

Network License Manager Documentation

for CAD products based on ARES Technologies.

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1. Purpose of Network Licensing

Network licensing gives you the opportunity to use our CAD products more flexible. A network license is created for a certain number of work stations. After setting up the network license manager or server you are able to use the CAD application from anywhere on your local network. The major difference between a single and a network license is that the network license is not bound to a single workstation. You can install the CAD application on as many workstations as you wish. When you start a workstation, a license from the license server is checked out. The number of available workstations depends on the number of purchased licensed.

2. General Installation Process

The whole system consists of one server application and a variable number of clients. Below are the steps to setup the network license manager (NLM) and to connect the clients to it:

1. Order a network license and specify the number of clients for your workstations
2. For the activation of the network license you will get one 27 digits product key and a download link to the NLM package. For Windows you get a Microsoft Installer package.
3. Now you execute the NLM setup on your desired server and select an installation folder. Under Linux and MacOS you get an installation package file.
4. After the installation you start the NLM and activate it. The activation is done via email. Detailed information about the activation process can be found in section 3.
5. After you have received the license key via email. The license key is an ASCII string that begins with ISV and ends with quotation mark ("), which has to be entered in the NLM application.
6. Now you can start the network license manager via the Service pull down menu and the Start option.

On the client side you only need to provide the server IP address and the port for the connection to the server. You start the activation process via the start dialog and enter instead of a license key the server IP address and the port number. Further details on setting up the client can be found in section 3.

Please note the difference between product key and license key. The product key is a 27-digit number (for example **999080093CEDEF2999DCBEEAFA8**), which is just a unique number and describing your license information. The license key on the other hand is a ASCII text string, which is needed to run the NLM on a specific computer. An example for a license key is shown below:

ISV graebert

HOST localhost a4badbfaa26c 2700

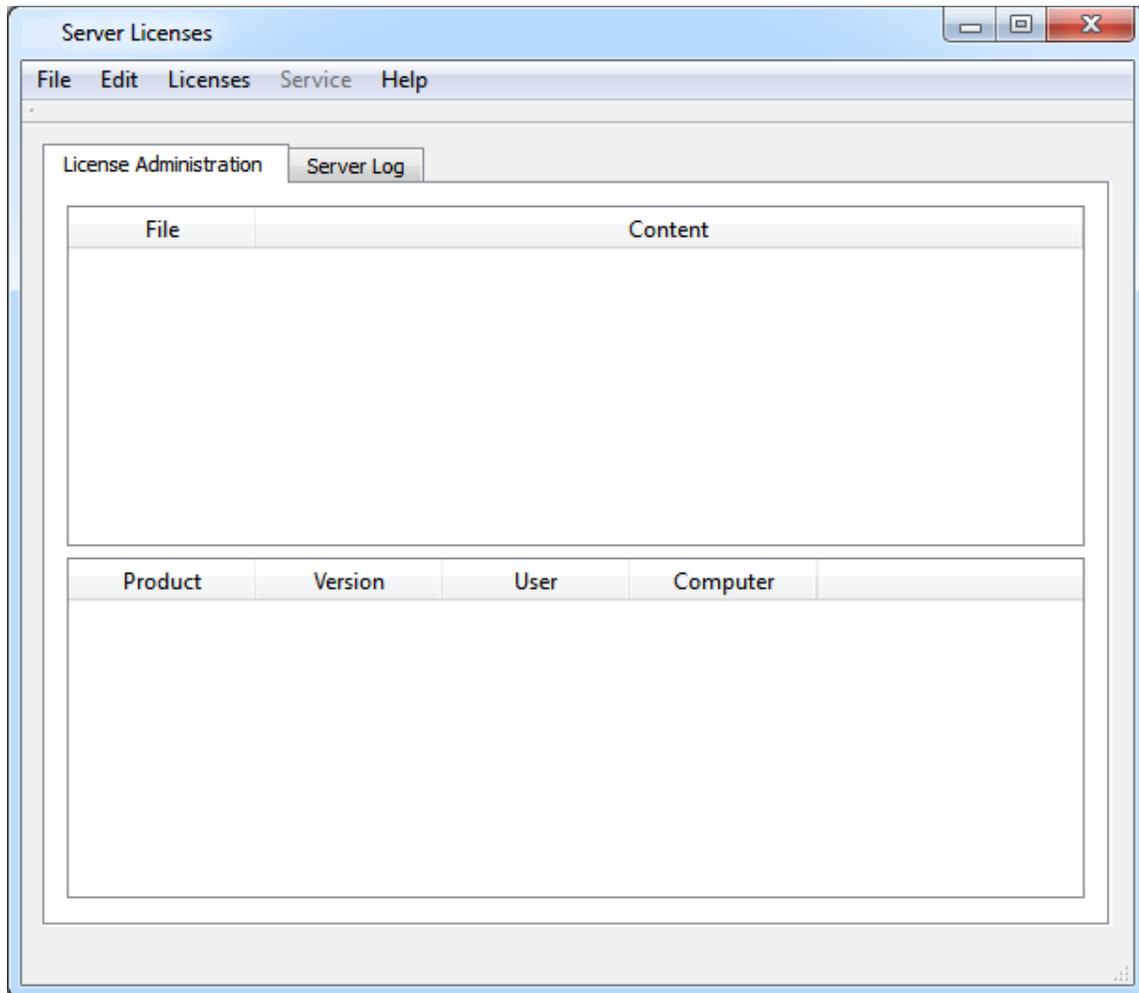
LICENSE graebert gde_1747 8.0 25-may-2021 2 options=99908004911540-N

**_ck=11d77221c9 sig="60PG453X9324XV800N5RUV6JNTDWBWYBJ36XMX46G22M093TV
66900B9T33R8R08627VSPGBR2RQR0" H2EQ7X6EQDDVFRG6YSMEBSX9NHR"**

3. Steps to Set Up a License Server and a Client

3.1 Server Side

Now please execute the setup of Network License Manager application. During the setup you can select the installation folder and launch the application directly after the installation. The setup creates in the Windows Start menu a "**Product Name** Network Licence Manager"-folder with the shortcut to start the NLM application. After the application start you will see the following dialog:



The main application window consists of a pull down menu and two tabs.

The first tab is called 'License Administration' and it contains two tables. The upper table shows your license files and their content. The lower one shows you at runtime which license and which product is used, the product's version, the user who works with this product and on which computer.

The second tab is called 'Server Log' and logs all server activities. The content which you see there is also saved under '`c:\Users\All Users\Product Name NLMlog\licsrv.yyyy.mm.dd.log`'. yyyy, mm and dd are placeholders for the current date. If you want to examine, copy or send the log file, make sure you stop the server first. Only when the server has been stopped, all activities are written to the log-file. You can also copy the current log information to the clipboard via the menu (**Edit** --> Copy to clipboard).

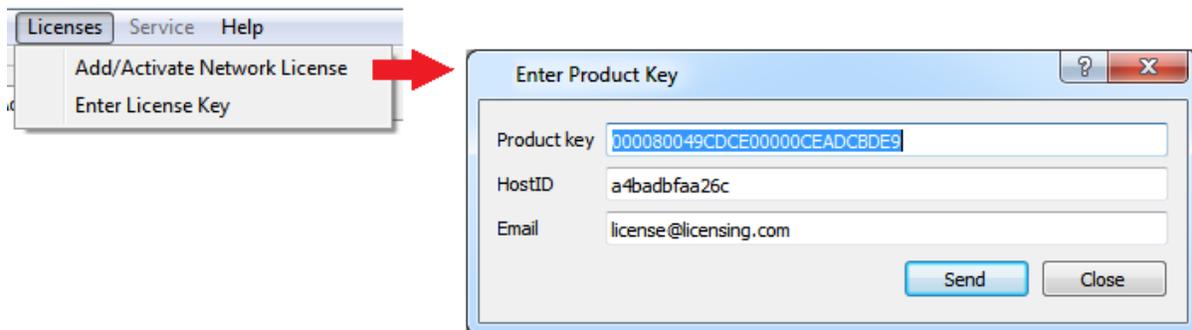
The pull-down menu includes the following functionality:

- **File** – you can close or minimize to tray the application.
- **Edit** – you can copy to clipboard current log and setup the interface language.
- **Licenses** – consist of two entries:
 - 'Add/Activate Network License' generates an activation text, which has to be sent to the license administration.
 - 'Enter License Key' opens a dialog where you can paste you license key, which you received from our license administration.
- **Service** controls the server behavior. You can start, stop or restart the server from here.
- **Help**, opens a HTML help or show an about dialog with the current version information of your NLM.

3.2 Add or Activate a Network License

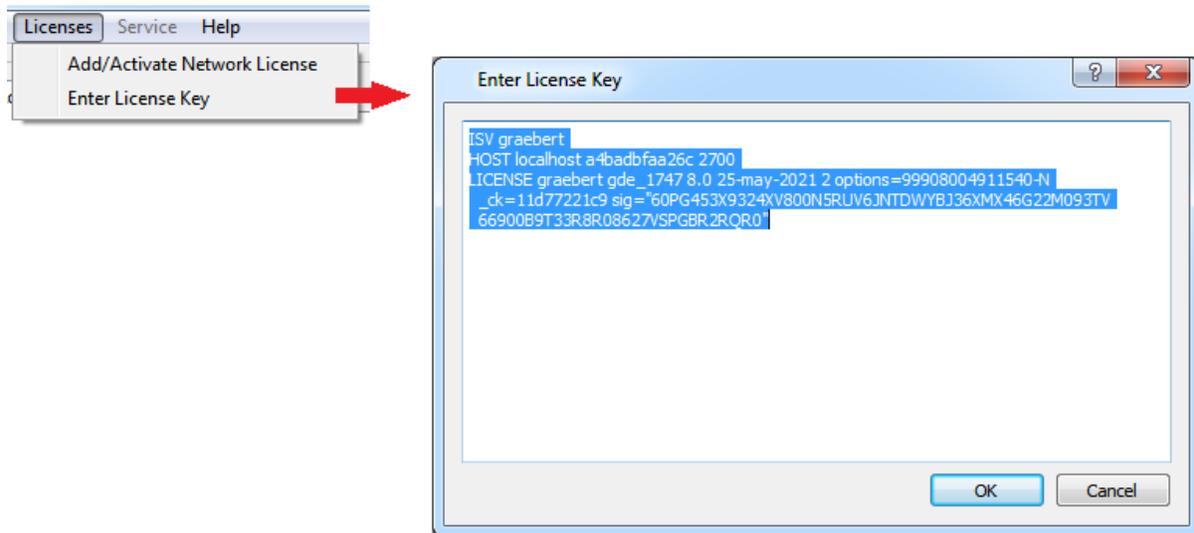
Make sure you do all activation steps on the same machine you intent to use as a server. The created license key of the network license is bounded on only one PC !

From the 'Licenses' menu you have to select 'Add/Activate Network License' and a new window pops up:

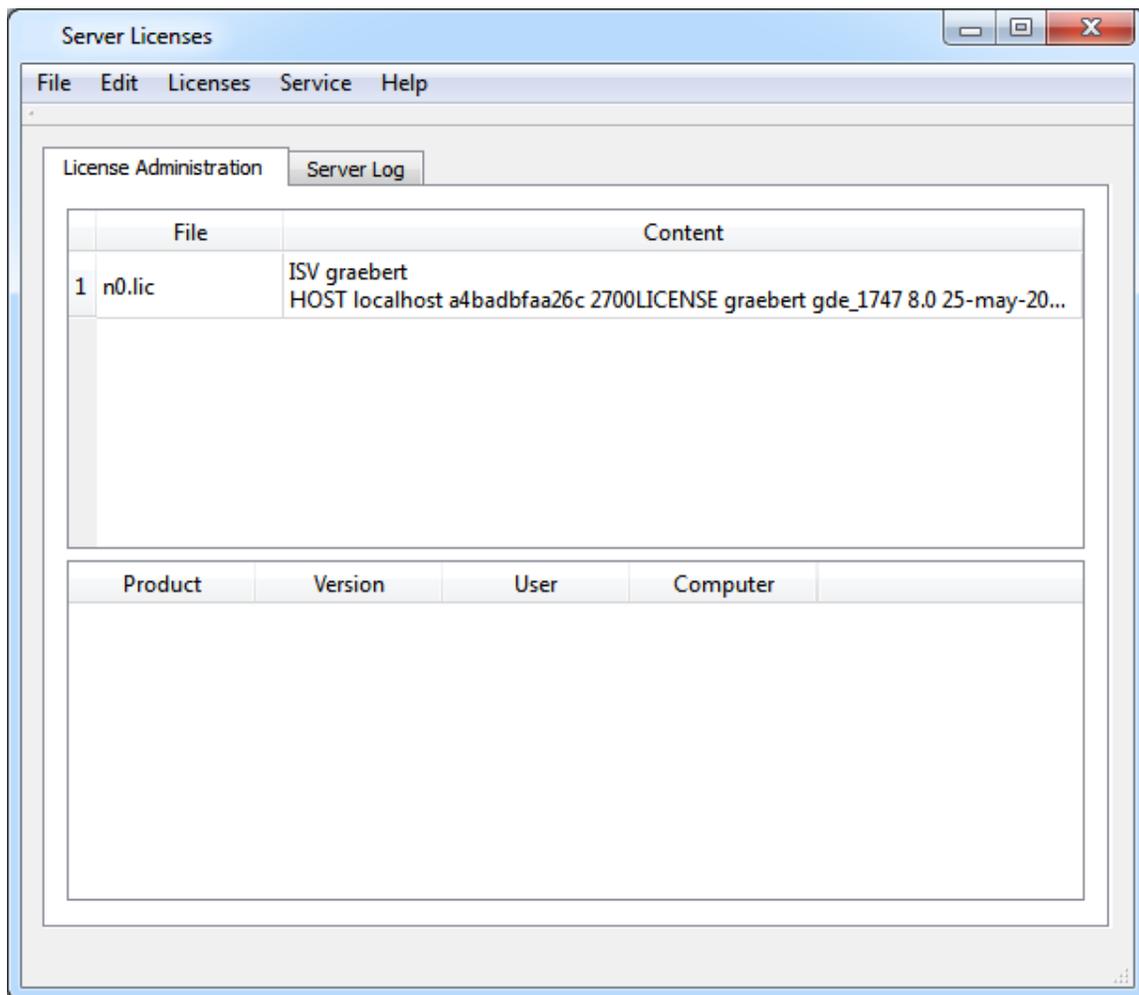


In the field 'Product Key' you have to enter the product key, which you received as you bought your network license. It is a 27-digit, hexadecimal number. Afterwards, by pressing send, the contents for email is generated from the three fields. If you have a default email client on your system, it will be open automatically and generates the email, which has to be send. If you do not have a default client, a simple dialog will be open, so you can copy the generated content manually.

When you receive from our license administration the license key, you have to select under 'Licenses -->Enter License Key'. A simple window will pop up, where you can enter your license key:



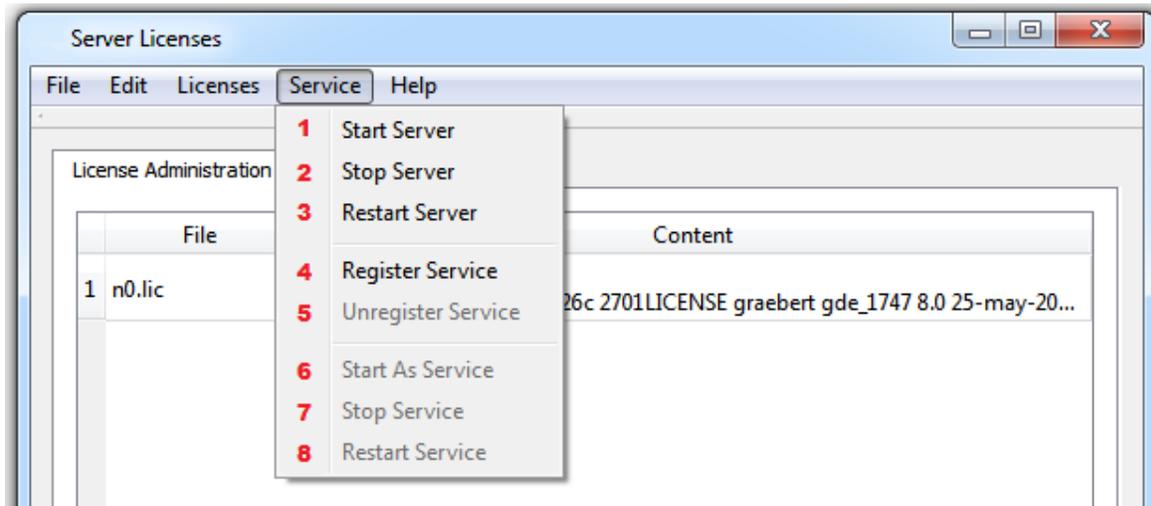
After pressing the OK button, some validations are done and if the license key is fine, you will see an entry in the upper table:



Notice that the menu entry 'Service' is now available. Now your license server is ready to use.

3.3 Server Control

At that point the application is ready to start the server. You will see the following menu:



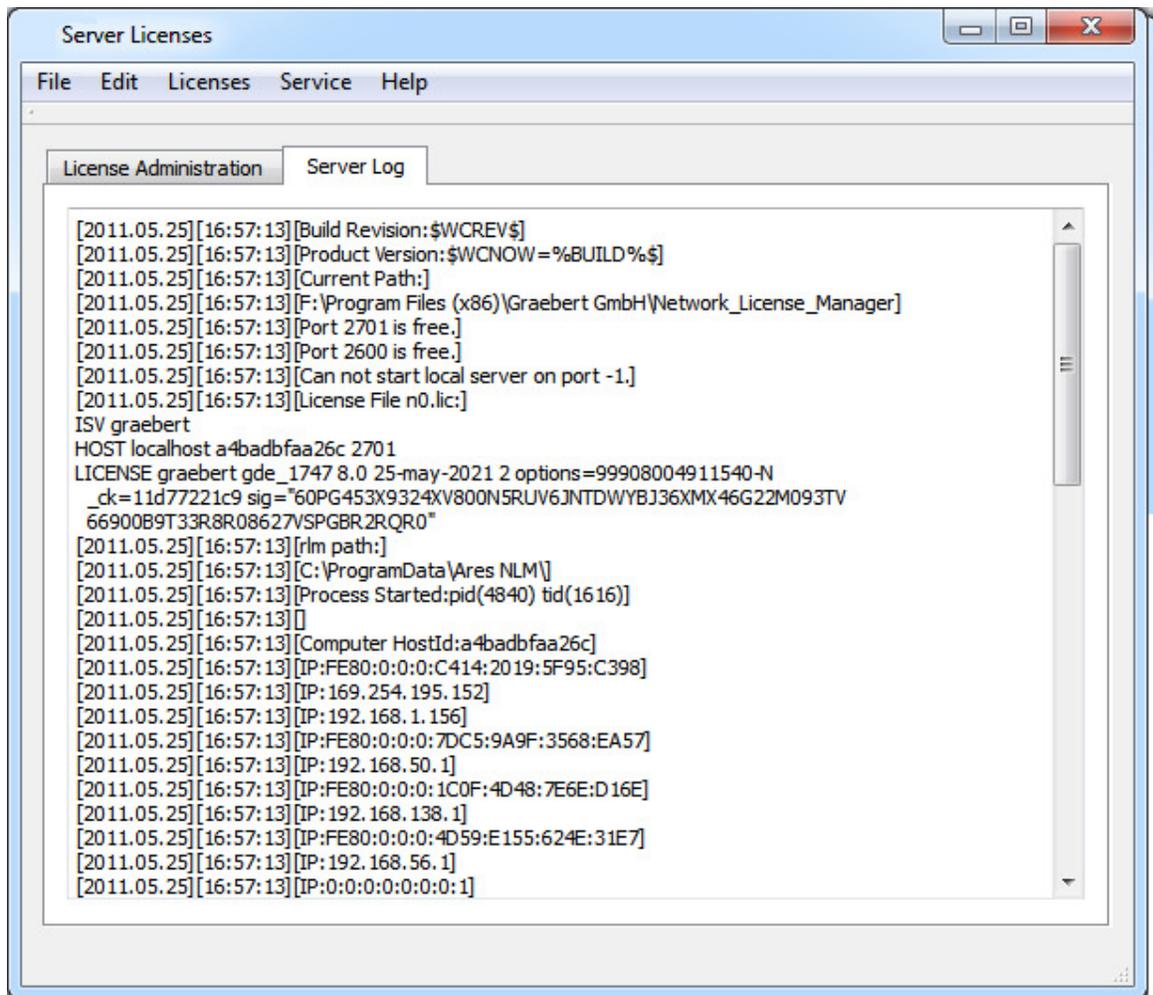
You have two possibilities: to start a server from the application with menu entries from (1) to (3) and to start it as a service with menu entries (6) to (7). Starting as a service has an advantage, that the license server will be available on system start. In order to have it as a service you have to register the service by clicking 'Register Service'(4). You can see that the service is entered in the system under 'Control Panel' -> 'Administrative Tools' -> 'Services'. The Service is called 'NLM-Service'. If you don't want the service you can stop it(7) remove it from the system with (5). Remember that, the server is running as long as the NLM-application is running, but the service will be always available even if the NLM-application is not started.

The server functionality is also available when you minimize the application to tray. With a right-mouse click you will get a menu, where you can start, stop, restart the server or to show/hide the application. You can also use a double-click on the tray icon to show/hide the application.

You can also start the server out of a DOS shell over the command line or a batch file. Use the "NLM.exe" followed by start, stop, restart, hide, minimize or show to control the application behavior.

Usage example: *NLM.exe start minimize*

If you start the server you can switch to 'Server Log' Tab and see the log output.



Note:

If you are running the application as a service you will see a small amount of log-entries. The service log file is saved in a sub-folder under '*c:\Users\All Users\Product Name NLM\log*' for Windows Vista/7 or under '*c:\Documents and Settings\All Users\Product Name NLM\log*' for Windows NT.

3.4. Server Files and Folders

All server configuration and license files (.lic) are under *%ALLUSERSPROFILE%\ Product Name NLM*.

To find your ALLUSERSPROFILE-folder please open a command window (cmd.exe) and type **SET** to see the where the variable points. In the NLM subfolder you will find:

ini-file – file that keeps the application settings.

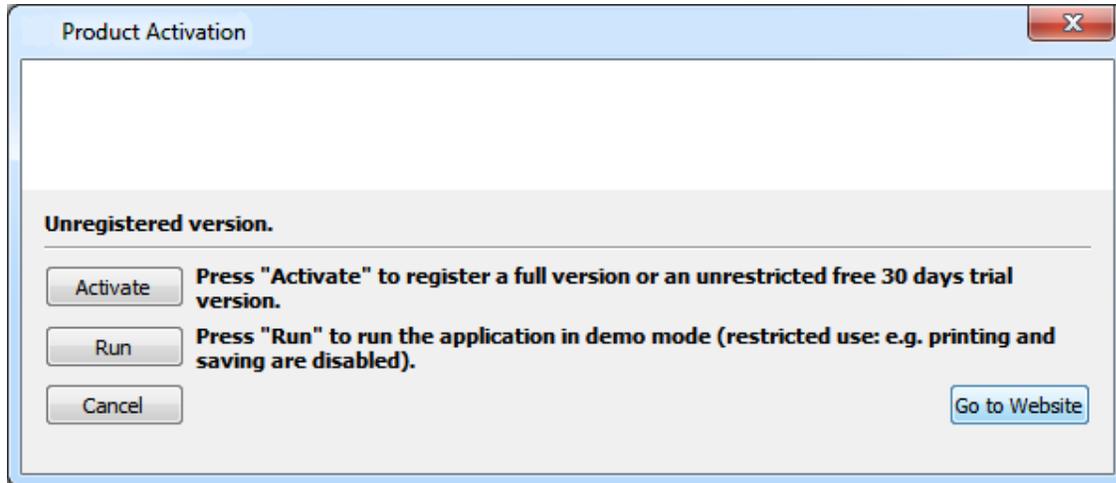
opt-file – file that keeps additional options for the server.

lic-file(s) – all your license files.

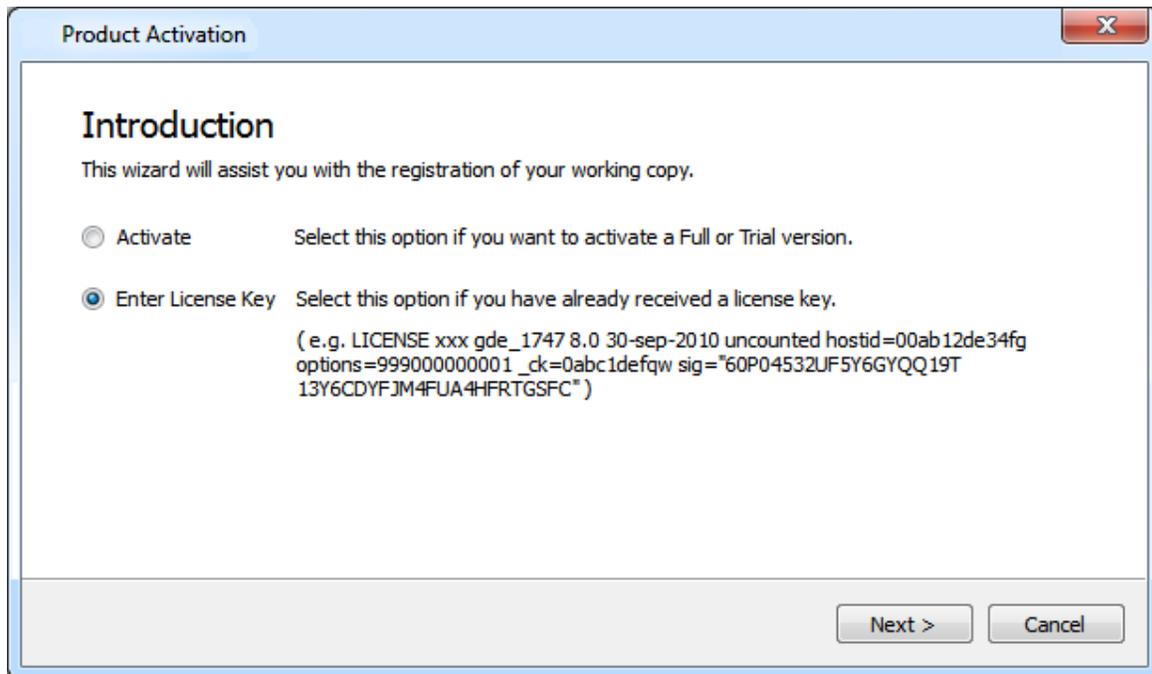
\log\ - sub-folder, which contains all logging data.

3.5. Client Side

Please start the application and click 'Activate'.



Now use option Enter License Key and click 'Next' .

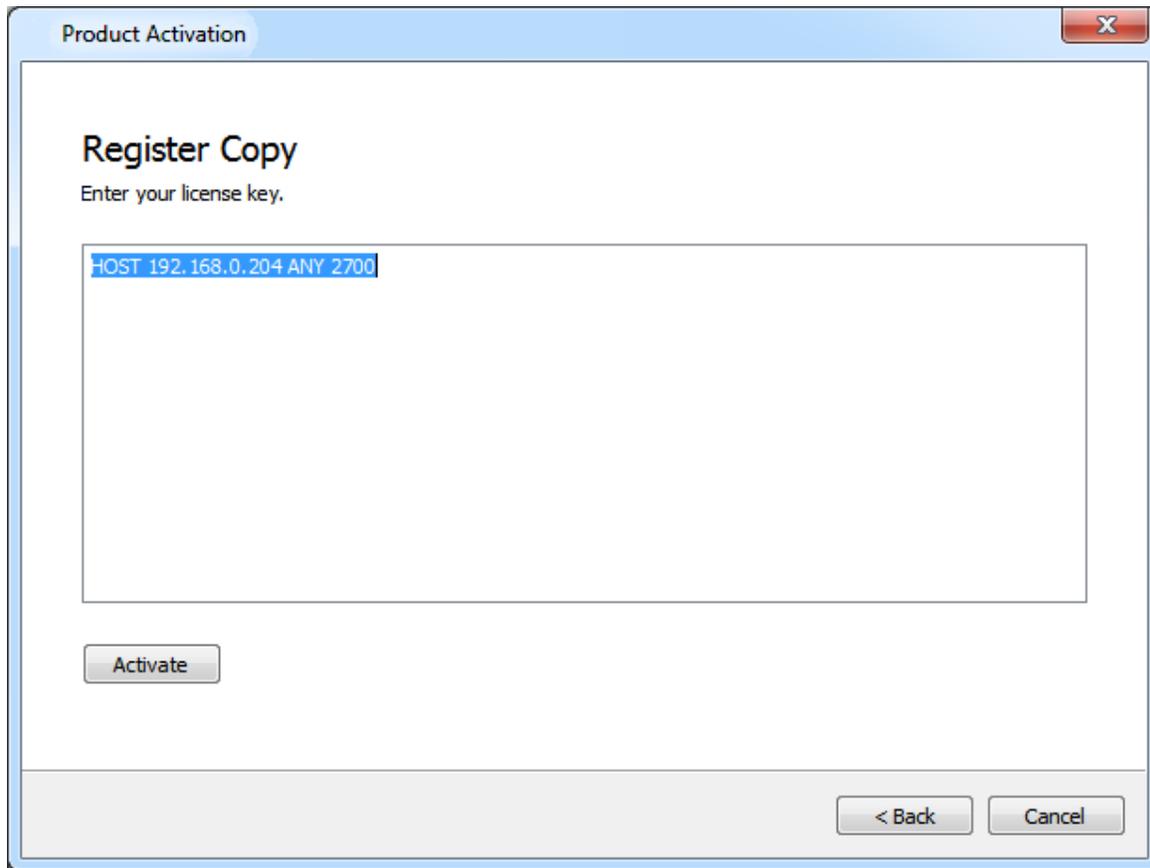


A new wizard page is opened where you can setup the connection link data to the network license manger. The syntax is:

HOST <IP> ANY <PORT> (for example: *HOST 192.168.0.204 ANY 2700*). Afterwards click 'Activate'.

Either the client is successfully activated you can click 'Done' or the connection link data is incorrect and an error message is printed.

After a successful activation the application should start. If there are some problems between client and network license manager. All necessary error descriptions are shown on Start up-Dialog of the product.

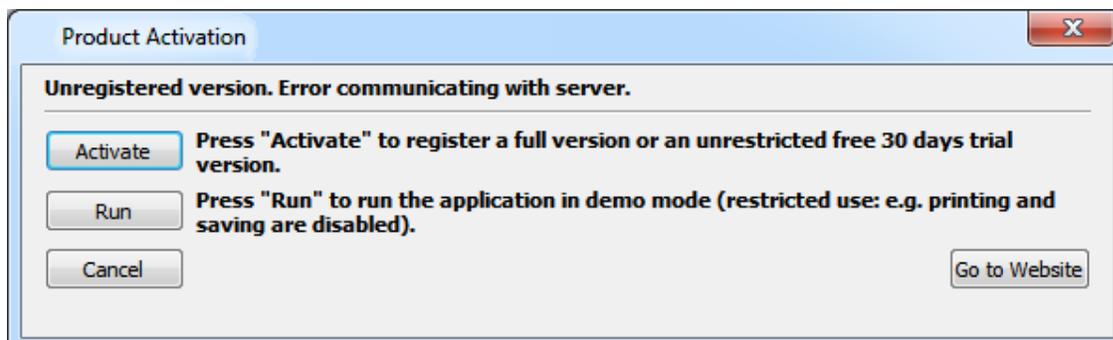


Possible errors could be:

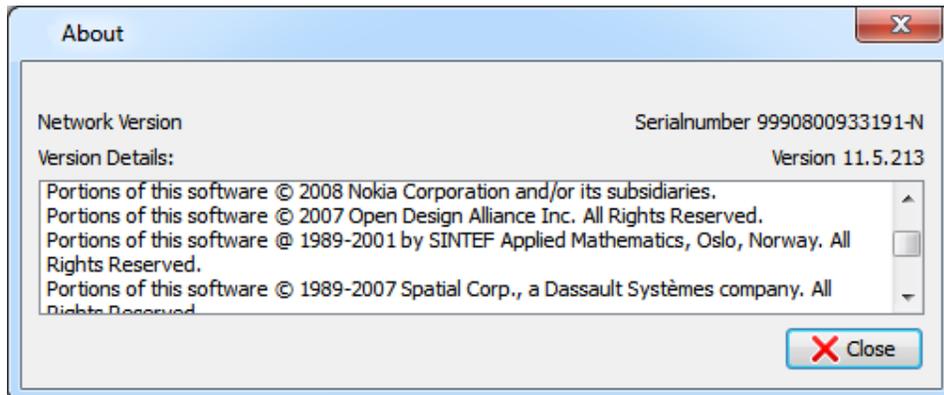
Error communicating with server.

All licenses in use.

Bad host name in license file.



If you are running a client with a network license, you can find your serial number in the about dialog. The serial number shows a "-N" at the end.



4. Requirements, Tips and Problems

4.1 Requirements

The ports 5053, 5054, 2600, 2700 have to be free. No other application should use them.

4.2 Tips

Make sure you NLM server station is working all the time, so that the clients are able to connect any time.

4.3 Problems

Repeated errors under Windows about select(), getsockname() or "communications (socket) problems" and the server fails to start, use the following command line: "netsh winsock reset". Restart is needed.

4.3 Contacting our Support

If you have a problem you can contact our support. In order to understand better the problem, repeat your steps that reproduce the bug and stop the network license manager. To stop the server is important, so that the log files are completely written. Zip the content of the 'c:\Users\All Users\Product Name NLM'-folder. Execute on the network license manager and also on the client side in the DOS Shell command window the command "ipconfig /all" and save it to file. You can use a simple output redirection to do this:

```
ipconfig /all > server.txt
```

```
ipconfig /all > client.txt
```

These three files – the zipped folder, server.txt and client.txt are to be sent to our support.

5. Frequently Asked Questions

Q1: Are there Mac and Linux versions of the NLM available ?

A1: Not yet, but these packages are under construction.

Q2: How do I uninstall the Windows NLM package for my server ?

A2: It can be uninstalled over the Windows Control Panel\All Control Panel Items\Programs and Features like all other programs.

Q3: How can I add additional client to my current NLM license ?

A3: To add new clients you repeat the activation process on the NLM application with the new product key of your new network license. Then you have to activate these new additional license via email at the license administration again and enter a new license key. The new license key will be added to the first table of the License Administration register. To exchange the previous network license with a new license increased license is not possible, because we can't disable shipped network licenses.

Q4: What should I do, if the error "Clock setback detected" appears during the NLM start up ?

A4: The system time of the server has been set back during the installation of another application, so that license server detects a clock has been set back. In order to fix the problem, you have to set the proper system time on the server. Also all files in the WinNT\ or Windows\ -folder must have a correct access and modification date. Then restart the server and execute the following in a command window.

`dir /od /ta` (displays and sorts on last access time)

`dir /od /tw` (displays and sorts on last write time)

On Linux systems, NLM is looking in /etc, /var/adm, and /var/log

'ls -ult' shows and sorts by access time; 'ls -clt' shows and sorts by modify time.