

SuperMap License Introduction

SuperMap GIS 9D license is used to verify the usability of SuperMap GIS 9D. For the Windows, it provides SuperMap License Center to configure and manage the license; For the Linux, it provides the command line to configure the license; For the AIX, it will continue using License Manager 6R to configure the license. In addition, the SuperMap GIS 7C+ series products also provide cloud licenses.

On Windows and Linux, SuperMap GIS 9D software provides two types of licenses: trial license and official license. The official license has two types: file license and hardware license.

Trial License

SuperMap GIS 9D products provide a 90-day trial license by default. And you also can apply an online trial license form: <https://www.supermapol.com/web/pricing/triallicense>.

Users only need to install SuperMap GIS 9D products, [Deploying SuperMap License Center on Windows](#), or [Installing License Driver on Linux](#), then can check the status of trial license of the corresponding product

Official License

The official licenses have two types: file license and hardware license. Hardware license is divided into two types: stand-alone encrypted key and network encrypted key.

1. File License means to get the legal software license through online or offline. After activating, it will take effect. File license has two types: stand-alone file license and network file license. If you activate the stand-alone file license, it can provide services for the local computer only. If you activate the network file license, it can provide services for all computers within the network. Note: If you activate the network file license in the license server, the network file license can not be emigrated.
2. Hardware License means to get the legal software license through a hardware encryption lock (for short "hardware lock") It has following two types:
 - Stand-alone Key: The stand-alone key has only a certificate of authenticity. It needs to be installed in the same computer with SuperMap GIS software. The stand-alone is green frosted.
 - Network key: The network key can be installed on any computer within the network, and it can provide multiple certificate of authenticity. The computer that installed the network key is called license server. The clients whether it installed license drive or not within this network can use this network key. The hardware is red frosted.

When you use the hardware encrypted key, you should note that:

- After you inserting the hardware key into the computer, the hardware key is effective when the signal light lights up.
- On Windows, the hardware key which will be Identified as USB equipment can be ran directly.
- On Linux, it needs to install the driver for encrypted key. If you use the stand-alone key, you need to install the driver on the local computer. If you use the network key, the license server should install the driver.
- If there are two types of licenses on a same computer, it will give priority to use the stand-alone key.
- If use the hardware key on the virtual machine, it needs to connect the hardware key to the virtual machine through related settings of virtual machine software.

Windows

Getting SuperMap License Center

On Windows, we use SuperMap License Center to manage all the licenses of SuperMap GIS prodcuts. It can be used to configure license, manage license, and view the license status and usage.

You can get SuperMap license center by one of following methods:

- SuperMap iServer package has provided the SuperMap License Center and it is located in the% SuperMap iServer_HOME%\support\SuperMapLicenseCenter directory.
- Log in to <http://product.supermap.com.cn>, download the SuperMap License Center (License CenterOnlineSetup.exe) and double-click the LicenseCenterOnlineSetup.exe to install the latest version of the SuperMap License Center.
- Visit the SuperMap Technology Resource Center (<http://support.supermap.com.cn>), download the SuperMap License Center's Zip Package (SuperMapLicenseCenter.zip) and extract the Zip package.

Now you've got the SuperMap License Center, run SuperMap.LicenseCenter.exe or SuperMap.LicenseCenter(for .NET 4.0).exe to start it.

Note:

- On the Windows 8.1 / Windows 8 / Windows Server 2012 R2 / Windows Server 2012 operating system, double-click the SuperMap.LicenseCenter (for .NET 4.0) .exe file to start the License Center
- On Windows 7 / Windows Vista / Windows Server 2008 R2 / Windows Server 2008 / Windows Server 2003 operating systems, double-click the SuperMap.LicenseCenter.exe file to start the License Center
- On Windows XP operating systems, you need to install .NET Framework 3.5 / 2.0, and then double-click the SuperMap.LicenseCenter.exe file to start the license center
- 9D series product licenses can only be managed through the 9D version of License Center.

Configuring license

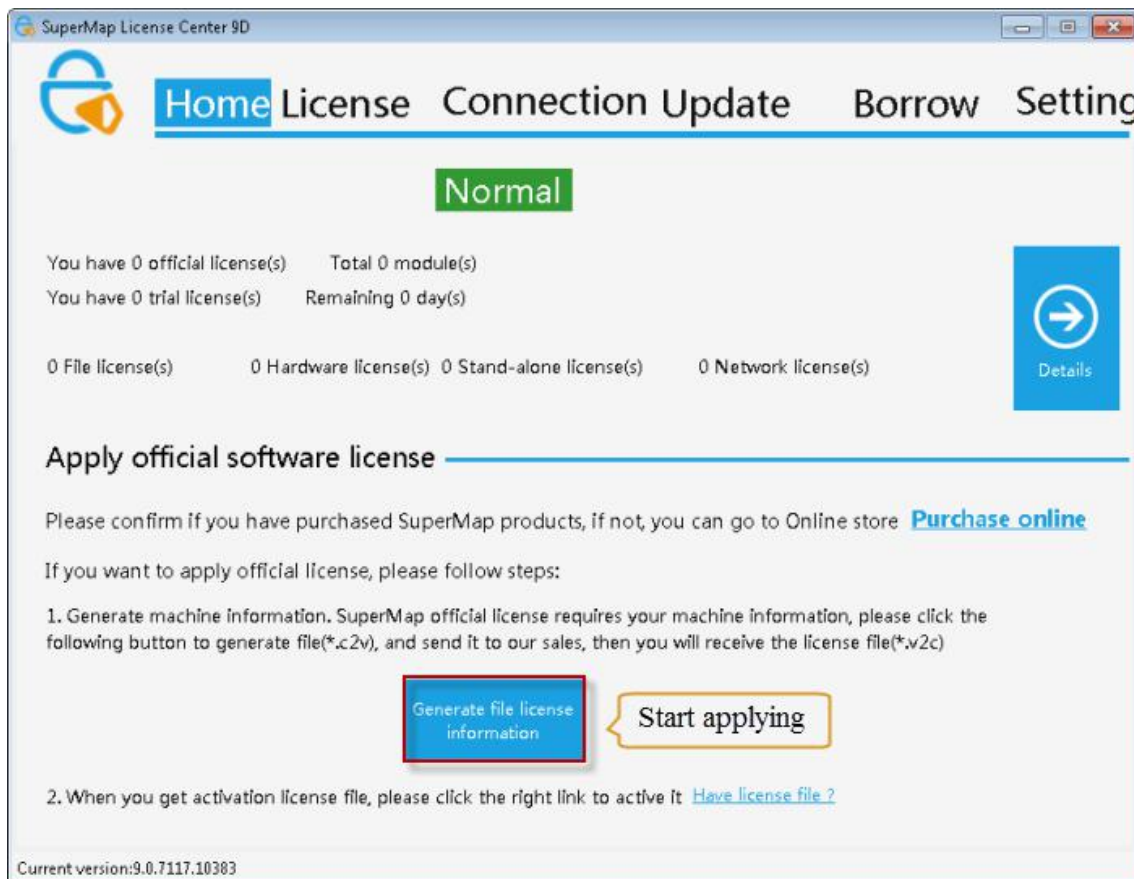
This program will install the license driver automatically and provide a 90-day trial license by default when you are the first time to open SuperMap License Center.

Configuring file license

SuperMap License Center provides the software activation method to configure the file license. Users get information about local machine through SuperMap License Center, and then submit the information to SuperMap to obtain an official license. After you've got the official license, it needs to be updated into the local machine so as to finish the deployment of the license.

1. Generate information about the local machine

Open the main page of SuperMap License Center, and then click "Generate information about the local machine" to generate a file named *.c2v in the specified path.

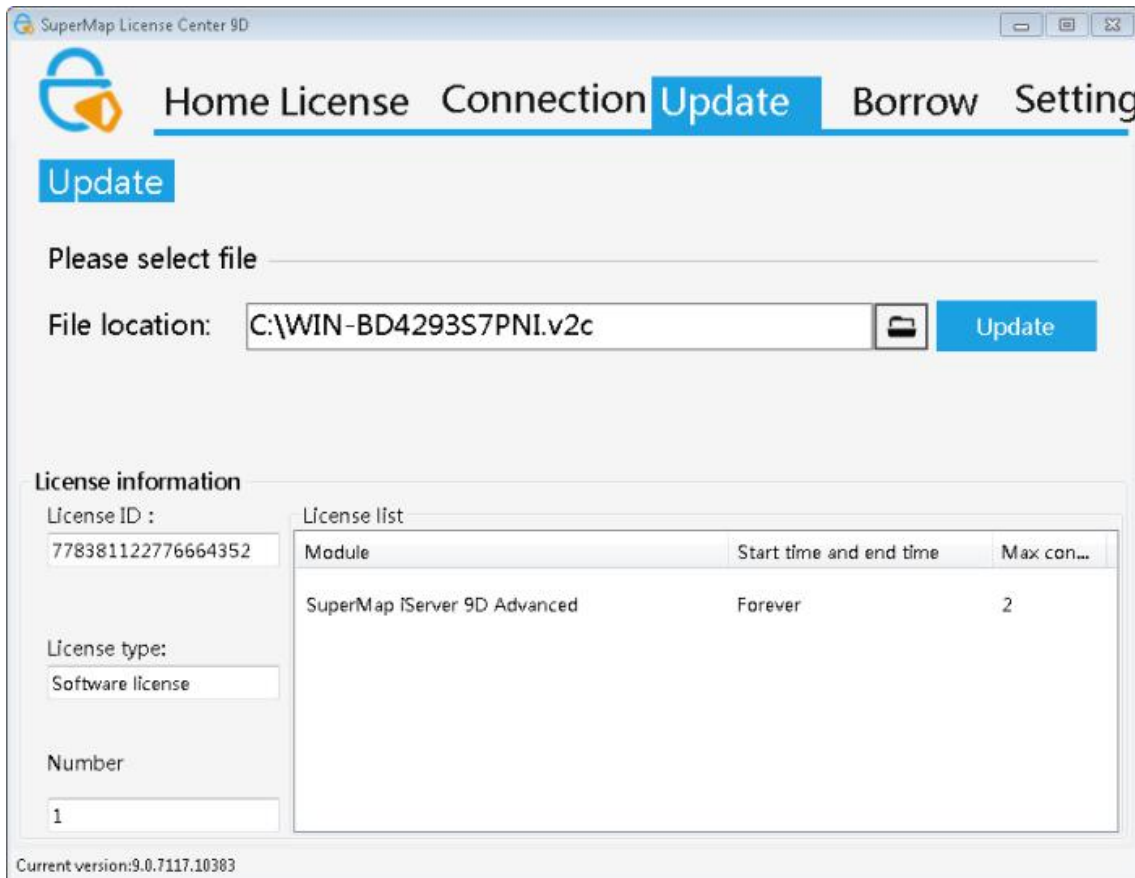


1. Submit information about the local machine to SuperMap.

Submit the *.c2v file to SuperMap, and then SuperMap will generate an official license named *.v2c according to the *.c2v file and return it to you.

1. Enable the license

Open the "License Update" page on the SuperMap License Center as shown in the figure below, specify the *.v2c file at "File Location", and then click "Update" to activate the license.

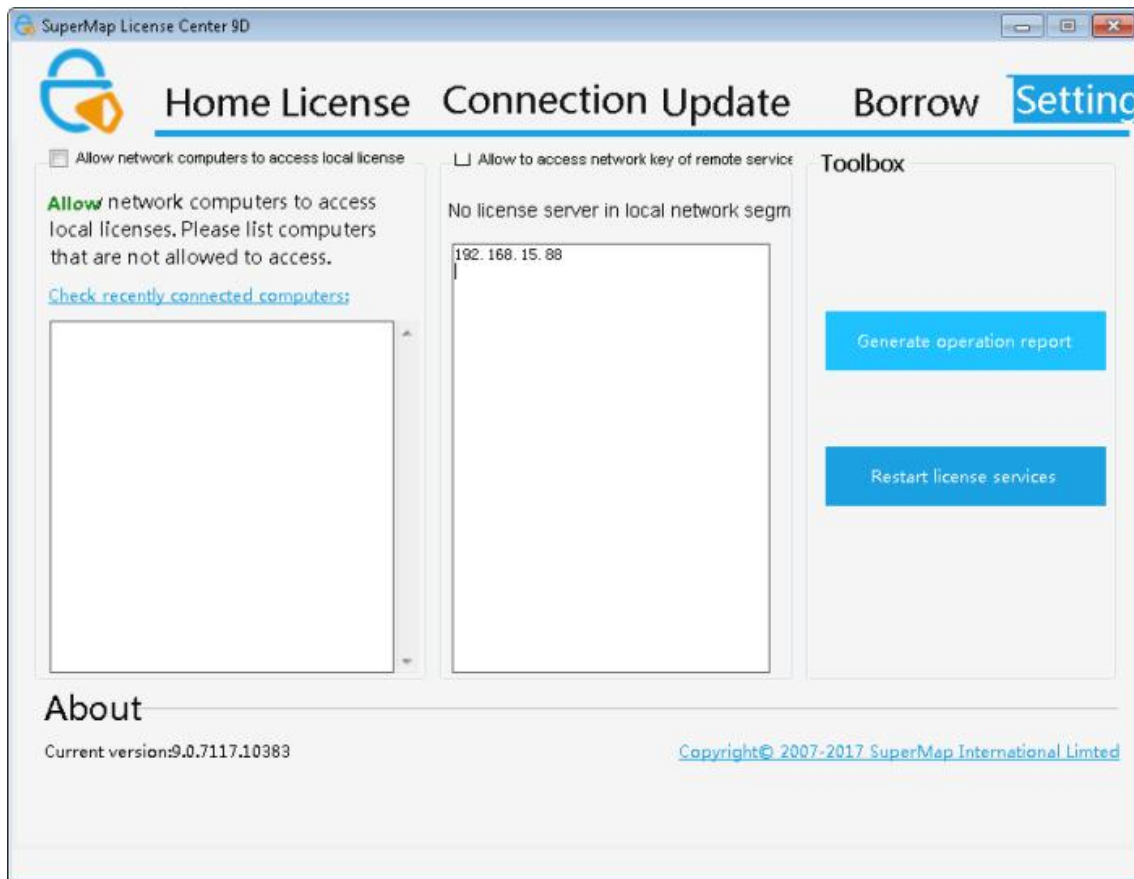


Configuring hardware key

In the Windows operating system, stand-alone and network key client, do not need to install the driver to run the license tool; network key license server needs to install the license driver.

If a network segment in the current network environment has configured an available license server, then the license will be automatically accessed and configured; if other network segment has available license server, please configure the license according to the following procedures:

1. Open the "Settings" page of SuperMap License Center.
2. Make sure that you checked the Allow to access the network key of remote server.
3. If the current machine and the license server are not in the same network segment, please input IP or name of the license server in the list of "Computers not in the network segment". It is blank by default. Depending on the network, wait a few seconds to a few minutes. Or you can click Restart License Server in the Toolbox on the right side of the tab, to make the remote server available to the machine.



Applying for a trial license

Before applying for a trial license, make sure that you have set the JRE, SuperMap iObjects Java environment variables.

If you started the iServer service ever, iServer has already set the above environment variables for you.

(1) Generating a running report

Before applying for a trial license, you need to generate a running report for local machine. Open the "Settings" page of SuperMap License Center, click Generate Operation Report in the Toolbox on the right side of the tab; A report file with suffix ".report" will be generated. You need to specify a location to store it.

(2) Applying for a trial license

You can directly apply for a trial license via the Beijing SuperMap Software Co., Ltd. official website , "SuperMap Technology Resource Center" section. After the application you will receive :

- If you are requesting license for the SuperMap GIS 7C series, you will receive a *.lic7c format license file
- If you are applying for the SuperMap GIS 8C series, you will receive a *.lic format license file
- If you are applying for the SuperMap GIS 9D series, you will receive a *.lic9d format license file

(3) Making the trial license effective

Open the "Update" page at SuperMap License Center, specify your trial license file at the "File Location", and then click "Update" to make it take effect. **The 8C-version License Center can activate the 7C and 8C file licenses; the 9D-version License Center can only activate 9D file license.**

Remove the trial license

In the SuperMap License Center, open the "License" page. On the right side of the trial license name you have applied, you will have a "Clear Trial License" button and click the "Clear Trial License" button. The license will be removed.

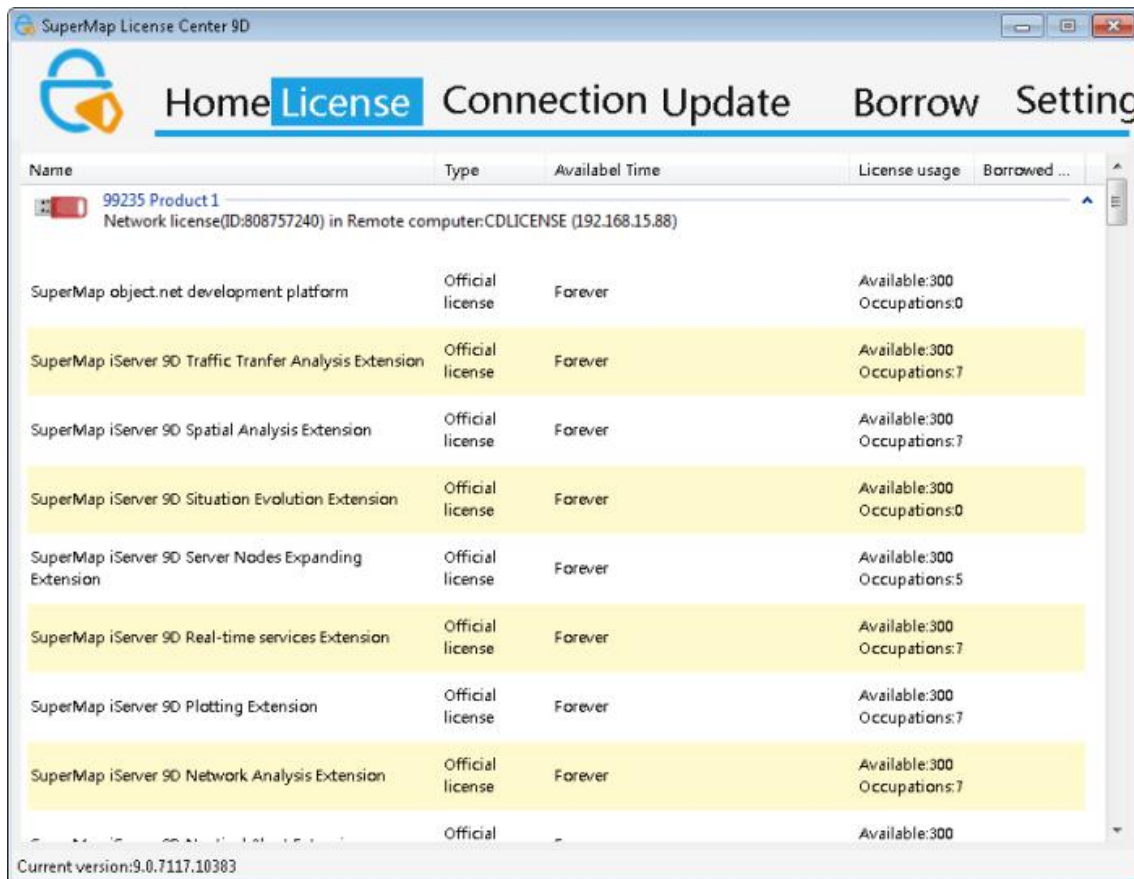
Note: The trial license that comes with the product package does not support removal.

Managing license information

With License Management, you can [check license status](#), [check license usage](#), [update license](#), [borrow/lend license](#), [return license](#).

Checking the license status

The "License" tab on SuperMap License Center displays all the license information of SuperMap GIS 9D series products of the target machine. The organization of the information is classified according to the product. Each of the following records corresponds to a license module of the product.



Each license module record shows detailed license information, where the specific meaning of each field is as follows:

- Name: License module name.
- Type: Indicates whether the license type is a trial license or a official license.
- Available time: Displays the effective start date for the license module.
- Usage: Displays the current status of the license module.
- Lending Number: Displays the number of loans that can be lent

Checking the license usage

The "Connection" tab on SuperMap License Center displays the detailed usage information of SuperMap GIS 9D series products of the target machine.

Where meaning of each filed is as follows:

- ID: ID of the license module.
- Module: The name of the license module.

- Address: The license location. If the license comes from local machine, then it shows Local; otherwise the IP address of the corresponding machine is displayed.
- User: The user name and computer name of the computer where the license exists.
- Process: Displays the process that the current license module is running.
- Time: The connected time of the current license module.

Updating license

The "Update License" page of the SuperMap License Center is used for updating the license. If you've got the official license file (*.v2c) for activating, you need to update the license for local machine to make it take effect. The following different kinds of files are supported updating. They have different purposes:

- License activation file (*.v2c), used to activate the purchased official license on the current computer. You need to acquire the local information to generate the license activation file firstly.
- File license for 7C (*.lic7c), used to update the trial license of 7C series products on the current computer. You need to generate the running report of the computer firstly.
- File license for 8C (*.lic), used to update the trial license of 8C series products on the current computer. You need to generate the running report of the computer firstly.
- File license for 9D (*.lic9d), used to update the trial license of 9D series products on the current computer. You need to generate the running report of the computer firstly.
- Certificate for lending license (*.h2r), used to lend a license of the network file license to the current computer.
- Certificate for returning license (*.r2h), used to return a lent license to the license server, which is generated by the computer who borrows the license.

For trial license, the 8C-version License Center can update the 7C and 8C files, while the 9C-version License Center can only update 9D files.

If you select an activation file or a update file, the content of license will be displayed automatically. But if you select a encrypted file or the certificate for lending or returning, the content won't be displayed. But it still can be updated normally.

Specific update operations:

Open the "Update License" page of SuperMap License Center, specify the target file (* v2c / * h2r / * r2h) in the above three conditions to the "File Location", and then click "Update".

Borrowing/Lending license

The SuperMap 9D license supports the ability to lend from a network license to other computers on the network for those computers who can't access the license server for a temporary or long-term period.

Note: Only network file license supports lending, network hardware key or stand-alone key doesn't support this function!

The steps are as follows:

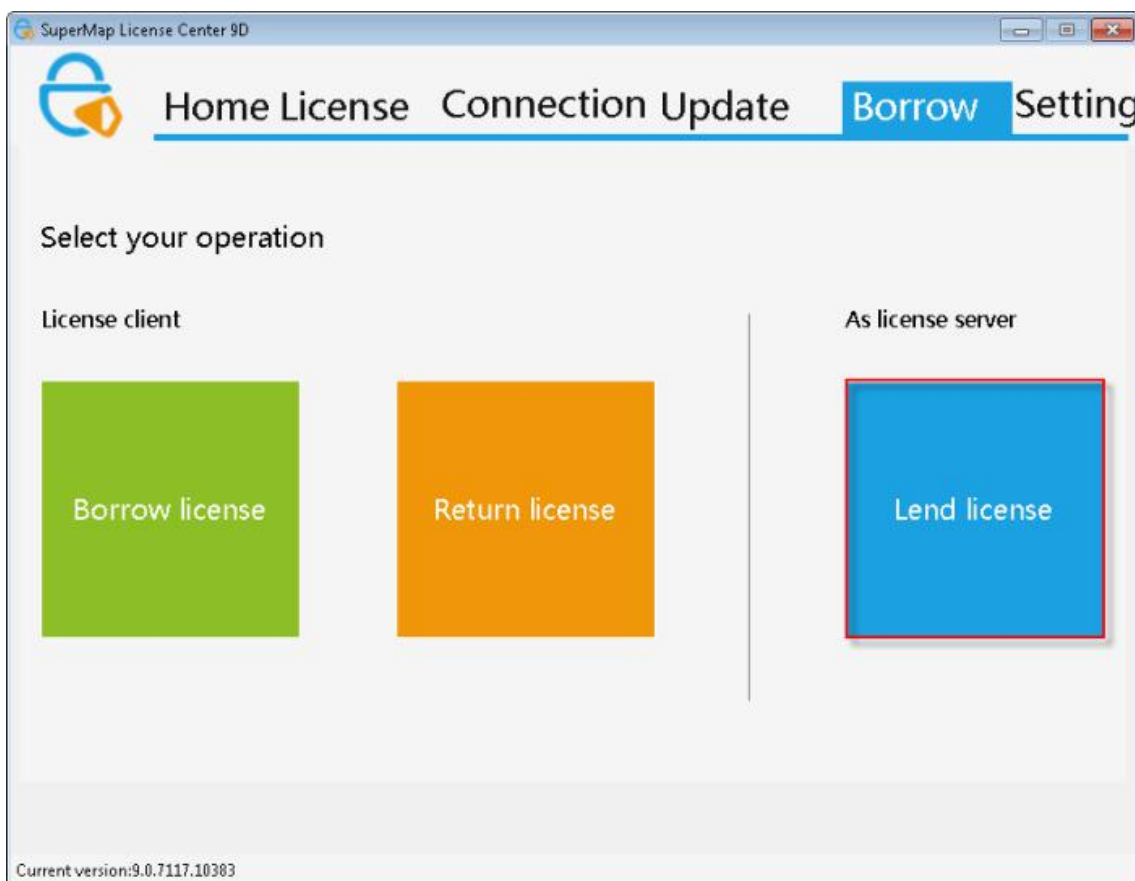
1.

Check if you can lend a license or not, check the available computers

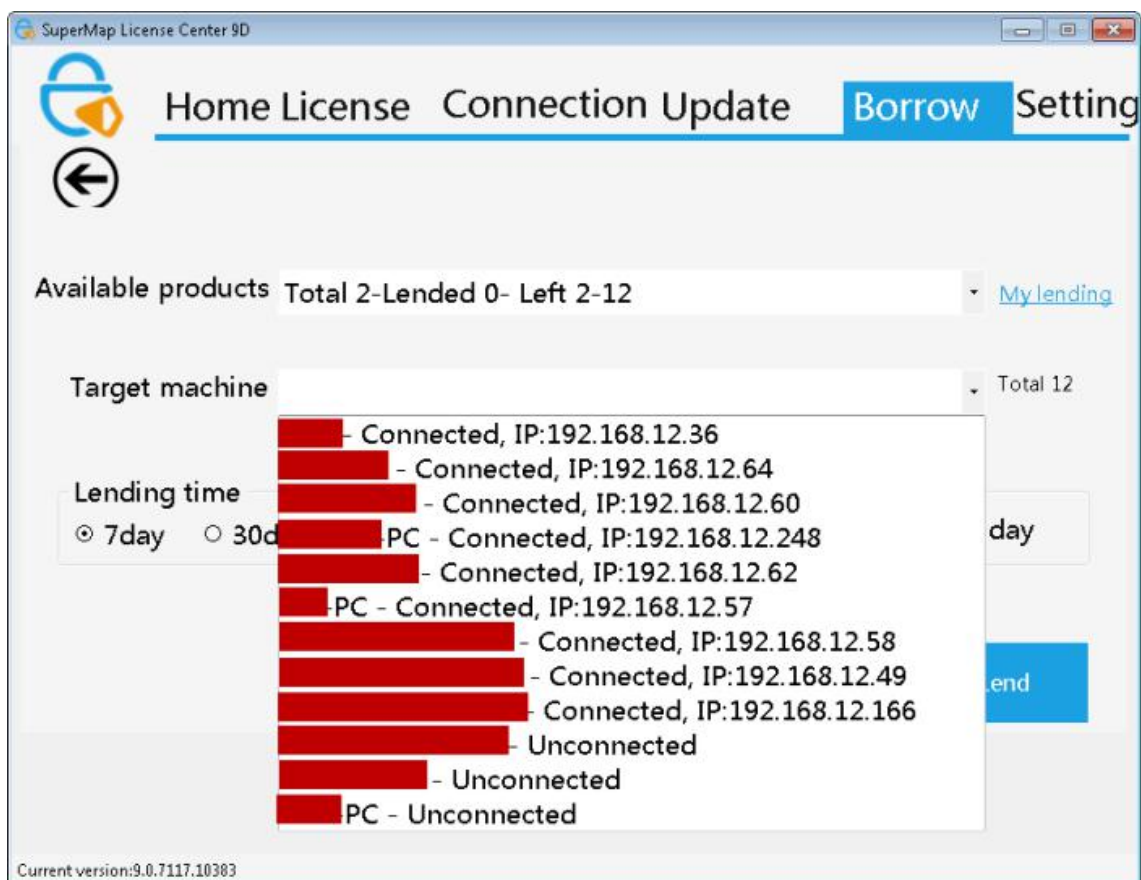
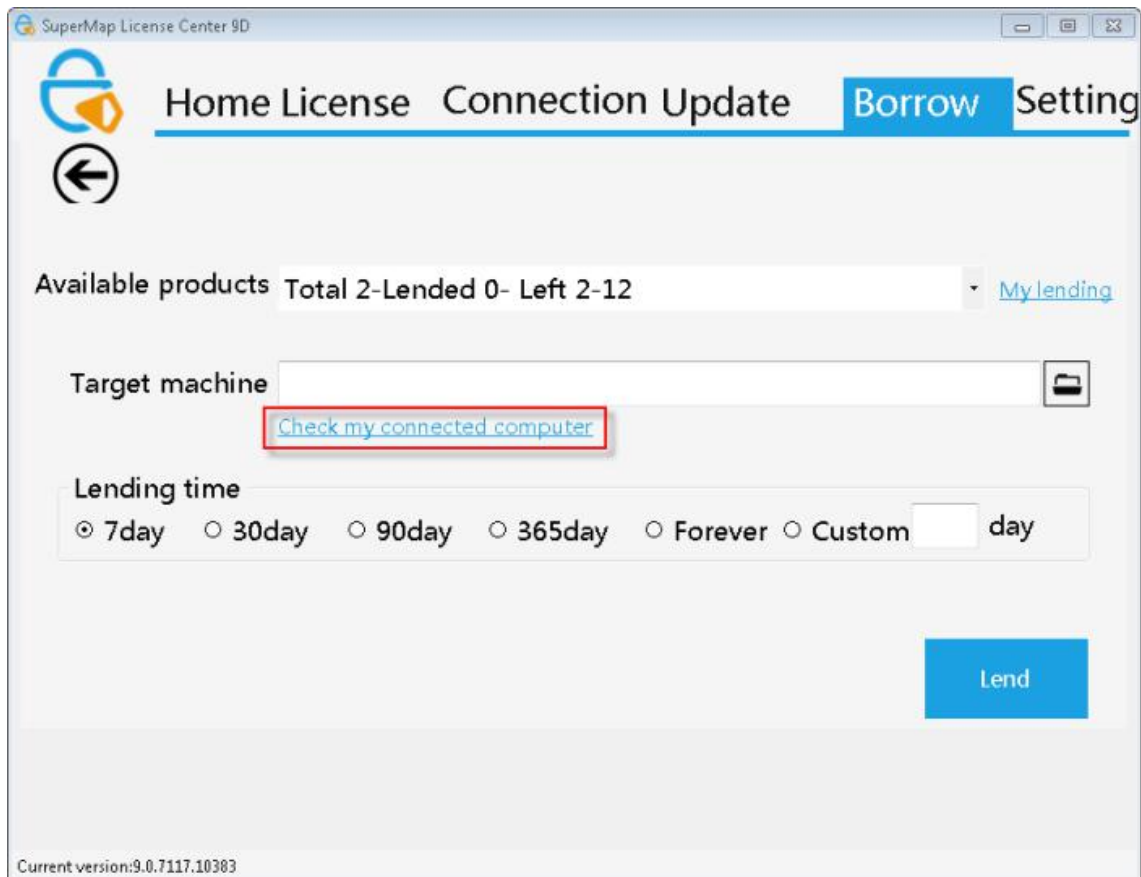
2.

Go to the Borrow tab of SuperMap license center on the license server, you will see the figure as shown below.

If there are licenses that can be lent, the Lend License button will appear. Click it, and enter the page for lending. If there are not any licenses that can be lent, the Lend License button won't appear. There are only Borrow License and Return License buttons. You can't lend license.

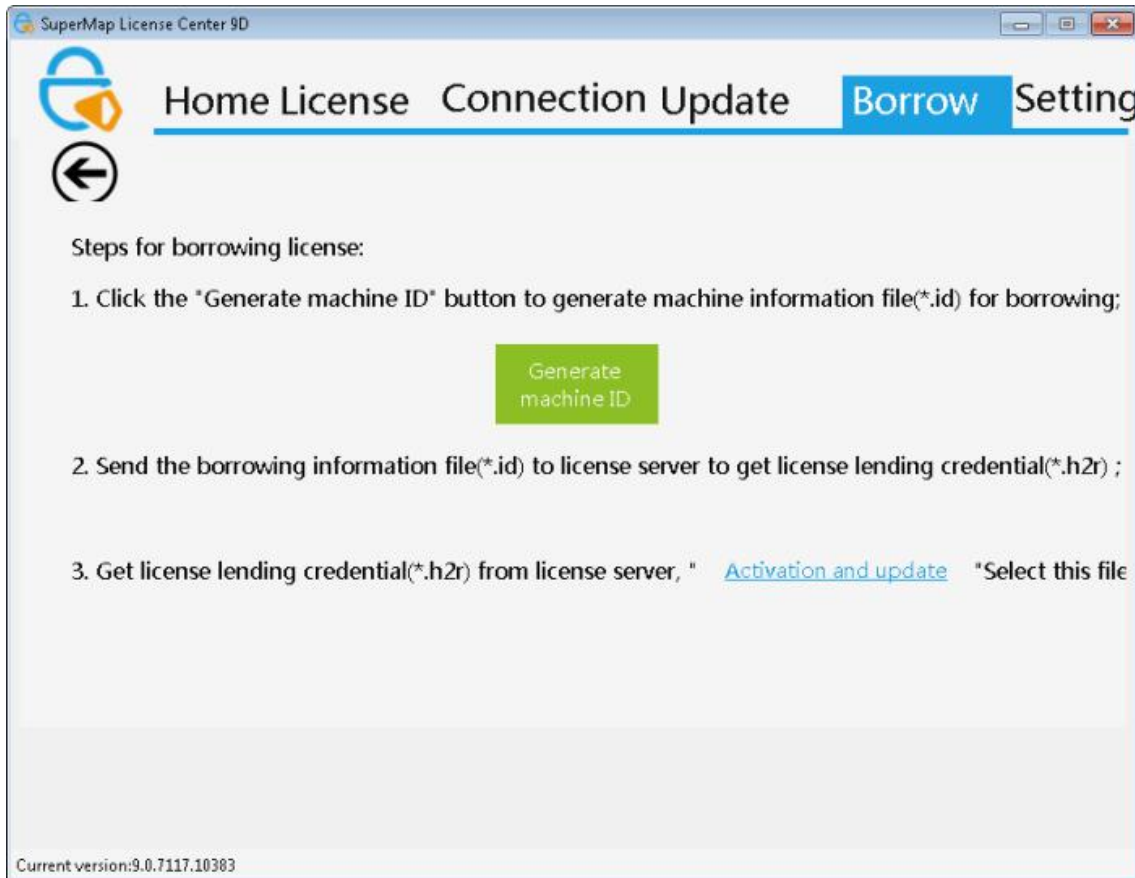


Click Lend License to enter the page for lending license. Check available computers and find the target computer in the list. If the target computer exists, go to step 3 directly. If not, please go to the next step.



1. Generate ID information for the target computer

If there is no target computer in the list in the step above, you need to open the Borrow tab of SuperMap license center on the target machine, click Borrow license, generate machine ID by clicking Generate Machine ID, then the borrow information file will be generated (*.id). Then you need to transfer the file to the license server.



1. Generate the lend certificate file

On license server, enter Borrow page, check the products that can be lent. When you click a product in the list of products that can be lent, total number of licenses, number of lent licenses, number of remained licenses of the product will display.

It indicates that all the licenses have been lent(can be judged by the number of loans), or all the current licenses are using, or there aren't any licenses that can be lent if following information shows and the Lend button is disabled. For the second case, we can turn off the application that is using the license or disconnect the network connection so that the loan license is valid.



You can check the lent time and expiration time of the target computer who lent the license, through Check Lend.

If the target machine can be found in the list of computers that can be connected, then select the target machine directly from the list.

Available products Total 2-Lended 0- Left 2-12 [My lending](#)

Target machine CXK - Connected, IP:192.168.12.36 Total 12
[I have target machine ID file](#)

Lending time
☐ 7day ☐ 30day ☐ 90day ☐ 365day ☐ Forever ☒ Custom day

[Lend](#)

If you need to use the ID file for the target computer, click the File button and choose the information file of the target machine transferred to the license server.

Available products Total 2-Lended 0- Left 2-12 [My lending](#)

Target machine C:\my.id 
[Check my connections!](#)

Lending time
☐ 7day ☐ 30day ☐ 90day ☐ 365day ☐ Forever ☒ Custom day

[Lend](#)

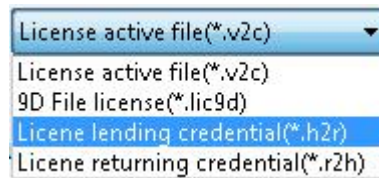
You can switch the two above ways to finish the operations by clicking Available Computers or I have the ID file of the computer.

Lend time indicates days needed to lend. You can also input a number for lending by yourself. "Permanent" is only a long time concept, represents 9999 days, more than 27 years.

At last, click the Lend button, generate the lend certificate file (*.h2r), and transfer this file to the target machine.

1. Update the lend certificate

On the target computer, enter Update tab, select the lend certificate generated and transferred from the server, click Update to finish the process of license lending to the target machine. You can check the license information on License page.



Returning license

There is always a limit for the duration of borrowed license. The borrowed license will be automatically cleared when the time is due. Meanwhile, the license will be returned to the server automatically. The entire process does not need any manual operation, the license driver finishes the entire process automatically.

However, in some cases, users may need to return license in advance before the due time, then the following steps need to be followed:

1. Generate a return certificate

Go to the Borrow tab of SuperMap license center on the machine which borrowed license from the server, click Return license.

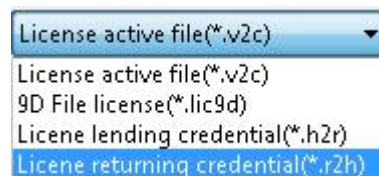
In the list of borrowed license, users can checked all licenses borrowed, and click the license for return. Users can check the information of the license below, including the remained days, due time, and the module information.

After checking the information, click Return to generate the license return certificate (*.r2h), which needs to be transferred to the license server.

Note: When return a license on the local machine, only the borrowed license is cleared. The numbers of licenses of server can't be recovered automatically. You still need to transfer the return certificate to the server to update to recover the number. Please keep the license return certificate carefully. The number won't be recovered until the licese is expired.

1. Update the returned certificate

On the target computer, enter Update tab, select the return certificate generated and transferred from the server, click Update to finish the process of license returning to the target machine.



Linux

Installing license driver

Note: The Linux operating system supports both file license and hardware license, which must install drivers. All the verifications of licenses are communicated in the mode of driver.

Note: The following processes should be performed as root.

In the `supermap_iserver_*_linux64/support/SuperMap_License/Support` directory to extract the driver installation package *.tar, install the driver;

The unzipping commands as follows:

```
tar -xvf *.tar
```

Navigate into the decompression of the file, execute the following command to install the driver:

```
./dinst
```

or

```
sh dinst
```

You can get a 90-day trial license to use SuperMap GIS 9D after installing the driver. If dinst has no executable permissions, please grant permissions to execute the following commands:

```
chmod +x dinst
```

When an "The 32bit support is missing ..." error happens on a Linux 64-bit OS, you need to reload the installation disc to manually install a support library of 32-bit OS or download it from SuperMap official website.

Refer to the following list of support libraries that need to be installed.

- Libc6-i386 and ia32-libs (Ubuntu)
- Libstdc ++ - devel.i686, glibc.i686, libgcc.i686, libstdc ++. i686, glibc-devel.i686 (RHEL, CentOS, OpenSUSE, SLES, and OES)
- Glibc-32bit (OpenSUSE, SLES and OES)

The recommended installation method is: in the [SuperMap iServer installation directory] `supermap_iserver_*_linux64/support` directory, executing the following order:

```
./dependencies_check_and_install.sh install -y
```

The system will automatically detect and install the required dependencies.

Configuring license

Configuring file license

Unlike the GUI configuration on Windows, the Linux platform configures the file license in the way of commands with `/licensetool.sh` command.

Enter the root directory of the package, execute the following command, you can view the command to configure the file license:

```
./licensetool.sh
```

Enter the root directory of the package, use the "software activation" way to configure the license, the steps are as follows:

(1) Get the machine information. Execute the following command, and specify the path where the generated local information file is stored, then a *.c2v file in the specified path will be generated.

```
./licensetool.sh -create/pathname/*.c2v
```

(2) Submit the local information to the Beijing SuperMap Software Co., Ltd.

Submit the local information file--(*.c2v) generated by the above steps to Beijing Hypergraph Software Co., Ltd., we will generate *.V2c official license file based on it and return to you, through which you configure the official license.

(3) Make the license work. Place your *.V2c official license file into a specified location, execute the following order:

```
./licensetool.sh -update/pathname/*.v2c
```

Configuring hardware license

Ensure that you have obtained a legal license from SuperMap Software Co., Ltd. before configuring license. If the license server is configured within the same network segment, the license is automatically configured and does not need to be configured manually. If there is a hardware key available in the current network environment (other network segments), follow the steps below to configure the license:

(1) Open the browser, visit <http://localhost:1947> or <http://local IP:1947>.

(2) In the left Options, select Configuration.

(3) On the right side, select the Access to Remote License Managers tab.

(4) On Specify Search Parameters fill in license server IP of other network segment, click Submit.

(5) Wait for a few minutes, under Sentinel Keys on the left side of the Options you can see sentinel keys of this server .

You also can view the license status by executing the following command in the supermap_iserver _ * _ linux64 root directory:

```
./licensetool.sh -s
```

Applying for a trial license

(1) Generating operational report

Execute the following command in the root directory of the package and specify the path to the running report:

```
./licensetool.sh -report / pathname/*.report
```

After executing the command, a *.report file will be generated under the specified path.

(2) Applying for the trial license

You can directly apply for a trial license in the Beijing SuperMap Software Co., Ltd. official website , "SuperMap Technology Resource Center" section. After the application you will receive :

- If you are applying for SuperMap GIS 7C series, you will receive a *.lic7c format license file
- If you are applying for the SuperMap GIS 8C series, you will receive a *.lic format license file
- If you are applying for the SuperMap GIS 9D series, you will receive a *.lic9d format license file

(3) Make the trial license work

You can apply the trial license in one of two ways:

- Method 1: Place the trial license file in the opt directory of your OS, specifically: /opt/SuperMap/License/. Please note that the directory is granted read and write access. System will automatically use the license file of the directory without other configuration.
- Method 2: Enter the supermap_server _ * _ linux64 root directory, place your trial license file to the specified file location, execute the following command:

```
./licensetool.sh -update/pathname/*.lic
```

or

```
./licensetool.sh -update/pathname/*.lic7c
```

or

```
./licensetool.sh -update /pathname/*.lic9d
```

Managing license information

With License Management, you can view licensing status, update licenses, borrow /lend license, return license, and so on.

Checking the license status

License status query can be done by executing the following command in the product root directory:

```
./licensetool.sh -s
```

The license status information is listed as the product ID, the module ID, the product name, the license type (both the official version and the trial version), the number of licenses, and the license expiration time.

Updating license

Specify the obtained official *.v2c license file to the file location, execute the following commands:

```
/licensetool.sh -update/pathname/*.v2c
```

The following different kinds of files are supported updating. They have different purpose:

- License activation file (*.v2c), used to activate the purchased official license on the current computer. You need to acquire the local information to generate the license activation file firstly.
- File license for 7C (*.lic7c), used to update the trial license of 7C series products on the current computer. You need to generate the running report of the computer firstly.
- File license for 8C (*.lic), used to update the trial license of 8C series products on the current computer. You need to generate the running report of the computer firstly.
- File license for 9D (*.lic9d), used to update the trial license of 9D series products on the current computer. You need to generate the running report of the computer firstly.
- Certificate for lending license (*.h2r), used to lend a license of the network file license to the current computer.
- Certificate for returning license (*.r2h), used to return a lent license to the license server, which is generated by the computer who borrows the license.

Borrowing/Lending license

1. Generate borrowed information file (*.id)

Run the following command on the server that needs to borrow the license to generate the borrow information file (*.id) for the machine:

```
./licensetool.sh -id *.id
```

1. Enable the setting for lending license

Allow permission to lend on the license-borrowed server:

- Open the browser, visit <http://localhost:1947> or <http://local IP:1947>
- In the left Options click on the Configuration, enter the configuration page
- Click the Detachable License at the top right of the page to open the lend configuration file
- Check the Enable Detaching of Licenses to allow the license to lend
- You can also set the lending restrictions according to the actual situation, such as Max. Detach Duration, etc.

1. Generate license file for lending

Run the following command on the server that lends the license to generate the loan document:

```
./licensetool.sh -detach [daycount] [productid] [idfile] [h2rfile]
```

Example: (lend for 2 days, the product ID is 1, server1.id is the information file of the server who lends the license, mylicense.h2r is the certificate file for lending)

```
./licensetool.sh -detach 2 1 server1.id mylicense.h2r
```

Where:

- daycount, the number of days that need to be lent, and can not exceed the maximum lent time
- productid, the product ID of the loan, you can view the product ID by <http://localhost:1947> on the Products page.

The screenshot shows a web interface with a sidebar on the left containing 'Options' and a main content area titled 'Products Available on DINGJJ'. The sidebar has links for Sentinel Keys, Products (highlighted), Features, Sessions, Update/Attach, Access Log, Configuration, and Diagnostics. The main content area displays a table with the following data:

#	Product Name
1	SuperMap Trial License(3 Months)
2	1

Below the table, there is a 'Product Details' section with the following information:

- Product ID: 1 (highlighted with a red box)
- Vendor ID: 99235
- Features:
 - 501: 501
 - 52: 52
 - 51: 51

- idfile, the information file (*.id) of the server that needs to borrow the license.
- h2rfile, certificate file for lending (*.h2r)

1. Configure the borrowed license

After obtaining the loan document (*.h2r), you need to execute the command to update the license:

```
./licensetool.sh -u *.h2r
```

Returning license

Run the following command on the borrowed server to get the certificate file for returning (*.r2h):

```
./licensetool.sh -cd KeyID canceldetachfile
```

KeyID can be obtained by executing infofile command which will generate a license information file. You need to specify the output path for the license information file:

```
./licensetool.sh -infile /pathName/
```

After executing the above command, a license information file with the suffix .xml is generated in the specified directory, where <attach> true </ attached> indicates whether it can be returned

Run the license update command on the license server to complete the license return.

```
./licensetool.sh -update *.r2h
```

You can see that the total number of licenses is automatically incremented by checking the license status command.

```
./licensetool.sh -status
```