String*** / ***Note***
	Value / This is the name of the project, used to identify the project on the Web Activation configuration

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Usage	Change the projectname in the license file

Sample	`If lic.Projectname = '' then`
	`begin`
	`  lic.Projectname := 'MyProject';`
	`end;`
	`….`

See also	Web Activation, WebServiceURL, WebRegister, ApplyActivationKey, ApplyActivationKeyForProject, ShowWAStartPage, ShowWAProgress Page ShowWAResultPage, UseLocalProxy, LocalProxyServer, LocalProxyPort, UseLocalIEProxy

16.3.1.13SendCustomerInfo

This command sends a complete address to the Activation Server 6. The address information is independent of an activation - this allows to send the address information e.g. for a demo version.

If you want to **link** the address to an activation, use the field **ID.** If you use EasyGo, the ID must be the Serial Number. See: How can I retrieve the Serial Number. 516

If you use your own activation scenario, the ID must be the same like used with WebRegisterExt 821.

Name	**SendCustomerinfo**
Purpose	Sends the customers info to the Web Activation server without showing the activation screen.
Params	

Parameter	*Type*	*Example*	*Note*
Projectname	String	Demo Project	projectname, if empty the internal projectname of the license file is used – identifies the project on the Web Activation Server
ID / Serial Number	String	ID12345	Serial Number / ID to connect the address data to a key, product activation or license file
Company ID	String	D938736	Company or customer ID which is used in an ERP or CRM system to link the address to the ERP/CRM system
CompanyName	String	Blue River Inc.	The customer's company name
FirstName	String	Tom	The first name of the customer
LastName	String	Sullivan	The last name of the customer

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	Salutation	String	Mr.	The salutation of the customer
	AcademicTitle	String		The academic title of the customer
	JobTitle	String	CEO	The job title of the customer
	StreetAddress 1	String	852 Dewes Lane	The first part of the customer's address
	StreetAddress 2	String		The second part of the customer's address (if needed)
	ZIP	String	11230	The zip code of the customer's address
	City	String	Brooklyn	The city of the customer's address
	State	String	NY	The state of the customer's address
	Country	String	United States	The country of the customer's address
	Phone1	String	646.296.1572	The customer's main phone
	Phone2	String		The customer's alternative phone
	Email	String	tom@blueriver-inc.com	The customer's eMail address
	Language	String	English	The customer's language
	WebAddress	String	http://www.blueriver-inc.com	The customer's web address
	Newsletter1	Boolean	True	Subscribe to newsletter 1
	Newsletter2	Boolean	False	Subscribe to newsletter 2
	Newsletter3	Boolean	True	Subscribe to newsletter 3
	Newsletter4	Boolean	False	Subscribe to newsletter 4
	Customer1	String	OD-7653	Custom field 1 e.g. to link the address to an ERP system
	Customer2	String		Custom field 2
	ShowConnection Mask	Integer	0	0 = do not show the connection screen 1 = show the connection screen 2 = use the ShowWA…Page values

Returncode

Returncode Type Integer	***Note***
0	The customer's data has been successfully sent

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	Other return codes: Operation failed, see list of return codes
Usage	Set the Run Number in the license file and allows all installations that use this license file to be locally reset during the defined amount of days. Can be used to allow a reinstallation.
Sample	`iRes := lic.SendCustomerinfo('', 'invoice10321', 'Blue River Inc.', 'Tom', 'Sullivan', 'Mr.', '', 'CEO', '852 Dewes Lane', '', '11230', 'Brooklyn', 'NY', 'United States', '646.296.1572', '' , 'tom@bluriver-inc.com', 'English', 'http://www.blueriver-inc.com', true, false, true, false, 'special', '', 0);` `if iRes <> 0 then` `begin` `<< an error occurred >>` `...` `end` `else` `begin` `<< data successfully sent >>` `...`
See also	Web Activation, WebServiceURL, ShowWAStartPage, ShowWAProgressPage, ShowWAResultPage, UseLocalProxy, UseLocalIEProxy, LocalProxyServer, LocalProxyPort, Projectname, GetWebActivation

16.3.1.14SetVerificationIDOfModule

Name	**SetVerificationIDOfModule**
Purpose	Sets the Serial Number / ID for the Transfer License Button 289 in the License Viewer

Params

Parameter	*Type*	*Example*	*Note*
ModuleID	String	QHD001	Should be the main module ID - retrieve it with MainModuleID 725
ID	String	yuGEI-5EPc3-9E7Il-3tI8X-7QU5k-6h14R	Identifier which was used to activate the product. Retrieve the Serial Number / ID with GetSerial 709

Returncode

Returncode Type Integer	*Note*
0	The verification ot the product was successfully set
All other values – see return codes	The operation was not successful

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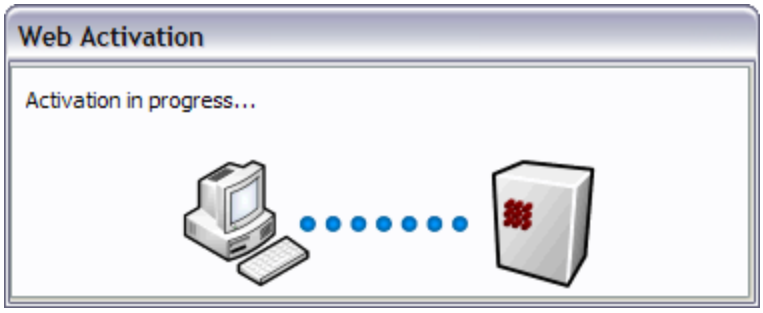
Usage	Sets the value that is necessary for the next implicit CheckLicence call triggered by the license Viewers “Adopt” button Notice: You should explicitly set the value in the CheckLicence call, even if you have set it with SetVerificationProduct Notice: A CheckLicence-call will do an implicit SetVerificationProduct

Sample	`iRes := lic.SetVerificationIDOfModule(‘QHD001’,'yuGEI-5EPc3-9E7Il-3tI8X-7QU5k-6h14R');`
	`if iRes = 0 then`
	`begin`
	`<< License Viewer now has the necessary parameter. >>`
	`...`
	`end`

See also	VerificationOfModule 854

16.3.1.15ShowWASProgressPage

Turn On / Off the following screen during the activation process.



or with EasyGo, the screen would look like this

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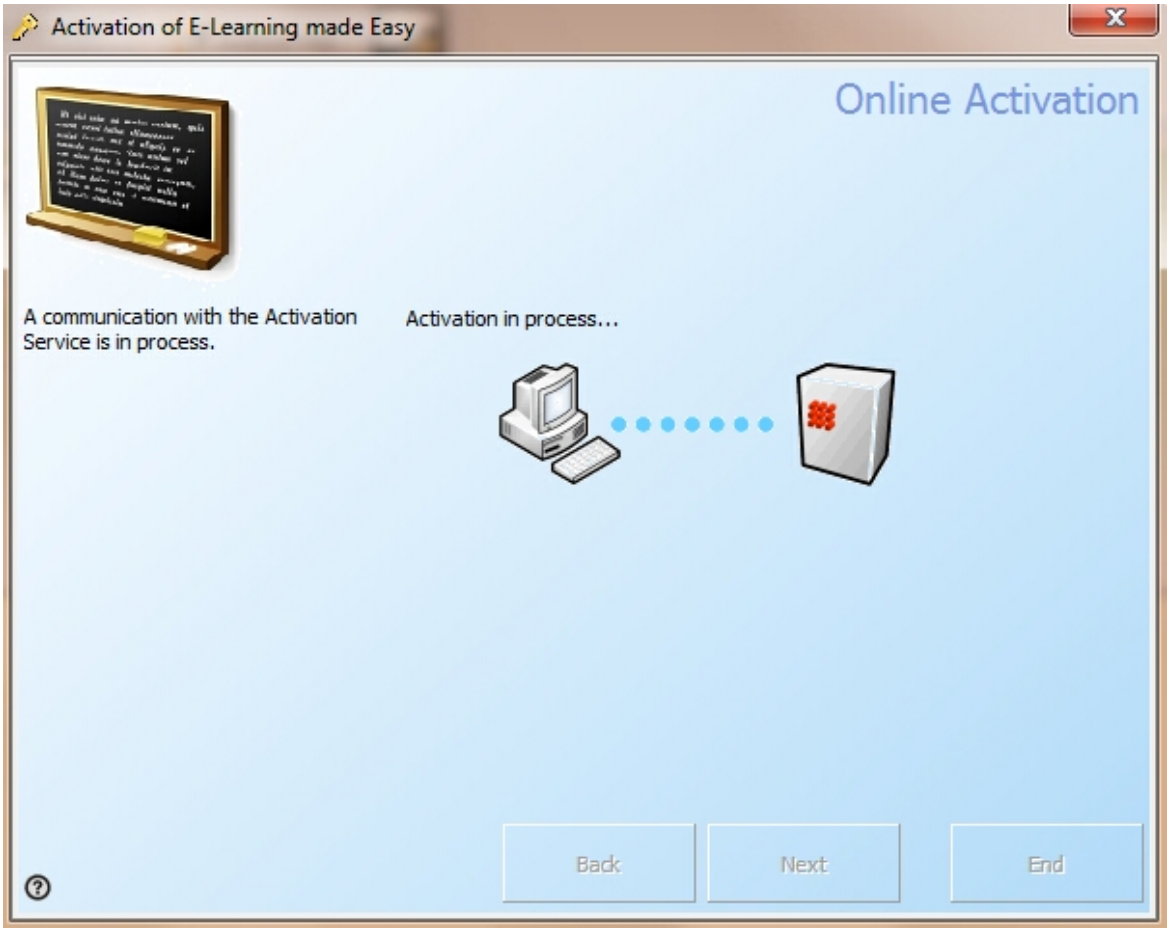

Activation in progress

Name	**ShowWAProgressPage**
Purpose	Property to get or set the information if the Progress page on the Web Activation communication mask will be displayed
Params	None
Returncode	***Returncode Type Boolean*** / ***Note*** True / The Progress page will be shown False / The Progress page will not be shown. The information and possibility to change proxy settings is done by the application
Usage	Possibility to change the deployment settings.

Sample	`bShowPage := lic.ShowWAProgressPage;`
	`if not bShowPage then`
	`begin`
	`  << The page will not be displayed. >>`
	`  ...`

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	end else << The page will be displayed. >> ...
See also	ShowWAStartPage 806, ShowWAResultPage 805

The setting is **stored** in the license file and will be used again for all following activation commands

A default value can be defined in the project template <ShowWASProgressPage> 193

See also

ShowWAResultPage 805
ShowWAStartPage 806

16.3.1.16 ShowWASResultPage

Turn On / Off the following screen during the Web Activation process.

Name	**ShowWAResultPage**
Purpose	Property to get or set the information if the Result page on the Web Activation communication mask will be displayed
Params	None
Returncode	***Returncode Type Boolean*** / ***Note*** True / The Result page will be shown False / The Result page will not be shown. The information and possibility to change proxy settings is done by the application
Usage	Possibility to change the deployment settings.

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Sample	`bShowPage := lic.ShowWAResultPage;`
	`if not bShowPage then`
	`begin`
	`  << The page will not be displayed. >>`
	`  ...`
	`end`
	`else`
	`  << The page will be displayed. >>`
	`  ...`

See also	ShowWAProgressPage 804, ShowWAStartPage 806

The setting is **stored** in the license file and will be used again for all following activation commands

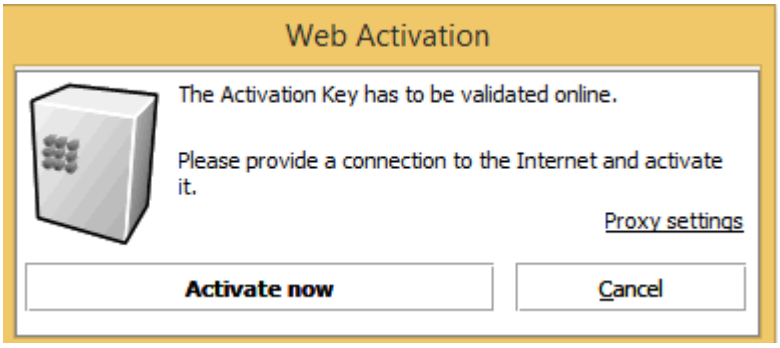
A default value can be defined in the project template <ShowWAResultPage> 193

See also

ShowWAProgressPage 804
ShowWAStartPage 806

16.3.1.17 ShowWASStartPage

Turn On / Off the following screen during the Web Activation process. Depending on the type of the online process the text could vary (a module, a key, a license has to be activated online).



or with EasyGo, the screen would look like this

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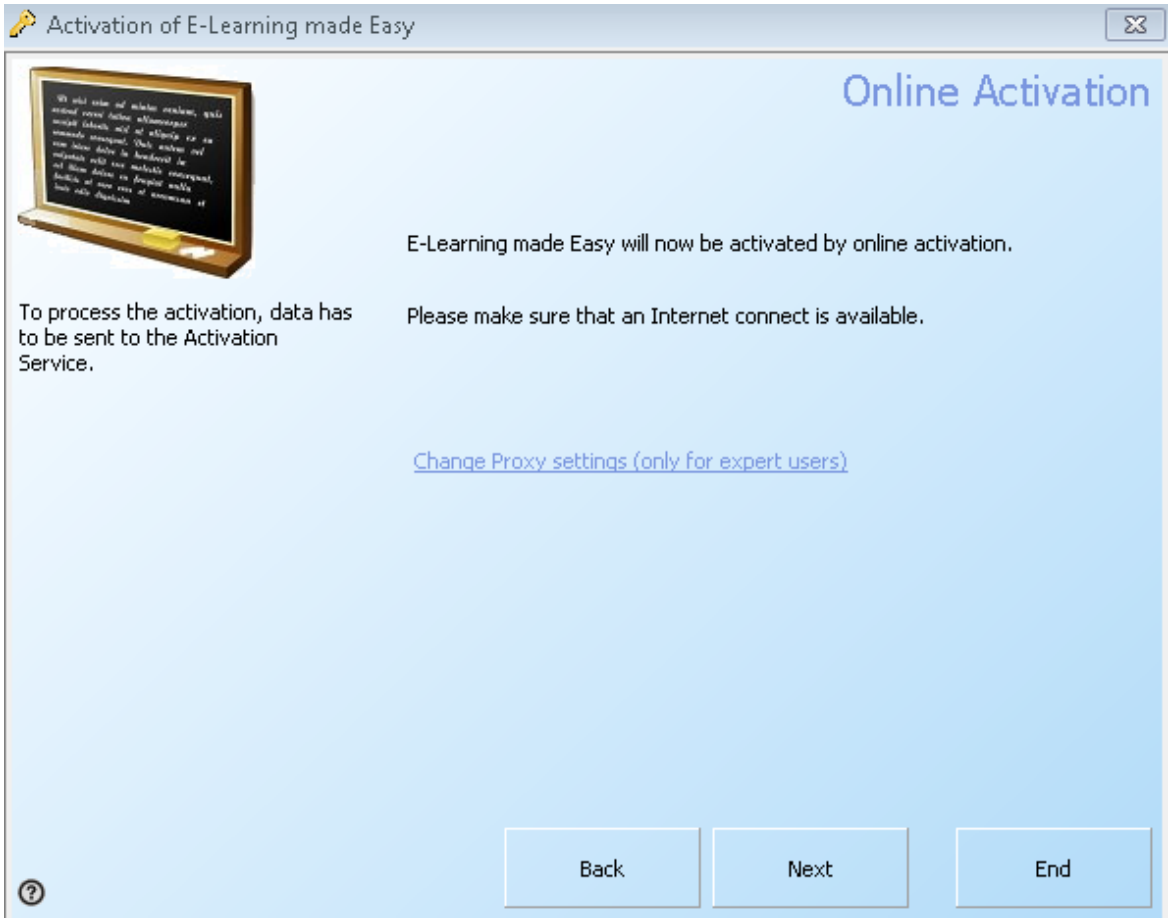

Online Activation - Change Proxy Server

Name	**ShowWASStartPage**
Purpose	Property to get or set the information if the Start page on the Web Activation communication mask will be displayed
Params	None
Returncode	***Returncode Type Boolean*** / ***Note***
	True / The Start page will be shown
	False / The Start page will not be shown. The information and possibility to change proxy settings is done by the application
Usage	Possibility to change the deployment settings.

Sample	`bShowPage := lic.ShowWAStartPage;`
	`if not bShowPage then`
	`begin`
	`  << The page will not be displayed. >>`

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	... end else << The page will be displayed. >> ...
See also	ShowWAProgressPage 804, ShowWAResultPage 805

The setting is **stored** in the license file and will be used again for all following activation commands

A default value can be defined in the project template <ShowWASStartPage> 193

See also

ShowWAProgressPage 804
ShowWAResultPage 805

16.3.1.18 UploadLic

This command allows you to upload a complete license file (including all hidden information) to the Activation Server 6. It can be downloaded with the command DownloadLic 665.

This command requires a license file which was opened using one of the Prepare commands 920. A good idea is to upload a license file directly after an activation was done (see GetActionsOfLastPrepareAndCheck 673).

Name	**UploadLic**
Purpose	Uploads the license file up to the Activation Server 6. To identify the license, a unique ID is necessary .
Params	

Parameter	*Type*	*Example*	*Note*
Projectname	String	demo-easygo	Projekt Name. If empty the internal project name of the license file is used
ModuleID	String	QHD001	module ID - If ModuleID is empty a CheckLicence call is used to locate the Activation
ID	String	IV0078	unique ID to store the license file. Could be a customer ID or a Serial number. **A value**

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<table>
<tr><td></td><td>
<table>
<tr><td></td><td></td><td></td><td>is mandatory</td></tr>
<tr><td>Name</td><td>String</td><td>default</td><td>name to identify the license file. One ID can store multiple files using different names like
default-backup-January2010
default-backup-February2010
If the name field is empty then the name: default is used</td></tr>
<tr><td>Encryption Code</td><td>String</td><td>this is like a password string</td><td>ensures, that a file can only be downloaded when a password is provided in the DLL command DownloadLic. Should be maximum 40 characters.</td></tr>
<tr><td>bAllowCreate Activation</td><td>Boolean</td><td>true</td><td>True = Creates the license even if the unique ID does not exist on the Activation Server 6
False = Unique ID must exist on the Activation Server 6</td></tr>
</table>
</td></tr>
<tr><td>Returncode</td><td>
<table>
<tr><td>Returncode Type Integer</td><td>Note</td></tr>
<tr><td>0</td><td>license file successfully uploaded</td></tr>
<tr><td>3001</td><td>The Activation Server 6 was not reachable.</td></tr>
<tr><td>3002-3999</td><td>Errors on the Activation Server 6, see Activation Server 6 error codes</td></tr>
<tr><td>4101</td><td>Field ID is empty</td></tr>
<tr><td>Other return codes</td><td>Operation failed, see list of return codes 635</td></tr>
</table>
</td></tr>
<tr><td>Usage</td><td>Used to upload a complete license to the Activation Server 6. It can be edited on the Activation Server 6 and changes could be downloaded using the call DownloadLic.</td></tr>
<tr><td>Sample</td><td>

```
iRes := lic.UploadLic('', 'QHD001', 'IV0078', 'Default', 'mypassword76R8','false');

if iRes = 0 then
begin
<< Licence successfully uploaded for editing on the Activation Server 6 >>
...
end
else if iRes = 3001 then
begin
<< Activation Server 6 could not be reached, please check connection >>
...
end
else
begin
<< other errors >>>
...
```

</td></tr>
</table>

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See also	DownloadLic 665, WebRegisterEXT 821

The following values in the project.config file on the Activation Server 6 are important for the license file upload:

- LvsDefaultName
- LvsOverwriteServerChanges
- MultipleLVS

The date of the last successful file upload is displayed in the License Viewer 283

16.3.1.19UseLocalIEProxy

Name	**UseLocalIEProxy**
Purpose	Property to get or set the information if the proxy configured in Internet Explorer is used for the Web Activation communication.
Params	None
Returncode	***Returncode Type Boolean*** / ***Note*** True / Yes the Internet Explorer proxy settings will be used False / No, LocalProxyServer and LocalProxyPort will be used
Usage	Change the connection setting individually for every user.

Sample	`lic.UseLocalProxy := true; // use a proxy`
	`lic.UseLocalIEProxy := false; // but not the proxy from Internet Explorer`
	`lic.LocalProxyServer := '192.168.1.1'; // set the proxy`
	`lic.LocalProxyPort := 80; // set the port of this proxy server`

See also	Web Activation, WebServiceURL, WebRegister, ApplyActivationKey, ApplyActivationKeyForProject, ShowWAStartPage, ShowWAProgress Page ShowWAResultPage, UseLocalProxy, LocalProxyServer, LocalProxyPort, Projectname

16.3.1.20UseLocalProxy

Name	**UseLocalProxy**

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Purpose	Property to get or set the information if a proxy for the Web Activation communication is used
Params	None
Returncode	***Returncode Type Boolean*** / ***Note*** True / Yes a proxy is used False / No no proxy is used
Usage	Change the connection setting individually for every user.

Sample	`lic.UseLocalProxy := true; // use a proxy`
	`lic.UseLocalIEProxy := false; // but not the proxy from Internet Explorer`
	`lic.LocalProxyServer := '192.168.1.1'; // set the proxy`
	`lic.LocalProxyPort := 80; // set the port of this proxy server`

See also	Web Activation, WebServiceURL, WebRegister, ApplyActivationKey, ApplyActivationKeyForProject, ShowWAStartPage, ShowWAProgress Page ShowWAResultPage, UseLocalIEProxy, LocalProxyServer, LocalProxyPort, Projectname

16.3.1.21VerificationOfModule

Command no longer in use

Replaced with command GetVerificationOfModule 716 and SetVerificationOfModule 797
Enables or disables the regular online check. 541

Name	**VerificationOfModule**
Purpose	Property to enable or disable the regular online check
Params	None
Returncode	***Returncode Type String*** / ***Note*** True / Regular Online check is enabled False / Regular Online check is disabled
Usage	Change / Retrieve the application version in the license file

Sample	`Get:`
	`bIsCheckOn := lic.VerificationOfModule;`
	`<< use Boolean bIsCheckOn >>`
	
	`Set:`
	`lic.VerificationOfModule := true;`

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See also	SetVerificationIDOfModule 798, CheckModuleSubscription 654, CheckModule, 652 DeactivateModule, 664 NextVerificationOfModule 726,

- The current status can be retrieved using GetVerificationOfModule 716
- The online check can also be enabled in project template using <ModuleVerification 197>

16.3.1.22WebRegisterEXT

Command to make an online **activation** of a module, **download** a license file and allow a license move. It will **always** connect to the Activation Server 6, download the license file (if specified) and activate the product. For activation, the workflow rule defined on the Activation Server 6 is used - see Project.config file

See also CheckModuleSubscription 654 which makes an online **validation** of a module.

Name	**WebRegisterExt**
Purpose	Contacts the Activation Server 6 to activate a module.

Params

Parameter	*Type*	*Example*	*Note*
Projectname	String	demo-easygo	Projekt Name configured in the project.config file on the Activation Server 6. If empty the internal project name of the license file is used
ModuleID	String	QHD001	ModuleID – identifies the module
ID	String	yuGEI-5EPc3-9E7Il-3tI8X-7QU5k-6h14R	Identifier which is used to check and register this activation. Should be a **unique ID** like Serial Number, Invoice Number
eMail	String	john@mycompany.com	eMail address, currently only to be protocolled in the Web Activation server
RequestLicData	Boolean	True	If set to true, the license file is **downloaded** from the Activation Server 6
Name	String	default	name to identify the license file. One ID can store multiple files using different names like activation30

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<table>
<tr><td></td><td>
<table>
<tr><td>Encryption Code</td><td>String</td><td>this is like a password string</td><td>ensures, that a file can only be downloaded when a password is provided in the DLL command DownloadLic. Should be maximum 40 characters</td></tr>
<tr><td>DownloadFull</td><td>Boolean</td><td>True</td><td>If true, the complete license file is downloaded it a license file exists for the specified ID and Name. Otherwise only the changes made on the Activation Server 6 are downloaded and updated in the local license file</td></tr>
</table>
</td></tr>
<tr><td>Returncode</td><td>
<table>
<tr><th>Returncode Type Integer</th><th>Note</th></tr>
<tr><td>0</td><td>Module successfully activated</td></tr>
<tr><td>3001</td><td>The Activation Server 6 was not reachable.</td></tr>
<tr><td>3002-3999</td><td>Errors on the Activation Server 6, see Activation Server 6 error codes</td></tr>
<tr><td>Other return codes</td><td>Operation failed, see list of return codes 635</td></tr>
</table>
</td></tr>
<tr><td>Usage</td><td>Used to activate one or more modules.</td></tr>
<tr><td>Sample</td><td>

```
   iRes := lic.WebRegisterExt('', 'QHD001', 'yuGEI-5EPc3-9E7Il-3tI8X-
7QU5k-6h14R',
'john@mycompany.com',True,'activation30','thismypassword76RS',true);
   if iRes = 0 then
   begin
      << Module D1001 successfully activated >>
      ...
   end
   else if iRes = 3001 then
   begin
      << Web Activation could not be reached, please check connection >>
      ...
   end
   else
   begin
      << other errors >>>
      ...
```

</td></tr>
<tr><td>See also</td><td>GetWebActivation, Web Activation, WebServiceURL, ShowWAStartPage, ShowWAProgressPage, ShowWAResultPage, UseLocalProxy, UseLocalIEProxy, LocalProxyServer, LocalProxyPort, Projectname</td></tr>
</table>

To send the customer name / address use SendCustomerInfo 753

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- Ports and Proxy Settings

  The Online Activation uses an http request on Port 80 to communicate with the Activation Server. A router with a standard firewall (IP-Filter) will not detect the difference to a Browser request and let the activation pass. A local personal firewall like McAfee or Norton will pop-up and ask, if the request should be permitted. Only a 'real' application firewall will block the request and an administrator has to open port 80.

  Proxy settings are retrieved from the Browser but can be changed with the commands LocalProxPort 723, LocalProxyServer 723, UseLocalIIEProxy 816, UseLocalProxy 817.

  Only the Licence Protector DLL can communicate to the Activation Server 6

The WebRegisterExt command would display screens indicating that an online validation is done. The screens can be suppressed using ShowWAStartPage 806, ShowWAProgressPage 804 and ShowWAResultPage 806

16.3.1.23WebServiceURL

Name	**WebServiceURL**
Purpose	Property to get or set the URL to reach the Web Activation
Params	None
Returncode	***Returncode Type String*** / ***Note***
	URL / This URL is used to reach the Web Activation service e.g. http://myapp.mycom.com/lpweb/lpws.asmx
Usage	To read or change the URL in the license file.
Sample	
See also	Web Activation, WebRegister, ApplyActivationKey, ApplyActivationKeyForProject, ShowWAStartPage, ShowWAProgressPage, ShowWAResultPage, UseLocalProxy, UseLocalIEProxy, LocalProxyServer, LocalProxyPort, Projectname

```
sURL := lic.WebServiceURL;
if sURL = '' then
begin
   << Wrong value, provide a valid value ... >>
   Lic.WebServiceURL := 'http://mycom.com/hereitis/lpws.asmx';
   ...
end
else
   << it seems ok >>
   ...
```

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The URL is sent to the default port which is normally port 80 but you can configure any port for the http: request.

You can specify a specific port at the end of the servername with **:portname**

http://myapp.mycom.com**:728**/lpweb/lpws.asmx

16.3.2 Analyze an Activation Key

In case you provide an own screen to type in an Activation Key (e.g. because you have multiple applications on one CD 167), the key can be analyzed before it is used with ApplyActivationKey 644, ApplyInvisibleKey 646 or ApplyActivationKeyForProject 645.

To use this command, the license file must have been opened 920 with one of the prepare commands.

See Analyze an Activation Key 858 for an overview about all commands.

Click on the ⊞ sign on the left side to get all DLL commands related to *Analyze an Activation Key*.

16.3.2.1 GetKeyAbsoulteDays

This command analyzes an Activation Key and gives as a result, if the key value for the **number of days** will be added or if the key value will overwrite the existing value in the license file.

Name	**GetKeyAbsoluteDays**
Purpose	This command analyzes an Activation Key and gives as a result, if the key value for the **number of days** will be added or if the key value will overwrite the existing value in the license file.
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** Key / String / HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh / Must be a Licen Protector Activat Key
Returncode	***Returncode Type*** ***Boolean*** / ***Note***

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	True: the license file value for the expiry date will be **overwritten** with the new value in the key (number of days) False: the key value with number of days will be **added** to the value in the licer file
Usage	When the user types in a key you could use this information in your application logic

Sample	`bOk := lic.GetKeyAbsoluteDays('HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh');`
	`if bOk then`
	`begin`
	`  << license file value will be overwritten >>`
	`  ...`
	`end`
	`else`
	`begin`
	`  ...`

See also	Commands to analyze an Activation Key 858

To use this command, the license file must have been opened 920 with one of the prepare commands.

See Analyze an Activation Key 858 for an overview about all commands.

16.3.2.2 GetKeyAbsoluteLics

This command analyzes an Activation Key and gives as a result, if the key value for the **number of licenses** will be added or if the key value will overwrite the existing value in the license file.

Name	**GetKeyAbsoluteLics**
Purpose	This command analyzes an Activation Key and gives as a result, if the key value for the number of licenses will be added or if the key value will overwrite the existing value in the license file
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** Key / String / HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh / Must be a Licen Protector Activat Key
Returncode	***Returncode*** / ***Note***

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	Type Boolean |
	True | the license file value will be **overwritten** with the new value in the key
	False | the key value will be **added** to the value in the license file
Usage	When the user types in a key you could use this information in your application logic

Sample	`bOk := lic.GetKeyAbsoluteLics('HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh');`
	`if bOk then`
	`begin`
	`  << license file value will be overwritten >>`
	`  ...`
	`end`
	`else`
	`begin`
	`  ...`

See also	Commands to analyze an Activation Key 858

To use this command, the license file must have been opened 920 with one of the prepare commands.

See Analyze an Activation Key 858 for an overview about all commands.

16.3.2.3 GetKeyActivation

This command analyzes an Activation Key and gives as a result the value for the activation status.

Name	**GetKeyActivation**
Purpose	This command analyzes an Activation Key and gives as a result the value for the activation status.
Params	***Parameter*** | ***Type*** | ***Example*** | ***Note*** Key | String | HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh | Must be a Licen Protector Activat Key
Returncode	***Returncode Type Integer*** | ***Note***

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	0 — Activation status = none 1 — Activation status = required 2 — Activation status = done 3 — Activation status = unchanged -1 — Value not defined. Key without Activation status (turn on/off copy protec tamper detection, reset run number) - use GetKeyType 698 to get detail
Usage	When the user types in a key you could use this information in your application logic . Activation status = required would be the value for a Serial Number

Sample	`iKeyactivationstatus := lic.GetKeyActivation(HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh);`
	`if iKeyactivationstatus = 0 then`
	`<< activation status is not changed >>`
	`...`
	`end`

See also	Commands to analyze an Activation Key 858

To use this command, the license file must have been opened 920 with one of the prepare commands.

See Analyze an Activation Key 858 for an overview about all commands.

16.3.2.4 GetKeyCopyProtectionType

This command analyzes an Activation Key and gives as a result the type of copy protection (installation code number), which will be set with this key. This command can only be used for keys which turn copy protection on (Unlock Key).

- Use GetKeyType 698 to analyze if the key is from type = 1
- Use GetKeyInstCode 689 to retrieve the value of the installation code

Name	**GetKeyCopyProtectionType**
Purpose	This command analyzes an Activation Key and gives as a result the type of copy protection (installation code number), which will be set with this key. This command can only be used for keys which turn copy protection on (Unlock Key).
Params	

Parameter	*Type*	*Example*	*Note*
Key	String	HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh	Must be a Licen Protector Activat

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				Key

Returncode	***Returncode Type Integer***	***Note***
	-1	Key without copy protection
	0	Key which turns off copy protection
	1 to X	Key which turns on copy protection 1 = Volume ID 2 = MAC address etc. Complete list of all installation codes / hardware IDs 475

Usage	When the user types in a key you could use this information in your application logic

Sample	`iKeyinstcodetype := lic.GetKeyCopyProtectionType('HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh');`
	`<< in iKeyinstcodetype will change the copy protection to type x >>`
	`end`

See also	Commands to analyze an Activation Key 858

To use this command, the license file must have been opened 920 with one of the prepare commands.

See Analyze an Activation Key 858 for an overview about all commands.

16.3.2.5 GetKeyDays

This command analyzes an Activation Key and gives as a result the number of days the key will add to the expiry date in the license file

Name	**GetKeyDays**
Purpose	This command analyzes an Activation Key and gives as a result the number of days the key will add to the expiry date in the license file

Params	***Parameter***	***Type***	***Example***	***Note***
	Key	String	HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh	Must be a Licen Protector Activat Key

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Returncode	**Returncode Type Integer** / **Note** 0 — Unchanged - the expiry date will not be changed in the license 0-x — Number of days **added** to the license file. If the expiry date in the licens is in the past, then the days are added to **today's date** -1 — Value not defined. Key without a date information (turn on/off copy protection, tamper detection, reset run number) - use GetKeyType 698 t details
Usage	When the user types in a key you could use this information in your application logic

Sample	`iKeynumberdays := lic.GetKeyDays('HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh');`
	`<< application logic >>`
	`end`

See also	Commands to analyze an Activation Key 858

To use this command, the license file must have been opened 920 with one of the prepare commands.

See Analyze an Activation Key 858 for an overview about all commands.

16.3.2.6 GetKeyDemo

This command analyzes an Activation Key and gives as a result the value for the Demoversion flag.

Name	**GetKeyDemo**
Purpose	This command analyzes an Activation Key and gives as a result the value for the Demoversion flag.
Params	**Parameter** / **Type** / **Example** / **Note** Key — String — HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh — Must be a Licen Protector Activat Key
Returncode	**Returncode Type Integer** / **Note**

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	Key with license per PC, User or Concurrent User -1: Demo version status is unchanged . Also key without demo version stat (turn on/off copy protection, tamper detection, reset run number) - use GetKeyType 698 to get details 1: Demo version status is set to Yes 0: Demo version status is set to No
Usage	When the user types in a key you could use this information in your application logic

Sample	`iKeydemoversion := lic.GetKeyDemo(HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh);`
	`if iKeydemoversion = 0 then`
	`<< demoversion status is not changed >>`
	`...`
	`end`

See also	Commands to analyze an Activation Key 858

To use this command, the license file must have been opened 920 with one of the prepare commands.

See Analyze an Activation Key 858 for an overview about all commands.

16.3.2.7 GetKeyExpiryDate

This command analyzes an Activation Key and gives as a result the expiry date, which will overwrite the value in the license file

Name	**GetKeyExpiryDate**
Purpose	This command analyzes an Activation Key and gives as a result the expiry date, which will overwrite the value in the license file
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** Key / String / HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh / Must be a Licen Protector Activat Key
Returncode	***Returncode*** / ***Type*** / ***DateTime*** / ***Note***

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	30.12.1899 (12/18/1899)	Empty = The date will not be changed
	Other value	The date, which will be written into the license file
	29.12.1899 (29/18/1899)	Value not defined. Key without a date information (turn on/off copy protection, tamper detection, reset run number) - use GetKeyType 698 t details
Usage	When the user types in a key you could use this information in your application logic	
Sample	`dtKeyexpirydate := lic.GetKeyExpiryDate('HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh');` `<< application logic >>`	
See also	Commands to analyze an Activation Key 858	

To use this command, the license file must have been opened 920 with one of the prepare commands.

See Analyze an Activation Key 858 for an overview about all commands.

16.3.2.8 GetKeyForceOnlineCheck

This command analyzes an Activation Key and gives as a result, if the key will be sent to the Activation Server 6 for online validation.

Name	**GetKeyForceOnlineCheck**			
Purpose	This command analyzes an Activation Key and gives as a result, if the key will be sent to the Activation Server 6 for online validation.			
Params	***Parameter***	***Type***	***Example***	***Note***
	Key	String	HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh	Must be a Licen Protector Activat Key
Returncode	***Returncode Type Boolean***	***Note***		
	True	the key will be sent to Activation Server 6 for online validation		
	False	the key will **not** be sent to Activation Server 6 for online validation		

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Usage	When the user types in a key you could use this information in your application logic

Sample	`bOk := lic.GetKeyForceOnlineCheck('HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh');`
	`if bOk then`
	`begin`
	`  << key does not connect to the Internet >>`
	`  ...`
	`end`
	`else`
	`begin`
	`  ...`

See also	Commands to analyze an Activation Key 858

To use this command, the license file must have been opened 920 with one of the prepare commands.

See Analyze an Activation Key 858 for an overview about all commands.

16.3.2.9 GetKeyInstCode

This command analyzes an Activation Key and gives as a result the 8 digit installation code, which will be set with this key. This command can only be used for keys which turn copy protection on (Unlock Key). For all other keys, the license file ID is retrieved as an hex value. If no ID is set or the ID=0 then the result value will be

- Use GetKeyType 698 to analyze if the key is from type = 1
- Use GetKeyCopyProtectionType 688 to retrieve the installation code number

Name	**GetKeyInstCode**
Purpose	This command analyzes an Activation Key and gives as a result the 8 digit installation code, which will be set with this key. This command can only be used for keys which turn copy protection on (Unlock Key).
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** Key / String / HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh / Must be a Licence Protector Activatio Key
Returncode	***Returncode Type String*** / ***Note*** Empty / No installation code could be retrieved (license file ID = 0 and no copy protection code is set)

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	Other code (always 8 characters long) — Installation code which will be set for this license file. It it is not a copy protection key (use GetKeyType 698)
Usage	When the user types in a key you could use this information in your application logic

Sample	`scode := lic.GetKeyInstCode('HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh');`
	`if sCode = '' then`
	`begin`
	`<< No installation code could be retrieved >>`
	`...`
	`end`
	`else`
	`begin`
	`<< use the installation code >>`
	`...`

See also	Commands to analyze an Activation Key 858

To use this command, the license file must have been opened 920 with one of the prepare commands.

See Analyze an Activation Key 858 for an overview about all commands.

16.3.2.10 GetKeyIsSerial

This command analyzes an Activation Key and gives as a result, if the key is a Serial Number 301 (which can be used for product activation) or not.

Name	**GetKeyIsSerial**
Purpose	Retrieve the value of a Yes/No Activation Key

Params

Parameter	*Type*	*Example*	*Note*
Key	String	HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh	Must be a Licen Protector Activat Key

Returncode

Returncode Type Boolean	*Note*
True	The key is a Serial Number

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	False: The key is not a Serial Number
Usage	When the user types in a key you could use this information in your application logic

Sample	`bOK := lic.GetKeyIsSerial('HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh');`
	
	`if bOk then`
	`begin`
	`  << key is a Serial Number >>`
	`  ...`
	`end`
	`else`
	`begin`
	`  ...`

See also	Commands to analyze an Activation Key 858

16.3.2.11 GetKeyLicences

This command analyzes an Activation Key and gives as a result the number of users, computers, concurrent users, counter value, item counter value.

Name	**GetKeyLicences**
Purpose	Retrieve the number of users, computers, concurrent users, counter value, item counter value of an Activation Key
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** Key / String / HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh / Must be a Licenc Protector Activat Key
Returncode	***Returncode Type Integer*** / ***Note*** -1: Key without number of licenses (turn on/off copy protection, tamper detection, reset run number). 0: Number of licenses = unchanged. It the module type 698 is from typ Yes/No then it is always 0. Use GetKeyYesNo 699 1-x: Number of licenses
Usage	When the user types in a key you could use this information in your application logic
Sample	`iKeynumber := lic.GetKeyLicences('HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh');`

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	<<< application logic >> end
See also	Commands to analyze an Activation Key 858

To use this command, the license file must have been opened 920 with one of the prepare commands.

See Analyze an Activation Key 858 for an overview about all commands.

16.3.2.12 GetKeyLocalReuse

This command analyzes an Activation Key and gives as a result, if the key can be used multiple times on the same machine, which allows a reinstallation.

Name	**GetKeyLocalReuse**
Purpose	This command analyzes an Activation Key and gives as a result, if the key can be used multiple times on the same machine, which allows a reinstallation.
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** Key / String / HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh / Must be a Licen Protector Activat Key
Returncode	***Returncode Type Boolean*** / ***Note*** True / the key will allow a reinstallation False / the key will **not** allow a reinstallation
Usage	When the user types in a key you could use this information in your application logic

Sample	`bOk := lic.GetKeyLocalReuse('HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh');`
	`if bOk then`
	`begin`
	`  << key can be used on this machine multiple times >>`
	`  ...`
	`end`
	`else`
	`begin`
	`  ...`

See also	Commands to analyze an Activation Key 858

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To use this command, the license file must have been opened 920 with one of the prepare commands.

See Analyze an Activation Key 858 for an overview about all commands.

16.3.2.13 GetKeyModule

This command analyzes an Activation Key and retrieves the moduleID 194.

Name	**GetKeyModule**
Purpose	Retrieve the module ID of an Activation Key
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** Key / String / HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh / Must be a Licence Protector Activation Key
Returncode	***Returncode Type String*** / ***Note*** Empty / This key has no module ID. It could e.g. be an Unlock Key or a key to turn on/off Copy Protection. You could use GetKeyType 698 to find out, what type of key it is QHD001 / The module ID the Activation Key was made for
Usage	When the user types in a key you could use this information for which module the key was made for

Sample	`sKeymodule := lic.GetKeyModule('HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh');`
	`if sKeymodule = '' then`
	`begin`
	`  << this is a key without a module ID >>`
	`  ...`
	`end`
	`else`
	`begin`
	`  << use the module ID >>`
	`  ...`

See also	Commands to analyze an Activation Key 858

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To use this command, the license file must have been opened 920 with one of the prepare commands.

See Analyze an Activation Key 858 for an overview about all commands.

16.3.2.14 GetKeyType

This command analyzes an Activation Key and gives as a result the type of a key (e.g. turn on Copy Protection).

Name	**GetKeyType**
Purpose	Retrieve the type of an Activation Key
Params	

Parameter	*Type*	*Example*	*Note*
Key	String	HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh	Must be a Licen Protector Activat Key

Returncode

Returncode Type Integer	*Note*
0	it is a standard Activation Key for a module
1	key to turn on copy protection (Unlock Key) - see also GetKeyInstCode 689 GetKeyCopyProtectionType 688
2	key to turn off copy protection
3	key to reset the local run number 419
4	key to reset the global run number 419
5	key to turn on tamper detection 419
6	key to turn off tamper detection 419

Usage: When the user types in a key you could use this information in your application logic

Sample:

```
iKeytype := lic.GetKeyType(HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh);
if iKeytype = 0 then
 << analyze the key >>
...
end
```

See also: Commands to analyze an Activation Key 858

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To use this command, the license file must have been opened 920 with one of the prepare commands.

See Analyze an Activation Key 858 for an overview about all commands.

16.3.2.15GetKeyYesNo

This command analyzes an Activation Key from type Yes/No. For all other keys uses GetKeyLicences 691.

Name	**GetKeyYesNo**
Purpose	Retrieve the value of a Yes/No Activation Key
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** Key / String / HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh / Must be a Licen Protector Activat Key
Returncode	***Returncode Type Integer*** / ***Note*** -1 / Value = unchanged 0 / Values = No 1 / Value = Yes
Usage	When the user types in a key you could use this information in your application logic

Sample	`iKeynumber := lic.GetKeyYesNo('HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh');`
	`<< application logic >>`
	`end`

See also	Commands to analyze an Activation Key 858

To use this command, the license file must have been opened 920 with one of the prepare commands.

See Analyze an Activation Key 858 for an overview about all commands.

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16.3.2.16IsKeyValid

This command validates, if the Activation Key is a valid key for the product.

Name	**IsKeyValid**
Purpose	This command validates, if the Activation Key is a valid key for the product.
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** Key / String / HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh / Must be a Licen Protector Activat Key
Returncode	***Returncode Type Boolean*** / ***Note*** True / The Activation Key can be used for this product False / The Activation Key cannot be used for this product
Usage	Use this function before you use a command like ApplyActivationKey 644 or any other command, which uses an Activation Key as a parameter

Sample	`bOk := lic.IsKeyValid('HX4a7-5CYE0-11CFy-6sjwX-kcC3Q-Aj8Eh');`
	`if bOk then`
	`begin`
	`  << it is a valid Activation Key >>`
	`  ...`
	`end`
	`else`
	`begin`
	`  ...`

See also	Commands to analyze an Activation Key 858

To use this command, the license file must have been opened 920 with one of the prepare commands.

See Analyze an Activation Key 858 for an overview about all commands.

16.3.3 Cache Mode

All Licence Protector methods that do change data and have to store those data in the license file reread the complete license file from the hard disk before performing and writing the data back. This ensures that the file will always be consistent.

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If several methods have to be called sequentially, for example the validation of several modules at application start, this procedure needs some time: If the security level advanced is used every call could take up to 1 second, as the complete file has to be decrypted. To speed up this process significantly, the cache mode could be used.

Use the **write cache mode only in a single user environment** as saving back the cache to the hard disk would overwrite all changes in the license file, which have been done by another computer in the network. **Read cache** can be used in multi user environment.

Important

- Use a cache **only for the time you really need it** - e.g. during program start to retrieve all modules. Close the cache as soon as possible with EndCache 669
- Before you use one of the Prepare commands 920 to open a license file you have to close the cache with EndCache 669
- For a network license you can use the ReadCache 649. If a validate command would update the license file (e.g. because a new user is added), it updates the cache and as a next step, the license file would be automatically updated. There is a small chance that this data is lost in case another use would also be added in the same moment
- Never use the cache with concurrent user license

Click on the ⊞ sign on the left side to get all DLL commands related to *Cache Mode*.

16.3.3.1 BeginCache

This command starts the cache mode for **reading and writing**. The license file is **loaded into the computer memory** and every DLL command, reading a license file value, reads the value from the memory. If a DLL command modifies a license file value, the value is changed in the memory and **not on the hard disk**. The cache mode can be changed with BeginReadCache 649, which would save changes in the license file to the hard disk.

Use this command, if values from multiple modules have to be changed to speed up the access time significantly.

Name	**BeginCache**
Purpose	Reads and writes all license file values in cache mode
Params	None
Returncode	***Returncode Type Integer*** | ***Note***

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	0 — The read and write cache was successfully activated. CacheMode 674 is set to 3 Other return codes — Cache activation failed, see list of return codes 635
Usage	Speed up reading of multiple values in a license file

Sample	`iRes := lic.BeginCache;`
	`<< start reading values>>`
	`iRes := lic.EndCache;`

See also	GetCacheMode 674, BeginReadCache 649, EndCache 669, RefreshCache 743, RevertCache 750, WriteCache 824

Use this command only in a single user installation environment and not for a network license

16.3.3.2 BeginReadCache

This command starts the cache mode for **reading**. The license file is **loaded into the computer memory** and every DLL command, reading a license file value, reads the value from the memory. If a DLL command modifies a license file value, the complete license file is **updated on the hard disk**. The cache mode can be changed with BeginCache 648.

Use this command, if values from multiple modules are retrieved to speed up the access time significantly.

Name	**BeginReadCache**
Purpose	Reads all license file values in cache mode
Params	None
Returncode	***Returncode Type Integer*** — ***Note*** 0 — The read cache was successfully activated. CacheMode 674 is set to 1 Other return codes — Cache activation failed, see list of return codes 635
Usage	Speed up reading of multiple values in a license file

Sample	`iRes := lic.BeginReadCache;`
	`<< start reading values>>`
	`iRes := lic.EndCache;`

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See also	GetCacheMode 674, BeginCache 648, EndCache 669, RefreshCache 743, RevertCache 750, WriteCache 824

16.3.3.3 EndCache

This command ends the cache mode. If write commands have been cached, EndCache saves the updates to the disk.

Use this command, after you have activated the cache mode with BeginCache 648 or BeginReadCache 649.

Name	**EndCache**
Purpose	Terminates cache mode
Params	None
Returncode	***Returncode Type Integer*** / ***Note*** 0 / The cache mode successfully terminated. CacheMode 674 is set to 0 Other return codes / Cache mode termination failed, see list of return codes 635
Usage	Terminates cache mode

Sample	`iRes := lic.BeginCache;`
	`<< start reading values>>`
	`iRes := lic.`**`EndCache`**`;`

See also	GetCacheMode 674, BeginReadCache 649, BeginCache 648, RefreshCache 743, RevertCache 750, WriteCache 824

16.3.3.4 GetCacheMode

This command retrieves the mode of the cache. The cache mode has to be activated first using BeginReadCache 649 or BeginCache 648

Name	**GetCacheMode**
Purpose	This command retrieves the mode of the cache
Params	None
Returncode	***Returncode Type Integert*** / ***Note*** 0 / Cache is turned off

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	1 — Cache is in Read mode - opened with BeginReadCache 649 2 — Cache is in Read and Write mode - opened with BeginCache 648 Other return codes — Cache mode could not be retrieved, see list of return codes 635
Usage	Find out if the cache is turned on or not

Sample	`iRes := lic.BeginCache;`
	`<< start reading values>>`
	`iRes := lic.GetCacheMode;`
	`<< start reading values>>`
	`iRes := lic.EndCache;`

See also	EndCache 669, BeginReadCache 649, BeginCache 648, RefreshCache 743, RevertCache 750, WriteCache 824

16.3.3.5 RefreshCache

This command rereads the license file from the hard disk into the cache. The cache mode has to be activated first using BeginReadCache 649 or BeginCache 648. If write commands have been cached, RefreshCache **saves the updates to the disk** before the license file is loaded into the memory.

Name	**RefreshCache**
Purpose	Update the cache and save values to the hard disk
Params	None
Returncode	***Returncode Type Integer*** — ***Note*** 0 — The cache was successfully updated with the latest license file values Other return codes — Cache activation failed, see list of return codes 635
Usage	Update the cache

Sample	`iRes := lic.BeginCache;`
	`<< start reading values>>`
	`iRes := lic.RefreshCache;`
	`<< start reading values>>`
	`iRes := lic.EndCache;`

See also	GetCacheMode 674, BeginReadCache 649, BeginCache 648, EndCache 669, RevertCache 750, WriteCache 824

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16.3.3.6 RevertCache

This command rereads the license file from the hard disk into the cache. The cache mode has to be activated first using BeginReadCache 649 or BeginCache 648. If write commands have been cached, RevertCache **does not save the** updates to the disk before the license file is loaded into the memory. **All changes of the cache are lost**.

Name	**RevertCache**
Purpose	Update the cache and do NOT save values to the hard disk
Params	None
Returncode	***Returncode Type Integer*** / ***Note*** 0 / The cache was successfully updated with the latest license file values Other return codes / Cache activation failed, see list of return codes 635
Usage	Update the cache

Sample	`iRes := lic.BeginCache;`
	`<< start reading values>>`
	`iRes := lic.RevertCache;`
	`<< start reading values>>`
	`iRes := lic.EndCache;`

See also	GetCacheMode 674, BeginReadCache 649, BeginCache 648, EndCache 669, RefreshCache 743, WriteCache 824

16.3.3.7 WriteCache

This command **saves the modifications from the cache to the hard disk**. The cache mode has to be activated first using BeginReadCache 649 or BeginCache 648.

Name	**WriteCache**
Purpose	Save modified cache values to the hard disk
Params	None
Returncode	***Returncode Type Integer*** / ***Note*** 0 / The cache was successfully updated with the latest license file values

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	Other return codes: Cache activation failed, see list of return codes 635
Usage	Save modified cache values to the hard disk after DLL commands have modified values

Sample	`iRes := lic.BeginCache;`
	`<< start reading values>>`
	`iRes := lic.WriteCache;`
	`<< start reading values>>`
	`iRes := lic.EndCache;`

See also	GetCacheMode 674, BeginReadCache 649, BeginCache 648, EndCache 669, RevertCache 750, RefreshCache 743

16.3.4 Concurrent user

Concurrent user testing is normally handled with default values but there are a lot of commands, where you have complete control, how the testing is done. Find below a summary of all DLL commands for concurrent user testing.

The concurrent user testing is explained in the chapter: How do I implement concurrent user testing 465

Click on the ⊞ sign on the left side to get all DLL commands related to *Concurrent user testing*.

16.3.4.1 CheckIntervall

Name	**CheckInterval**
Purpose	Gets the interval between two automatic checks at a concurrent user module
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** ModuleID / String / D1001 / Unique ModuleID – identifies the module to be tested
Returncode	***Returncode Type Integer*** / ***Note*** -1 / An error occurred >= 0 / The seconds between two automatic checks in an activated concurrent user module
Usage	E.g. if you want to show the interval in a setting dialog

Sample	`iSec := lic.CheckInterval('D1006');`
	`if iSec < 0 then`
	`begin`

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	`iErr := lic.LastReturnCode;`
	`<< react on error code >>`
	`...`
	`end`
	`else`
	`begin`
	`<< use the interval information >>`
	`...`

See also	Concurrent user modules, SetCheckInterval

16.3.4.2 ConcurrentUserLevel

Defines the method how concurrent user testing is done.

The Light version disables the heartbeat 466 and allows to manually add (with Prepare) or remove a user 745.

Name	**ConcurrentUserLevel**
Alternative if property can not be used	Get_ConcurrentUserLevel → Integer Set_ ConcurrentUserLevel (Integer)
Purpose	Property to get or set the concurrent user level of the licence
Params	None
Returncode	***Returncode Type Integer*** / ***Note*** 0 / Heartbeat (default) 1 / Light (no heartbeat)
Usage	Read or set the level for all concurrent user modules in the licence.

Sample	`Get:`
	`bIsHearbeat := (lic.`**`ConcurrentUserLevel = 0`**`)`
	`<< use Boolean bIsHearbeat >>`
	
	`Set:`
	`lic.`**`ConcurrentUserLevel`**`:= 1; // use no heartbeat`

See also	Concurrent User mechanism 465

For a network license, use a **configuration file** where you can change the following values if required.

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- Share Mode 110
- ConcurrentUserLevel 660
- SetCheckInterval 756
- SetLogging 769
- SetBackupInterval 753
- SetWebRequestTimeOutInSec 799

16.3.4.3 DiffPct

Name	**DiffPct**
Purpose	Gets the tolerance in percent that is allowed for a client to do an automatic validate at a concurrent user module
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** ModuleID / String / D1006 / Unique ModuleID – identifies the module to be tested
Returncode	***Returncode Type Integer*** / ***Note*** -1 / An error occurred >= 0 / The tolerance in percent in an activated concurrent user module
Usage	E.g. if you want to show the interval in a setting dialog
Sample	
See also	Concurrent user modules, SetDiffPct

```
iPct := lic.DiffPct('D1006');
if iPct < 0 then
begin
    iErr := lic.LastReturnCode;
    << react on error code >>
    ...
end
else
begin
    << use the interval information >>
    ...
```

16.3.4.4 GetCUIsRunning

Name	**GetCUIsRunning**
Purpose	Checks if the concurrent user module for the user is running on the local Licence Protector instance

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<table>
<tr><td>Params</td><td>
<table>
<tr><th>Parameter</th><th>Type</th><th>Example</th><th>Note</th></tr>
<tr><td>ModuleID</td><td>String</td><td>D1006</td><td>Unique ModuleID – identifies the module to be tested</td></tr>
<tr><td>Name</td><td>String</td><td>Tom</td><td>The user or item name to check for</td></tr>
<tr><td>UseWindowsUser</td><td>Boolean</td><td>False</td><td>Determines if the windows login name should be used as name</td></tr>
</table>
</td></tr>
<tr><td>Returncode</td><td>
<table>
<tr><th>Returncode Type Integer</th><th>Note</th></tr>
<tr><td>-1</td><td>An error occurred (e.g. the module is unknown) Attention: LastReturnCode does not work!</td></tr>
<tr><td>0</td><td>Module is not running</td></tr>
<tr><td>1</td><td>Module is running</td></tr>
</table>
</td></tr>
<tr><td>Usage</td><td>E.g. to check whether the concurrent user module for the user is already activated on that client</td></tr>
<tr><td>Sample</td><td>

```
iRun := lic.GetCUIsRunning('D1006', '', true);
if iRun = 1 then
begin
   << Module D1006 already runs >>
   ...
end
else
begin
   << Module does not exist or is not running >>
   ...
```

</td></tr>
<tr><td>See also</td><td>Concurrent user modules, GetCULastValidate, GetCUNextValidate, GetCURunCounter</td></tr>
</table>

16.3.4.5 GetCULastValidate

<table>
<tr><td>Name</td><td>GetCULastValidate</td></tr>
<tr><td>Purpose</td><td>Gets the time of the last automatic validate for the concurrent user module on the local Licence Protector instance</td></tr>
<tr><td>Params</td><td>
<table>
<tr><th>Parameter</th><th>Type</th><th>Example</th><th>Note</th></tr>
<tr><td>ModuleID</td><td>String</td><td>D1006</td><td>Unique ModuleID – identifies the module to be tested</td></tr>
<tr><td>Name</td><td>String</td><td>Tom</td><td>The user or item name to check for</td></tr>
</table>
</td></tr>
</table>

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	UseWindowsUser | Boolean | False | Determines if the windows login name should be used as name
Returncode	***Returncode Type DateTime*** / ***Note*** 1899-12-30 00:00:00 representing 0 as float value / The module is not running or an error occurred (e.g. the module is unknown) Attention: LastReturnCode does not work! Other times / Time of last validate on that client
Usage	E.g. to show the time in a kind of system settings dialog

Sample	`dtTime := lic.GetCULastValidate('D1006', '', true);`
	`if dtTime = 0 then`
	`begin`
	`  << no usable time due to an error >>`
	`  ...`
	`end`
	`else`
	`begin`
	`  << show the time or use it in calculations>>`
	`  ...`

See also	Concurrent user modules, GetCUIsRunning, GetCUNextValidate, GetCURunCounter, CheckInterval, SetCheckInterval

16.3.4.6 GetCUNextValidate

Name	**GetCUNextValidate**
Purpose	Gets the time of the planned next automatic validate for the concurrent user module on the local Licence Protector instance
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** ModuleID / String / D1006 / Unique ModuleID – identifies the module to be tested Name / String / Tom / The user or item name to check for UseWindowsUser / Boolean / False / Determines if the windows login name should be used as name
Returncode	***Returncode*** / ***Note***

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	Type DateTime |
	1899-12-30 00:00:00 representing 0 as float value | The module is not running or an error occurred (e.g. the module is unknown) Attention: LastReturnCode does not work!
	Other times | Time of the next validate on that client
Usage	E.g. to show the time in a kind of system settings dialog

Sample	`dtTime := lic.GetCUNextValidate('D1006', '', true);`
	`if dtTime = 0 then`
	`begin`
	`  << no usable time due to an error >>`
	`  ...`
	`end`
	`else`
	`begin`
	`  << show the time or use it in calculations>>`
	`  ...`

See also	Concurrent user modules, GetCUIsRunning, GetCULastValidate, GetCURunCounter, CheckInterval, SetCheckInterval

16.3.4.7 GetCURunCounter

Name	**GetCURunCounter**
Purpose	Gets the number of times an automatic validate for the concurrent user module has taken place on the local Licence Protector instance

Params

Parameter	***Type***	***Example***	***Note***
ModuleID	String	D1006	Unique ModuleID – identifies the module to be tested
Name	String	Tom	The user or item name to check for
UseWindowsUser	Boolean	False	Determines if the windows login name should be used as name

Returncode

Returncode Type Integer	***Note***
-1	An error occurred (e.g. the module is unknown) Attention: LastReturnCode does not work!

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	>= 0 | Number of times an automatic validate has taken place
Usage	E.g. to show the number in a kind of system settings dialog

Sample	`iRun := lic.GetCURunCounter('D1006', '', true);`
	`if iRun = -1 then`
	`begin`
	`  << an error occurred or no valid module >>`
	`  ...`
	`end`
	`else`
	`begin`
	`  << use the extracted information in iRun>>`
	`  ...`

See also	Concurrent user modules, GetCUIsRunning, GetCULastValidate, GetCURunCounter, CheckInterval, SetCheckInterval

16.3.4.8 Quit

Closes the license file and terminates the testing. Should be used at the end of the application.

Name	**Quit**
Purpose	Ends the usage of Licence Protector 5 and frees its used resources.
Params	None
Returncode	***Returncode Type Integer*** | ***Note*** 0 | The license file was successfully closed Other return codes | Prepare failed, see list of return codes
Usage	Important function in order to end the usage of Licence Protector 5. Generally used at closing the application.

Sample	`iRes := lic.Quit;`
	`<< ignore the result and continue closing the application >>`
	`...`

See also	Prepare, Validate

For concurrent user testing 465 quit may be used only at the end of the application. It removes **all users from all modules**. If you want to terminate the user of a single module (only in concurrent user mode), use the command StopConcurrentUsage 808.

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16.3.4.9 RemoveAllItems

Removes (deletes) **all** users, PCs or items from a module. The license for each item is then available again.

Sample
6 user license: 4 users are using a license and 2 licenses are free. After using *RemoveAllItems* all 6 licenses are available again.

Name	**RemoveAllItems**
Purpose	Physically removes all users, PCs or items from a module.
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** ModuleID / String / D1001 / Unique ModuleID – identifies the module to be tested
Returncode	***Returncode Type Integer*** / ***Note*** 0 / All users, PCs or items are removed Other return codes / Operation failed, see list of return codes
Usage	Remove all users or items (not only the deactivated ones) from the license file by calling *RemoveAllItems.*

Sample	`iRes := lic.RemoveAllItems('D1001');`
	`if iRes <> 0 then`
	`begin`
	`  << an error occurred >>`
	`  ...`
	`end`
	`else`
	`begin`
	`  << module is now empty, no items or modules in it anymore, continue >>`
	`  ...`

See also	ExistsEntry, DeactivateEntry, ActivateEntry, GetEntriesOfModule, IsEntryActivated, RemoveDeactivated

If you want to remove only a single item / user, then

- Deactivate 658 the item / user
- Remove the deactivated item / user with command RemoveDeactivated 746.

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16.3.4.10 SetCheckInterval

You can overwrite the default interval 471 with an own interval.

Name	**SetCheckInterval**
Purpose	Sets the interval for automatic validates in a concurrent user module.
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** ModuleID / String / D1006 / Unique ModuleID of a concurrent user module Interval / Integer / 120 / The interval in seconds
Returncode	***Returncode Type Integer*** / ***Note*** 0 / Interval successfully set > 0 / Error occurred, see list of return codes
Usage	To change the current checking interval.

Sample	`iRes := lic.SetCheckInterval ('D1006', 120);`
	`if iRes <> 0 then`
	`begin`
	`  << an error occurred >>`
	`  ...`
	`end`
	`else`
	`begin`
	`  << interval successfully set to 2 minutes >>`
	`  ...`

See also	Concurrent user, CheckInterval

For a network license, use a **configuration file** where you can change the following values if required.

- Share Mode 110
- ConcurrentUserLevel 660
- SetCheckInterval 756
- SetLogging 769
- SetBackupInterval 753
- SetWebRequestTimeOutInSec 799

.

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16.3.4.11 SetDiffPct

Name	**SetDiffPct**
Purpose	Sets the tolerance in percent for automatic validates in a concurrent user module.
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** ModuleID / String / D1006 / Unique ModuleID of a concurrent user module Pct / Integer / 10 / The tolerance in percent
Returncode	***Returncode Type Integer*** / ***Note*** 0 / Tolerance successfully set > 0 / Error occurred, see list of return codes
Usage	To change the current tolerance.

Sample	`iRes := lic.SetDiffPct ('D1006', 10);`
	`if iRes <> 0 then`
	`begin`
	`  << an error occurred >>`
	`  ...`
	`end`
	`else`
	`begin`
	`  << interval successfully set to 2 minutes >>`
	`  ...`

See also	Concurrent user, CheckInterval, DiffPct

16.3.4.12 StoppConcurrentUsage

Name	**StopConcurrentUsage**
Purpose	Stops the concurrent usage of a module for a user
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** ModuleID / String / D1006 / Unique ModuleID – identifies the module to be tested Name / String / Tom / The user or item name to check for UseWindowsUser / Boolean / False / Determines if the windows login name should be used as name
Returncode	***Returncode Type Integer*** / ***Note***

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	0 — Ok, User no longer use this module 256 — Module with the specified user is not recognized as running concurrent user
Usage	An alternative for quit which stops all local concurrent users. StopConcurrentUsage only stops the specified user for the specified module and frees that one slot for other users.

Sample	`iRes := lic.StopConcurrentUsage('D1006', '', true);`
	`if iRes = 0 then`
	`begin`
	`  << successfully removed >>`
	`  ...`
	`end`
	`else if iRes = 256 then`
	`begin`
	`  << user on that module probably wasn't active >>`
	`  ...`
	`end`
	`else`
	`begin`
	`  << another error occurred >>`
	`  ...`

See also	Concurrent User Modules, Validate, Quit, GetCUIsRunning, GetCUNextValidate, GetCULastValidate, GetCURunCounter

If you want to remove the user from **all modules**, use QUIT 179 at the end of your application.

16.3.4.13 Validate / PrepareAndCheck

The following commands start the concurrent user testing:

- Validate 818
- ValidateEX 820
- PrepareAndCheck 162

If you set *Quit* to true in the PrepareAndCheck statement, the user would be instantly removed from the license file. It has the same effect like using the command Quit. 179

16.3.5 EasyGo Dialog

The EasyGo dialogs can be customized to present the user a GUI with exactly the options, you need for your application. As different applications need different levels of customizations, there are several DLL commands for the customization.

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Click on the ⊞ sign on the left side to get all DLL commands related to EasyGo.

16.3.5.1 GetActionsOfLastPrepareAndCheck

This command can be used to find out, if the command PrepareAndCheck 162 did just a regular license check or

- If a Serial Number was used, but the activation is not completed (e.g. activation by e-mail, fax)
- If an activation was completed (e.g. an Unlock Key was typed in)
- If a Serial Number was used and the activation was completed (online activation)

It also delivers as a return value which product activation option (online, e-mail, fax, phone) was used.

This information is useful if you want to implement an action which should done **only once directly after the product activation**. A sample would be to upload a license file after the product is activated (using UploadLic 814).

The return value is given only **once** after the above described events. Otherwise the return value is always empty

<table>
<tr><td>Name</td><td>GetActionsOfLastPrepareAndCheck</td></tr>
<tr><td>Purpose</td><td>Gets the customer’s name from within the license file.</td></tr>
<tr><td>Params</td><td>None</td></tr>
<tr><td>Returncode</td><td>
<table>
<tr><th>Returncode Type String</th><th>Note</th></tr>
<tr><td>Empty</td><td>regular license check</td></tr>
<tr><td>A</td><td>Serial Number was used</td></tr>
<tr><td>U</td><td>Activation completed</td></tr>
<tr><td>AU</td><td>Serial Number was used and activation completed</td></tr>
</table>
X indicates the product activation option which was used
<table>
<tr><td>0</td><td>Online</td></tr>
<tr><td>1</td><td>e-mail</td></tr>
<tr><td>2</td><td>Fax</td></tr>
<tr><td>3</td><td>Phone</td></tr>
</table>
Example:
</td></tr>
</table>

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	A1 = Serial Number was typed in using e-mail Activation U2 = Unlock Key was typed and the selected activation option was Fax A3U = Activation by phone, Serial Number + Unlock Key
Usage	Extract the customer to display or use it inside the application code.

Sample	`sCust := lic.GetActionsOfLastPrepareAndCheck ;`
	`<< >>`
	`...`

See also	GetWebActivation 717

To find out, if a product was activated or not you can use GetWebActivation 717.

16.3.5.2 GetSerial

Returns the Serial Number of a module.

Name	**GetSerial**
Purpose	Gets the Serial Number for the specified module
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** ModuleID / String / QHD001 / If the module ID is empty the main module is
Returncode	***Returncode Type String*** / ***Note*** Serial Number / Serial Number of the module Empty / No Serial Number was used for this Module

Sample	`sSerial := lic.GetSerial('QHD001');`
	`<< >>`
	`...`

See also	

16.3.5.3 PrepareAndCheck

This is the main command to invoke the EasyGo dialogs and perform the **complete basic license testing**:

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- open the license file with the EasyGo screens
- check if it is a time limited trial version - in case the trial expired, displays the screen: Evaluation period expired 253
- check if the system date was tampered with (only if CheckSysdateChanged 112 was used). In case of an error displays the screen: System date was tampered 275
- check if the product is activated - otherwise offers to use one of the specified activation methods 228
- check if copy protection is OK - in case of an error displays the screen: copy protection violation 264 and try an automatic reactivation
- check if network license is OK - in case of an error displays the screen: No free license available 272
- check if a user / PC was deactivated -in in case of an error displays the screen: Network license -deactivated 272

See List of Return / Error Codes 635 and Other Errors 638.

Name	**PrepareAndCheck**
Purpose	Opens the license file and executes the EasyGo form.

Params

Parameter	*Type*	*Example*	*Note*
license file 66	String	F:\mylic.lic	The full path to the license file . See details for UNC pathnames
ProjectSecureKey/ ReadKey	String	I am a project secure key	The project secure key for that license file. See details - Read Key 166 Note: Using a PSK is supported for backward compatibility but should not be used.
ModuleID	String	QHD001	Unique ModuleID – identifies the module to be tested in EasyGo functionality - see details main module 166
Name	String		The user or item name to check the module for. Normally, you would pass this information only if you have an own user administration. Default option is

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			to use the automatic function - UseWindowsUser = true
UseWindows User	Boolean	True	Determines if the windows login name or hostname should be used as name for the license. Concurrent User uses a combination of username and PC name. If the module is an Item Counter, provide the name for the item counter in the field Name and set UseWindowsUser to false
Quit	Boolean	False	Controls whether the Licence Protector 5 object is available (for further calls) an the license file is not closed or if it is not needed any more and therefore quit. On false (no quit) the Quit 179 has to be made explicitly at end of the application. For concurrent user testing 552 quit must be set to false. If you need any other testing after PrepareAndCheck also set quit to false
TagValue	String, **output**	Empty	A variable which can absorb the Tag value of the main module. For details see Using the TAG value 459 (Anti Hacker Strategies)

Returncode

Returncode Type Integer	***Note***
0	The license file was successfully opened and the main module was successfully checked or even activated. It is also possible that the main module is in an evaluation state.

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	<table><tr><td>2</td><td>The license file could not be found or was not opened</td></tr><tr><td>4</td><td>EasyGo screen terminated by closing the screen with X (close button) or using the END button</td></tr><tr><td>16</td><td>Trial or full version expired</td></tr><tr><td>32</td><td>No more free license (only when using network license per computer, user or concurrent user)</td></tr><tr><td>1024</td><td>This is a copy protection violation. The Installation Code of the license file doesn't match with the %ID%. See common reasons for this error</td></tr><tr><td>2048</td><td>The file %filename% is not a valid license file or file cannot be opened See common reasons for this error</td></tr><tr><td>3010</td><td>Online Activation - The Serial Number was already used on another PC</td></tr><tr><td>16382</td><td>If CheckSysdateChanges is set to true and Licence Protector 5 recognizes that the date was manipulated then you get this error code.</td></tr><tr><td>Other return codes</td><td>Prepare or Validate failed, see list of return codes 635</td></tr></table>
Usage	Important function in order to use Licence Protector 5

Sample	<pre>iRes := lic.**PrepareAndCheck**(sMyLicfile, 'XTIORHjmV65XFlH/pRYBjxlRJnhCL....', 'D1001', '', true, false, sTagVariable);
	if iRes <> 0 then
	begin
	<< *an error occurred* >>
	...
	end
	else
	begin
	<< *everything is fine, continue* >>
	...</pre>

See also	EasyGo, SetRegisterSettings, SetRegisterHelp, SysdateChanged, CheckSysdateChanged, Validate, ValidateEx, Quit, PrepareForce, PrepareAdvanced

Some compilers (known for Visual Studio C++ 2007 an newer) crash when using this command. The reason is the tag value parameter. Use **PrepareAndCheckNT** 735 instead. The command has the same parameters but **no tag value parameter.**

You can terminate your application if the error code is not 0. 0 means that everything is OK. The activation does not indicate the status of the license (e.g. trial version, activation done) because EasyGo handles everything automatically.

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If you do a manual system date modification check with SysDateChanged 809, you have to call this command even if the status code of PrepareAndCheck is not 0. SysDateChanged 809 generates an internal flag that the application was started today even when the start fails, e.g. because the license expired. The flag is set automatically if CheckSysDateChanged 112 is used instead.

If you need status information about a module, use GetWebActivation 717, RemainingDays 744, RemainigLicenses 744 - list of commands 171 to retrieve module information.

If the version expires, the number of licenses are not sufficient or copy protection is violated, this is indicated with an different error code.

You have to set the SecurityLevel 110 before you can use this command

The PrepareAndCheck command would display screens indicating that an online validation is done. The screens can be suppressed using ShowWAStartPage 806, ShowWAProgressPage 804 and ShowWAResultPage 806

The command SetRegisterSerialNo 776 would display this Serial Number as a default value in the activation dialogues

See also

Module ID 166
Read Key 166
Open multiple license files at the same time 167

16.3.5.4 SetCustomText

The text on **all screens** and for **each language** can be changed. This function is ideal to change a few line of text but it cannot be used to add a new language.

To change a line of text, specify the language ID, a text ID and the new text.

Name	**SetCustomText**
Purpose	Checks if an entry (user, computer, item) is registered in a module
Params	***Parameter*** | ***Type*** | ***Example*** | ***Note***

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	Language	String	2	see overview about all language IDs 108. Languag ID **cannot be 0**
	Index	Integer	601	see detail list below - defin language text. Range 1-9999
	Text	String	I have a Serial Number and I want to activate $product	Text for the selected language and Index. Replaces default text

Returncode	***Returncode Type Integer***	***Note***
	0	Command was successful
	Other return codes	Error occurred, see list of return codes 635

Sample	`bOk := lic.SetCustomText(2,613, 'Activation by phone');`
See also	SetRegisterSettings 116; SetLanguage 108

Change the text for each language

To change a line of text, you have to search in the language text file. A good idea is to search the English translation and then use this number to find the text in another language. You have to change the text for each language used by your application.

Example 1:
You want to change the following text in Danish language, which has language code 11.
Search in language Code 2 = English language
2**0613**, "Phone Activation"

To change the Danish translation
SetCustomText (11,613, 'Telefonaktivering')

Example 2:
You don't work with a Serial Number. Your unique ID is the customer number.

2**0657**, "To further use this product you have to activate it by entering a Serial Number."

To change the English translation

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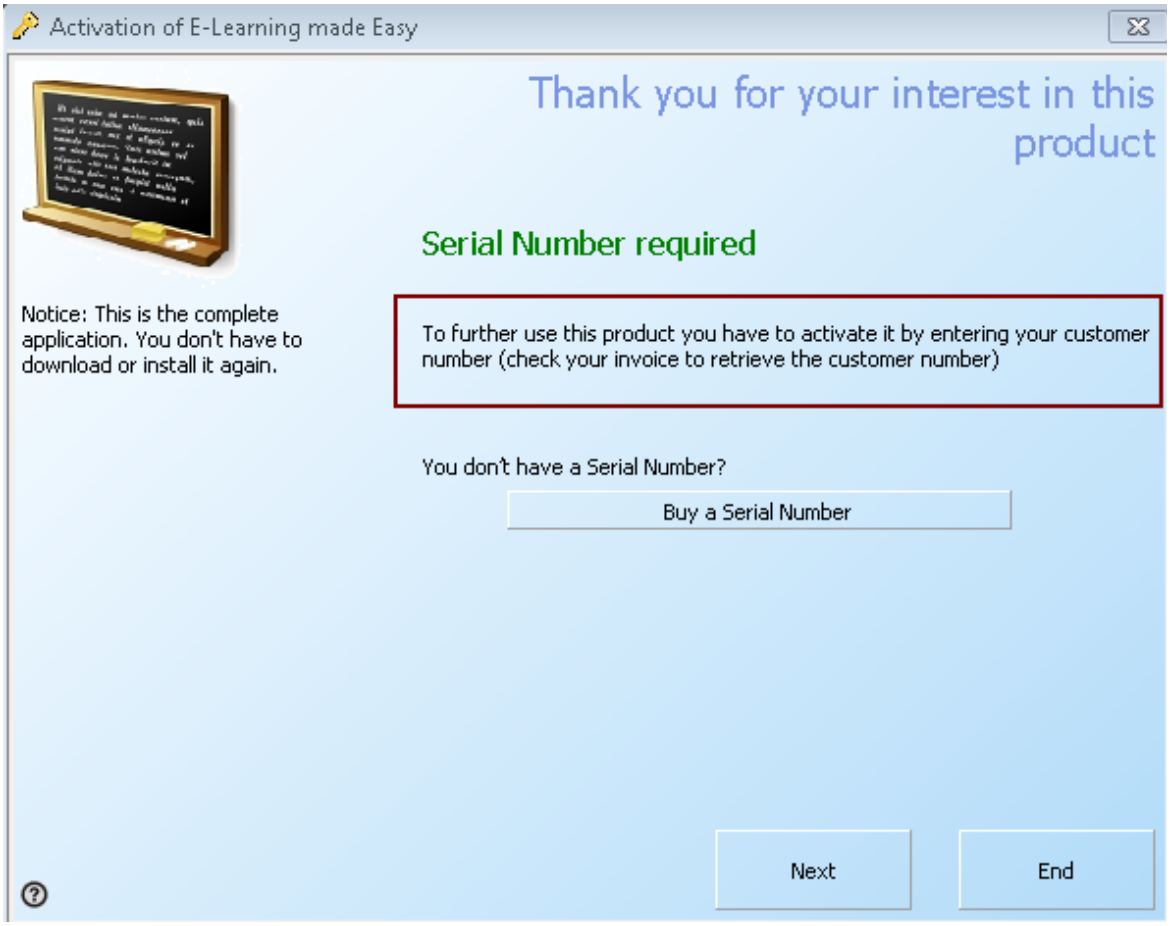
SetCustomText (2,657,'To further use this product you have to activate it by entering your customer number (check your invoice to retrieve the customer number)')



Of course you can change all the other text like: *Serial Number required* to *Customer Number* required or *Buy a Serial Number* to *Buy this product now*

SetCustomText (2,603,'You don't have a Customer Number?')
SetCustomText (2,604,'Buy this product now')
SetCustomText (2,656,'Customer Number required')

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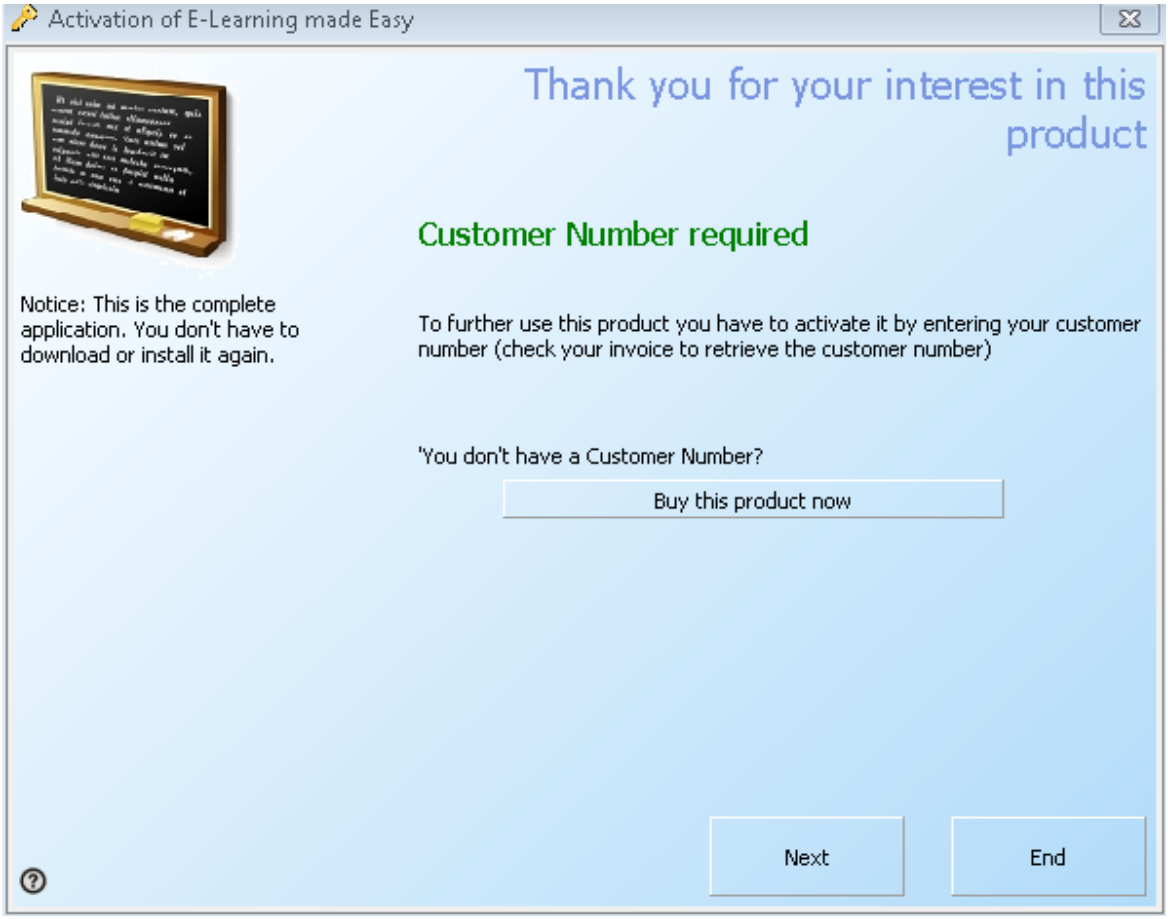

Text followed by a $ sign may never be changed. It is a variable. Examples are $product or $days. The name of the variable is the same in all languages.

Example

20744, "This is an evaluation version. You can evaluate **$product** for another **$days** day(s)."

The characters \n insert a new line.

Download language file

Download the latest language text file. It is a zip file which includes, depending on the character set, different TXT files. The English translation can be found in the file: *languagecommon_1252_WEUR.unicode*. Click here and save it on your hard disk.

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16.3.5.5 SetLanguage

Define the language for all screens and messages. The default language setting is English but we recommend defining the language even if only English is used. With language code = **0** the language, which is configured in the operating system, is used. If the operating system uses an unsupported language, the default language would be used.

The language, which is in use by Licence Protector 5, can be retrieved with GetLanguage 700.

As Licence Protector 5 supports Unicode, a screen with Chinese characters can be used on an English operating system.

Name	**SetLanguage**
Purpose	Sets the language for Activation Screens, messages and the License Viewer.

Params

Parameter	*Type*	*Example*	*Note*
Language	String	2	**Language configured in Windows** = 0 German – 1 English – 2 (Default language if this command is not used) French – 3 Italian – 4 Portuguese European – 5 (no longer in use. Is converted to 6) Portuguese - 6 Dutch – 7 Swedish – 8 Spanish – 9 Norwegian – 10 Danish - 11 Serbian - 12 Czech - 13 Polish - 14 Turkish - 15 Chinese simple - 16 Chinese traditional - 17 Greek - 18 Lithuanian - 19 Japanese - 20 Russian - 21 Vietnamese - 22

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	<table><tr><th>*Parameter*</th><th>*Type*</th><th>*Example*</th><th>*Note*</th></tr><tr><td></td><td></td><td></td><td>Bulgarian - 23</td></tr></table>
Returncode	<table><tr><th>*Returncode* *Type Integer*</th><th>*Note*</th></tr><tr><td>0</td><td>Language successfully set</td></tr><tr><td>8193</td><td>This language is not supported</td></tr><tr><td>Other value</td><td>Error occurred, see list of return codes 635</td></tr></table>
Usage	To change the current language for messages and the License Viewer

Sample	<pre>iRes := lic.**SetLanguage**(2);
	if iRes <> 0 then
	begin
	  << *an error occurred* >>
	  ...
	end
	else
	begin
	  << *language successfully set to english* >>
	  ...</pre>

See also	GetLanguage 700, SetRegisterLanguages 134

- It is possible to use this command before a license file has been opened.
- You can define, that the user gets a list with languages, where he can select the desired language during the first program start with the command SetRegisterLanguages 134.
- You can always create an own GUI of the end user screens for languages, which are not supported right now - e.g. Russian or Chinese. See chapter Custom-made User Interface 495

16.3.5.6 SetNewsletter

Define up to 4 newsletter fields as a checkbox. If selected, this information is collected during product activation and is sent to the Activation Server 6.

The newsletter information is sent if **online, e-mail** or **fax** is selected as activation option. It is not available for activation by phone.

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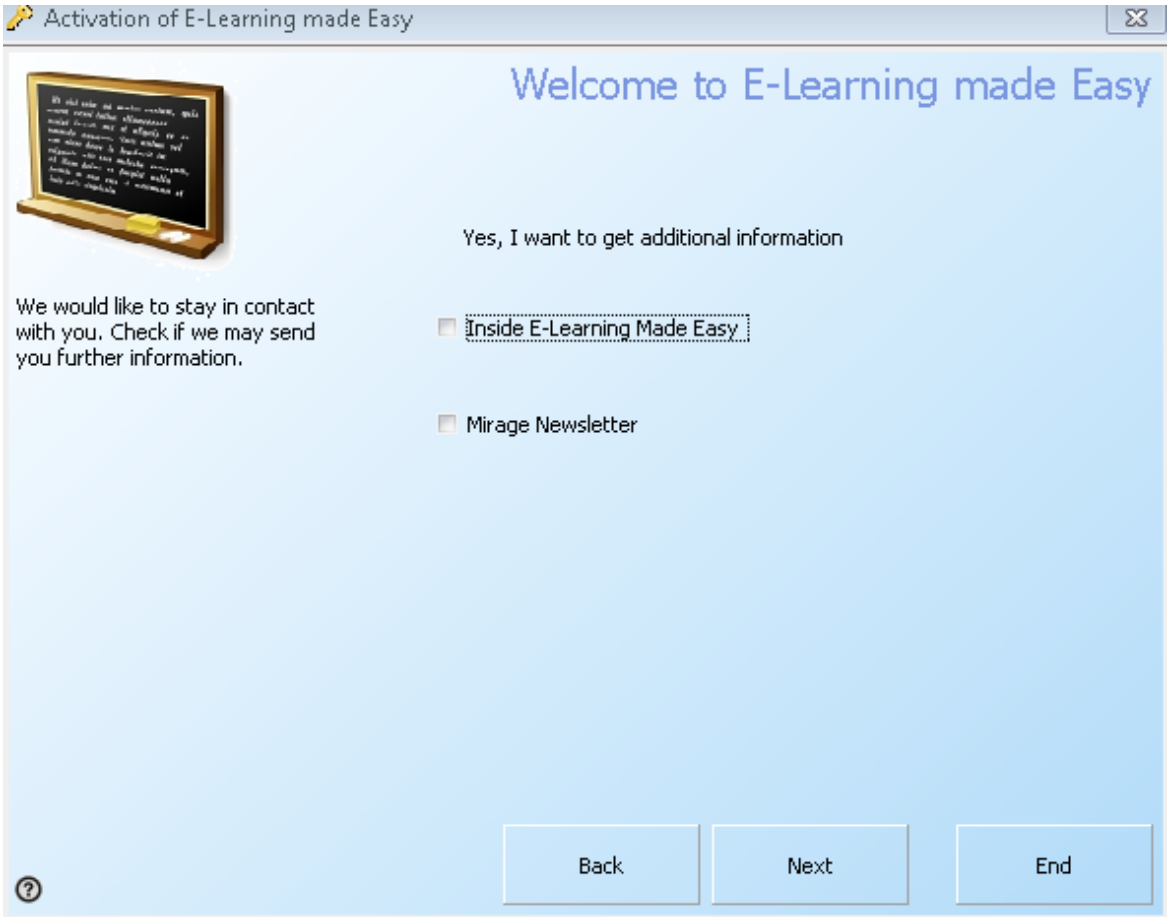
The name of the newsletter can be defined for each language separately. The command has to be used for each newsletter (1-4) separately.



Newsletter Page

Name	**SetNewsletter**
Purpose	Checks if an entry (user, computer, item) is registered in a module

Params

Parameter	***Type***	***Example***	***Note***
No	Number	1	Newsletter Number 1-4
LanguageTexts	String	Licence Protector Newsletter	see detail example below - define language text

Returncode

Returncode Type Integer	***Note***

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	0	Command was successful
	Other return codes	Error occurred, see list of return codes 635
Sample	bOk := lic.**SetNewsletter**(1, 'Licence Protector Newsletter%%1%%Inside Licence Protector%%3%%Licence Protector bulletin d'information%%9%%Licence Protector boletín de noticias'); bOk := lic.**SetNewsletter**(2, 'Inside All-In-One Protector');	
See also	SetRegisterSettings 116	

Define Language Text

- If only one Text is defined, then this text is used for all languages
- The text for each language can be defined using **%%languageId** - see overview about all language IDs 108
- The **first text entry** is always the **default text**. If no separate text for a language is defined, this text is used

Example
Licence Protector Newsletter%%1%%Inside Licence Protector%%3%%Licence Protector bulletin d'information%%9%%Licence Protector boletín de noticias

For German (ID 1), French (ID 3) and Spanish (ID 9) a separate newsletter text is used. For all other languages, the text would be: Licence Protector Newsletter

16.3.5.7 SetRegisterHelp

Command no longer in use

Replaced with command SetCustomText 136

Allows defining an **default text** for an alternative text on the **left side** (white area) of the activation screen. With this command you can define only the text in **ONE** language.

If you use SetRegisterLanguages 134 to allow the user to select multiple languages, you can specify the alternative text for each language using the command SetRegisterHelpL 905.

If you do not specify a default text, then the inbuilt default text for each language is used.

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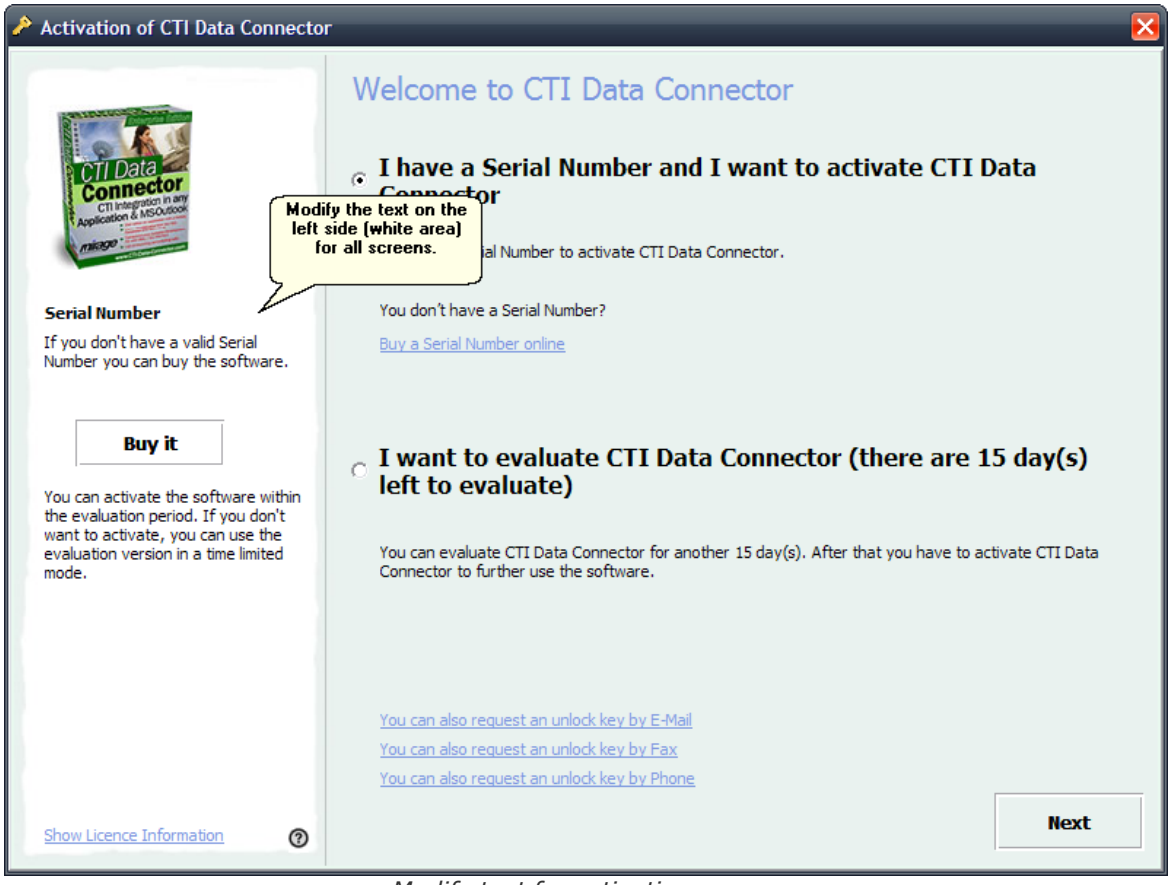

Modify text for activation screen

Name	**SetRegisterHelp**	
Purpose	Set help texts for the left side of the EasyGo form.	
Params		

Parameter	*Type*	*Example*
HelpWelcome 222	String	
HelpExpired 253	String	

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HelpActivation 1	String	
HelpActivation 2	String	
HelpUnlock 251	String	
HelpDone 251	String	
HelpErrorMsg 262	String	

<table>
<tr><td></td><td><table><tr><td></td><td></td><td></td></tr></table></td><td></td></tr>
<tr><td>Returncode</td><td><table>
<tr><th>Returncode
Type Integer</th><th>Note</th></tr>
<tr><td>0</td><td>Settings are successful</td></tr>
<tr><td>Other value</td><td>Error occurred, see list of return codes</td></tr>
</table></td><td></td></tr>
<tr><td>Usage</td><td>To customize the EasyGo form. This call only is necessary if further explanation of the process has to be displayed for the user.</td><td></td></tr>
<tr><td>Sample</td><td><pre>
lic.SetRegisterHelp('', // Welcome
                    '', // Expired
                    '', // Activation1
(above Buy-Button)
                    '', // Activation2
(below Buy-Button)
                    '', // Unlock
                    '', // Successful
                    '') // Error-Message

...
</pre></td><td></td></tr>
<tr><td>See also</td><td>EasyGo, SetRegisterSettings, PrepareAndCheck</td><td></td></tr>
<tr><td></td><td></td><td></td></tr>
</table>

16.3.5.8 SetRegisterHelpL

Command no longer in use

Replaced with command SetCustomText 136

Allows defining an alternative text on the **left side** (white area) of the activation screen. With this command you can define the text for **MULTIPLE** languages. You should define an alternative text for **each** language you specified either with SetLanguage 108 and/or SetRegisterLanguages 134.

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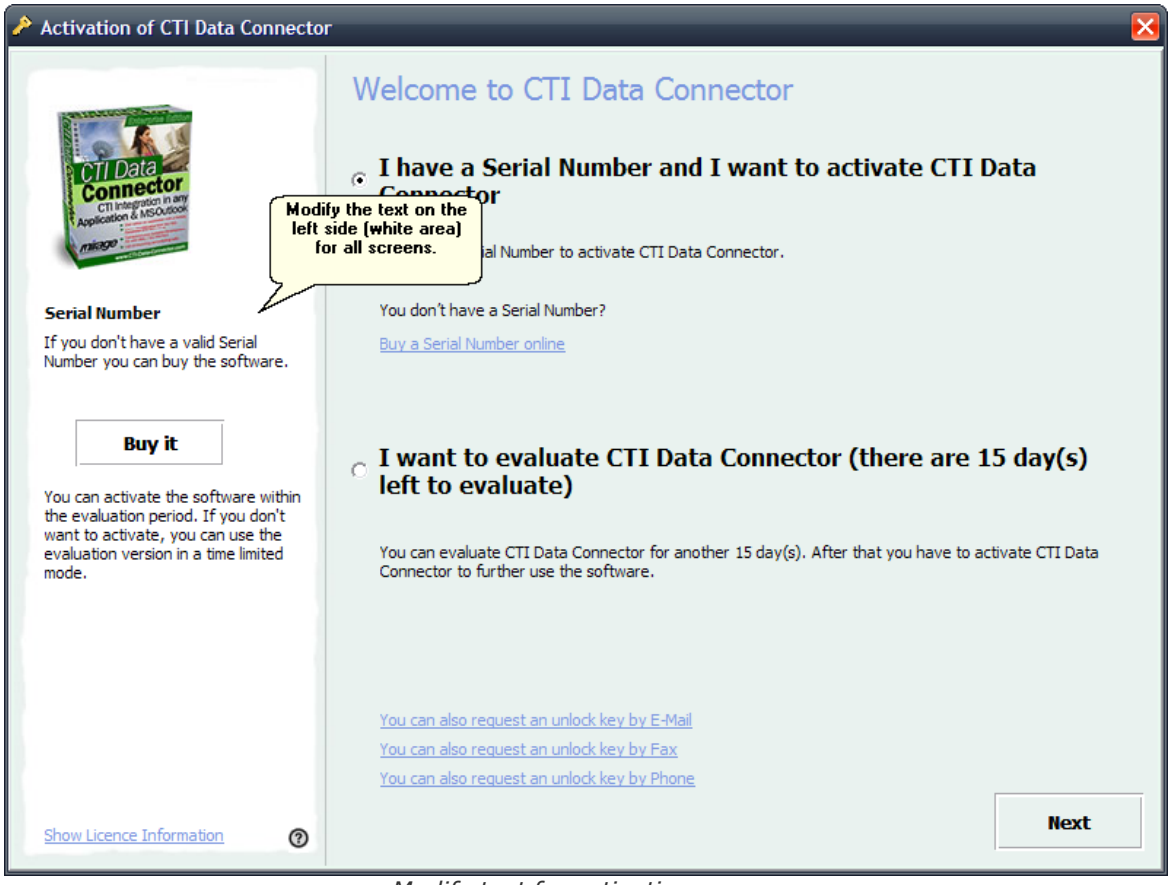

Modify text for activation screen

You have to use the command for each language.

Example
If you support the languages French, German and English you have to call SetRegisterHelpL 3 times for language 30000, 10000 and 20000.

If you do not specify an alternative text then

- the default text defined with SeRegisterHelp 902 is used. If there is no default text then
- the inbuilt default text per language is used

Name	**SetRegisterHelpL**
Purpose	Sets the help texts for the EasyGo page for the specified language (PrepareAndCheck)
Params	

Parameter	*Type*	*Example*	*Note*
Language	String	'2'	You can use the language codes (e.g. en, de,..) or you can use the language numbers (e.g. 1, 2) as

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				string - for a complete list of language codes see SetLanguage 108
	HelptextBuy 222	String	'To buy you have to do the following …'	Help text that is displayed on the left side of the EasyGo form on the Activation page that handles the Serial Number input for all registration methods (Online, 232 e-mail 237, Fax 243, Phone 248). This is the part **above** the Buy-Button. If empty then the default text is used.
	HelpWelcome 222	String		Help text that is displayed on the left side of the EasyGo form on the first page that welcomes the user. If empty then the default text is used.
	HelpExpired 253	String		Text that is displayed on the "Expired" section of the EasyGo Form
	HelptextActivation	String		Help text that is displayed on the left side of the EasyGo form on the Activation page that handles the Serial Number input for all registration methodsOnline, 232 e-mail 237, Fax 243, Phone 248). This is the part **below** the Buy-Button. If empty then the default text is used.
	HelpUnlock 251	String		Help text that is displayed on the left side of the EasyGo form on the Unlock page that handles the Unlock Key input for the manual registration methods (e-mail, Fax, phone). If empty then the default text is used.
	HelpDone 251	String		Help text that is displayed on the left side of the EasyGo form on the page that tells the user that the Activation has succeeded. If empty then the default text is used.
	HelpErrorMsg 262	String		Help text that is displayed on the left side of the EasyGo form on the Error-Message page. If empty then the default text is used.

Returncode

Returncode Type Integer	***Note***
0	ok
8193	The specified language is illegal

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	8194 | Function is not implemented
Usage	SetRegisterHelpL should be used to set individual help texts on the left side of the EasyGo Form (PrepareAndCheck) for different languages.
Sample	`iRes := lic.SetRegisterHelpL('2', ,Sample text fort he buy section', ,Sample text for the Welcome section', 'Sample text for the Expired section', 'Sample text for the Activation section', 'Sample text for the Enter Key section', 'Sample text for the Done section', 'Sample text for displaying an Error');`  `if iRes = 0 then` `// ok, no error`
See also	SetRegisterHelp, SetRegisterLanguages, SetRegisterSettings, PrepareAndCheck (EasyGo), Language codes

16.3.5.9 SetRegisterLanguages

If the user should be able to select a language via a drop down list, you can specify the languages which should be available.

A list box appears in all screens, to select a language

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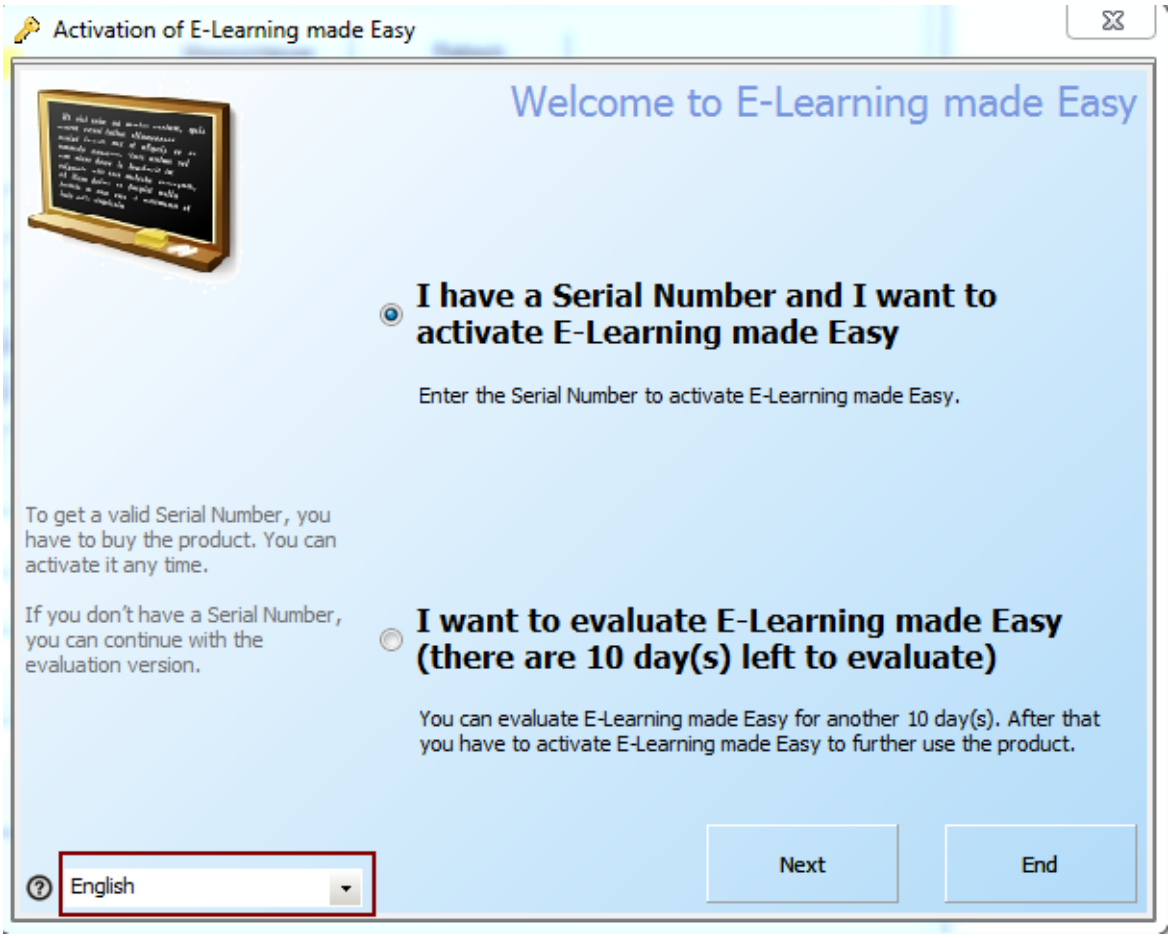

Select language

The language can also be selected, if the user clicks on the Help Icon .

Change language

The languages, which should be available in the drop down list, are defined using the language code separated by semicolon.

Example: **1;2;7** would allow to select German, English and Dutch.

If case the user changed the language, the new value can be retrieved with GetLanguage 700.

The default language is set with SetLanguage 108.

Name	**SetRegisterLanguages**
Purpose	Sets all possible languages for the EasyGo page (PrepareAndCheck)

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Params	**Parameter** / **Type** / **Example** / **Note** Languagelist / String / 2;9;3;4 / Languagecodes (separate by semicolon) One or more language code. Valid codes see SetLanguage 108
Returncode	**Returncode Type Integer** / **Note** 0 / ok 8194 / Function is not implemented
Sample	`lic.SetRegisterLanguages('1;2;9');` …
See also	GetLanguage 700, SetRegisterSettings 116, SetLanguage 108, SetCustomText 136

16.3.5.10 SetRegisterSerialNo

This function can be used, to pass on a Serial Number to the EasyGo dialog (defined with SetRegisterSettings 116). It can be used in case your application has already stored the Serial Number. It saves the user to type in the Serial Number again.

Name	**SetRegisterSerialNo**
Purpose	Pass over the Serial Number to the EasyGo dialog.
Params	**Parameter** / **Type** / **Example** / **Note** Serial Number / String / YkGEz-5EPj3-9E7In-3tI8X-RQU5k-6m140 / Must be a Serial Number 301 AllowChange / Boolean / false / defines, if the user can change/modify the Serial Num in the activation dialog or not.
Returncode	**Returncode Type Integer** / **Note** 0 / Serial Number successfully set Other value / Error occurred, see list of return codes

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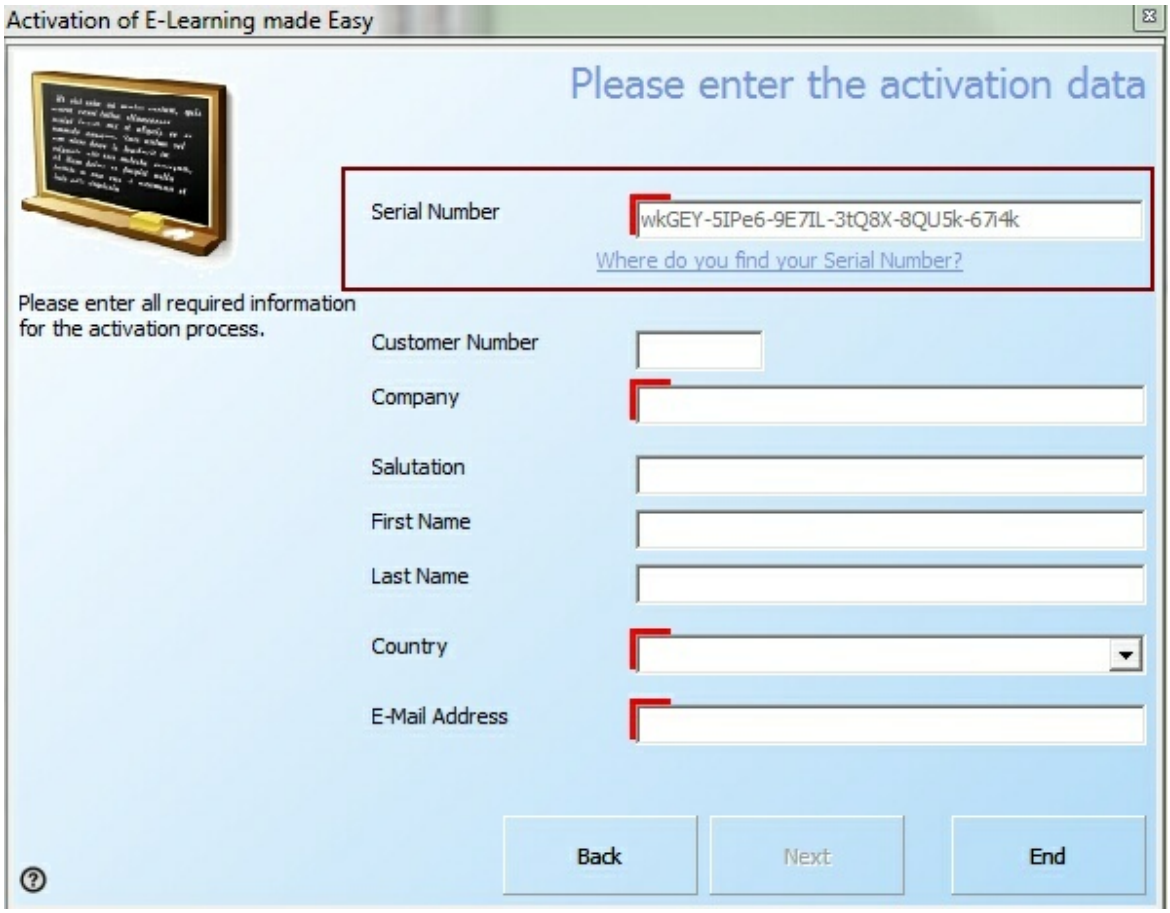
Usage	To change the current language for messages and the licenseViewer

Sample	<pre>iRes := lic.**SetRegisterSerialNo**('YkGEz-5EPj3-9E7In-3tI8X-RQU5k-6m140',false);
	if iRes <> 0 then
	begin
	<< *an error occurred* >>
	...
	end
	else
	begin
	<< *Start EasyGo dialog* >>
	...</pre>

See also	SetRegisterSettings 116, PrepareAndCheck 162



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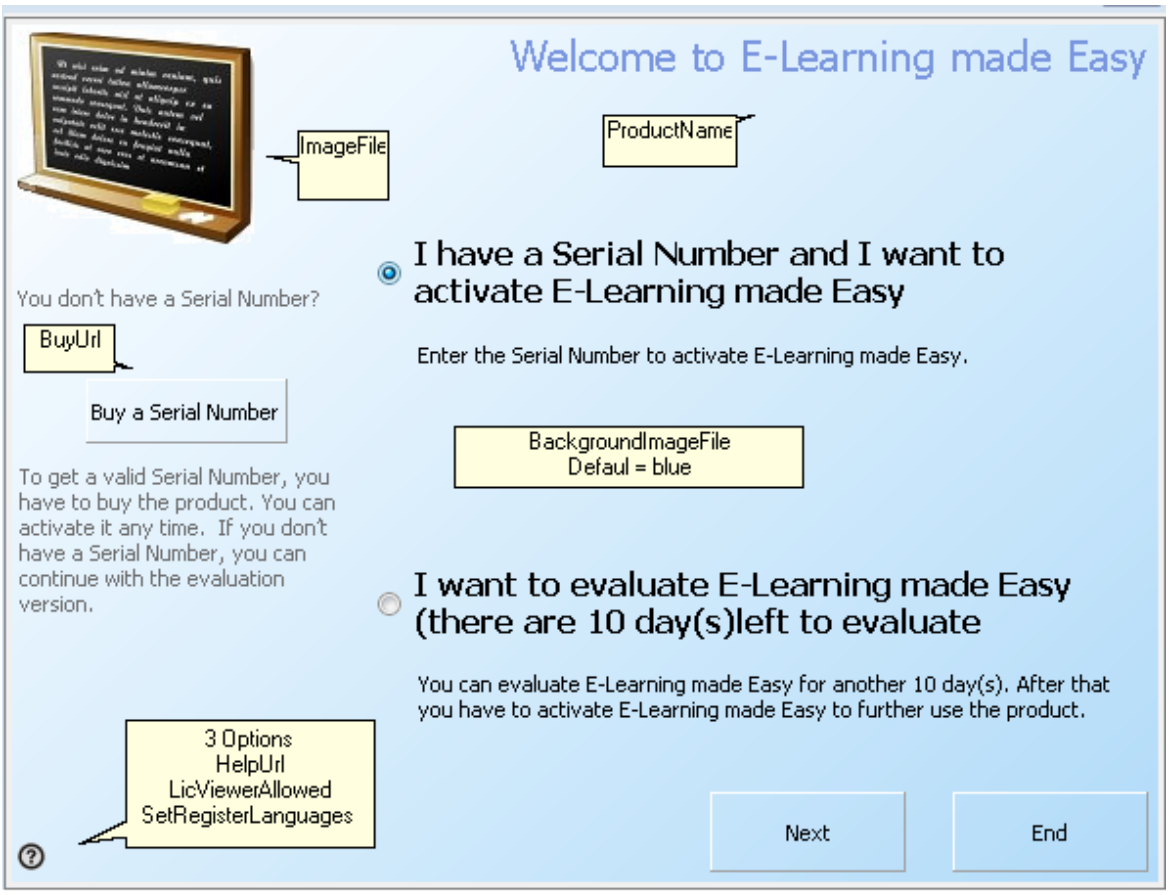
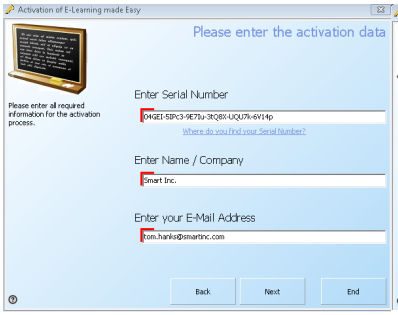
16.3.5.11SetRegisterSettings

This command defines the main settings of the activation screens, the workflow 145 and also the activation options.

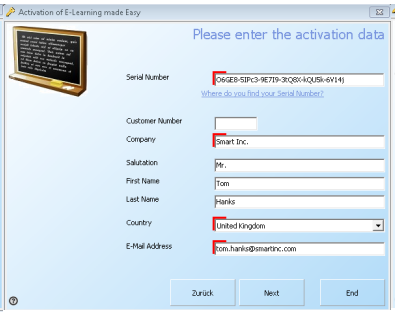
Click on an image to see what you can customize.



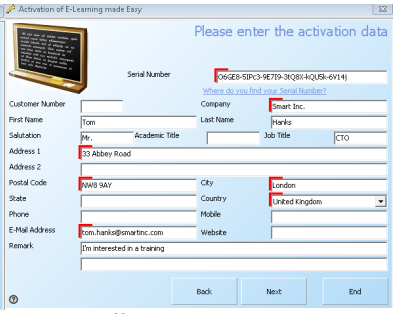
Welcome Screen



Standard Activation Data



Basic Activation Data



Full Activation Data

ActivationDataType

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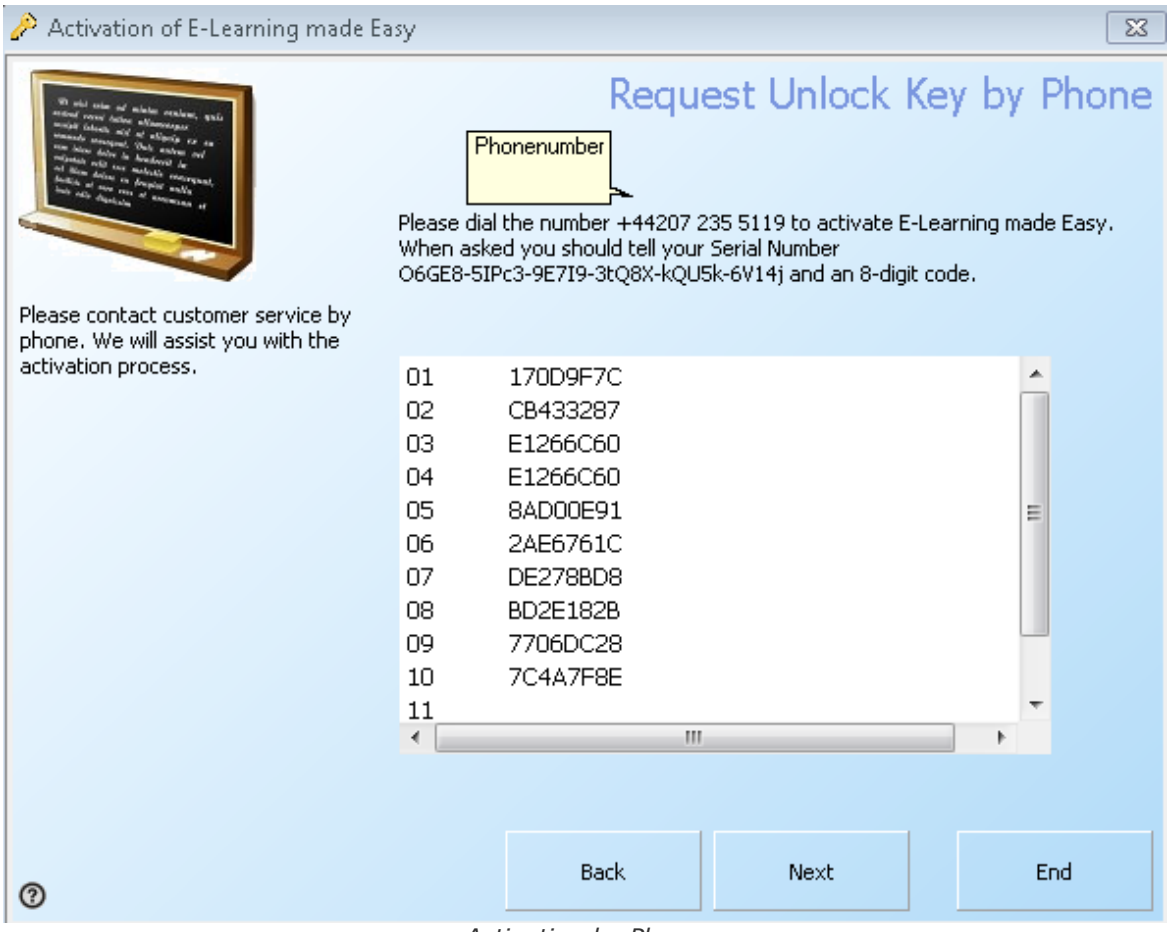

Activation by Phone

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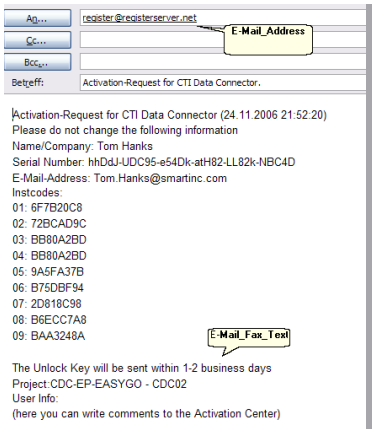
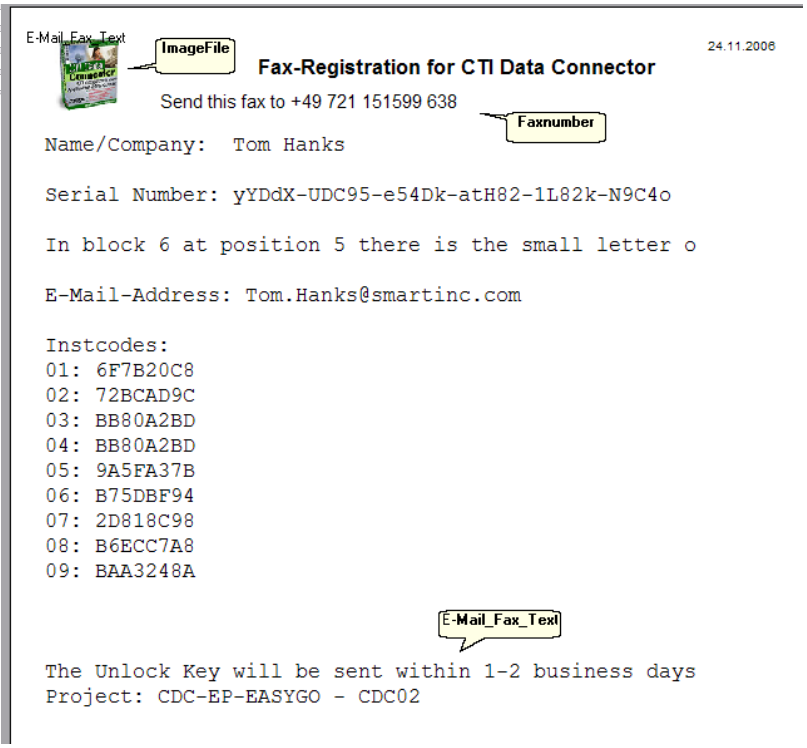


Modification Options E-Mail



Modification Options Fax

Name	**SetRegisterSettings**
Purpose	Set parameters for the EasyGo (PrepareAndCheck 162) functionality.

Params

Parameter	*Type*	*Example*	*Note*
ImageFile	String	"C:\program files\myapp\mylogo.jpg"	Absolute path to the logo image used in the EasyGo form. Notice: The Image has to be of format JPEG. Use a size of 175x115 to get the best result. The pixel in the left upper corner is used as transparency color . Sample registration images 122 Also see: Background Image 123
LicViewerAllowed	Boolean	True	Controls whether theLicense Viewer 281 is accessible in the EasyGo form. The icon

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			appears if the link is provided. The option is: *Show License Information* Notice: On the EasyGo error screen the License Viewer is always available independent of this parameter. You can enable or disable 291 buttons in the License Viewer.
SerialIsAK	Boolean	True	Controls whether the Serial Number 301 is a Licence Protector 5 Serial Number or an own ID 179
Manufacturer	String	My Company	Name of the manufacturer. Used in error screens
Productname	String	My Product	Name of the application which is displayed in the title bar. If value is empty the projectname 190 of the license file is used.
RegisterOnline 232	Boolean	True	Controls whether online registration is allowed. The WebServiceURL 210 in the license file is used for the activation.
RegisterBye-mail 237	Boolean	True	Controls whether registration by e-mail is allowed
e-mail_Address	String	activate@mycompany.com	e-mail-Address to which the e-mail registration has to be sent
sEMailSubject (Note: This parameter is available from version 2.6.4 onwards)	String	Activation Request for my product	Subject line in the e-mail. If empty, a default text is used.
RegisterByFax 243	Boolean	False	Controls whether registration by fax is allowed
Faxnumber	String	123456789	Fax-Number to which the registration form has to be sent

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RegisterByPhone 248	Boolean	False	Controls whether registration by phone is allowed
Phonenumber	String	987654321	Phone number which has to be called to receive the Unlock Key(s)
e-mail_Fax_Text	String		Additional text that appears on the registration e-mail or fax. May be empty.
DefaultMethod	Integer	0	Controls the primary registration method: 0 = Online (default) 1 = e-mail 2 = Fax 3 = Phone
BuyURL	String	http://myproduct.mycompany.com/buy.html	URL to buy the product. **If empty no BUY button is visible** EasyGo form. The BUY button is only visible until the Serial Number is typed in. Can also be a link to a file on the local hard disk, e.g. PDF order form
HelpURL	String	http://myproduct.mycompany.com/help.html	URL to provide additional help information for the registration process. The icon appears if the link is provided. See details for default help. 131
BackgroundImageFile	String	"C:\program files\myapp\background.png"	Absolute path to the image for the background. Must be png format. If this image is missing the background is light blue. See details 123
WorkflowType	Integer	1	defines a workflow 145 for a module. The default workflow is specified in the project template, TAG <EasyGoWorkflow> 211

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				and is used, if the field here is **empty (recommended)** Possible values 211
	ActivationDataType	Integer	0	Defines the activation data 229 to collect 0 = Standard 1 = Basic 2 = Full
	ContactAddress	String	support@mycompany.com	contact address which is displayed in error screens - example 264. If this string is empty the company name from the template (TAG <Manufacturers> 191) is used
	FullVersionIsTimeLimited	Boolean	false	True = Full Version is time limited - Details see workflow 145

Returncode

Returncode ***Type Integer***	***Note***
0	Command was successful
4	Do not continue - a major error occurred (e.g. insufficient network license) - terminate the application
Other value	Error occurred, see list of return codes 635

Usage

To customize the EasyGo form. This call is in most cases necessary and has to be done before calling PrepareAndCheck.

Sample

```
lic.SetRegisterSettings('c:\temp\myimage.jpg',          // ImageFile
                        true,                        // Allow License Viewer
                        true,                        // Serial is a Key
                           'My Company',                    // Manufacturer
                           'My Product',                     // Productname
                           true,                          // Register
Online
                           true,                          // Register By e-
mail
                           'activate@mycompany.com',               // e-
mail-Address
                        true,                         // Register By Fax
                           '012345/6789-1',                   // Faxnumber
                           false,                           // Register By
Phone
```

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```
                        '',                                     //
Phonenumber
                        '',                     // e-mail Fax Text
                        0,                                      //
DefaultMethod
                        'http://www.mycompany.com/buymyproduct',      //
Buy URL
Help URL                '
http://www.helpserver.biz/onlinehelp/lp/easygo/5.0/activationhelp/index.html ',//

Background Image        'C:\program files\myapp\background.png');          //
Workflow Type           1,                                      //
TimeLimitedFullVer.     false, //
ContactAddress          'support@mycompany.com'
      ...
```

See also: SetCustomText 136, SetRegisterLanguages, 134 PrepareAndCheck 162, SetLanguage 108, SetRegisterSerialNo 776

Additional configuration options are available using

- SetNewsletter 132
- SetRegisterLanguages 134
- SetCustomText 136
- Workflow 145

You can provide the Serial Number for the Activation Screens using SetRegisterSerialNo 776 in case you use a generic Serial Number or you already have another screen, where the user typed in the Serial Number.

Important change if you upgrade from a version before 3.0
The parameter: *CopyProtectionSwitchOnKey* was replaced with a configuration setting in the project file to handle the status after the activation. 198

16.3.6 Metrics

A summary of all API calls to send metric data

16.3.6.1 SendIntMetric

You can send metrics on **custom events** like

- every time a menu item is invoked, e.g. to analyze how often the menu help is used
- every time a document is opened
- every time a special workflow is triggered
- every time an error occurs

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<table>
<tr><td>Name</td><td>SendIntMetric</td></tr>
<tr><td>Params</td><td>
<table>
<tr><th>Parameter</th><th>Type</th><th>Example</th><th>Note</th></tr>
<tr><td>ProjectName</td><td>String</td><td>easygo</td><td>If empty, project name from the template is used</td></tr>
<tr><td>ModuleID</td><td>String</td><td>QHD001</td><td>Unique ModuleID. Can be empty. Reporting not yet available on module level</td></tr>
<tr><td>MetricName</td><td>String</td><td>Menu: Help</td><td>The value you want to trace</td></tr>
<tr><td>Section</td><td>String</td><td>My App</td><td>This value can be used to group the result. Reporting not yet available for this feature</td></tr>
<tr><td>MetricValue</td><td>Integer</td><td>1</td><td></td></tr>
</table>
</td></tr>
<tr><td>Returncode</td><td>
<table>
<tr><th>Returncode Type Integer</th><th>Note</th></tr>
<tr><td>0</td><td></td></tr>
<tr><td>A date</td><td></td></tr>
</table>
</td></tr>
<tr><td>Transaction Count</td><td>Counts as 1 transaction on the Activation Server 6</td></tr>
<tr><td>See also</td><td>SetSignalState 789, GetSignalState 709</td></tr>
</table>

Example

```
SendIntMetric('', '', 'Menu: Help', 'My APP', 1);
SendIntMetric('', '', 'Error: SQL Connection failed', 'Core1.DLL', 1);
```

Your can turn on / off the usage metric with SetSignalState 789

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16.3.7 Open a licence file

The prepare command opens a license file. There are different commands

- Open a license file with user interface (PrepareAndCheck 729)
- Open a license file without a user PrepareAdvanced 729
- Open a file which ignores errors during open (PrepareForce 738).
- Open a file with Prepare 727 or PrepareSimple 739 (not recommended, only for older version)

Click on the ⊞ sign on the left side to get all DLL commands related to *Open a license file*.

16.3.7.1 Prepare

Name	**Prepare**
Purpose	Prepares the Licence Protector instance for usage and opens the license file

Params

Parameter	*Type*	*Example*	*Note*
license file	String	F:\mylic.lic	The full path to the license file. See details for UNC pathnames
ProjectSecureKey or ReadKey	String	I am a project secure key	Security Level BASIC: The project secure key for that license file. Can contain any characters. The minimum length is 6 characters, the recommended length is 15 and greater Security Level ADVANCED: The Read Key for that license file. It can not be chosen freely but has to be created using the Create Project Keys function in License Generator.

Returncode

Returncode Type Integer	*Note*
0	The license file was successfully opened
2	The license file could not be found or was not opened
16382	If CheckSysdateChanges is set to true and Licence Protector 5 recognizes that the date was manipulated then you get this error code.
16384 or 2048	The file to open is not a valid license file or it has another security level: You can not open a license file of security level ADVANCED using its PSK. You need its Read Key.

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	Other return codes: Prepare failed, see list of return codes
Usage	Important function in order to use Licence Protector 5. Dependant of property SecurityLevel Prepare acts as PrepareSimple for Security Level BASIC (=0, default) or PrepareAdvanced for Security Level ADVANCED (=1).

Sample	`lic.SecurityLevel := 0; // the following Prepare acts as PrepareSimple and needs a PSK`
	`// at 1, Prepare would act as PrepareAdvanced and needs a ReadKey`
	`iRes := lic.Prepare(sMyLicfile, 'I am a project secure key');`
	`if iRes <> 0 then`
	`begin`
	`<< an error occurred >>`
	`...`
	`end`
	`else`
	`begin`
	`<< everything is fine, continue >>`
	`...`

See also	PrepareAdvanced, PrepareSimple, SysdateChanged, CheckSysdateChanged, Validate, Quit, PrepareForce

You have to set the SecurityLevel 110 before you can use this command

16.3.7.2 PrepareAdvanced

Name	**PrepareAdvanced**
Purpose	Prepares the Licence Protector instance for usage and opens the license file using Security Level ADVANCED 207

Params

Parameter	*Type*	*Example*	*Note*
license file	String	F:\mylic.lic	The full path to the license file. See details for UNC pathnames
ReadKey	String	r1lkYAp1xGQN81fBrcZ1dfXtw1doy3Z1l4KHy0N	The ReadKey for that license file. It is created using function "Create Project Keys" in License Generator and stored in the Key-file.

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		2yvL0ZBDc X274DHV1 BfV7s0RF pjZ1NOmM f1qXGsu1M qTXK1t4Ts q1c7jQq1iP 3VM1NNx6 j1s64YK299 TY71YSrb K0NdSom 29inxM29b PTJ1mmL NV0SNdC4 1xCbdT2ad Sqt2aazQL 1dslWy1fG XFi11YWO v1fFhLt2ac ufE1hRGX	

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			Y1VxH0R0ViybX0Xmcnz1lm76W1gQqQe21grLU1VAc401UqH8l0YHwOD1S46cC20hVpD1cfAYk299ixt	

Returncode

Returncode Type Integer	*Note*
0	The license file was successfully opened
2	The license file could not be found or was not opened
16382	If CheckSysdateChanges is set to true and Licence Protector 5 recognizes that the date was manipulated then you get this error code.
16384 or 2048	The file to open is not a valid license file or it has another security level: You can not open a license file of security level ADVANCED using its PSK. You need its Read Key.
Other return codes	Prepare failed, see list of return codes

Usage

Important function in order to use the Licence Protector 5

Sample

```
   iRes := lic.PrepareAdvanced(sMyLicfile,
‘r1lkYAp1xGQN81fBrcZ1dfXtw1doy3Z1l4KHy0N
2yvL0ZBDcX274DHV1BfV7s0RFpjZ1NOmMf1qXGsu1MqTXK1t4Tsq1c7jQq1iP3VM1NNx6j1s
64YK299TY71YSrb
K0NdSom29inxM29bPTJ1mmLNV0SNdC41xCbdT2adSqt2aazQL1dslWy1fGXFi11YWOv1fFhL
t2acufE1hRGX
```

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	Y1VxH0R0ViybX0XmcNz1lm76W1gQqQe21grLU1VAc401UqH8l0YHwOD1S46cC20hVpD1cfAY
	k299ixt');
	if iRes <> 0 then
	begin
	<< *an error occurred* >>
	...
	end
	else
	begin
	<< *everything is fine, continue* >>
	...

See also	Prepare, PrepareSimple, SysdateChanged, CheckSysdateChanged, Validate, Quit, PrepareForce

16.3.7.3 PrepareAndCheck

This is the main command to invoke the EasyGo dialogs and perform the **complete basic license testing**:

- open the license file with the EasyGo screens
- check if it is a time limited trial version - in case the trial expired, displays the screen: Evaluation period expired 253
- check if the system date was tampered with (only if CheckSysdateChanged 112 was used). In case of an error displays the screen: System date was tampered 275
- check if the product is activated - otherwise offers to use one of the specified activation methods 228
- check if copy protection is OK - in case of an error displays the screen: copy protection violation 264 and try an automatic reactivation
- check if network license is OK - in case of an error displays the screen: No free license available 272
- check if a user / PC was deactivated -in in case of an error displays the screen: Network license -deactivated 272

See List of Return / Error Codes 635 and Other Errors 638.

Name	**PrepareAndCheck**
Purpose	Opens the license file and executes the EasyGo form.
Params	

Parameter	*Type*	*Example*	*Note*
license file 66	String	F:\mylic.lic	The full path to the license file . See details for UNC pathnames

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ProjectSecureKey/ ReadKey	String	I am a project secure key	The project secure key for that license file. See details - Read Key 166 Note: Using a PSK is supported for backward compatibility but should not be used.
ModuleID	String	QHD001	Unique ModuleID – identifies the module to be tested in EasyGo functionality - see details main module 166
Name	String		The user or item name to check the module for. Normally, you would pass this information only if you have an own user administration. Default option is to use the automatic function - UseWindowsUser = true
UseWindows User	Boolean	True	Determines if the windows login name or hostname should be used as name for the license. Concurrent User uses a combination of username and PC name. If the module is an Item Counter, provide the name for the item counter in the field Name and set UseWindowsUser to false
Quit	Boolean	False	Controls whether the Licence Protector 5 object is available (for further calls) an the license file is not closed or if it is not needed any more and therefore quit. On false (no quit) the Quit 179 has to be made explicitly at end of the application. For

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			concurrent user testing 552 quit must be set to false. If you need any other testing after PrepareAndCheck also set quit to false
TagValue	String, **output**	Empty	A variable which can absorb the Tag value of the main module. For details see Using the TAG value 459 (Anti Hacker Strategies)

Returncode

Returncode Type Integer	***Note***
0	The license file was successfully opened and the main module was successfully checked or even activated. It is also possible that the main module is in an evaluation state.
2	The license file could not be found or was not opened
4	EasyGo screen terminated by closing the screen with X (close button) or using the END button
16	Trial or full version expired
32	No more free license (only when using network license per computer, user or concurrent user)
1024	This is a copy protection violation. The Installation Code of the license file doesn't match with the %ID%. See common reasons for this error
2048	The file %filename% is not a valid license file or file cannot be opened See common reasons for this error
3010	Online Activation - The Serial Number was already used on another PC
16382	If CheckSysdateChanges is set to true and Licence Protector 5 recognizes that the date was manipulated then you get this error code.
Other return codes	Prepare or Validate failed, see list of return codes 635

Usage: Important function in order to use Licence Protector 5

Sample:

```
   iRes := lic.PrepareAndCheck(sMyLicfile,
'XTIORHjmV65XFlH/pRYBjxlRJnhCL....', 'D1001', '', true, false,
sTagVariable);
   if iRes <> 0 then
   begin
      << an error occurred >>
```

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	``
	...
	end
	else
	begin
	<< everything is fine, continue >>
	...
	``

See also	EasyGo, SetRegisterSettings, SetRegisterHelp, SysdateChanged, CheckSysdateChanged, Validate, ValidateEx, Quit, PrepareForce, PrepareAdvanced

Some compilers (known for Visual Studio C++ 2007 an newer) crash when using this command. The reason is the tag value parameter. Use **PrepareAndCheckNT** 735 instead. The command has the same parameters but **no tag value parameter.**

You can terminate your application if the error code is not 0. 0 means that everything is OK. The activation does not indicate the status of the license (e.g. trial version, activation done) because EasyGo handles everything automatically.

If you do a manual system date modification check with SysDateChanged 809, you have to call this command even if the status code of PrepareAndCheck is not 0. SysDateChanged 809 generates an internal flag that the application was started today even when the start fails, e.g. because the license expired. The flag is set automatically if CheckSysDateChanged 112 is used instead.

If you need status information about a module, use GetWebActivation 717, RemainingDays 744, RemainigLicenses 744 - list of commands 171 to retrieve module information.

If the version expires, the number of licenses are not sufficient or copy protection is violated, this is indicated with an different error code.

You have to set the SecurityLevel 110 before you can use this command

The PrepareAndCheck command would display screens indicating that an online validation is done. The screens can be suppressed using ShowWAStartPage 806, ShowWAProgressPage 804 and ShowWAResultPage 806

The command SetRegisterSerialNo 776 would display this Serial Number as a default value in the activation dialogues

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See also
Module ID 166
Read Key 166
Open multiple license files at the same time 167

16.3.7.4 PrepareForce

This command allows to open a license file even if one of the following major errors occur:

- Copy Protection error
- Tamper Detection 565 error
- System Date manipulation 112 with CheckSysdateChanged 112

In case of an error with the command Prepare, this command allows to open the license file and e.g. display the License Viewer 281 to type in a key.

You have to set the SecurityLevel 110 before you can use this command

Name	**PrepareForce**
Purpose	Prepares the Licence Protector instance for usage and opens the license file. If a license file can't be opened due to major errors, this command allows to open the file and e.g. display the License Viewer to type in a key
Params	

Parameter	*Type*	*Example*	*Note*
license file	String	F:\mylic.lic	The full path to the license file. See details for UNC pathnames
ProjectSecureKey or ReadKey	String	I am a project secure key	Security Level BASIC: The project secure key for that license file. Can contain any characters. The minimum length is 6 characters, the recommended length is 15 and greater Security Level ADVANCED: The Read Key for that license file. It can not be chosen freely but has to be created using the Create Project Keys function in License Generator.

Returncode	

Returncode	*Note*

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	<table><tr><th>Type Integer</th><th></th></tr><tr><td>0</td><td>The license file was successfully opened</td></tr><tr><td>2</td><td>The license file could not be found or was not opened</td></tr><tr><td>16382</td><td>If CheckSysdateChanges is set to true and Licence Protector 5 recognizes that the date was manipulated then you get this error code.</td></tr><tr><td>16384 or 2048</td><td>The file to open is not a valid license file or it has another security level: You can not open a license file of security level ADVANCED using its PSK. You need its Read Key.</td></tr><tr><td>Other return codes</td><td>Prepare failed, see list of return codes</td></tr></table>
Usage	Normally Prepare should be used! PrepareForce can be used for administration tools that have to be able to open every known license file. Dependant of property SecurityLevel PrepareForce can open license files with Security Level BASIC (=0, default) or files with Security Level ADVANCED (=1). Note: PrepareForce can't open license files where the PSK is unknown. Only the Installation Code is ignored.

Sample	<pre>lic.SecurityLevel := 0; // the following PrepareForce uses SecurityLevel BASIC and needs a PSK
	// at 1, PrepareForce uses SecurityLevel ADVANCED and needs a ReadKey
	iRes := lic.PrepareForce(sMyLicfile, 'I am a project secure key');
	if iRes <> 0 then
	begin
	<< an error occurred >>
	...
	end
	else
	begin
	<< everything is fine, continue >>
	...</pre>

See also	Prepare, PrepareSimple, PrepareAdvanced, SysdateChanged, CheckSysdateChanged, Validate, Quit

16.3.7.5 PrepareSimple

Name	**PrepareSimple**
Purpose	Prepares the Licence Protector instance for usage and opens the license file using Security Level BASIC
Params	<table><tr><th>Parameter</th><th>Type</th><th>Example</th><th>Note</th></tr></table>

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<table>
<tr><td></td><td>
<table>
<tr><td>license file</td><td>String</td><td>F:\mylic.lic</td><td>The full path to the license file. See details for UNC pathnames</td></tr>
<tr><td>ProjectSecureKey</td><td>String</td><td>I am a project secure key</td><td>The project secure key for that license file. Can contain any characters. The minimum length is 6 characters, the recommended length is 15 and greater</td></tr>
</table>
</td></tr>
<tr><td>Returncode</td><td>
<table>
<tr><td>Returncode Type Integer</td><td>Note</td></tr>
<tr><td>0</td><td>The license file was successfully opened</td></tr>
<tr><td>2</td><td>The license file could not be found or was not opened</td></tr>
<tr><td>16382</td><td>If CheckSysdateChanges is set to true and Licence Protector 5 recognizes that the date was manipulated then you get this error code.</td></tr>
<tr><td>16384 or 2048</td><td>The file to open is not a valid license file or it has another security level: You can not open a license file of security level ADVANCED using its PSK. You need its Read Key.</td></tr>
<tr><td>Other return codes</td><td>Prepare failed, see list of return codes</td></tr>
</table>
</td></tr>
<tr><td>Usage</td><td>Important function in order to use the Licence Protector 5</td></tr>
<tr><td>Sample</td><td>

```
iRes := lic.PrepareSimple(sMyLicfile, 'I am a project secure key');
if iRes <> 0 then
begin
   << an error occurred >>
   ...
end
else
begin
   << everything is fine, continue >>
   ...
```

</td></tr>
<tr><td>See also</td><td>Prepare, PrepareAdvanced, SysdateChanged, CheckSysdateChanged, Validate, Quit, PrepareForce</td></tr>
</table>

.

16.3.8 Store data in the licence file

This feature allows storing encrypted data in the license file. The license file acts like a small database. There are commands to save, retrieve and delete a record.

The data area could be used to store:

" Program configuration parameters

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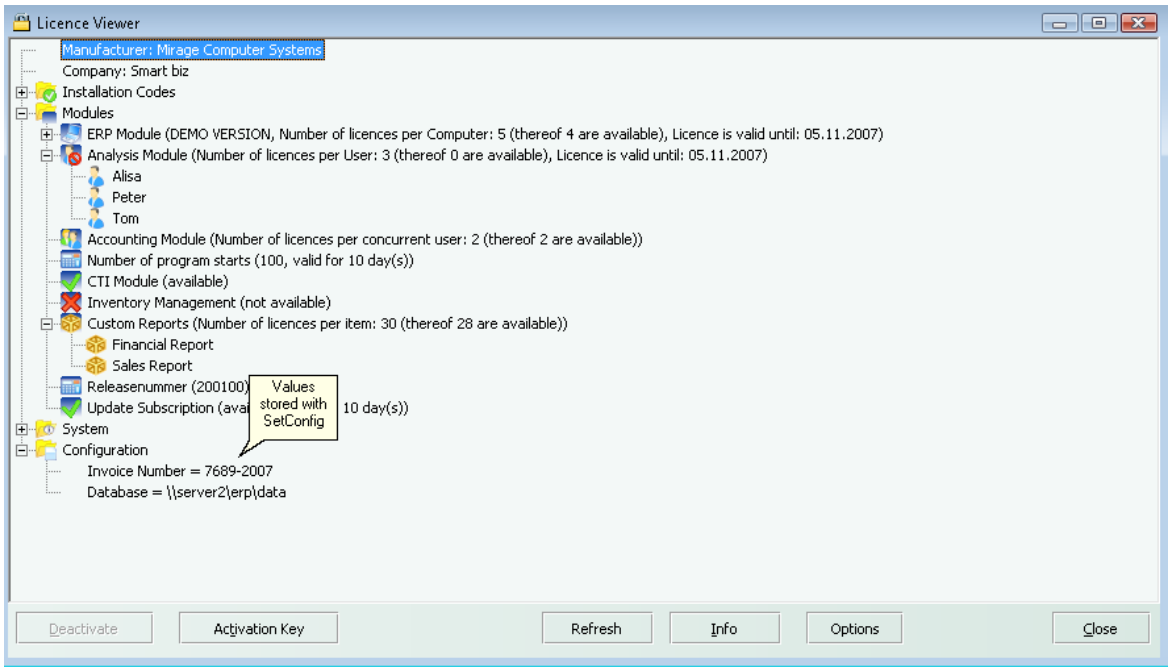
" Usage of the application - like number of program starts or last online validation
" Additional customer information
" Other custom values you do not want to save in the registry, an ini-file or a database

It works in the way that you use an **ID and assign a text to this ID**, e.g. **ID** = LastOnlineValidation, **Text** = 09/09/201.

You can generate and deploy license files with already stored values or you can store information during the runtime of your program.

All values can either be displayed in the License Viewer 281 in the section ***Configuration*** or they can be just used internally and then they are invisible in the License Viewer. Each value can have a different setting (e.g. value 1 and 3 are visible in the License Viewer, value 2 is invisible).

The ID for each record must be unique.



Values visible in the Licence Viewer in the section Configuration

There are different options, how to add and modify the data.

- Store data using the License Generator

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All values can be modified in the data area within the License Generator 387.

- Store data using DLL commands

There is a complete set of API commands to read and modify the data.

Save a value

Command SetConfig 757. If the ID already exists, the existing value is updated with the new value. You can specify, if the value should be visible in the License Viewer or not.

Read a value

Command GetConfig 675

Delete a value

Command DeleteConfig 663

Check if a value exists

Command ExistsConfig 670

Check if value is visible in the License Viewer

Command IsConfigVisible 719

- Store data stored in the project template

You can also store default data in the project template.

Details see chapter Project Template 198

Example

```
<Configs>
        <Config name="CustomerID" visible="no">D83726</Config>
        <Config name="BasicConfiguration" visible="yes">This is a text</Config>
</Configs>
```

- Store data using Automatic License Generator

The Automatic License Generator can be used to add the data when a license file is created.

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Order XML file

```
<product>
  <ProductID>1</ProductID>
   <Quantity>1</Quantity>
   <AbsoluteLics>yes</AbsoluteLics>
<Configs>
<Config name="InvoiceNo" visible="yes">12345</Config>
<Config name="InvoiceDate"  visible="yes">2008-09-15</Config>
</Configs>
 </Product>
```

Please check the separate documentation 464 for the Automatic License Generator.

The data area can also be changed if the license file is uploaded to the Activation Server 6, then modified and then downloaded again

- License file upload / download 525 in the source code
- Modify license file on the Activation Server 6

Do not store large data e.g. MIME-encoded binary data like images or movies as this would significantly slow down the access to the license file. Especially with concurrent user, the license file is permanently read and updated.

This feature is only available in the *Professional Edition.*

16.3.8.1 DeleteConfig

See full description - Store data in the license file 562

Name	**DeleteConfig**
Purpose	Deletes the value of the ID with the specified name in the data area of the license file
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** Configname / String / DBPassword / Unique ID
Returncode	***Returncode Type Integer*** / ***Note***

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	All values: See list of return codes
Usage	Delete the ID including its value

Sample	`iRes := lic.DeleteConfig('DBPassword');`
	`if iRes <> 0 then`
	`begin`
	`  << an Error occured >>`
	`  ...`
	`end`
	`else`
	`begin`
	`  ...`

See also	Store data, 562 SetConfig 757, GetConfig 675, ExistsConfig, 670 IsConfigVisible 719

16.3.8.2 ExistsConfig

See full description - Store data in the license file 562

Name	**ExistsConfig**
Purpose	Checks if the ID with the specified name exists in the data area
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** Configname / String / DBPassword / Unique ID
Returncode	***Returncode Type Boolean*** / ***Note*** True / This ID exists in the license False / This ID does not exist in the license
Usage	Use to check if that ID already exists in the data area of the license file

Sample	`bOk := lic.ExistsConfig('DBPassword');`
	`if bOk then`
	`begin`
	`  << use the information >>`
	`  ...`
	`end`
	`else`
	`begin`
	`  ...`

See also	Store data, 562 SetConfig 757, GetConfig 675, DeleteConfig 663, IsConfigVisible 719

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16.3.8.3 GetConfig

See full description - Store data in the license file 562

Name	**GetConfig**
Purpose	retrieve a value from the data area using the ID configname
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** Configname / String / DBPassword / Unique ID
Returncode	***Returncode Type String*** / ***Note*** Empty / ID does not exist or the value string is empty. If you are not sure use ExistsConfig 670 to check if the ID exists. Full String / The value assigned to the ID configname
Usage	Read the content of the config
Sample	
See also	Store data, 562 SetConfig 757, DeleteConfig 663, ExistsConfig 670, IsConfigVisible 719

```
sRes := lic.GetConfig('DBPassword');
if sRes <> '' then
begin
   << e.g. use the read value to open the database connection >>
   ...
end
else
begin
   << to be sure that the config exists do a ExistsConfig call >>
   if ExistsConfig('DBPassword') then
   begin
      << the value really is empty >>
      ...
   end
   else
   begin
      << the config DBPassword does not exist >>
      ...
   end;
   ...
```

16.3.8.4 IsConfigVisible

See full description - Store data in the license file 562

Name	**IsConfigVisible**

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Purpose	Checks if the config with the specified name is visible inside License Viewer
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** Configname / String / DBPassword / Unique configname
Returncode	***Returncode*** / ***Type*** / ***Boolean*** / ***Note*** True / This config exists and is visible inside License Viewer False / This config does not exist or is not be displayed in License Viewer
Usage	Use to check if that config will be displayed in License Viewer

Sample	`bOk := lic.IsConfigVisible('DBPassword');`
	`if bOk then`
	`begin`
	`  << the config is visible inside License Viewer >>`
	`  ...`
	`end`
	`else`
	`begin`
	`  ...`

See also	Store data, 562 SetConfig 757, GetConfig 675, DeleteConfig 663, ExistsConfig 670

16.3.8.5 SetConfig

See full description - Store data in the license file 562

Name	**SetConfig**
Purpose	Save data in the license file
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** Configname / String / DBPassword / Unique configname Configvalue / String / Secret / The value as string IsVisible / Boolean / False / Don't show that config in License Viewer (recommended for passwords and other secret information)
Returncode	***Returncode*** / ***Note***

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	Type Integer | All values | See list of return codes
Usage	Insert a new config with name, value and visibility information. If the config with the specified name does not exist it's automatically added. Update the value and visibility of an exisiting config.

Sample	`iRes := lic.SetConfig('DBPassword', 'secret', false);`
	`if iRes <> 0 then`
	`begin`
	`  << an Error occurred >>`
	`  ...`
	`end`
	`else`
	`begin`
	`  << the config is successfully added or updated >>`
	`  ...`

See also	Store data, 562 GetConfig 675, DeleteConfig 663, ExistsConfig 670, IsConfigVisible 719

If the ID (configname) already exists, the existing value (configvalue) is updated with the new value.

16.3.9 Validate a module

Depending on the module type or usage different validate commands are available.

Click on the ⊞ sign on the left side to get all DLL commands related to m*odule validation*.

16.3.9.1 GetModuleList

This command is used to retrieve **all** modules of a license file.

Name	**GetModuleList**
Purpose	Gets the list of all modules inside the license file
Params	***Parameter*** | ***Type*** | ***Example*** | ***Note*** WithNames | Boolean | True | Should all module names also be returned WithTypes | Boolean | False | Should all module types 714 also be returned
Returncode	***Returncode Type String*** | ***Note*** List of modules | The modules are **separated by semicolon** (;) Without names and types: D1001;D1002;D1006;D1003;D1004;D1005

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	With names: D1001;ERP Module;D1002;Analysis Module;D1006;Accounting Module;D1003;Number of Employees;D1004;CTI Module;D1005;Custom Reports With names and types: D1001;ERP Module;U;D1002;Analysis Module;S;D1006;Accounting Module;R;D1003;Number of Employees;C;D1004;CTI Module;Y;D1005;Custom Reports;I
Usage	To see which modules are already inside your license file.

Sample	`sList := lic.GetModuleList(false, false);`
	`<< use the sList … >>`
	`...`

See also	AddModule 642, DeleteModule 664, ExistsModule 671

To check if a specific module is available in the license file use ExistsModule 671

16.3.9.2 PrepareAndCheck

This is the main command to invoke the EasyGo dialogs and perform the **complete basic license testing**:

- open the license file with the EasyGo screens
- check if it is a time limited trial version - in case the trial expired, displays the screen: Evaluation period expired 253
- check if the system date was tampered with (only if CheckSysdateChanged 112 was used). In case of an error displays the screen: System date was tampered 275
- check if the product is activated - otherwise offers to use one of the specified activation methods 228
- check if copy protection is OK - in case of an error displays the screen: copy protection violation 264 and try an automatic reactivation
- check if network license is OK - in case of an error displays the screen: No free license available 272
- check if a user / PC was deactivated -in in case of an error displays the screen: Network license -deactivated 272

See List of Return / Error Codes 635 and Other Errors 638.

Name	**PrepareAndCheck**
Purpose	Opens the license file and executes the EasyGo form.

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Params

Parameter	*Type*	*Example*	*Note*
license file 66	String	F:\mylic.lic	The full path to the license file . See details for UNC pathnames
ProjectSecureKey/ ReadKey	String	I am a project secure key	The project secure key for that license file. See details - Read Key 166 Note: Using a PSK is supported for backward compatibility but should not be used.
ModuleID	String	QHD001	Unique ModuleID – identifies the module to be tested in EasyGo functionality - see details main module 166
Name	String		The user or item name to check the module for. Normally, you would pass this information only if you have an own user administration. Default option is to use the automatic function - UseWindowsUser = true
UseWindows User	Boolean	True	Determines if the windows login name or hostname should be used as name for the license. Concurrent User uses a combination of username and PC name. If the module is an Item Counter, provide the name for the item counter in the field Name and set UseWindowsUser to false
Quit	Boolean	False	Controls whether the Licence Protector 5 object is available (for further calls) an the license file is not closed or if it is not

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			needed any more and therefore quit. On false (no quit) the Quit 179 has to be made explicitly at end of the application. For concurrent user testing 552 quit must be set to false. If you need any other testing after PrepareAndCheck also set quit to false
TagValue	String, **output**	Empty	A variable which can absorb the Tag value of the main module. For details see Using the TAG value 459 (Anti Hacker Strategies)

Returncode

Returncode Type Integer	***Note***
0	The license file was successfully opened and the main module was successfully checked or even activated. It is also possible that the main module is in an evaluation state.
2	The license file could not be found or was not opened
4	EasyGo screen terminated by closing the screen with X (close button) or using the END button
16	Trial or full version expired
32	No more free license (only when using network license per computer, user or concurrent user)
1024	This is a copy protection violation. The Installation Code of the license file doesn't match with the %ID%. See common reasons for this error
2048	The file %filename% is not a valid license file or file cannot be opened See common reasons for this error
3010	Online Activation - The Serial Number was already used on another PC
16382	If CheckSysdateChanges is set to true and Licence Protector 5 recognizes that the date was manipulated then you get this error code.
Other return codes	Prepare or Validate failed, see list of return codes 635

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Usage	Important function in order to use Licence Protector 5

Sample	`iRes := lic.PrepareAndCheck(sMyLicfile, 'XTIORHjmV65XFlH/pRYBjxlRJnhCL....', 'D1001', '', true, false, sTagVariable);`
	`if iRes <> 0 then`
	`begin`
	`<< an error occurred >>`
	`...`
	`end`
	`else`
	`begin`
	`<< everything is fine, continue >>`
	`...`

See also	EasyGo, SetRegisterSettings, SetRegisterHelp, SysdateChanged, CheckSysdateChanged, Validate, ValidateEx, Quit, PrepareForce, PrepareAdvanced

Some compilers (known for Visual Studio C++ 2007 an newer) crash when using this command. The reason is the tag value parameter. Use **PrepareAndCheckNT** 735 instead. The command has the same parameters but **no tag value parameter.**

You can terminate your application if the error code is not 0. 0 means that everything is OK. The activation does not indicate the status of the license (e.g. trial version, activation done) because EasyGo handles everything automatically.

If you do a manual system date modification check with SysDateChanged 809, you have to call this command even if the status code of PrepareAndCheck is not 0. SysDateChanged 809 generates an internal flag that the application was started today even when the start fails, e.g. because the license expired. The flag is set automatically if CheckSysDateChanged 112 is used instead.

If you need status information about a module, use GetWebActivation 717, RemainingDays 744, RemainigLicenses 744 - list of commands 171 to retrieve module information.

If the version expires, the number of licenses are not sufficient or copy protection is violated, this is indicated with an different error code.

You have to set the SecurityLevel 110 before you can use this command

The PrepareAndCheck command would display screens indicating that an online validation is done. The screens can be suppressed using ShowWAStartPage 806, ShowWAProgressPage 804 and ShowWAResultPage 806

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The command SetRegisterSerialNo 776 would display this Serial Number as a default value in the activation dialogues

See also

Module ID 166
Read Key 166
Open multiple license files at the same time 167

16.3.9.3 Validate

Name	**Validate**
Purpose	Checks if a module could be used

Params

Parameter	*Type*	*Example*	*Note*
ModuleID	String	D1001	Unique ModuleID – identifies the module to be tested
Name	String	Tom	The user or item name to check for
UseWindowsUser	Boolean	False	Determines if the windows login name should be used as name

Returncode

Returncode Type Integer	*Note*
All values	See list of return codes 635

Usage: To validate a module for a specified user or item

Sample

```
iRes := lic.Validate('D1001', '', true);
if iRes = 0 then
begin
   << successfully validated >>
   ...
end
else if iRes = 1 then
begin
   << successfully validated, it's a demo version >>
   ...
end
else
begin
   << validation failed, usage of module not allowed >>
   ...
```

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See also	Prepare, Quit, ValidateEx, ValidatesYes

Yes / No module

The return codes for a Yes/No module (module type 203 = 4) are:

- 0 = module is Yes
- 1 = module is Yes AND it is a demo version
- 3 = module is No

16.3.9.4 ValidateAndDecrease

Allows to decrease an counter module 203 by 1.

See chapter Limit number of program starts 547. To decrease the counter module for other values use SetVal, Token TLI 711.

Name	**ValidateAndDecrease**			
Purpose	Validates a counter module and decrease the number of licenses by 1.			
Params	***Parameter***	***Type***	***Example***	***Note***
	ModuleID	String	D1004	Unique ModuleID – identifies the module to be tested
Returncode	***Returncode Type Integer***	***Note***		
	All values	See list of return codes		
	32	Number of licenses is 0 and can't be decreased any more		
Usage	ValidateAndDecrease is intended to count down a counter modules (Type 3). If should not be used with other module types. ValidateAndDecrease could be used to allow a module or programme to be started only a limited number of times.			

Sample	`iRes := lic.ValidateAndDecrease('D1003');`
	`if iRes = 0 then`
	`begin`
	`  << successfully validated, the number of licenses is decreased by 1 >>`
	`  ...`
	`end`			

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```
   else if iRes = 1 then
   begin
      << successfully validated, it's a demo version and the number of
licenses is decreased by 1 >>
      ...
   end
   else if iRes = 32 then
   begin
      << successfully validated, but the number of licenses is 0 and can
not be decreased any further >>
      ...
   end
   else if iRes = 4096 then
   begin
      << D1003 seems to be not a Module of type 3. Use Validate instead…
>>
      ...
   end
   else
   begin
      << validation failed, usage of module not allowed >>
      ...
```

See also	Prepare, Quit, ValidateEx, Validate, ValidatesYes

16.3.9.5 ValidateEx

Name	**ValidateEx**
Purpose	Checks if a module is available **and returns the Tag value** of the specified module

Params

Parameter	*Type*	*Example*	*Note*
ModuleID	String	D1001	Unique ModuleID – identifies the module to be tested
Name	String	Tom	The user or item name to check for
UseWindowsUser	Boolean	False	Determines if the windows login name should be used as name
TagValue	String, **output**	Empty	A variable which can absorb the Tag value of the module

Returncode

Returncode Type Integer	*Note*
All values	See list of return codes 635

Usage	To validate a module for a specified user or item and get the Tag value at the same time

Sample

```
   sTag := '';
   iRes := lic.ValidateEx('D1001', '', true, sTag);
   if iRes = 0 then
```

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	begin
	  << *successfully validated, use sTag* >>
	  ...
	end
	else if iRes = 1 then
	begin
	  << *successfully validated, it's a demo version, use sTag* >>
	  ...
	end
	else
	begin
	  << *validation failed, usage of module not allowed* >>
	  ...

See also	Prepare, Quit, Validate, ValidatesYes

Some compilers (known for Visual Studio C++ 2007 an newer) crash when using this command. The reason is the tag value parameter. Use **Validate** 818 instead. The command has the same parameters but **no tag value parameter.**

Yes / No module

The return codes for a Yes/No module (module type 203 = 4) are:

- 0 = module is Yes
- 1 = module is Yes AND it is a demo version
- 3 = module is No

16.3.9.6 ValidatesYes

Command no longer in use

Replaced with command Validate 818 / ValddidateEX 820

Name	**ValidatesYes**
Purpose	Checks if a yes/no module could be used and is set to yes.
Params	***Parameter*** / ***Type*** / ***Example*** / ***Note*** ModuleID / String / D1004 / Unique ModuleID – identifies the module to be tested
Returncode	***Returncode Type Integer*** / ***Note***

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	All values	See list of return codes 635
	0 1 3	Module is Yes Module is set to Demoversion Module is No
Usage	ValidatesYes is intended to validate yes/no modules (Type 4). It can not be used for modules of Type 1, 5 and 6 because these types need the user or item as parameter (Error 4096 is returned) ValidatesYes can be replaced by a sequence of Validate() and Totallicenses().	
Sample		
See also	Prepare, Quit, ValidateEx, Validate	

```
   iRes := lic.ValidatesYes('D1004');
   if iRes = 0 then
   begin
      << successfully validated, Module is Yes >>
      ...
   end
   else if iRes = 1 then
   begin
      << successfully validated, it's a demo version and Module is Yes
>>
      ...
   end
   else if iRes = 3 then
   begin
      << successfully validated, but the Module is No >>
      ...
   end
   else if iRes = 4096 then
   begin
      << D1004 seems to be not a Module of type 4. Use Validate instead…
>>
      ...
   end
   else
   begin
      << validation failed, usage of module not allowed >>
      ...
```

16.4 Commands no longer in use

Licence Protector is always backwards compatible. To ensure this, commands are seldom changed. Find below a list of all commands, which will still work but which have been replaced with commands with new functionality.

16.4.1 CheckLicence

Command no longer in use

Replaced with CheckModule 652

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Allows to validate, if a license was locked or not. Details see chapter Lock a license / Regular online check.

Normally the test is done **without** a value for the parameter moduleID. Using a module ID creates the same workflow on the Activation Server 6 like a product activation with PrepareAndCheck 162 or WebRegisterExt 821 - e.g. copy protection is activated or additional keys like deleting Demo Version flag are sent.

Name	**CheckLicence**
Purpose	Contacts the Activation Server 6 to validate a license. This function has to be used to implement “Moving licenses” and ongoing checks (“renting your software”).

Params

Parameter	***Type***	***Example***	***Note***
Projectname	String	Demo Project	projectname, if empty the internal projectname of the license file is used – identifies the project on the Web Activation Server
ID	String	Abc	Identifier which is used to check and register this license
Module ID	String	D1001	This is the product-name / module ID for the config-autogenerator.xml. It may be empty.
ForceCheck	Boolean	False	If true, CheckLicence will **always** connect to the Activation Server 6, even if it is not necessary regarding the current values

Returncode

Returncode Type Integer	***Note***
0	CheckLicence successful: The online-Validation succeeded or it was not necessary to check the state online
3001	The Web Activation Server was not reachable.
3010	That ID is already used e.g. by another computer.
3018	That ID is locked.
3002-3999	Errors on the Web Activation Server, see Web Activation Documentation
Other return codes	Operation failed, see list of return codes

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Usage	Used to validate the license.

Sample	`iRes := lic.CheckLicence('', 'abc4711', '', false);`
	`if iRes = 0 then`
	`begin`
	`  << license successfully validated >>`
	`  ...`
	`end`
	`else if iRes = 3001 then`
	`begin`
	`  << Web Activation could not be reached, please check connection >>`
	`  ...`
	`end`
	`else if iRes = 3010 then`
	`begin`
	`  << that license is already in usage. Transfer license and then it is free for this computer >>`
	`  ...`
	`end`
	`else if iRes = 3018 then`
	`begin`
	`  << that license is locked on the Web Activation server.>>`
	`  ...`
	`end`
	`else`
	`begin`
	`  << other errors >>>`
	`  ...`

See also	licenseVerification, NextVerification, Deactivatelicense, SetVerificationID, SetVerificationProduct, WebServiceURL, ShowWAStartPage, ShowWAProgressPage, ShowWAResultPage, UseLocalProxy, UseLocalIEProxy, LocalProxyServer, LocalProxyPort, Projectname

Ports and Proxy Settings

The Online Activation uses an http request on Port 80 to communicate with the Activation Server. A router with a standard firewall (IP-Filter) will not detect the difference to a Browser request and let the activation pass. A local personal firewall like McAfee or Norton will pop-up and ask, if the request should be permitted. Only a 'real' application firewall will block the request and an administrator has to open port 80.

Proxy settings are retrieved from the Browser but can be changed with the commands LocalProxPort 723, LocalProxyServer 723, UseLocalIIEProxy 816, UseLocalProxy 817.

Only the Licence Protector DLL can communicate to the Activation Server 6

The CheckLicence command would display screens indicating that an online validation is done. The screens can be suppressed using ShowWAStartPage 806, ShowWAProgressPage 804 and ShowWAResultPage 806

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The *CheckLicence* command triggers the activation workflow file on the server, e.g. activates copy protection and sends out the keys defined in this file.

16.4.2 DeactivateLicence

Command no longer in use

Replaced with command DeactivateModule 661

Name	**DeactivateLicence**
Purpose	Contacts the Activation Server 6 to deactivate a license and therefore allow another computer to use that license. This function has to be used to implement “Moving licenses”.

Params

Parameter	***Type***	***Example***	***Note***
Projectname	String	Demo Project	projectname, if empty the internal projectname of the license file is used – identifies the project on the Web Activation Server
ID	String	Abc	Identifier which is used to check and deactivate this license

Returncode

Returncode Type Integer	***Note***
0	CheckLicence successful: The online-Validation succeeded or it was not necessary to check the state online
3001	The Web Activation Server was not reachable.
3015	That ID could not be found in the database
3030	The deactivation failed on the Web Activation server.
3002-3999	Errors on the Web Activation Server, see Web Activation Documentation
Other return codes	Operation failed, see list of return codes

Usage	Used to transfer a license.
Sample	`iRes := lic.Deactivatelicense(‘’, ‘abc4711’);`

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```
if iRes = 0 then
begin
   << license successfully transfered >>
   ...
end
else if iRes = 3001 then
begin
   << Web Activation could not be reached, please check connection >>
   ...
end
else if iRes = 3015 then
begin
   << that license was not validated before >>
   ...
end
else if iRes = 3030 then
begin
   << that license can not be deactivated.>>
   ...
end
else
begin
   << other errors >>>
   ...
```

See also	CheckLicence, licenseVerification, NextVerification, WebServiceURL, ShowWAStartPage, ShowWAProgressPage, ShowWAResultPage, UseLocalProxy, UseLocalIEProxy, LocalProxyServer, LocalProxyPort, Projectname

16.4.3 LicenceVerification

Command no longer in use

Replaced with command SetVal 711, Token: MVI

Name	**LicenceVerification**
Purpose	Property to get the state of the license regarding online verifications used in combination with CheckLicence 825
Params	None
Returncode	

Returncode Type Integer	***Note***
0 = off	No online verification. CheckLicence will always succeed.

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	1 = ongoing: An online verification has to be done periodically 2 = frozen: A failed online verification has locked that license. A successful Checkllicense can bring it back. 3 = deactivated: Once on state “ongoing” the periodic checks are no longer necessary.
Usage	You can check the main parameter of the CheckLicence functionality

Sample	`iLicVerification := lic.licenseVerification;`
	`if iLicVerification = 0 then`
	`begin`
	`  << online Verifications are not switched on >>`
	`  ...`
	`end`

See also	CheckLicence 825, DeactivateLicence 949, NextVerification 951

16.4.4 NextVerification

Command no longer in use

Replaced with NextVerificationOfModule 726

Name	**NextVerification**
Purpose	Property to get and set the date when the next online Verification has to take place. This date is monitored with CheckLicence 825
Params	None
Returncode	***Returncode Type Integer*** / ***Note*** 0: There is no information about the next Verification. Probably there were no successful CheckLicence-Calls before. A date: The next online verification has to be executed on that date at the latest.
Usage	Inform the user when the next online check has to be done.

Sample	`dtNextVerification := lic.NextVerification;`
	`if dtNextVerification > 0 then`
	`begin`
	`  << tell your user that the next online Verification has to be executed on that date >>`

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	. . . end
See also	CheckLicence 825, Deactivatelicense, licenseVerification

16.4.5 SetRegisterHelp

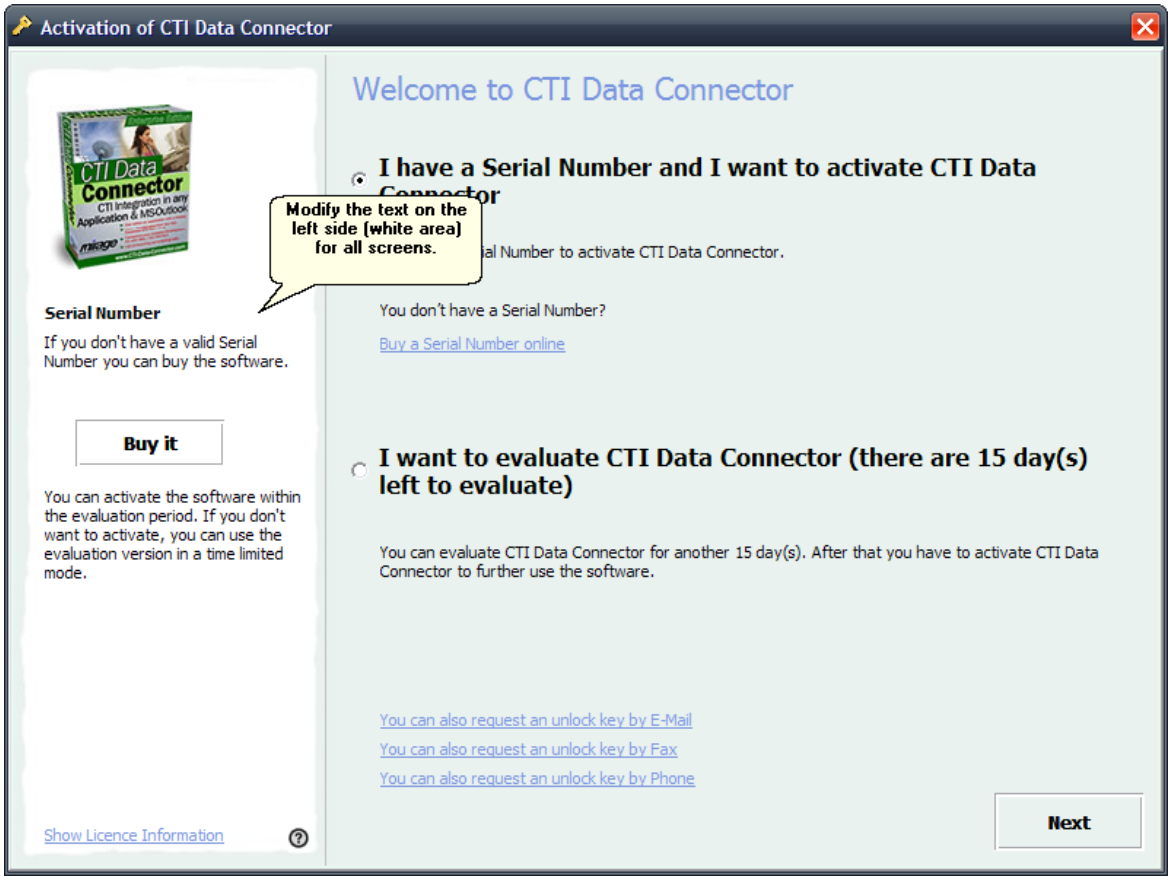
Command no longer in use

Replaced with command SetCustomText 136

Allows defining an **default text** for an alternative text on the **left side** (white area) of the activation screen. With this command you can define only the text in **ONE** language.

If you use SetRegisterLanguages 134 to allow the user to select multiple languages, you can specify the alternative text for each language using the command SetRegisterHelp 905 L 905.

If you do not specify a default text, then the inbuilt default text for each language is used.



Modify text for activation screen

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Name	**SetRegisterHelp**
Purpose	Set help texts for the left side of the EasyGo form.

Params

Parameter	*Type*	*Example*
HelpWelcome 222	String	
HelpExpired 253	String	
HelpActivation 1	String	
HelpActivation 2	String	

232 237 243 248

232 237 243 248

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<table>
<tr><td></td><td>
<table>
<tr><td>HelpUnlock 251</td><td>String</td><td></td></tr>
<tr><td>HelpDone 251</td><td>String</td><td></td></tr>
<tr><td>HelpErrorMsg 262</td><td>String</td><td></td></tr>
</table>
</td><td></td></tr>
<tr><td>Returncode</td><td>
<table>
<tr><th>Returncode
Type Integer</th><th>Note</th></tr>
<tr><td>0</td><td>Settings are successful</td></tr>
<tr><td>Other value</td><td>Error occurred, see list of return codes</td></tr>
</table>
</td><td></td></tr>
<tr><td>Usage</td><td>To customize the EasyGo form. This call only is necessary if further explanation of the process has to be displayed for the user.</td><td></td></tr>
<tr><td>Sample</td><td><pre>
lic.SetRegisterHelp('', // Welcome
                    '', // Expired
                    '', // Activation1
(above Buy-Button)
                    '', // Activation2
(below Buy-Button)
                    '', // Unlock
                    '', // Successful
                    '') // Error-Message

...
</pre></td><td></td></tr>
<tr><td>See also</td><td>EasyGo, SetRegisterSettings, PrepareAndCheck</td><td></td></tr>
<tr><td></td><td></td><td></td></tr>
</table>

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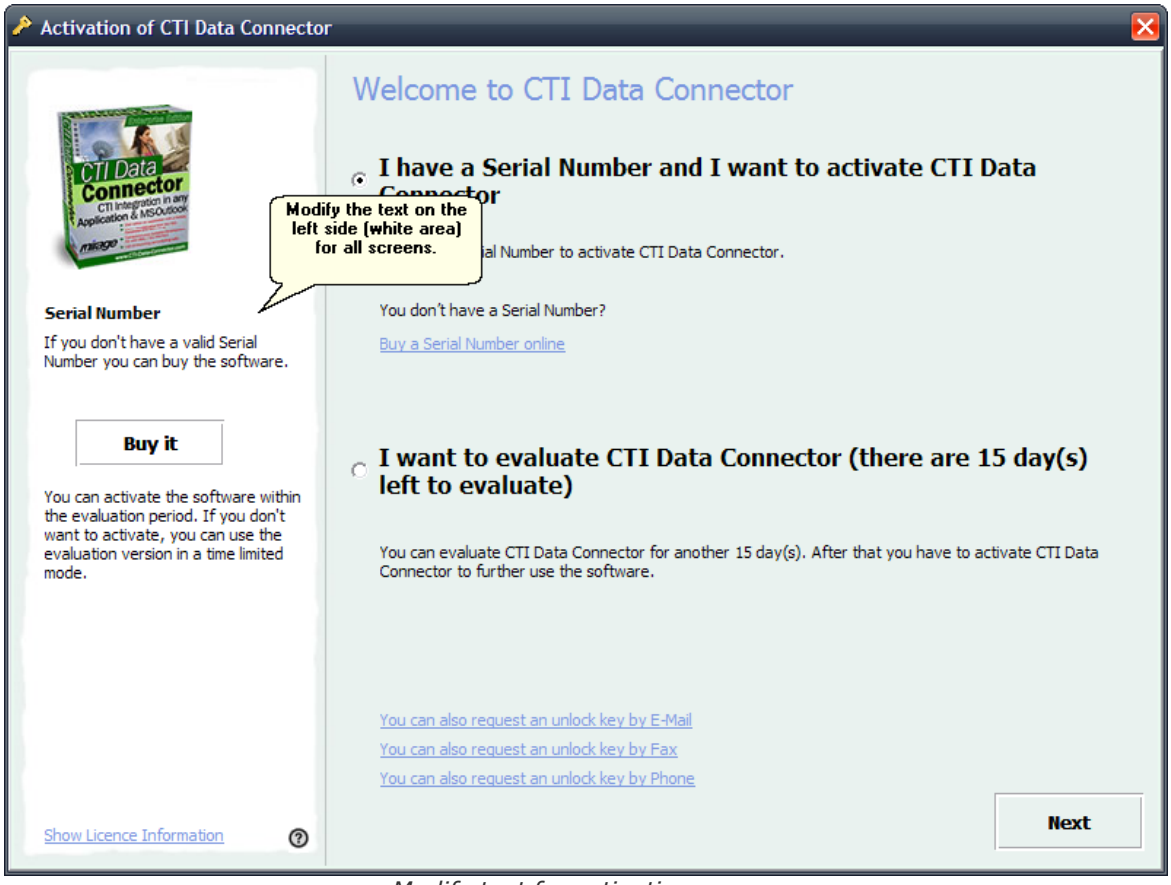
16.4.6 SetRegisterHelpL

Command no longer in use

Replaced with command SetCustomText 136

Allows defining an alternative text on the **left side** (white area) of the activation screen. With this command you can define the text for **MULTIPLE** languages. You should define an alternative text for **each** language you specified either with SetLanguage 108 and/or SetRegisterLanguages 134.



Modify text for activation screen

You have to use the command for each language.

Example
If you support the languages French, German and English you have to call SetRegisterHelpL 3 times for language 30000, 10000 and 20000.

If you do not specify an alternative text then

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- the default text defined with SeRegisterHelp 902 is used. If there is no default text then
- the inbuilt default text per language is used

Name	**SetRegisterHelpL**
Purpose	Sets the help texts for the EasyGo page for the specified language (PrepareAndCheck)

Params

Parameter	*Type*	*Example*	*Note*
Language	String	'2'	You can use the language codes (e.g. en, de,..) or you can use the language numbers (e.g. 1, 2) as string - for a complete list of language codes see SetLanguage 108
HeltextBuy 222	String	'To buy you have to do the following …'	Help text that is displayed on the left side of the EasyGo form on the Activation page that handles the Serial Number input for all registration methods (Online, 232 e-mail 237, Fax 243, Phone 248). This is the part **above** the Buy-Button. If empty then the default text is used.
HelpWelcome 222	String		Help text that is displayed on the left side of the EasyGo form on the first page that welcomes the user. If empty then the default text is used.
HelpExpired 253	String		Text that is displayed on the "Expired" section of the EasyGo Form
HelptextActivation	String		Help text that is displayed on the left side of the EasyGo form on the Activation page that handles the Serial Number input for all registration methodsOnline, 232 e-mail 237, Fax 243, Phone 248). This is the part **below** the Buy-Button. If empty then the default text is used.
HelpUnlock 251	String		Help text that is displayed on the left side of the EasyGo form on the Unlock page that handles the Unlock Key input for the manual registration methods (e-mail, Fax, phone). If empty then the default text is used.
HelpDone 251	String		Help text that is displayed on the left side of the EasyGo form on the page that tells the user that the Activation has succeeded. If empty then the default text is used.

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	HelpErrorMsg 262	String		Help text that is displayed on the left side of the EasyGo form on the Error-Message page. If empty then the default text is used.

Returncode	***Returncode*** ***Type Integer***	***Note***
	0	ok
	8193	The specified language is illegal
	8194	Function is not implemented

Usage	SetRegisterHelpL should be used to set individual help texts on the left side of the EasyGo Form (PrepareAndCheck) for different languages.
Sample	`iRes := lic.SetRegisterHelpL('2', ,Sample text fort he buy section', ,Sample text for the Welcome section', 'Sample text for the Expired section', 'Sample text for the Activation section', 'Sample text for the Enter Key section', 'Sample text for the Done section', 'Sample text for displaying an Error');`  `if iRes = 0 then` ` // ok, no error`
See also	SetRegisterHelp, SetRegisterLanguages, SetRegisterSettings, PrepareAndCheck (EasyGo), Language codes

16.4.7 SetVerificationID

Command no longer in use

Replaced with command SetVal 711, Token: MVD

Name	**SetVerificationID**
Purpose	Sets the ID for the CheckLicence call. That is needed for the "Transfer" and "Adopt"-Button on the License Viewer

Params	***Parameter***	***Type***	***Example***	***Note***
	ID	String	ID4711	This value is used for the next "Transfer" or "Adopt" action

Returncode	***Returncode***	***Note***

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	Type Integer
	0 — The Verification ID was successfully set
	All other values – see return codes — The operation was not successful
Usage	Sets the value that is necessary for the next implicit CheckLicence call triggered by the license Viewers “Transfer” and “Adopt” button Notice: You should explicitly set the value in the CheckLicence and Deactivatelicense call, even if you have set it with SetVerificationID Notice: A CheckLicence-call will do an implicit SetVerificationID

Sample	`iRes := lic.SetVerificationID('ID4711');`
	`if iRes = 0 then`
	`begin`
	`<< Verification ID successfully set. license Viewers Transfer now has the necessary parameter. >>`
	`...`
	`end`

See also	SetVerificationProduct, CheckLicence, Deactivatelicense, licenseVerification, NextVerification

16.4.8 ValidatesYes

Command no longer in use

Replaced with command Validate 818 / ValddateEX 820

Name	**ValidatesYes**
Purpose	Checks if a yes/no module could be used and is set to yes.

Params

Parameter	Type	Example	Note
ModuleID	String	D1004	Unique ModuleID – identifies the module to be tested

Returncode

Returncode Type Integer	Note
All values	See list of return codes 635
0	Module is Yes
1	Module is set to Demoversion
3	Module is No

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Usage	ValidatesYes is intended to validate yes/no modules (Type 4). It can not be used for modules of Type 1, 5 and 6 because these types need the user or item as parameter (Error 4096 is returned) ValidatesYes can be replaced by a sequence of Validate() and Totallicenses().

Sample	`iRes := lic.ValidatesYes('D1004');`
	`if iRes = 0 then`
	`begin`
	`<< successfully validated, Module is Yes >>`
	`...`
	`end`
	`else if iRes = 1 then`
	`begin`
	`<< successfully validated, it's a demo version and Module is Yes >>`
	`...`
	`end`
	`else if iRes = 3 then`
	`begin`
	`<< successfully validated, but the Module is No >>`
	`...`
	`end`
	`else if iRes = 4096 then`
	`begin`
	`<< D1004 seems to be not a Module of type 4. Use Validate instead… >>`
	`...`
	`end`
	`else`
	`begin`
	`<< validation failed, usage of module not allowed >>`
	`...`

See also	Prepare, Quit, ValidateEx, Validate

16.4.9 VerificationOfModule

Command no longer in use

Replaced with command GetVerificationOfModule 716 and SetVerificationOfModule 797
Enables or disables the regular online check. 541

Name	**VerificationOfModule**
Purpose	Property to enable or disable the regular online check
Params	None
Returncode	***Returncode Type String*** / ***Note*** True / Regular Online check is enabled

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	False	Regular Online check is disabled
Usage	Change / Retrieve the application version in the license file	

Sample	Get:
	bIsCheckOn := lic.VerificationOfModule;
	<< use Boolean bIsCheckOn >>
	
	Set:
	lic.VerificationOfModule := true;	

See also	SetVerificationIDOfModule 798, CheckModuleSubscription 654, CheckModule, 652 DeactivateModule, 664 NextVerificationOfModule 726,	

- The current status can be retrieved using GetVerificationOfModule 716
- The online check can also be enabled in project template using <ModuleVerification 197>

16.4.10 WebRegister

Command no longer in use

Replaced with command WebRegisterExt 821

Command to make an online activation of a module.

Name	**WebRegister**
Purpose	Contacts the Activation Server 6 to activate a module.

Params

Parameter	*Type*	*Example*	*Note*
Projectname	String	demo-easygo	Projekt Name configured in the project.config file on the Activation Server 6. If empty the internal project name of the license file is used
ModuleID	String	QHD001	ModuleID – identifies the module
ID	String	yuGEI-5EPc3-9E7Il-3tI8X-7QU5k-6h14R	Identifier which is used to check and register this activation. Should be a **unique ID** like Serial Number, Invoice Number
eMail	String	john@mycompany.com	eMail address, currently only to be protocolled in the Web Activation server

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<table>
<tr><td>Returncode</td><td>
<table>
<tr><th>Returncode
Type Integer</th><th>Note</th></tr>
<tr><td>0</td><td>Module successfully activated</td></tr>
<tr><td>3001</td><td>The Activation Server 6 was not reachable.</td></tr>
<tr><td>3002-3999</td><td>Errors on the Activation Server 6, see Activation Server 6 error codes</td></tr>
<tr><td>Other return codes</td><td>Operation failed, see list of return codes 635</td></tr>
</table>
</td></tr>
<tr><td>Usage</td><td>Used to activate one or more modules.</td></tr>
<tr><td>Sample</td><td>

```
   iRes := lic.WebRegister('', 'QHD001', 'yuGEI-5EPc3-9E7Il-3tI8X-7QU5k-
6h14R', 'john@mycompany.com');
   if iRes = 0 then
   begin
      << Module D1001 successfully activated >>
      ...
   end
   else if iRes = 3001 then
   begin
      << Web Activation could not be reached, please check connection >>
      ...
   end
   else
   begin
      << other errors >>>
      ...
```

</td></tr>
<tr><td>See also</td><td>GetWebActivation, Web Activation, WebServiceURL, ShowWAStartPage, ShowWAProgressPage, ShowWAResultPage, UseLocalProxy, UseLocalIEProxy, LocalProxyServer, LocalProxyPort, Projectname, WebRegisterExt 821</td></tr>
</table>

Ports and Proxy Settings

The Online Activation uses an http request on Port 80 to communicate with the Activation Server. A router with a standard firewall (IP-Filter) will not detect the difference to a Browser request and let the activation pass. A local personal firewall like McAfee or Norton will pop-up and ask, if the request should be permitted. Only a 'real' application firewall will block the request and an administrator has to open port 80.

Proxy settings are retrieved from the Browser but can be changed with the commands LocalProxPort 723, LocalProxyServer 723, UseLocalIIEProxy 816, UseLocalProxy 817.

Only the Licence Protector DLL can communicate to the Activation Server 6

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The WebRegister command would display screens indicating that an online validation is done. The screens can be suppressed using ShowWAStartPage 806, ShowWAProgressPage 804 and ShowWAResultPage 806

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Part XVI

17 Data Center / Master Subscription / GDPR

The Mirage hosting service is GDPR (EU General Data Protection Regulation) compliant. The server functionality ensures that the required options for user access and permission restrictions are available. The high security standards and backup strategies of the Amazon data center provide a service which is secure and highly available.

Please read the following information carefully

- Master Subscription Agreement / Legal Information 964
- Data stored and processed 964
- License Agreement 40
- Data Center Setup 971

17.1 Master Subscription Agreement / Legal information

Master Subscription Agreement

The latest version of the Master Subscription Agreement can be found in the Support Center.

Additional contracts / documents

- Customers with a subscription (Cloud Edition or hosting subscription) and who have agreed to the Master Subscription Agreement, can request to sign a data processing addendum with Mirage
- Mirage has signed a data processing addendum with Amazon Web Services

17.2 Data stored and processed

What you should know about the hosted version of the Activation Server 6

- It runs in the **Amazon data center** 971 in Ireland**.** In case of a service interruption the service could be moved to other Amazon data centers in the EU

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- Additional Backups are stored in Amazon data centers in the EU
- It is a high availability **server pool** which ensures an uninterrupted service
- Customer data is kept as long as the subscription is valid. Once the subscription is canceled, the server database is set in an offline mode and it is deleted after some time (see Mirage Data Processing Addendum)

The following data is stored in the Activation Server 6. Depending on the usage of Licence Protector or All-In-One Protector only a part of the data could be available.

Data saved in combination with a Key / ID

- Product / Project Name
- Key / ID
- Module ID
- E-Mail Address of customer
- Customer name and address (depending on settings in Licence Protector / All-In-One Protector)
- Hostname of licensed computer
- IP-Address
- Hardware Profile of a computer
- Operating System information (like Windows or macOS version)
- Date / time of a transaction
- Reseller Name
- Maximum ID / Key usage, Effective Key usage
- Additional information to a key / ID like notes, Abusive Usage, Lock status
- Status information like product deactivated, product locked, key validated

Data saved in combination with a license file

If a license file is uploaded it is like a backup of the local license file and all information in the local file are stored on the server .

Metrics

Sending of metric data has to be enabled. Only then the data is sent - either anonymous or linked to a Serial Number. Right now the Activation Server only supports anonymous reports even if the metric data is linked to a Serial Number.

Default metric data are

- Operating system
- Platform type
- Physical memory
- CPU-Type
- Screen resolution
- User language of the operating system
- Location information (on country level)
- Product Project Name
- Date / Time

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Additional metric information are

- Date / Time when a version was installed
- Date / Time when a module was activated or deactivated
- Date / Time when a product was used (application start or document open)

If non-anonymous metrics are used

- Computername
- Username with Domain
- WindowsID

In addition to that, Licence Protector allows implementing own metric information.

- All Licence and All-In-One Protector Editions send anonymous metric data
- The information sent could change with any update

17.3 License Agreement

You may distribute and install only those files marked for distribution in the chapter Distribution 349 of the developer documentation on any machines of your end users. You may distribute these files only with your software application. You must never distribute and install these files without your software.

- You are allowed to use as many project files/applications as are stated on the invoice or delivery note. If there are no project files stated, you can protect with the *Starter Edition* **3**, and the *Basic Edition* **5** and with the *Professional Edition* an **unlimited** number of project files/applications. Unused projects can be removed 36.
- You can distribute the Licence Protector DLL with your application to any customer you like - without paying more fee
- The on-premise Activation Server may be used within a company by any number of users. It is a license for **one instance**. Especially it is not allowed to use the Activation Server on multiple instances and offer hosting services

Lifetime license

- The application License Generator 372 may be used within a network by any number of users (site license)
- You need a new license for Licence Protector 5 for **each branch office** where you develop software or generate licenses (site license)
- The lifetime license does not expire

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Cloud Edition (subscription license)

- The Cloud Edition is licensed per developer. The number of developers are stated on the invoice or delivery. If this information is missing the Cloud Edition is licensed for **3** developers.
- The Cloud Edition is licensed via Master Subscription Agreement

Activation Server

The Activation Server is licensed via Master Subscription Agreement

Lifetime license

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Date: October 2010
LA-DE-01082003

17.4 Data Center Setup

To provide the best infrastructure with the highest availability and data loss protection, the Activation Server runs in the Amazon data center in Ireland .

Starting with version 5.4, Amazons own database - **Aurora** - is used.

Amazon Aurora is designed to offer greater than **99.99%** availability. Recovery from physical storage failures is transparent, and instance failover typically requires less than 30 seconds. Amazon Aurora's storage is fault-tolerant and self-healing. **Six copies of your data are replicated across three Availability Zones and continuously backed up to Amazon S3.**

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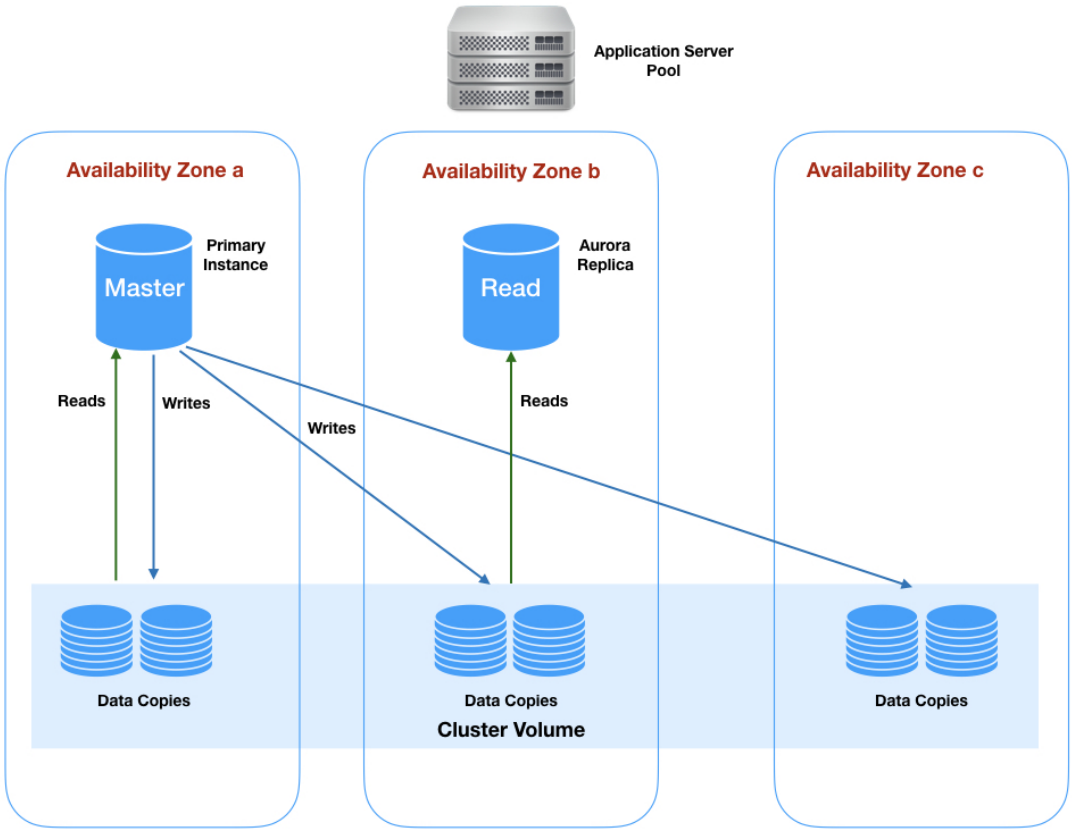

Check the actual status of the server pool

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