



part of Hexagon

BricsCAD® Licensing Options Standalone & Network Installation Guide

October 2023

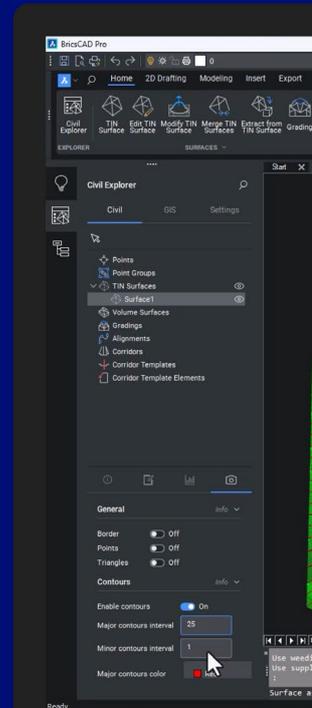
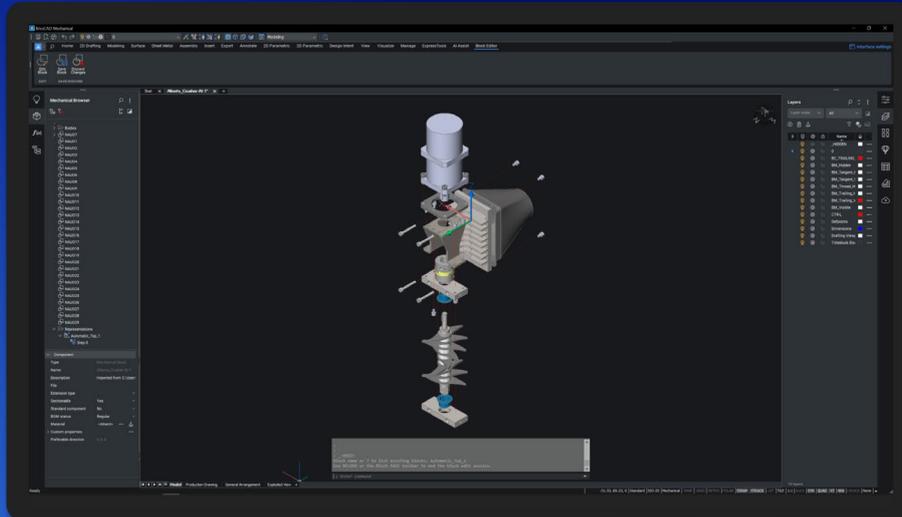
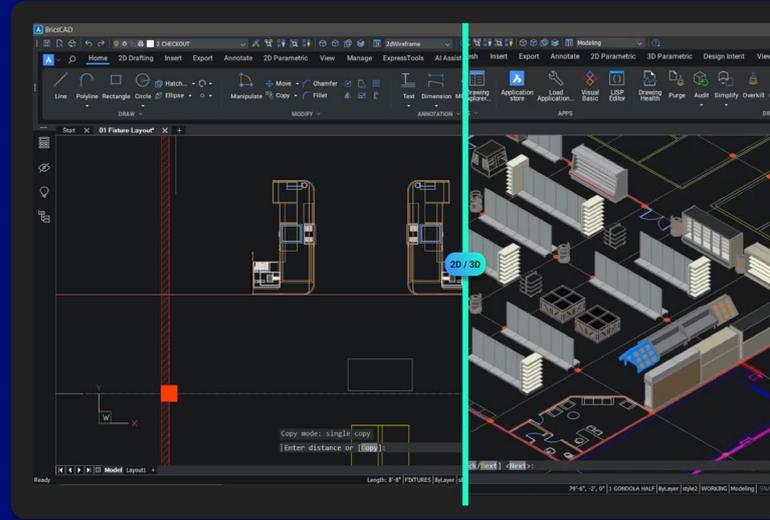
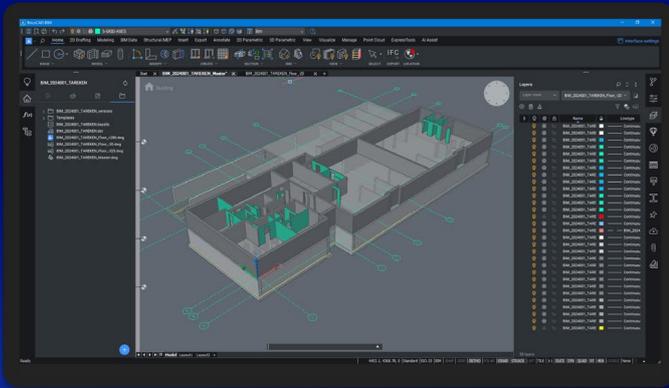


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Activating BricsCAD®

Overview of install options

- BricsCAD® comes as a single download file for all license levels, including BricsCAD® Shape.
- When you install a new BricsCAD version for the first time, you can run a 30-day trial mode.
- You can install each new major version next to a previous major version.

Interactive installation

In the case of a normal (non-silent) installation, the user provides the necessary installation input via dialog boxes. The user interface of Windows Installer queries the target system and displays the Setup Wizard. Setup Wizard enables the user to change various options that affect the installation.

Silent installation

In case of a silent or quiet installation, the Setup Wizard user interface is disabled and the actions during the user interface sequence are not performed.

Interactive installation

1. Double-click the installer file.
2. Click **Next**.
3. Tick the checkbox to accept the **License Agreement**.
4. Click **Next**.
5. Do one of the following:
 - Accept the default installation folder.
 - Click the Change... button and select an installation folder.
6. Click **Next**.
7. Click **Install** to start the installation.
8. Choose whether to add a shortcut on the desktop and/or to display the release notes when the installation process has finished.
9. Click **Next**.
10. Click **Finish** to finish the installation process.

BricsCAD is installed.

Silent Installation (Windows only)

For Silent Installation please refer to:
[BricsCAD Silent Installation Instructions](#)

Single or volume license: online activation

The BricsCAD® license activation requires an internet connection.

1. Click **Activate License** on the **BricsCAD Launcher** dialog box.
The **BricsCAD License Manager > Activate BricsCAD** dialog box displays:

License Manager

Activate BricsCAD

Single User or Volume License Key (requires internet connection)

License Key:

No internet connection? [Activate manually...](#)

Network License

Server name or address: Port number:

Proxy Settings... OK Cancel

2. Check the **License Key** box.
3. Paste your license key in the **License Key** field.
4. Click the **OK** button.
 - Your license key is registered over the Internet.
 - A dialog displays when the license key is successfully activated.
5. Read the text on the dialog box and click the **I understand** button.

Single or volume license: offline (manual) activation

For Offline (Manual) activation please refer to:
[BricsCAD Offline Installation Instructions](#)

Quick guide on using a network license

Note: Make sure the network/IT admin is involved in the process.

Server machine actions

1. Download the Bricsys Network License Manager and install it with default settings:

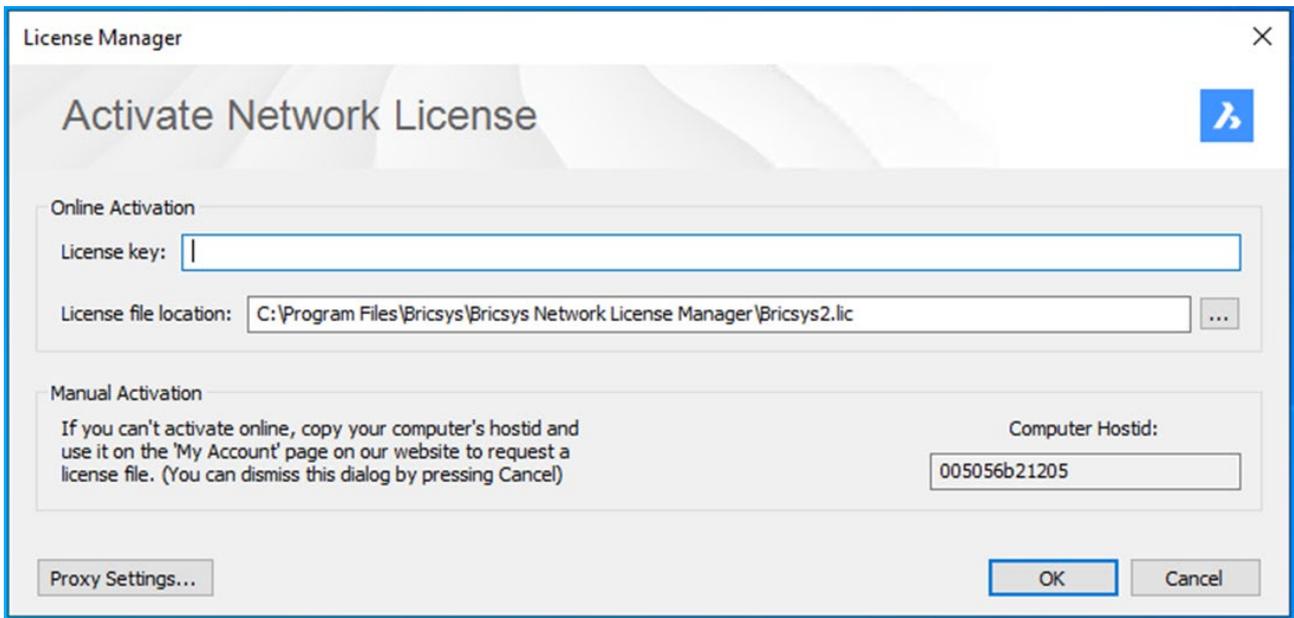
[Bricsys Network License Manager Installation Download](#)

Info related to server security policies:

After installation, the RLM.exe must be allowed to use 3 ports: **5053** for the license, **5054** for the web UI, and a **dynamically allocated port** by Windows for the ISV server which can be set fixed after activation as described in the Advanced Configurations article.

The activator application is `C:\Program Files\Bricsys\Bricsys Network License Manager\actNetworkLicense.exe` and has to be able to reach the **license.bricsys.com/actpro port 80**

2. When the activation dialog is displayed, use the license key from your Bricsys account.



3. Click **OK**
4. The **Reprise License Manager (RLM)** administration page is **localhost:5054/home.asp**.

Client machine actions

The client machine must be:

- In the same **LAN** with the RLM machine, physically or by VPN connection.
- Able to communicate with the RLM machine on port **5053** by the **TCP/UDP** protocol.

The BricsCAD license activation requires an internet connection.

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License Manager

Activate BricsCAD

Single User or Volume License Key (requires internet connection)

License Key:

No internet connection? [Activate manually...](#)

Network License

Server name or address: Port number:

Proxy Settings... OK Cancel

2. Check the Server name or address box.
3. Enter the hostname or the IP address of the network license server.
(there may be no need for this as BricsCAD® will check the network for a license server at the start)
4. Click **OK**.

For further information on 'Setting up a Windows network license server', please refer to:
[Setting up a Windows Network License Server](#)

Network license server administration

When the Network license server (also named RLM License server) is running, you can configure it in the Reprise License Server Administration web interface.

Starting with RLM 14.2, you must create RLM login credentials to access advanced features through the web interface. For this, please check out this article: [Setup RLM login](#).

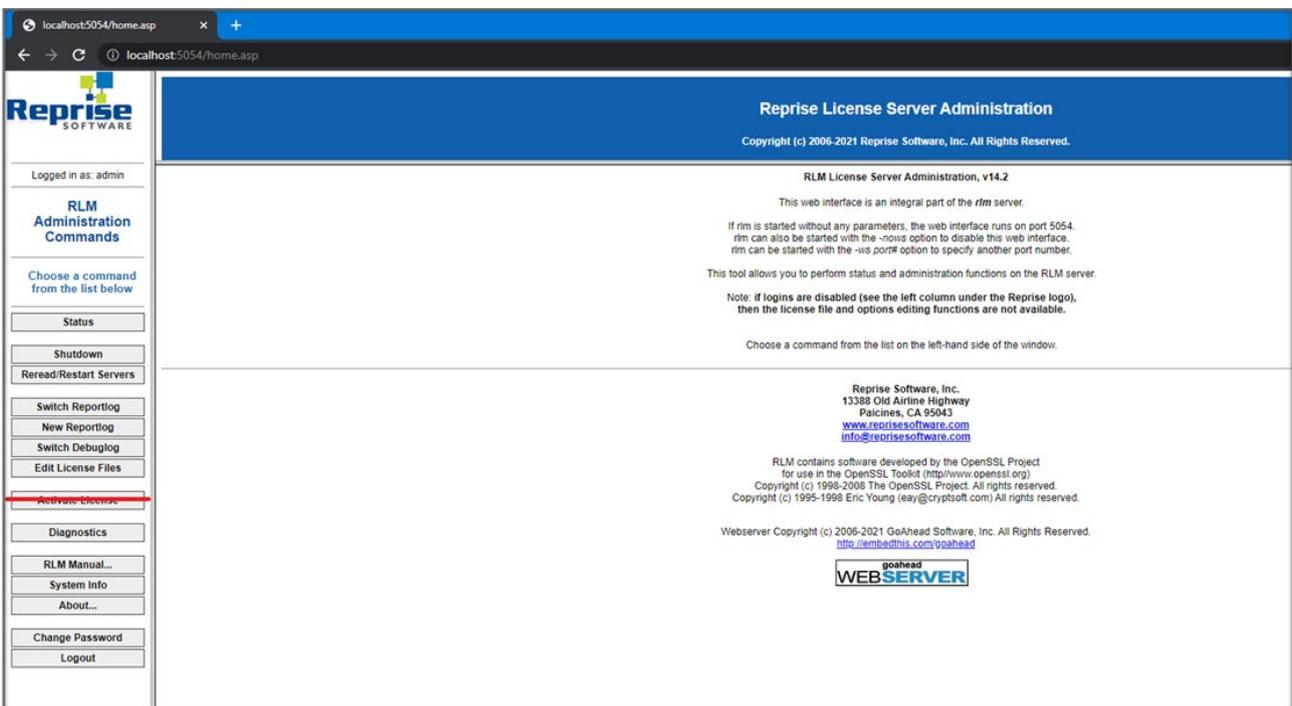
Opening the web interface

1. If the network license server is not running, click the **License Server** shortcut in the Start menu (on Windows Vista or higher: right-click > Run as administrator).

A console window opens.

2. Browse to **http://localhost:5054**.

The Reprise License Server Administration web interface opens.



Note:

- Do not use the **Activate License** button!
- To get an overview of all options, click the **RLM Manual...** button on the left or please refer to: [RLM License Administration Manual](#).

Checking the license and server status

You can check the status of all network licenses on the server.

1. Click the **Status** button on the left. The **Status for «RLM» on LicenseServer (port 5053)** page opens.

Reprise License Server Administration
Copyright (c) 2006-2021 Reprise Software, Inc. All Rights Reserved.

Status for "rlm" on RLMSEVER (port 5053)

RLM software version	v14.2 (build 5)
RLM comm version	v1.2
debug log file	rlm.log
license files	Bricsys lic

rlm Statistics	Since Start	Since Midnight	Recent
Start time	10/18 09:58:02	10/18 09:58:03	10/18 09:58:03
Messages	2 (0/sec)	2 (0/sec)	2 (0/sec)
Connections	1 (0/sec)	1 (0/sec)	1 (0/sec)

[EDIT rlm Options](#)
[SHOW rlm Debug Log](#)

ISV Servers	Name	port	Running	Restarts	Server Status	License Usage	Debug Log	REREAD	OPTIONS	TRANSFER	SHUTDOWN	ACTIVATE
	bricsys	49676	Yes	0	bricsys	bricsys	bricsys	bricsys	bricsys	bricsys	bricsys	bricsys

2. Click the **Bricsys** button in the **Server Status** column of the ISV Servers table to view the status of the Bricsys Network license.

Reprise License Server Administration
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ISV bricsys status on RLMSEVER (port 49676)

bricsys software version	v14.2 (build 5)
bricsys comm version	v1.2
debug log file	bricsys.dlog
report log file	_/na_

bricsys Statistics	Since Start	Since Midnight	Recent
Start Time	10/18 09:58:03	10/18 09:58:06	10/18 09:58:06
Messages	4 (0/sec)	4 (0/sec)	4 (0/sec)
Connections	2 (0/sec)	2 (0/sec)	2 (0/sec)
Checkouts	0 (0/sec)	0 (0/sec)	0 (0/sec)
Denials	0 (0/sec)	0 (0/sec)	0 (0/sec)
License Removals	0 (0/sec)	0 (0/sec)	0 (0/sec)
Current Connections	0		

Enter license password to select license results. Only licenses with matching passwords (or with no passwords) will be displayed above.

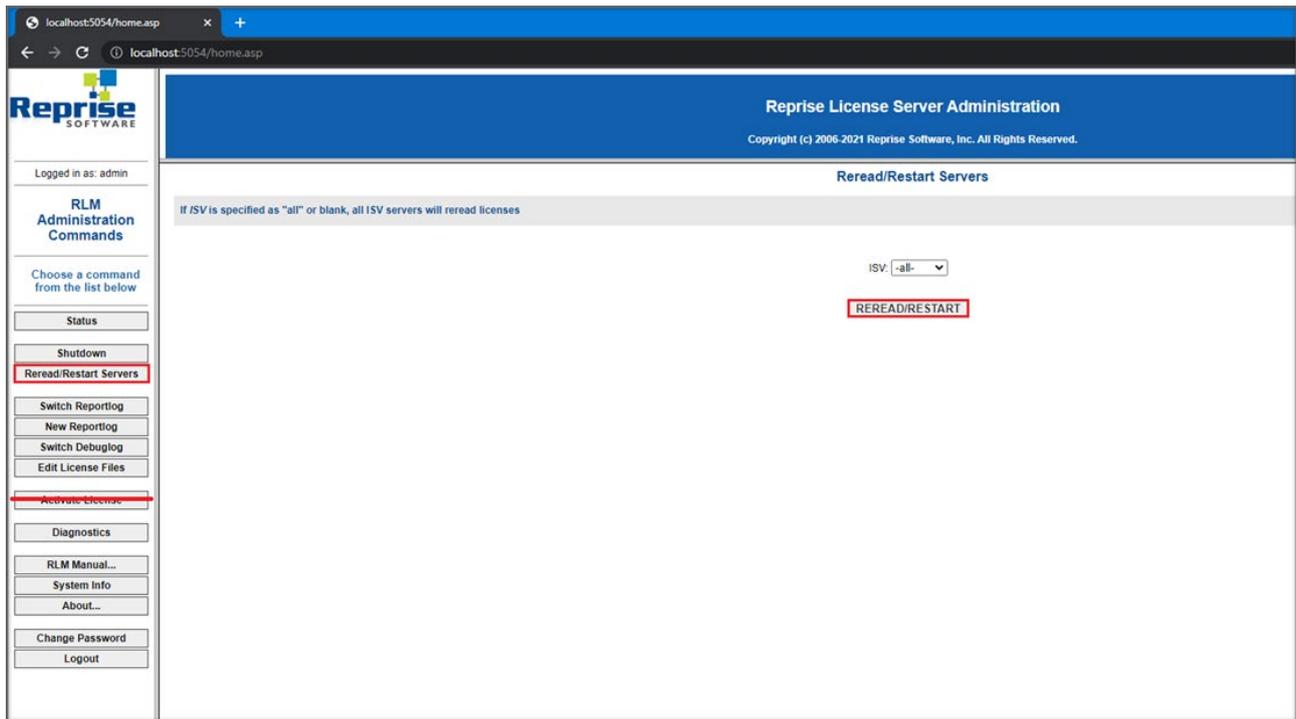
License Password:

[Refresh](#)
[BACK](#)

Rereading the license / Restarting the server

After activating a network license while the server was running, you must reread the license / restart the server.

1. Click the **Reread/Restart Servers** button on the left.
The **Reread/Restart Servers** page opens.

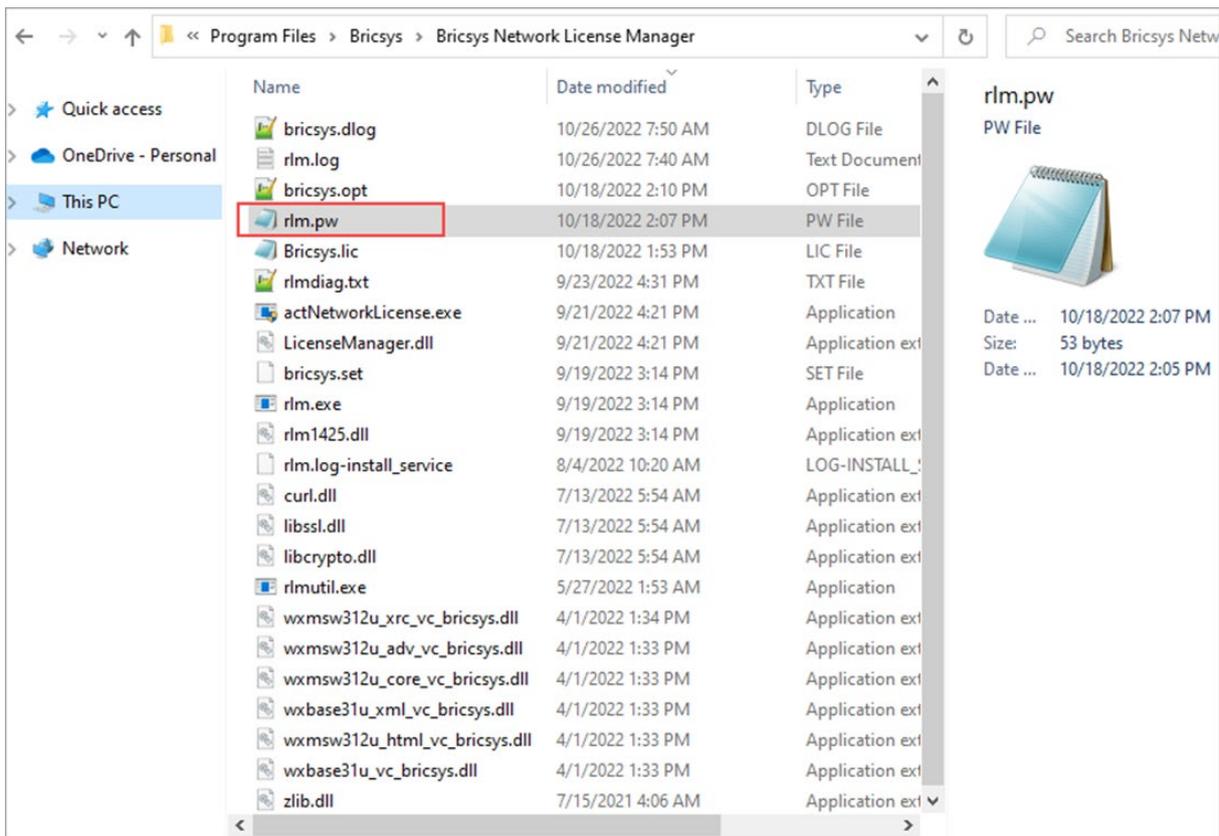


2. Click the **Reread/Restart Servers** button.
The server restarts and rereads the Network license.

Setup RLM login

1. Create a file named rlm.pw inside the directory where rlm.exe is located (by default `C:\Program Files\Bricsys\Bricsys Network License Manager\actNetworkLicense.exe`).

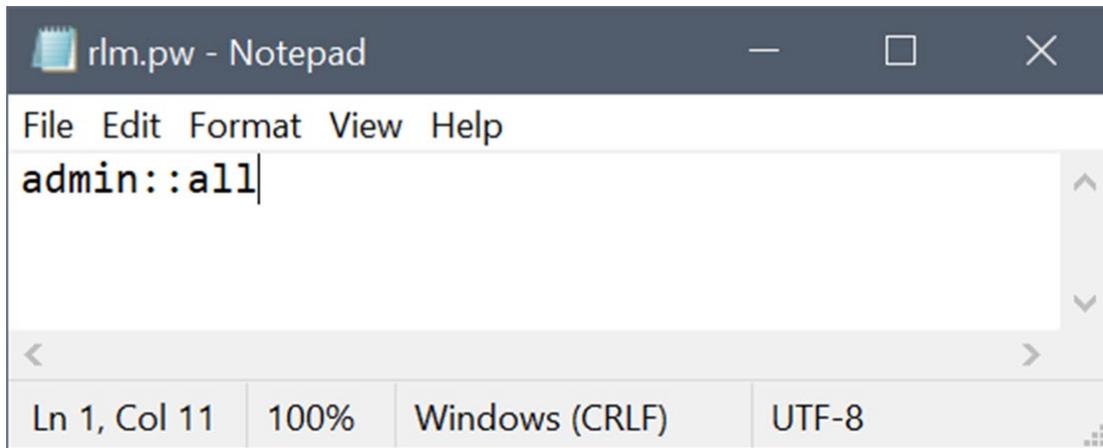
Note: If this file is located in the directory with the rlm binary, the RLM Web Interface will require users to log in before they can perform any actions.



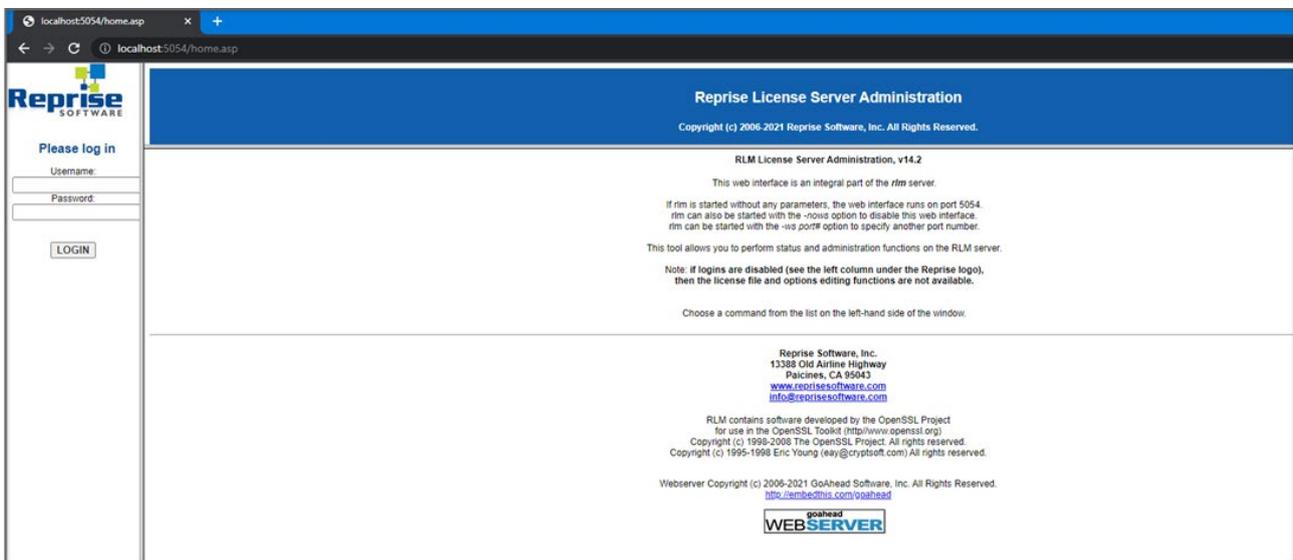
2. The RLM password file has one line for each user, formatted as follows:

```
username:all
```

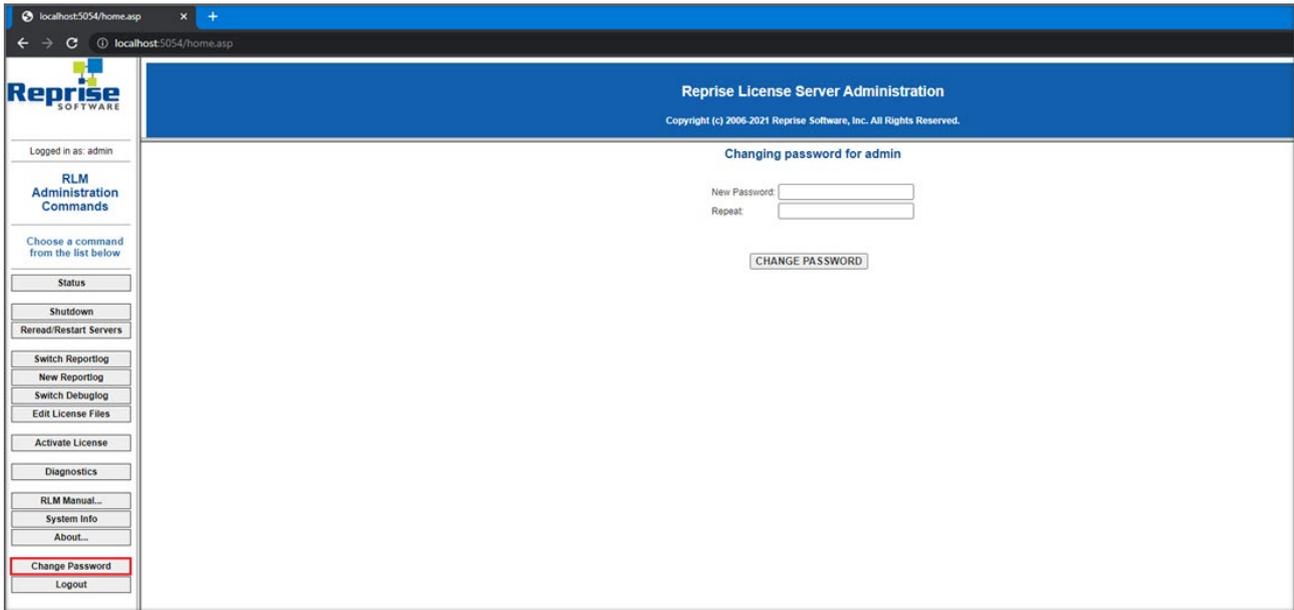
The username cannot contain a ':' character. The password field is initially left blank. The permissions are generally set to **all**.



3. Access the license server web portal from the browser by using localhost:5054 in the same system or by using **<License_Server_IP>:5054** in other systems.
4. You are prompted for a username and password. You can enter the username and log in without supplying a password since the password field is left empty.



5. To set a password or to change it later, select the **Change Password** menu item once logged in as that user. Enter the new password and click on the **CHANGE PASSWORD** button to update it. The new password is written to the rlm.pw file automatically. In the rlm.pw file, the password field is an encrypted hash of the actual password (similar to the Unix password file).



6. Whenever a new user attempts to access the web portal, authentication (username and password) will be requested.

Note:

- It is recommended to protect access to this file so that ordinary users cannot edit it. Both the RLM password file and the directory that contains it must be read-write to the RLM process.
- Starting with RLM 12.4, if there is no password file present, the edit options and edit RLM options commands are disabled.
- Starting with RLM 14.2, if there are users in the rlm.pw file with blank passwords, RLM will log this condition and exit after 10 minutes unless started with the -z switch.

For video instructions on installing a BricsCAD Network License, please refer to:
[Video Learning: Installing a BricsCAD Network License](#)

Advanced configurations

Once the network license server is set up, BricsCAD® may report error -17 when trying to connect to the server.

The presence of firewalls, proxy servers, anti-virus software, and other security measures may be the cause.

Anti-virus

If anti-virus software is running on the server and blocking the license server program (**rlm.exe** on Windows, **RLM** on Linux), you need to unblock the RLM service in the anti-virus configuration.

See your anti-virus configuration on how to unblock services.

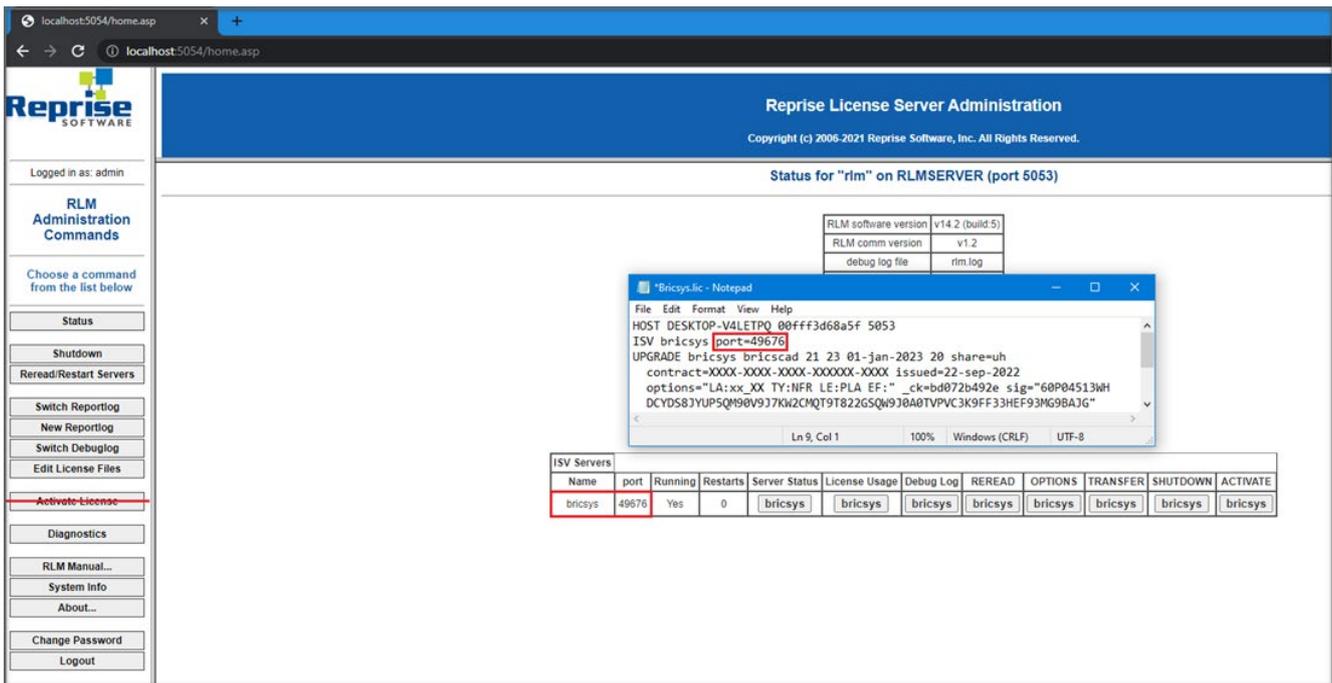
Firewall

If a firewall is installed between the server and BricsCAD, two port numbers need to be opened in the firewall: port number 5053 and the port number assigned to the Bricsys license server.

This port number is dynamically assigned when the license server starts. To open this port in the firewall, it must be first set in the Bricsys.lic file on the server:

1. Open the License Server Administration web interface at **http://localhost:5054**.
2. Click the **Status** button on the left. The **Status for «RLM» on [LicenseServer] (port 5053)** page opens.
3. Look up the port number in the ISV Servers table. The port number is displayed in the Bricsys row in the second column.
4. Copy this port number.
5. Open the Bricsys.lic file in a text editor (for example Notepad, Gedit, ...). The default location of the file is `C:\Program Files\Bricsys\Bricsys Network License Manager\actNetworkLicense.exe`.

You can fix the port number by modifying the line `ISV bricsys` into: `ISV bricsys port=[port number]`, where [port number] must be replaced by the port number copied from the ISV Servers.



- In the firewall, open both numbers 5053 and the port number you added to the Bricsys.lic file.
- Shut down and restart the license server program.

Note: If this does not solve the problem, add the license server program (rlm.exe on Windows, rlm on Linux/Mac) as an exception onto the firewall exceptions and restart the license server again.

Proxy server

If a proxy server exists between BricsCAD® and the license server, proxy settings should be configured in BricsCAD.

For more information on Proxy settings and their configurations, please refer to:
[Configuring Proxy Settings](#)

Migrating a network license to another server

Do the following:

1. Revoke the license.
2. Activate the license on your new server.
3. Shut down the license manager on the old server and delete the license file on the old server.

Note: The number of revocations is limited.

License pooling

Editing the options

You can edit the options in two ways:

- In the **bricsys.opt** file, located in the Network License Manager installation folder.
- On the web interface of the Network License Manager.
- Browse to `http://localhost:5054` on the license server.
 - Click **Status** in the menu on the left side.
 - Click **Bricsys** in the OPTIONS column for the bricsys ISV row.

Once edited, **Reread/Restart** the license server.

Commonly used options

Groups can be used to define a list of usernames, hostnames, or IP-addresses. The name can later be used to apply rules for that group.

		Syntax	Example
GROUP	Defines a group of usernames.	GROUP name list-of-usernames	GROUP engineers userA userB userC
HOST_GROUP	Defines a group of hostnames.	HOST_GROUP name list-of-hostnames	HOST_GROUP firstFloor machineA machineB machineC
INTERNET_GROUP	Defines a group of IP-addresses.	INTERNET_GROUP name list-of-ip-addresses	INTERNET_GROUP networkGhent 192.168.1.* 192.168.2.* The wildcard character (*) can be used in IP addresses.
RESERVE	Reserve a number of licenses to a specific (group of) user(s).	RESERVE num product user host group host_group internet internet_group project who [id=nnn]	RESERVE 20 bricscad GROUP engineers

		Syntax	Example
MAX	Limit the number of licenses available to a specific (group of) user(s).	MAX num product user host group host_group internet internet_group project who [id=nnn]	MAX 5 bricscad HOST_GROUP firstFloor
INCLUDE	Only allow licenses for a product to a specific (group of) user(s). Anyone not specified by the INCLUDE line is not allowed to use the product.	INCLUDE product user host group host_group internet internet_group project who [id=nnn]	INCLUDE bricscad GROUP bricscadusers
EXCLUDE	Disallow licenses for a product to a specific (group of) user(s).	EXCLUDE product user host group host_group internet internet_group project who [id=nnn]	EXCLUDE bricscad INTERNET_GROUP 1.1.*.*

For more information, please refer to:
[RLM License Administration Manual](#)
under the paragraph **The ISV Options File**

Identifying a license file

Reprise license manager allows you to add an '_id' field in your license file. With this '_id', you can identify each license file as a separate license pool. When specifying a [id=nnn] parameter for an added OPTION, that OPTION will only affect the corresponding license file.

Usage Example:

You have 2 licenses, one with 5 seats for BricsCAD® Lite, and one with 5 seats for BricsCAD® Pro, and want to specify which users can use which level.

THE LICENSE FILES

Lite License

```
HOST hostname hostid 5053
ISV bricsys
LICENSE bricsys bricscad 23 permanent 5 share=uh
contract=XXXX-XXXX-XXXX-XXXXXX-XXXX options="LA:xx_XX TY:FCO LE:CLA EF:"
_ck=6a06665467 sig="....."
```

becomes

```
HOST hostname hostid 5053
ISV bricsys
LICENSE bricsys bricscad 23 permanent 5 share=uh
contract=XXXX-XXXX-XXXX-XXXXXX-XXXX options="LA:xx_XX TY:FCO LE:CLA EF:" _id=1
_ck=6a06665467 sig="....."
```

Pro License

```
HOST hostname hostid 5053
ISV bricsys
LICENSE bricsys bricscad 23 permanent 5 share=uh
contract=XXXX-XXXX-XXXX-XXXXXX-XXXX options="LA:xx_XX TY:FCO LE:PLA EF:"
_ck=6a06665467 sig="....."
```

becomes

```
HOST hostname hostid 5053
ISV bricsys
LICENSE bricsys bricscad 23 permanent 5 share=uh
contract=XXXX-XXXX-XXXX-XXXXXX-XXXX options="LA:xx_XX TY:FCO LE:PLA EF:" _id=2
_ck=6a06665467 sig="....."
```

Now the Lite license is defined by id=1, and the Pro license by id=2.

THE OPTIONS

If now, for example, you would like to only allow engineers in your firm to use the Pro version, this can be done by adding the following to the options:

```
GROUP engineers userA userB userC
INCLUDE bricscad GROUP engineers id=2
```

Symptoms

I want to adjust the way my licenses are pooled.

For more information, please refer to:
[RLM License Administration Manual](#)

License pooling by RLM_PROJECT

The following applies to cases where multiple levels of network licenses are activated on the same RLM server. Consequently, the users can decide what license level to acquire when activating BricsCAD®.

The user can obtain a specific BricsCAD license level, based on the RLM_PROJECT environment variable which should match the ISV server options. The license seats will be reserved on the ISV server for the specific PROJECT users by an Identifier.

Note: Please be aware that the following actions are to be executed by an IT department person.

1. RLM server actions

Add `_id=<number>` identifier to license files, just before the `_ck=xxxxxxx` string:

```
.....contract=XXXX-XXXX-XXXX-XXXXXX-XXXX options="LA:xx_XX TY:FCO LE:CLA EF:" _id=1 _  
ck=4b07efdd90..  
.....contract=XXXX-XXXX-XXXX-XXXXXX-XXXX options="LA:xx_XX TY:FCO LE:PLA EF:" _id=2 _  
ck=4b07efdd90..
```

2. Add RESERVE options for PROJECTs and license IDs to ISV server, for all the seats of the licenses:

```
RESERVE 5 bricscad PROJECT bc_lite id=1  
RESERVE 5 bricscad PROJECT bc_pro id=2
```

2. BricsCAD user actions

1. Create a script that SETs a temporary environment variable RLM_PROJECT on the user machine, which will allow BricsCAD to negotiate with the RLM server the PROJECT license pool.
2. Executing a specific script will allow BricsCAD to pull the desired license level.

It can be *.CMD (command prompt) files:

```
@echo off  
set RLM_PROJECT=bc_lite  
call "C:\Program Files\Bricsys\BricsCAD V23 en_US\bricscad.exe"  
@echo off  
set RLM_PROJECT=bc_pro  
call "C:\Program Files\Bricsys\BricsCAD V23 en_US\bricscad.exe"
```

or it can be *.PS1 (powershell) files:

```
$env:RLM_PROJECT = "bc_lite"  
Start-Process -FilePath "C:\Program Files\Bricsys\BricsCAD V23 en_US\bricscad.exe"  
$env:RLM_PROJECT = "bc_pro"  
Start-Process -FilePath "C:\Program Files\Bricsys\BricsCAD V23 en_US\bricscad.exe"
```

Since all license seats are RESERVED in the RLM options, BricsCAD will not be able to acquire a license when the RLM_PROJECT variable does not exist, or when it has a value that does not match the ISV server options.

Raising the available seats above 5 or lowering the RESERVE count below 5 would let some licenses be available freely.

The RLM_PROJECT also works with the other (EXCLUDE/INCLUDE/...) options so a lot of configurations are possible.

Network license usage report

There are several possibilities to check the network license usage:

- From the RLM web UI
go to localhost:5054/home.asp > Status > License Usage > bricsys
- From the «bricsys.dlog» file, which contains the IN/OUT information. This file is located in RLM folder
`C:\Program Files\Bricsys\Bricsys Network License Manager`.
- REPORTLOG option. This option is described on pages 70 and 80 in the RLM manual:
[RLM License Administration Manual](#).
It should be added to the **bricsys.opt** file like this:

ISV bricsys Options

```
RESERVE 5 BRICSCAD PROJECT bc_lite id=1  
RESERVE 5 BRICSCAD PROJECT bc_pro id=2  
  
REPORTLOG +D:\your_path\report_name.log
```

`REPORTLOG +D:\your_path\report_name.log`

Next, perform a Reread/Restart Servers.

The + sign means the new data is appended to the file, otherwise, the file will be overwritten.

- RLM License Administration Bundle
[RLM License Bundle](#)
- JTB FlexReport
[JTB FlexReport Network License Reporting Tool](#)

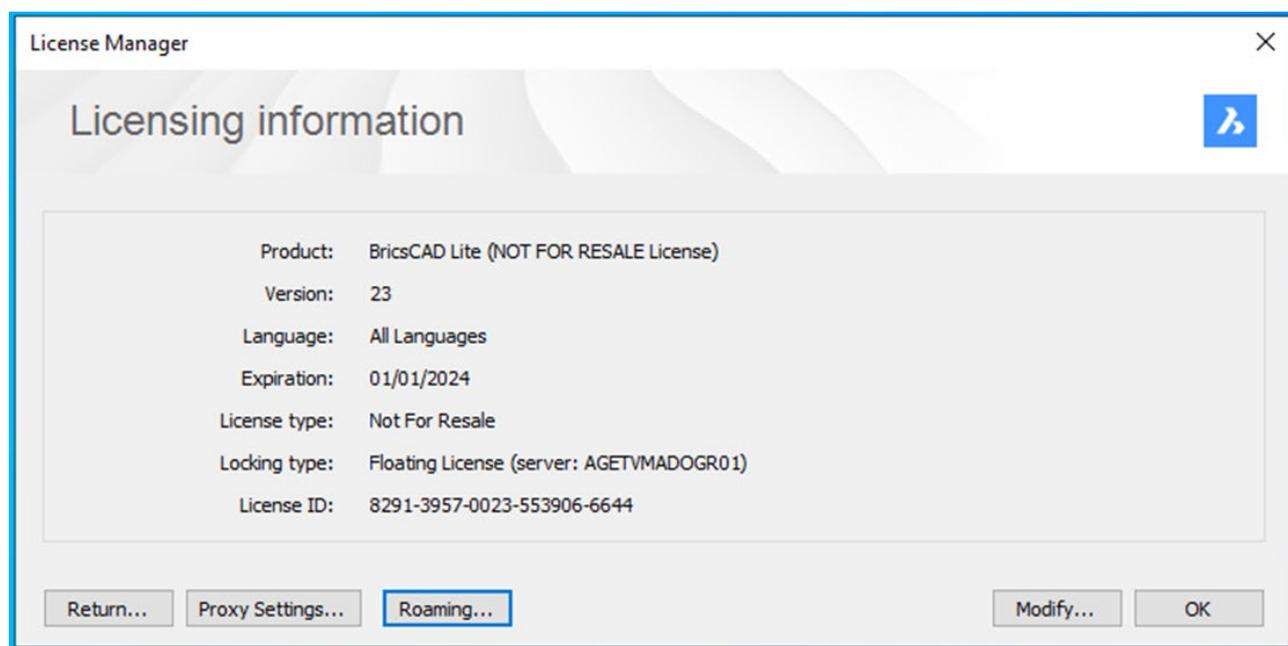
Setting up a Linux license server

For information on 'Setting up a Linux license server, please refer to:
[Setting up a LINUX License Server](#)

Roaming a network license on a client computer

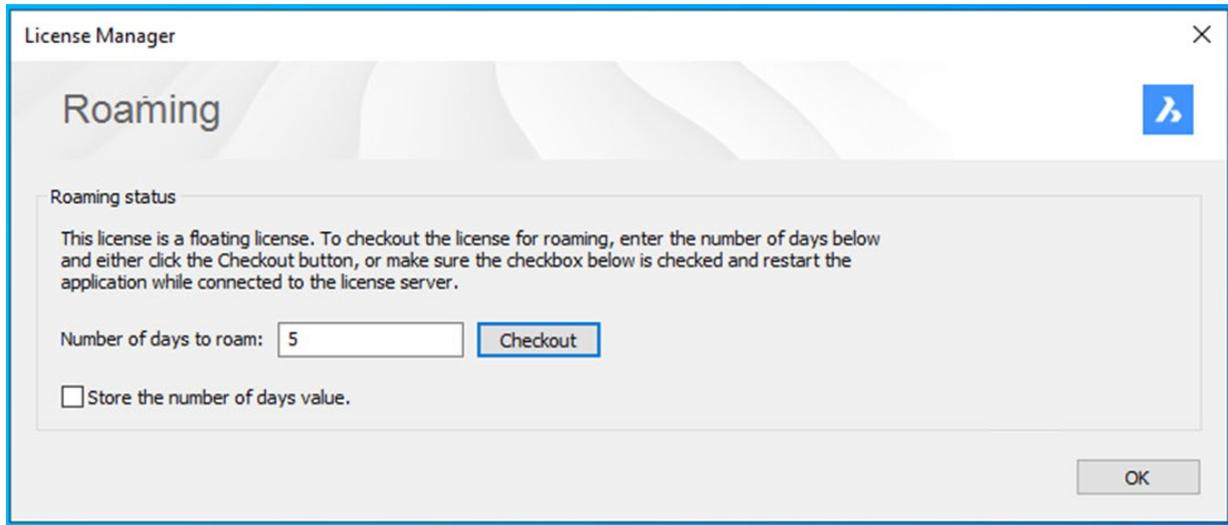
A network license can be roamed to use BricsCAD without connection to the license server (work outside of the office, at home, ...).

When a network license is used on a client computer, the **Roaming...** button is displayed in the Licensing information dialog box.



1. If your computer is connected to the license server through a proxy server, click the **Proxy Settings** button to configure the proxy settings for a network license.
2. Click the **Roaming...** button.

The **Roaming** dialog box opens.



1. Enter the number of days you want to check out the license for roaming and click the **Checkout** button.
2. (Optional) Tick the checkbox if you want to automatically refresh the roaming period when your computer is connected to the server.
3. Restart BricsCAD to apply the changes.

Modifying a BricsCAD® license

Use this procedure to upgrade or replace a license.

1. Launch the LICENSEMANAGER command.
The Bricsys License Manager dialog displays.
2. Click **Manage License**.
The **Licensing Information** dialog box displays.
3. Click the **Modify** button.
The **BricsCAD License Manager - Activate BricsCAD** dialog box displays.

License Manager

Activate BricsCAD

Single User or Volume License Key (requires internet connection)

License Key:

No internet connection? [Activate manually...](#)

Network License

Server name or address: Port number:

Proxy Settings... OK Cancel

4. Paste your license key in the **License Key** field.
5. Click the **OK** button.
 - Your license key is registered over the Internet.
 - A dialog displays when the license key is successfully activated.
6. Read the text on the dialog box and click the **I understand** button.

Deactivating or Revoking BricsCAD® License

Use this procedure to:

- Migrate a license to another computer.
- Permanently remove BricsCAD from a computer.
- Reactivate BricsCAD after installing a new hard disk, changing partitions, or upgrading the operating system.

To deactivate a BricsCAD license, an internet connection is required. You cannot manually deactivate a license via another computer that is connected to the internet.

You cannot deactivate:

- Single and volume licenses that are manually activated.
- Network licenses.
- Trial licenses.

For more information on Deactivating or Revoking a BricsCAD license, please refer to:

[Deactivating or Revoking a BricsCAD License](#)

Migrating a single or volume license to another computer

All your valid licenses can be found on the Bricsys website (login required):

[Bricsys Account: My Licenses](#)

1. Deactivate the license on the old computer.
2. Launch BricsCAD on the new computer.
3. Activate the license on the new computer.

For additional installation guidance:

[Bricsys Help Center - Installation and Licensing](#)

[Bricsys Lessons - BricsCAD Installation and Licensing](#)

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