

# CADISON Release 6.1.x

**CADISON NLM**  
(Network License Manager)

**Dokumentation**  
**NLM Installation and Administration**

# Table of Contents

<b>CHAPTER 1</b>	<b>USING THIS MANUAL</b> .....	<b>4</b>
<b>CHAPTER 2</b>	<b>INTRODUCTION</b> .....	<b>5</b>
<b>CHAPTER 3</b>	<b>OVERVIEW</b> .....	<b>6</b>
	LICENSING MODEL WHEN USING THE NLM .....	6
<b>CHAPTER 4</b>	<b>INSTALLATION</b> .....	<b>7</b>
	REQUIREMENTS .....	7
	INSTALLATION SEQUENCE .....	7
	Fundamental installation sequence for workstations .....	7
	Detailed installation sequence for workstations.....	7
	Fundamental installation sequence for servers .....	10
	Detailed installation sequence for servers.....	10
<b>CHAPTER 5</b>	<b>CONFIGURATION OF THE SERVER</b> .....	<b>13</b>
	TESTING THE WORK ENVIRONMENT.....	13
	The NLS CADISON service.....	13
	Client/server communication .....	13
	Client/server connection tests.....	13
	Automatic checking with the CADISON analyser .....	14
	Authentication.....	16
	Client and server in the same Windows domain.....	16
	Client and servers are in a workgroup.....	16
	Configuration of the NLA.....	16
<b>CHAPTER 6</b>	<b>ADMINISTRATION OF THE NLM</b> .....	<b>19</b>
	WORKING ON THE SERVER.....	19
	Create a license entry .....	19
	WORKING ON THE WORKSTATION.....	19
	License entry.....	20
	Testing of requests .....	20
	Testing of requests .....	20
	EXPORT AND IMPORT OF EXISTING LICENSES .....	20
	Entry in the CDSN60.ini.....	21
	Online option .....	21
	Offline option .....	22

<b>CHAPTER 7</b>	<b>FAMILIAR PROBLEMS</b> .....	<b>24</b>
	CRASH OF THE AUTOCAD APPLICATIONS AFTER DESIGNER STARTS .....	24
<b>CHAPTER 8</b>	<b>LIST OF DIAGRAMS</b> .....	<b>25</b>
<b>CHAPTER 9</b>	<b>INDEX</b> .....	<b>26</b>
<b>CHAPTER 10</b>	<b>CHANGE HISTORY</b> .....	<b>28</b>
<b>CHAPTER 11</b>	.....	<b>29</b>
<b>CHAPTER 12</b>	.....	<b>30</b>

---

# Kapitel 1 Using this manual

---

This chapter describes how the manual is structured. To ease your entry into the software, follow all the descriptions of an instructive sequence that is set up to introduce beginners as quickly as possible to the software manual.

It should serve as a reference work. To enhance the comprehension of the text, diagrams have been inserted at appropriate places in the manual.

To avoid repetition, the manual is divided according to specialist areas and sequence of operations. When possible we used the menu setup to direct us.

The areas of the manual are arranged according to chapters and sections in accordance with the table of contents and are continuously numbered.

The following conventions are used:

<i>RMT</i>	Right mouse key
<i>LMT</i>	Left mouse key
<i>PDM</i>	Pull Down Menu
<i>DK</i>	Double click
<F1>	Keys are always marked with pointed brackets.
->	Click instructions in the context menu
" <i>Cursive text parts</i> "	Names of CADISON attributes or concepts

The following wording applies for menus:


Call: Menu tree -> type of tree -> system structure

Emphasis on special text parts:


---

 **Notes:** This refers to additional opportunities or direct connections to other text parts.

---

 **Important:** This is a note relating to risks and problems that can arise from using a function.

---

 **Tip:** Practical notes about use.

---

---

## Kapitel 2 Introduction

---


This user manual describes the installation steps and the administration of the NLM

The manual explicitly describes the relevant points for the administration of the system.

The NLM is based on the standard modules of the CADISON 6.1. x software


The NLM is a component of the delivery CD of the CADISON software.

---

 **Notes:** The form of description of the processes and functions selected in the manual assumes prior knowledge conveyed in the relevant training for operating system and CADISON administrators.

---

---

 **Important:** In addition to a careful working method, operating the NLM also requires a high level of knowledge of system administration. If you have a query or problem please consult the support team at ITandFactory GmbH before trying to solve it yourself!

---

The **CADISON Hotline** is available from

Mon. - Thur. 8:30 am to 5:00 pm

Fr 8:30 am to 3:00 pm

for any queries.

Telephone: +49 / 6196 / 6092 - **500**

Fax: +49 / 6196 / 6092 - **206**

Email: [cadisonhotline@ITandFactory.com](mailto:cadisonhotline@ITandFactory.com)

---

## **Kapitel 3** Overview

---

This functionality of the CADISON software enables the use of a licence pool within a (company) network, which makes it unnecessary to register each individual workstation.

The licenses are prepared by an NL server (network license server) and requested from the individual CADISON workstations as needed if a license is registered and available for the corresponding module. If no license is available or there are problems with the connection to the NL server, the corresponding module cannot be started.

The NL server or license pool is administered by the NLA (Network License Administrator) which also makes it possible to export licenses to workstations. So you can work with the CADISON software even without any connection to the NL server. The NLA displays and logs all already existing connections and used modules of the corresponding workstations.

### **Licensing model when using the NLM**

A CADISON application license is requested as soon as the software is started on a client workstation. It makes no difference how often this application is used on the workstation. NLM only requests one license, which means that for every workstation only one license is required for an application. This principle also applies to the CADISON data models.

---

# Kapitel 4 Installation

---

This chapter describes the installation requirements and processes which are undertaken in the CADISON system during installation.

## Requirements

The following requirements are necessary for a workstation (also client) so that the CADISON system can be placed in an operational state for the NLM.

- Installation from Windows 2000 Prof. or Windows XP
- Installed and equipped TCP/IP protocol
- If necessary installation of AutoCAD 2002, AutoCAD 2004, AutoCAD 2005
- If necessary installation from MS-Office 2000 or XP
- If necessary document viewer (Autodesk VolView or other)

For a server the following requirements are necessary:

- Windows 2000 Prof, Windows XP or Windows 2003 server
- Installed and equipped TCP/IP protocol

We will not go into more details here about the installation of individual components.


## Installation sequence

NLMs can be installed during the initial installation or during update installations. There is a fundamental difference between installation on a server and installation on clients. Installation for a client, however, enables a server license to be requested later for the client so that the latter can have licenses available locally and independently of a server operation license when starting individual applications of CADISON.

## Fundamental installation sequence for workstations

The installation takes place with the accompanying installation program of the installation CD.

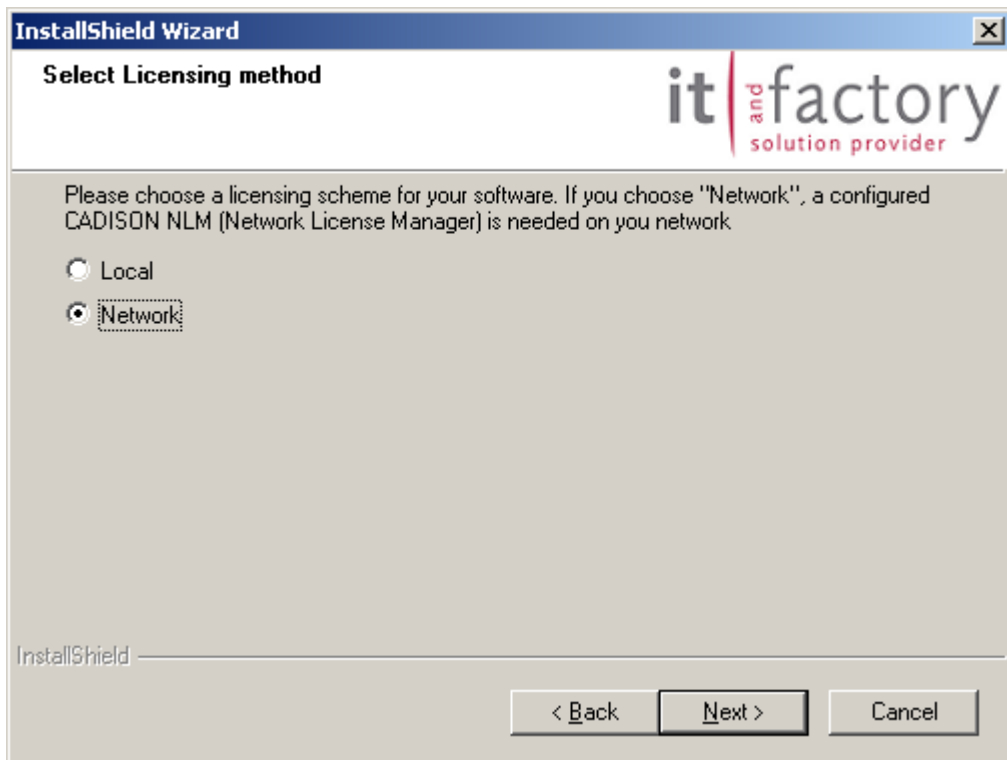
---

 **Important:** Before installation obvious safety measures must be taken for each system. If necessary this should relate to all CADISON directories.

---

## Detailed installation sequence for workstations

When installing NLMs only dialogs for components to be installed or updated and for program protection are required. After testing the installed components and selecting program group and language, the dialog for type of licensing appears.



**Diagram 1: Dialog to select type of protection**

The „network“ point should be selected as type of licensing.

The „network“ licensing procedure requires data from the server which makes licenses available for clients. The server is requested in the next dialog.



**Diagram 2: NLM server dialog**

Make sure that you provide the correct name of the server or alternately its IP address. The relevant entry can be changed after installation. You will find the entry of the NL server as an entry in the CDSN60.INI initialisation file.

(NLMSERVER=<computer name/IP-Address>).

Then the setup carries out the configured installation. This terminates the fundamental activities of an NLM installation to clients.

## Fundamental installation sequence for servers

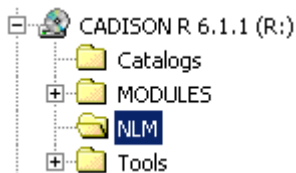
---

**Important:** If CADISON is installed on the server as a full installation, after carrying out the following points, you should never select an update or a new installation of the full installation on the server with the „network“ option.

If this does happen the service to be installed would be installed in another directory (as described in clause 5.2) and would not be able to start. If this happens please contact the support team.

---

You can find the installation routine for the NLM on the CADISON CD under \NLM\



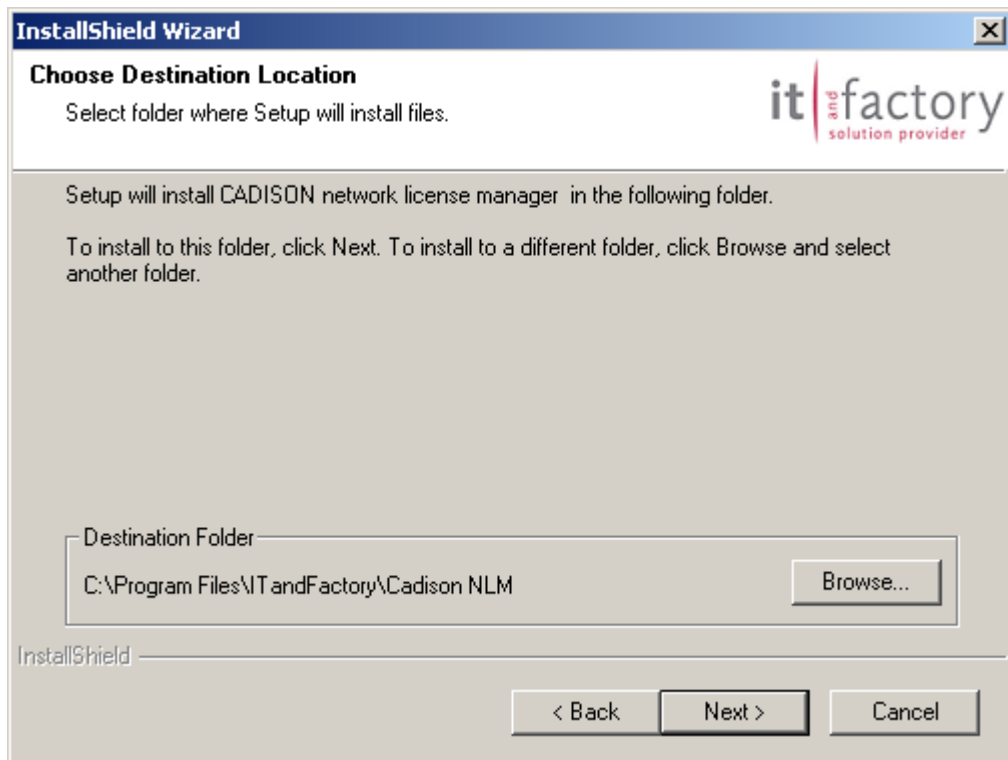
**Diagram 3: Setup directory for the NLM**

This installation is menu-driven and requires full access authorisation.

## Detailed installation sequence for servers

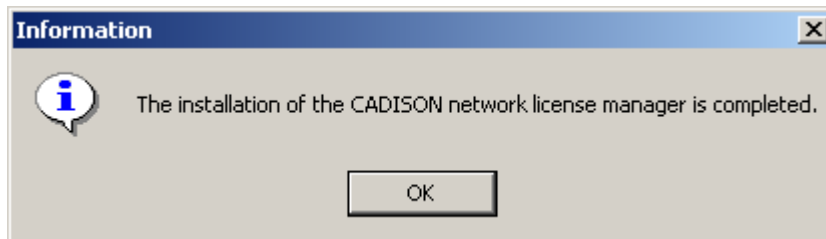
Where a computer that **has Windows 2000 or Office 2000 installed** is concerned, start installation by double clicking on setup.exe in the \NLM directory of the CADISON CD

Microsoft WindowsInstaller® is initially installed and then setup for the NL server is automatically called. The computer **must** be rebooted after installation of WindowsInstaller®. Installation requires no input apart from the details of an installation directory.



**Diagram 4: Selection of the installation directory**

Apart from selecting the installation directory no changes are required.  
Then comes the installation which ends with a corresponding message.



**Diagram 5: End of the installation**

# Kapitel 5 Configuration of the server

## Testing the work environment

The following adjustments must be checked or corrected so that the NL server is ready to use.

This can be checked automatically or manually with the CADISON analyser that comes with CADISON R6.

## The NLS CADISON service

After installation a functional NLS Cadison service must be available.

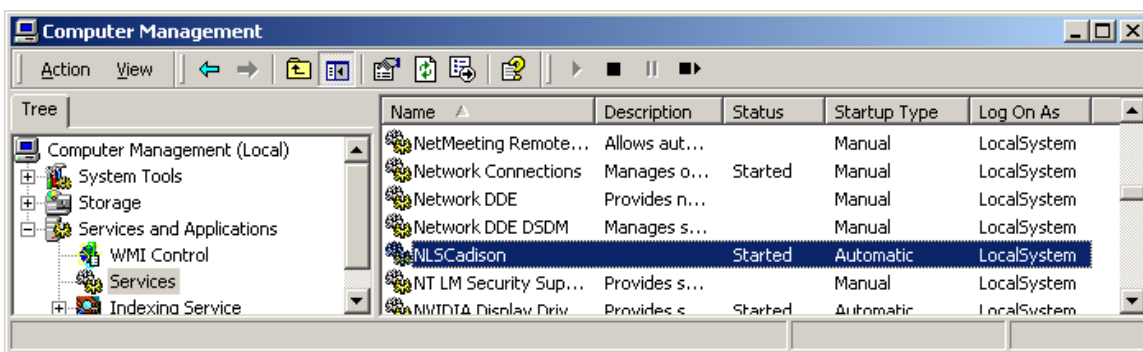


Diagram 6: Viewport service

## Client/server communication

Microsoft uses a "DCOM (Distributed Component Object Model)" protocol for communication between applications on different computers. This protocol also uses the CADISON NLM for communication between client and server. So a functioning network connection and name resolution is important.

### Client/server connection tests

To test the installation of a workstation or the correct configuration of the NL server we use the (DOS) utility „testnlmservice.exe“, which logs the NLM-ID of the NL server or a corresponding error message.

Syntax example (in the DOS box):

- A) Workstation
  - cd [CADISON]\System\Components\NLM
  - testnlmservice [SERVERNAME]
- B) NL server
  - cd [NLM]
  - testnlmservice [SERVERNAME]

```

C:\WINNT\system32\cmd.exe
D:\CADISON6\CADISON\System\Components\NLM>testnlmserver cdsn61-w2k-e
CoInitializeSecurity: The operation completed successfully.
CoCreateInstanceEx: The operation completed successfully.
ID: 1116434554
D:\CADISON6\CADISON\System\Components\NLM>
  
```

Diagram 7: Syntax example in the CMD box

## Automatic checking with the CADISON analyser

Start the CADISON analyser

Select the section in the protocol table of contents

**Inhaltsverzeichnis:**

- >>> [Systemeigenschaften](#)
- >>> [Windows Dienste und Prozesse](#)
- >>> [Netzwerk](#)
- >>> [Programme](#)
- >>> [CADISON Systemumgebung](#)
- >>> [CADISON Systemdateien I](#)
- >>> [CADISON Systemdateien II](#)
- >>> [CDSN60.INI](#)
- >>> [CADISON Datenbanken](#)
- >>> [CADISON Projekte](#)
- >>> [VERSANT](#)

Zusätzliche Verzeichnisinformation:

- >>> [D:\CADISON6\CADISON\](#)
- >>> [Konfigurationsfehler](#)

**Select network**

**Netzwerk:**

Anmeldung an: lokal  
Windows Domäne: CDSN61-W2K-E

TCP/IP Konfiguration:

Windows 2000 IP Configuration

Host Name . . . . . : cdsn61-w2k-e  
Primary DNS Suffix . . . . . :  
Node Type . . . . . : Hybrid  
IP Routing Enabled. . . . . : No  
WINS Proxy Enabled. . . . . : No  
DNS Suffix Search List. . . . . : bs.triplan.com  
Ethernet adapter Local Area Connection:  
Connection-specific DNS Suffix . : bs.triplan.com  
Description . . . . . : 3Com Gigabit LOM (3C940)  
Physical Address. . . . . : 00-0E-A6-4B-25-1D  
DHCP Enabled. . . . . : Yes  
Autoconfiguration Enabled . . . . : Yes  
IP Address. . . . . : 192.168.1.212  
Subnet Mask . . . . . : 255.255.255.0  
Default Gateway . . . . . : 192.168.1.1  
DHCP Server . . . . . : 192.168.1.47  
DNS Servers . . . . . : 192.168.1.12  
192.168.1.13  
Primary WINS Server . . . . . : 192.168.1.13  
Lease Obtained. . . . . : 18 May 2005 09:34:34  
Lease Expires . . . . . : 18 May 2005 21:34:34

Statische Namensauflösung:

C:\WINNT\system32\drivers\etc\hosts:  
127.0.0.1 localhost

DCOM ist aktiviert

Erreichbarkeit des CADISON Datenbankservers:

Tracing route to cdsn61-w2k-e [192.168.1.212]  
over a maximum of 4 hops:  
1 <10 ms <10 ms <10 ms cdsn61-w2k-e [192.168.1.212]  
Trace complete.

VERSANT Verbindungstest erfolgreich

```
Erreichbarkeit des CADISON Lizenzservers:  
Tracing route to cdsn61-w2k-e [192.168.1.212]  
over a maximum of 4 hops:  
  1 <10 ms <10 ms <10 ms cdsn61-w2k-e [192.168.1.212]  
Trace complete.  
CoInitializeSecurity: The operation completed successfully.  
CoCreateInstanceEx: The operation completed successfully.  
ID: 111644057E  
NLM Verbindungstest erfolgreich
```

## Authentication

To be able to request a license from the server, the client must authenticate himself with the server. The Windows user name and associated password are transferred as well. This produces some requirements for the configuration of the server and the clients.

### Client and server in the same Windows domain

Users are recognised by all computers in the domain via the Windows domain. No special requirements are needed.

### Client and server in different domains

There should be a state of confidence between the domains.

### Client and servers are in a workgroup

Local users must be identically equipped on the client and server, i.e. with the same user name and password. **Any** change of password must be made both on the client and the server.

## Configuration of the NLA

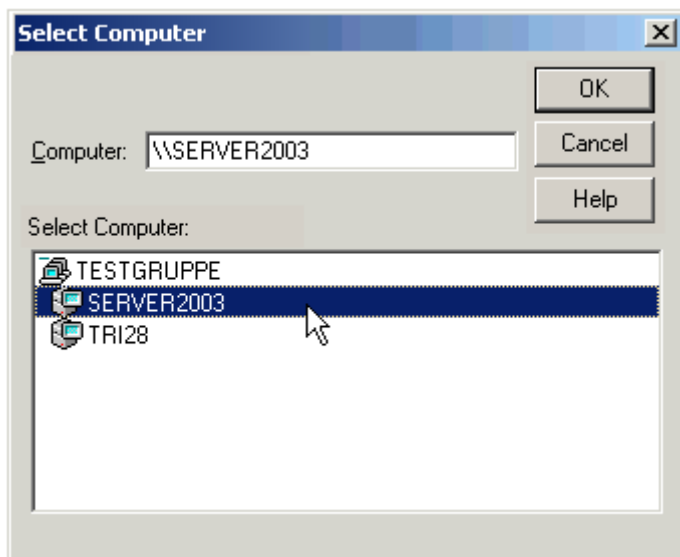
The network license is available with the NLA. You can also import and export licenses to other computers ("online") or in and out of files ("offline").

NLA is carried out using the appropriate shortcut to the desktop.



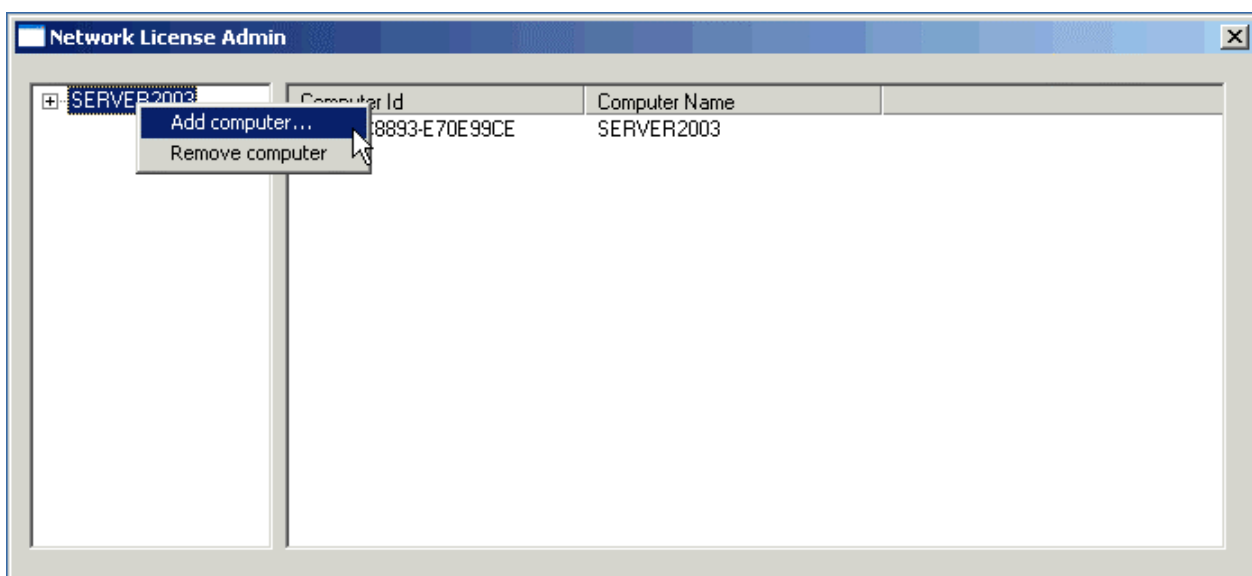
**Diagram 8: Start NLA**

After installation there is a direct request here for the computer's details. As a practical step provide the name of the NLM server.



**Diagram 9: Computer selection**

You can also administer several computers, which can be interesting for subsequent licensing.



**Diagram 10 Adding extra computers with RMT**

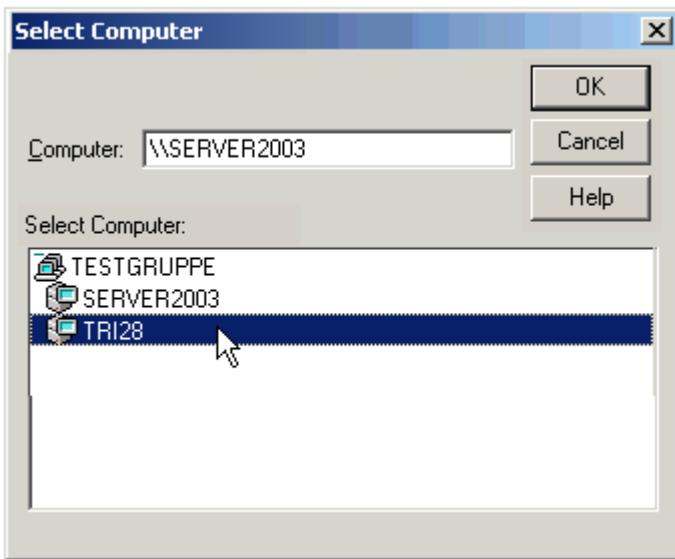



Diagram 11 Definition of extra computers

 **Tip:** If you cannot add a computer's details (error message: "Cannot add the selected computer") maybe the service was not re-started after elevation of privilege.

## Kapitel 6 Administration of the NLM

### Working on the server

#### Create a license entry

You will need the server's computer ID from ITandFactory GmbH for the licensing (see diagram 15 below)

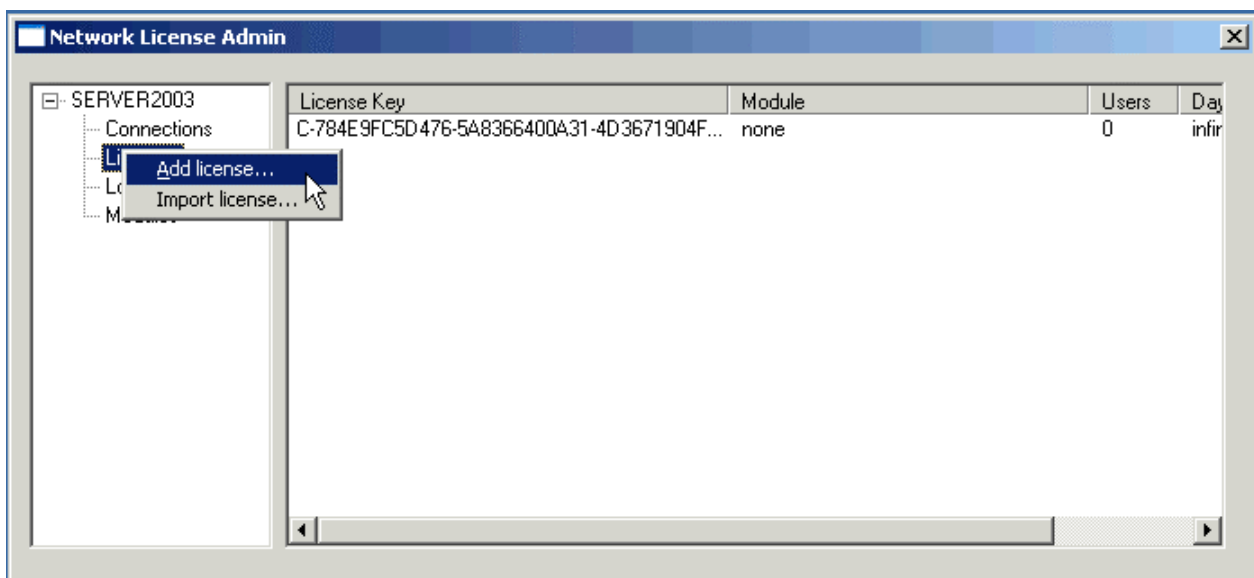


Diagram 12: NLA – Entry of new network licenses

In accordance with the modules to be activated you will receive from ItandFactory GmbH one or more license keys which can be entered under the „Licenses“ clause with RMK.

An entered license key can be removed again by RMK on the key (on the left side).

You can find the type and number of the activated module under the „Modules“ clause. You will likewise see there licenses called from work stations.

### Working on the workstation

The installed NLM can be found in a workstation (client) in the [CADISON]\System\Component\NLM directory.

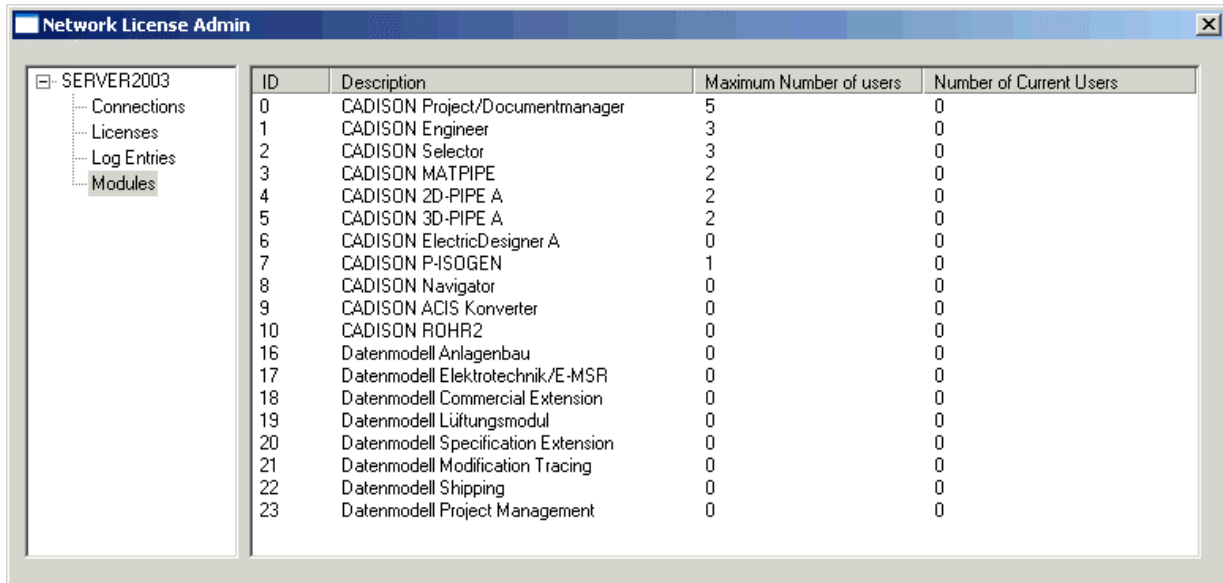
The (CMD) utility „testnlmservice.exe „ is best for testing the installation of a workstation or the correct configuration of the NL server, (Workstation: [CADISON]\System\Components\NLM; NL server: [NLM]); which logs the NLM ID of the NL server or corresponding error messages.

## License entry

In normal network operation the workstation receives all the required licenses by NL server.

## Testing of requests

You can detect the licenses recorded by the workstation as follows:



ID	Description	Maximum Number of users	Number of Current Users
0	CADISON Project/Documentmanager	5	0
1	CADISON Engineer	3	0
2	CADISON Selector	3	0
3	CADISON MATPIPE	2	0
4	CADISON 2D-PIPE A	2	0
5	CADISON 3D-PIPE A	2	0
6	CADISON ElectricDesigner A	0	0
7	CADISON P-ISOGEN	1	0
8	CADISON Navigator	0	0
9	CADISON ACIS Konverter	0	0
10	CADISON ROHR2	0	0
16	Datenmodell Anlagenbau	0	0
17	Datenmodell Elektrotechnik/E-MSR	0	0
18	Datenmodell Commercial Extension	0	0
19	Datenmodell Lüftungsmodul	0	0
20	Datenmodell Specification Extension	0	0
21	Datenmodell Modification Tracing	0	0
22	Datenmodell Shipping	0	0
23	Datenmodell Project Management	0	0

Diagram 13 NLA – licensed and called modules

## Testing of requests

In the NLA as well you can continue current requests per computer under „connections“. Under „log entries“ you will receive information about the history of the NLA.

## Export and import of existing licenses

Should it be necessary for a computer (e.g. when moving) not to work on the network, it will need its own license.

Generally the entry in the initialisation file CDSN60.INI decides from what computer licenses must be requested.

This entry can also be domain-related, whereby a change of domain decides from what computer the necessary licenses should be received.

In addition to the possibility of license delivery under 5.1.3, direct delivery of licenses is possible with files (offline).

For direct delivery of licenses from server to client, the client must be in the NLA. You can directly place the licenses on the server as well as on a workstation.

Licenses are always transmitted as an export from a server to a computer.

## Entry in the CDSN60.ini

[PHI-CADISON]

NLMSEVER=EAGLE56

## Online option

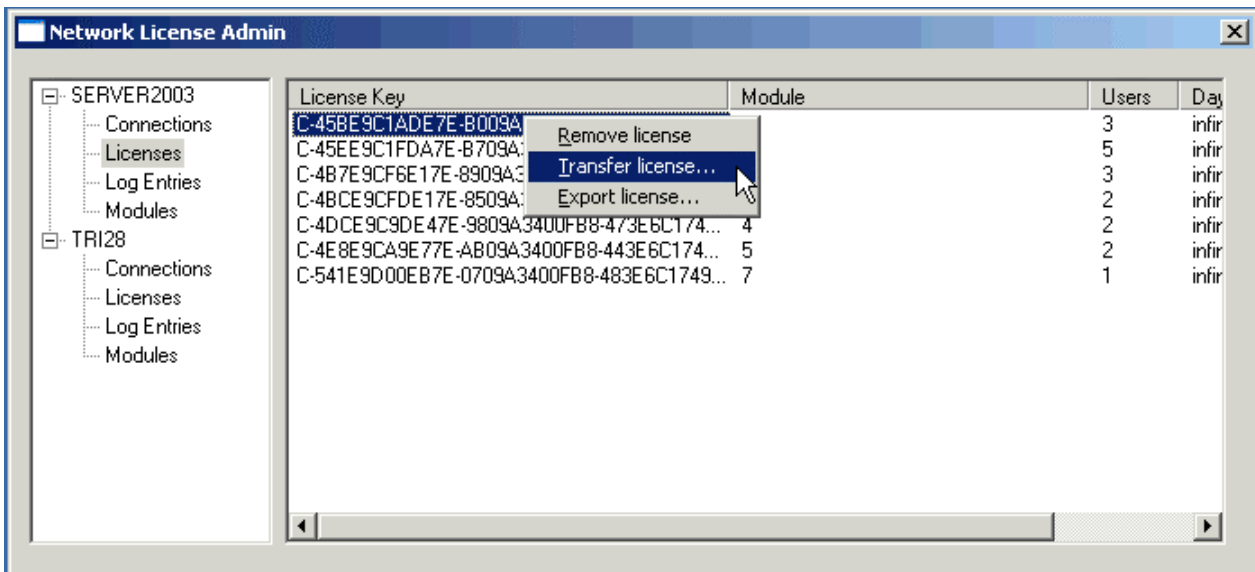


Diagram 14: NLA – licence export (online)

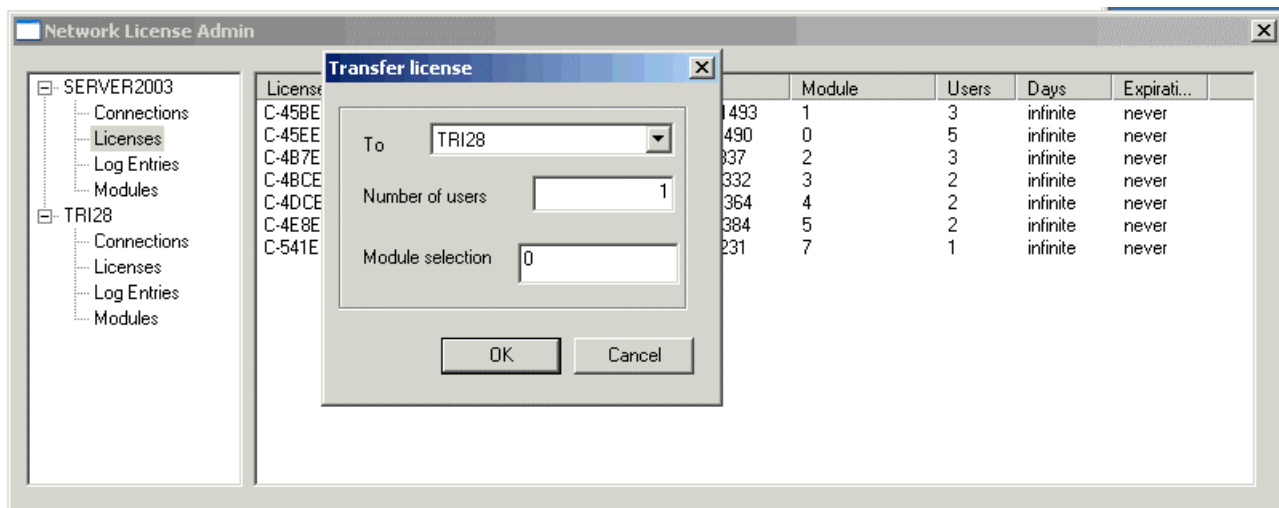


Diagram 15: NLA – selection of computer with licence export (online)

In the „to“ pulldown menu you can choose between the computers displayed in the NLA.

The entry „Numbers of users“ determines the number of licenses to be transferred. The available licenses of all modules of each license key are transferred here.

The „modules“ field contains the ID of the modules to be exported.

If the licenses to be transferred to the client are needed on the server again, there is a reversal to the client with “remove licence”.

## Offline option

If the computer which is supposed to receive the licenses is not available on the network, the licenses must be exported to a file.

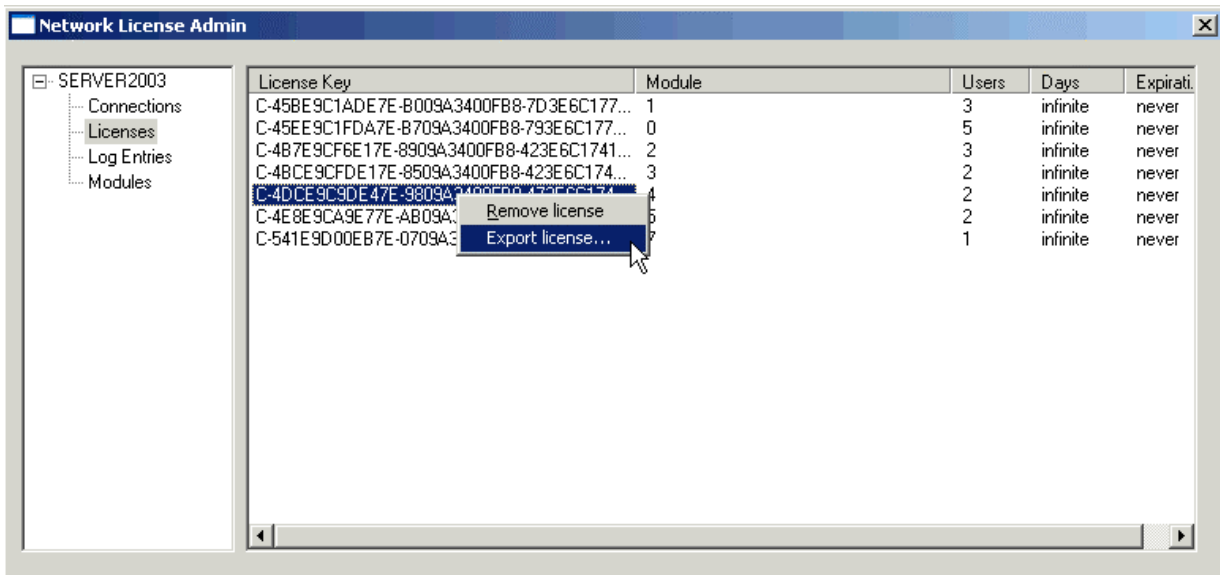


Diagram 16: NLA export of a licence

In the following dialog a file name for the key to be exported must be inputted.

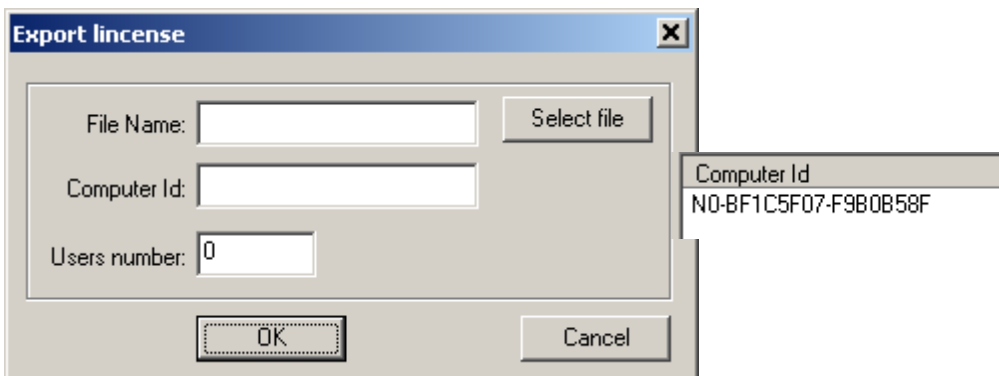
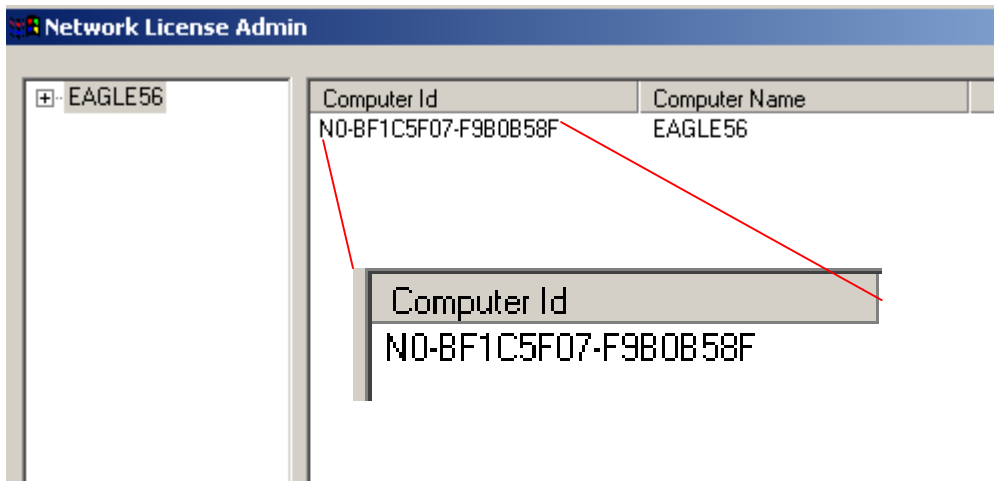


Diagram 17: NLA – export option of a licence

Under „Computer ID“ enter the “Computer ID” of the computer which is to receive the licenses.

**Important:** If the correct „Computer ID“ of the computer which is to receive the licences is not entered here, the licences will be lost. Licences can only be imported to another computer if there is a valid “Computer ID”.



The „users number“ field contains the licenses to be delivered on the server and which the other computers should receive. In this way all modules which are enabled are taken into account in accordance with the entered number. Differentiated delivery of licenses is only possible with corresponding details in the form of several licence keys.

The created file can then be imported to the other computer using the „import licence“ instruction. Henceforth these licenses will be available on the new computer.

---

## **Kapitel 7**    **Familiar problems**

---

### **Crash of the AutoCAD applications after Designer starts**

Only very rarely was the fact that it was impossible to work with Designer taken into account. While working with Engineer or MATPIPE for example can be problem-free, AutoCAD immediately crashes after Designer starts.

The reason for this is that not enough rights have been granted to individual workstations. So the license inquiry fails, which AutoCAD acknowledges with a program exit.

If this happens all adjustments of the DCOM configuration as described under clause 4.1.2 can likewise be carried out on the workstations.

## Kapitel 8 List of diagrams

Diagram 1: Dialog to select type of protection.....	8
Diagram 2: NLM server dialog.....	8
Diagram 3: Setup directory for the NLM.....	10
Diagram 4: Selection of the installation directory.....	11
Apart from selecting the installation directory no changes are required.....	12
Then comes the installation which ends with a corresponding message. ....	12
Diagram 5: End of the installation .....	12
Diagram 6: Viewport service .....	13
Diagram 7: Syntax example in the CMD box .....	14
Diagram 8: Start NLA.....	16
Diagram 9: Computer selection .....	17
Diagram 10 Adding extra computers with RMT.....	17
Diagram 11 Definition of extra computers .....	18
Diagram 12: NLA – Entry of new network licenses.....	19
Diagram 13 NLA – licensed and called modules.....	20
Diagram 14: NLA – licence export (online) .....	21
Diagram 15: NLA – selection of computer with licence export (online) .....	21
Diagram 16: NLA export of a licence .....	22
Diagram 17: NLA – export option of a licence .....	22

# Kapitel 9 Index

AutoCAD application	2, 21	Program protection	8
Authentication	2, 14	Computer	9, 14, 17, 19, 20
Automatic check	12	Computer selection in online export	18
Familiar problems	2, 6, 21	Granting of rights	21
CADISON Analyser	11, 12, 24	Remove license	18
Add computer	15	Reversing entry	18
Computer ID	19	Key	16, 19
Computer selection	14	Server	2, 6, 7, 8, 9, 11, 14, 16, 17, 18, 20, 22
Exported file	19	Move	17
DCOM	11, 21	Syntax ex	12
Service	2, 9, 11, 15	Tests	2, 11
<b>Domains</b>	14	Transfer of licenses	2, 18
Domain-related	17	User names	14
Domain exchange	17	Users number	20
Export	2, 14, 17, 18, 19, 22	Full installation	9
Export Options (offline)	19	Workstation	2, 6, 11, 16, 17, 21
Export of licences to Client	2, 14, 17, 19, 22	Access rights	9
Export of licenses from server to client	2, 14, 18, 22		
Export of licenses from server to client			
Transfer of licenses	2, 14, 18, 22		
Modules to be exported	6, 16, 17, 18, 20, 22		
Keys to be exported	19		
Error message	15		
History	17		
ID	11, 16, 18, 19		
Import license	20		
Installation	2, 7, 8, 9, 10, 11, 14, 16, 22		
Installation routine	9		
Configuration	2, 11, 14, 16, 21		
License key	18		
License award	17		
Licenses	2, 6, 7, 8, 14, 16, 17, 18, 19, 20		
License export (online)	6, 7, 14, 16, 18, 19, 22		
License key	16, 20		
Licensing	14		
License transmission	17		
Log entries	17		
Several computers	14		
Modules	6, 16, 17, 18, 20, 22		
Module selection	18		
Network operation	17		
New network licenses	16		
NLA	2, 6, 14, 16, 17, 18, 19, 22		
Start NLA	14		
NLM	2, 5, 6, 7, 8, 9, 11, 14, 16, 22		
<b>NLM- installation directory</b>	10		
NLM setup directory	9		
NLM services	11		
NLM server	8		
Number of users	18		
Offline export	19		
Password change	14		



---

## Kapitel 10 Change history

---

---

# Kapitel 11

---

# Kapitel 12

No	Description	Name	Date
00	Initial creation	cdr	
01	Test by CADISON analyser added Index expanded Editorial rewriting	mbr	30.04.2005