

*Licence Manager*



# Complete Reference Guide

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**Product**

GEOVIA Licence Manager™ 14.6

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# Table of Contents

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<b>Introduction</b> .....	<b>5</b>
Overview .....	5
Requirements .....	7
Workflow .....	7
Downloading Licence Manager Installer .....	8
Download the Licence Manager Installer .....	8
Upgrading Licence Manager .....	9
Installing Licence Manager .....	9
<b>Starting Gemcom Licence Manager</b> .....	<b>11</b>
<b>Setting up the Licence Manager Server</b> .....	<b>12</b>
Adding and updating tokens .....	12
Adding or updating tokens using self-service licensing .....	12
Adding or updating tokens from a text file .....	15
Changing a token class .....	18
<b>Setting up the Client (Surpac, Minex, Whittle, or GEMS) to use a Network Licence</b> .....	<b>20</b>
Set Up Surpac or Minex to Use the Licence Server .....	20
Set Up GEMS to Use the Licence Server .....	21
Reacquire Your Licence .....	22
Licence classes .....	29
<b>Troubleshooting and FAQs</b> .....	<b>31</b>
Troubleshooting .....	31
Frequently Asked Questions .....	36
User Defaults Folder .....	42
<b>Control Panel</b> .....	<b>43</b>
User interface menus .....	43
Using the Interface Functions .....	44
Menu commands .....	45
File menu .....	45
New .....	45
Open .....	46
Save .....	46
Save As .....	46
Edit menu .....	46
Properties .....	46
New Token .....	48
New Class .....	49
Delete Token .....	49
Delete Class .....	49

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Change Token Class .....	49
View menu .....	49
Toolbar .....	50
Status Bar .....	50
Log .....	50
Service menu .....	51
Install .....	51
Uninstall .....	51
Start .....	51
Stop .....	52
Administration menu .....	52
Request Licence .....	52
Revoke .....	52
Restart .....	53
Reload .....	53
Reconfigure .....	53
Reporting .....	53
Report on licence classes .....	54
Report on licences used .....	54
Report on licences available .....	55
<b>Glossary .....</b>	<b>57</b>

## Introduction

### Overview

**Gemcom Licence Manager**, which is abbreviated to **Licence Manager** in this documentation, provides a flexible licensing solution which enables a nominated person to administer the licences for GEOVIA software products.

**Licence Manager** permits an administrator to:

- manage the use of various GEOVIA software products.
- produce reports on the usage of various classes of licences.
- produce reports on the usage of functions within GEOVIA software.
- revoke and grant licences for specified users.
- start and stop the licence server.

The **Licence Manager** displays the contents of the licence tokens file in two panes.

The left pane has an expanding and collapsing view of the tokens file. It contains one line for each host (either the host ID or the sentinel number is displayed) with a +/- icon for expansion or collapse.

- Selecting the + icon to expand a host shows which products are enabled for that host.
- Selecting the + icon to expand a product shows which versions of the product are enabled.
- Selecting the + icon for a product version shows which licence classes are available for that version of the product.

The right pane displays details decoded from the licence token. The information displayed in this window includes:

- The licence token. This is a 16 or 24+ digit hexadecimal number which is obtained from GEOVIA.
- The expiry date.
- The maximum number of permitted concurrent users.
- The modules that are enabled.

### Licence Manager Privileges

To execute a task, you must have the appropriate privilege.

In a large installation with many licences, it is inadvisable to make a full range of Licence Manager functions available to every user. If every user did have full access, every user would be able to start and stop the licence server and to revoke licences. Consequently, it would be very difficult to administer the licences.

Therefore, you must have Administration privileges to execute the **Install** and **Uninstall** commands.

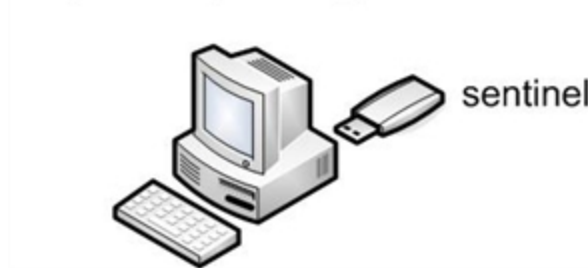
Ideally, only a few responsible people should have the privilege to execute Licence Manager tasks. This ensures that it will be used responsibly, effectively and without unauthorised changes being made to the **Licence Manager** server process.

## Licence types

You must obtain a licence to use any GEOVIA software. The types of licence that are available are:

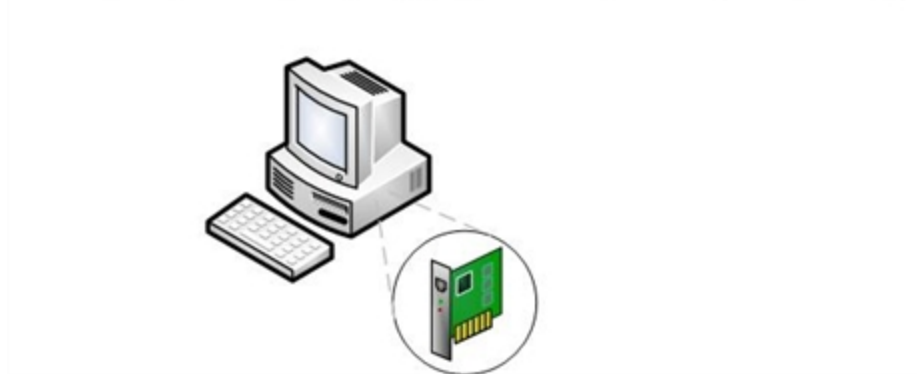
- A single-user licence that requires a GEOVIA sentinel driver to be installed on your computer. This is also known as a roaming licence. For this type of licence, you use a token number that you can only use when that specific sentinel or dongle is attached.

### Single-user (roaming) licence

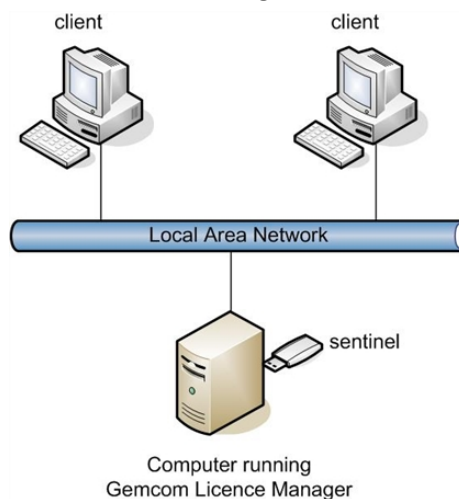


- A demonstration licence that requires no sentinel, but has reduced functionality.
- (GEMS only) A single-user standalone licence associated with the Media Access Control (MAC) address of the network adapter in your computer.

### Standalone licence tied to a MAC address (GEMS only)




- A network licence for which you need Licence Manager installed and running on a computer on the local area network (LAN). The machine running the Licence Manager must have a sentinel or dongle attached, but any other machine on that network can run GEOVIA products without the sentinel or dongle, and have fully licensed functionality.



## Requirements

You can use an installation 'wizard' to install the **Licence Manager**. You do not have to change any of the settings in the wizard unless this procedure explicitly states that you should.

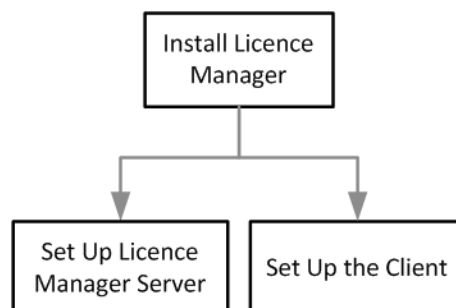
To use GEOVIA *network* licences, the **Licence Manager** must be installed on one computer on the LAN. However, sometimes a network administrator (a person responsible for network administration) might choose to have more than one licence server for backup purposes, such as in the case of a machine malfunction or network outage on a large network. The Licence Manager must be installed on any machine that the network administrator might wish to use as a server.


 **Note:** Each machine can run only one instance of Licence Manager.

### Installation Prerequisites

- Administrator edit rights on the computer.
- A current parallel or USB sentinel.
- Windows XP, Windows Vista, Windows 7, Windows Server 2003, Windows Server 2008 (32-bit and 64 bit) operating system.
- All computers in the network **MUST** have the TCP/IP networking protocol installed. If this is not the case then you **must** install this networking protocol before proceeding. Double-click the **Network** icon in the **Control Panel** to install TCP/IP.
- The licence server must have a static IP address. That is, it must not have its IP address dynamically allocated using DHCP. Symptoms of using dynamic IP addresses are: failure for a client to locate a licence server, excessive delays in the licence server responding to and granting licence requests, and inexplicable loss of licences while using the client.
- The network must have either:
  - a fully functional DNS server to permit the translation from host names to IP addresses.
  - an entry in the **hosts** file of each computer in the network that defines the host name and IP address for each computer in the network.
- Install the sentinel and sentinel driver software.
- Install the Licence Manager software on the licence server computer.
- Configure the Licence Manager software on the licence server computer, using the Licence Manager Control Panel.
- Install and configure the GEOVIA client application (for example GEMS, Minex, Whittle, or Surpac) on computers in the network.

## Workflow



 **Note:** The workflow shown here is not intended to be complete in scope, but shows the workflow needed to achieve a result.

## Downloading Licence Manager Installer

Licence Manager is available on every installation disk. Alternatively, you can download the **Licence Manager Installer**.

**Note:** It is recommended that you install the latest version of Licence Manager when you upgrade your program. If you choose not to install the latest version, you will not see the new modules that apply to your program.

### Download the Licence Manager Installer

1. Type <https://www.GEOVIAsupport.com> into the web browser, and press ENTER.
2. If you have a user name and password, enter them and click **Login**.




**Note:** If you do not have any login credentials, click **Create New Account** and follow the prompts.

3. Click **Downloads**.





4. Below **Surpac**, **GEMS**, **Minex**, or **Whittle**, click **License Utilities**.


- To save the installer to your computer, click the latest version of Licence Manager.

**Surpac License Utilities**

Gemcom License Manager V14.1		
 Gemcom License Manager version 14.4	23 MB	09/07/2013
 License Manager Installation Procedure V14.1	255 KB	04/02/2012
 Gemcom Licence Manager	27 MB	04/02/2012

Gemcom License Manager V12.11		
 License Manager Installation Procedure V 12.11	1.9 MB	11/08/2010
 Gemcom Licence Manager	23 MB	03/18/2010
 SSILM 12.8	20 MB	06/25/2008
 SSILM 12.6	20 MB	09/02/2008

 **Note:** For Minex, the name of the Licence Manager download link is SSILM. For Surpac it is GEOVIA Licence Manager. For GEMS it is GEMS License Manager. For Whittle it is GEOVIA Licence Manager. You require version 14.0 or newer.

- Using Windows Explorer, navigate to the folder where the **Licence Manager** Installer is saved.
- To run the installer, double-click the file, and follow the prompts.

## Upgrading Licence Manager

You do not need to uninstall any existing version of Licence Manager (LM).

- Run the Licence Manager setup program from the installation disc.
- Install LM to the default location.  
The previous version is automatically removed regardless of the installation folder of each version.


All the licences from the previous LM are loaded into the new LM.

## Installing Licence Manager

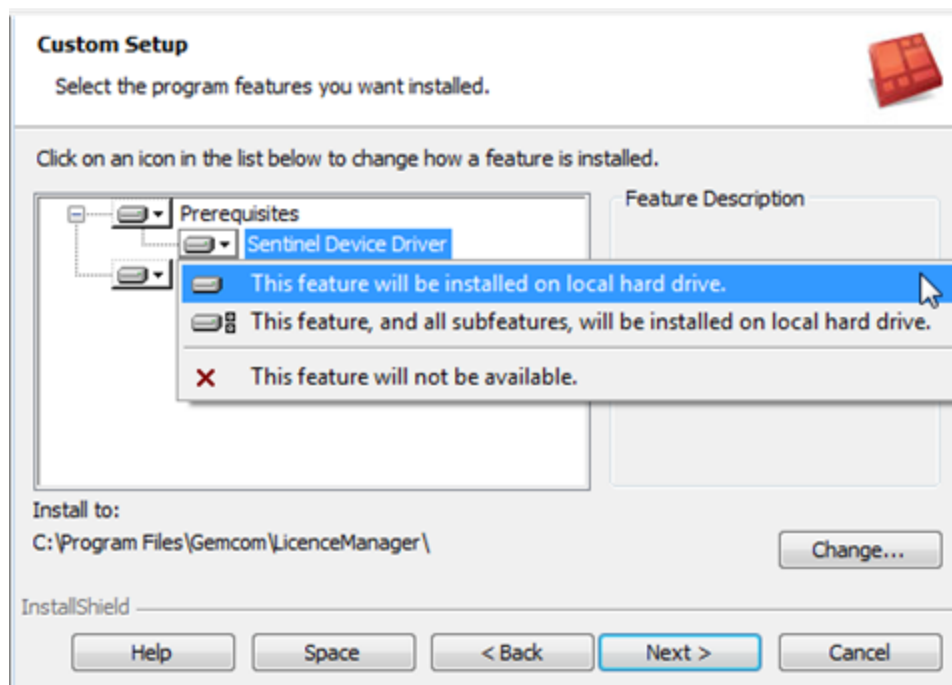
The installation prerequisites are listed in the Requirements section (see See "Requirements" on page 7).

The **User Defaults** folder holds user settings and customised files. When you install Licence Manager, you can choose the location of the **User Defaults** folder. Unless you specify otherwise, the location is as follows.

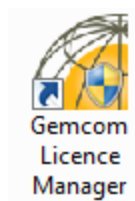
Operating system	User Defaults location
Windows XP	C:\Documents and Settings\All Users\Gemcom\LicenceManager\share
Windows 7, Vista, Windows Server 2008	C:\Users\Public\Gemcom\LicenceManager\share

- Remove the sentinel from the computer if it is plugged in.  
 **Caution:** It is essential that the sentinel is not plugged in when you install the sentinel driver. Data stored on the sentinel could be erased.
- Insert the installation disc for the GEOVIA product into the computer's disc drive.
- Run the Licence Manager installation file.
  - Surpac** - Click **Install**, click **Utilities**, and then click **Licence Manager**
- Continue clicking **Next** in the wizard, making the following changes:


- Accept the terms of the licence agreement.
- If you are prompted for a seat number, enter the seat number that GEOVIA provided.
- On the Custom Setup page, set **Sentinel Device Driver** to be installed on the hard drive.



5. Click **Install** when the **Install** button becomes available.
6. Click **Finish** at the final page of the wizard.  
An icon similar to the following appears on the desktop. You can use this to start **Licence Manager**.



## Starting Gemcom Licence Manager

- Double-click the Gemcom Licence Manager  icon on your desktop.  
-or-
- Click **Start**, select **All Programs > Gemcom Software**, and then **Gemcom Licence Manager**.

## Setting up the Licence Manager Server

This procedure is the overview of how to set up the Licence Manager Server.

The Licence Manager installation file is available on your GEOVIA installation disc. Alternatively you can download it from the GEOVIA Support website (See See "Downloading Licence Manager Installer" on page 8).

1. Install Licence Manager from the installation disc or from the file you downloaded (see See "Installing Licence Manager" on page 9).
2. Disable the service, add or update the tokens (by UDT file or text file), and enable the service again. This is fully described in:
  - See "Adding or updating tokens using self-service licensing" on page 12
  - See "Adding or updating tokens from a text file" on page 15.

**Note:** After you have set up the server (and started the service), the licence server automatically distributes licences on your network. See See "Setting up the Client (Surpac, Minex, Whittle, or GEMS) to use a Network Licence" on page 20 for help about making a client computer receive a licence.

### Adding and updating tokens

You make licences available by adding tokens to Licence Manager. You can copy and paste the tokens you have purchased from a html file or an update **.udt** file. If there are any defined classes, the classes are not changed or deleted when the tokens are updated.

**Note:** You can be logged in remotely to add a new token or to update an existing one. However, your sentinel must be plugged in to the computer running Licence Manager.

### Adding or updating tokens using self-service licensing

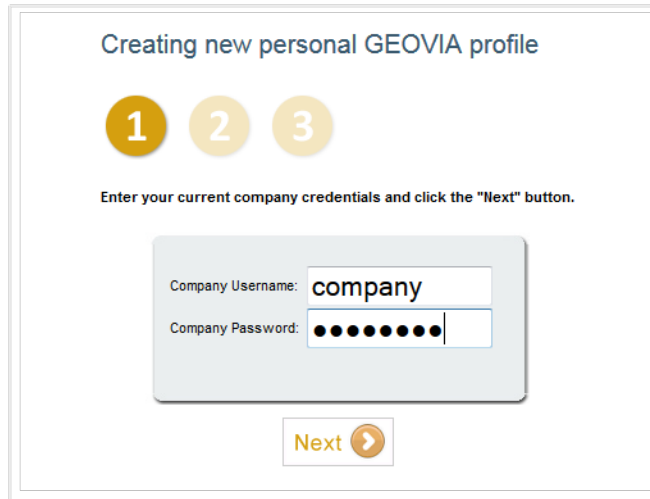
Gemcom Licence Manager 14.0 and later versions have the 'self-service licensing' feature. This feature allows you to download all the network licences your company has purchased, as a single **.udt** file, from GEOVIA Support .

To use self-service licensing, you must have a GEOVIA dongle (also called a sentinel), and a GEOVIA Support account. To create this account you need to know your *company username* and *company password*.

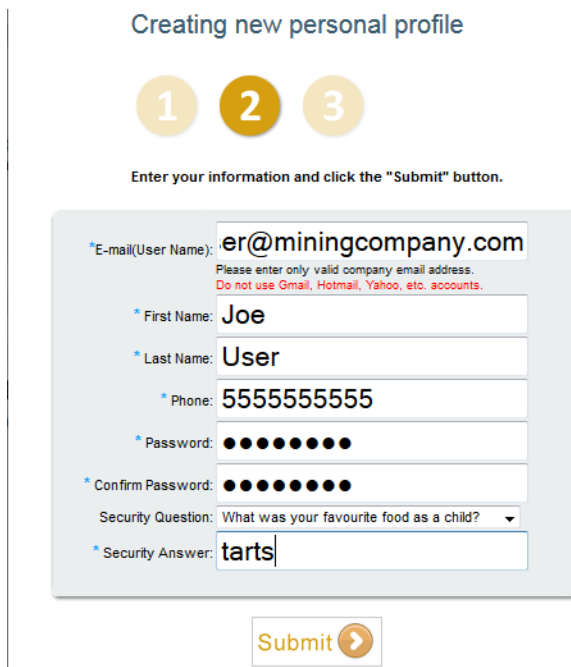
**Note:** If you need help, or do not know your company user name and company password, email GEOVIA.Login-Support@3ds.com. Please supply your sentinel number or seat number.

1. If you do not already have a profile at GEOVIAsupport.com, create one by doing the following steps:
  - a. In your Web browser, browse to [www.GEOVIAsupport.com](http://www.GEOVIAsupport.com).

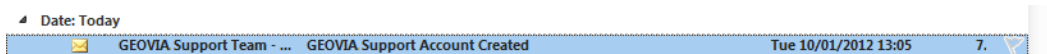
- b. Click **Create New Account**.



c. Enter your company username and company password, and click **Next**.



d. Enter the email address you use at your company to ensure continuity of service, and your other details, and then click **Submit**.  
An email is sent to the email address you specified.



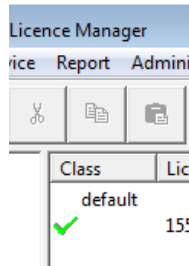
e. In the email, click the hyperlink to activate your account.  
You must activate the account within one hour, otherwise the account will expire.

2. Insert the GEOVIA sentinel into a (USB or parallel) port on the computer.

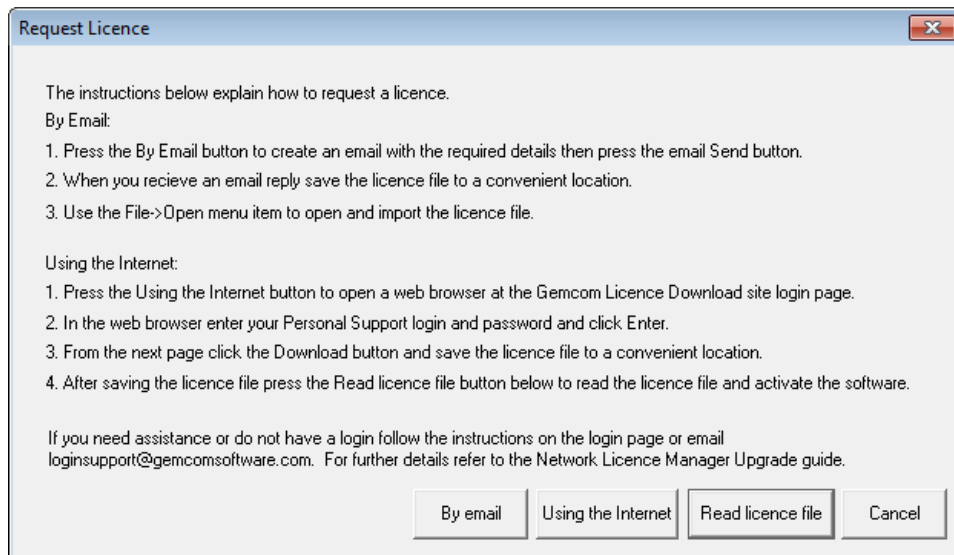
**Caution:** If you have a parallel sentinel, and there is a printer connected to the parallel port, turn the printer on. Do not connect backup tape units, zip drives, or other such devices to a parallel sentinel. If you need to use such a device, first remove the parallel sentinel. Devices such as these can damage the sentinel. Any sentinel damaged by such actions will incur a replacement cost.

3. Start Gemcom Licence Manager.

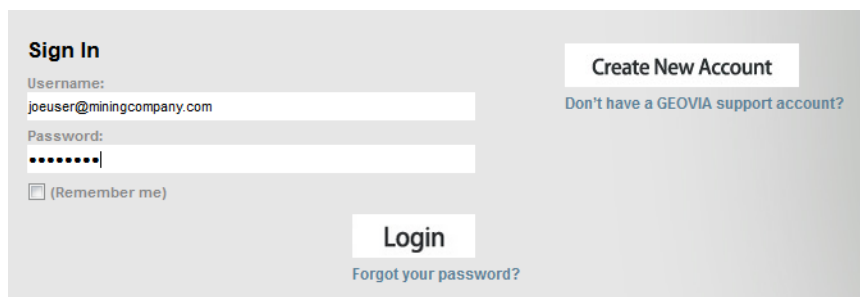
If Licence Manager has no tokens, the *Request Licence* form is displayed, and your web browser displays the login page of the GEOVIA Support website. If Licence Manager has at least one token already, the pane on the right side of Licence Manager shows the token with a green check mark beside it.



4. If the *Request Licence* form is not displayed, select **Administration > Request licence** from the main menu.



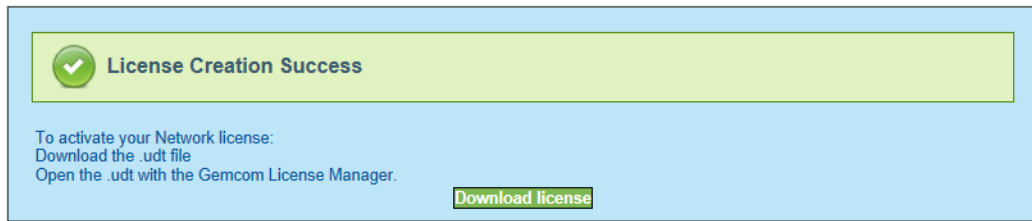
5. Click **Using the Internet**.



**Note:** If you already have a **.udt** file, you can use **Read licence file**, and you *do not need to* log into the GEOVIA Support website.

**Tip:** Alternatively, if an email program is installed on the computer, click **By Email** to request a licence by email rather than by automatic download.

6. In the Web page, enter your GEOVIA Support user name and password, and click **Login**. If you entered a valid user name and password for your company, and your company has at least one network licence, you are prompted to download a **.udt** file.

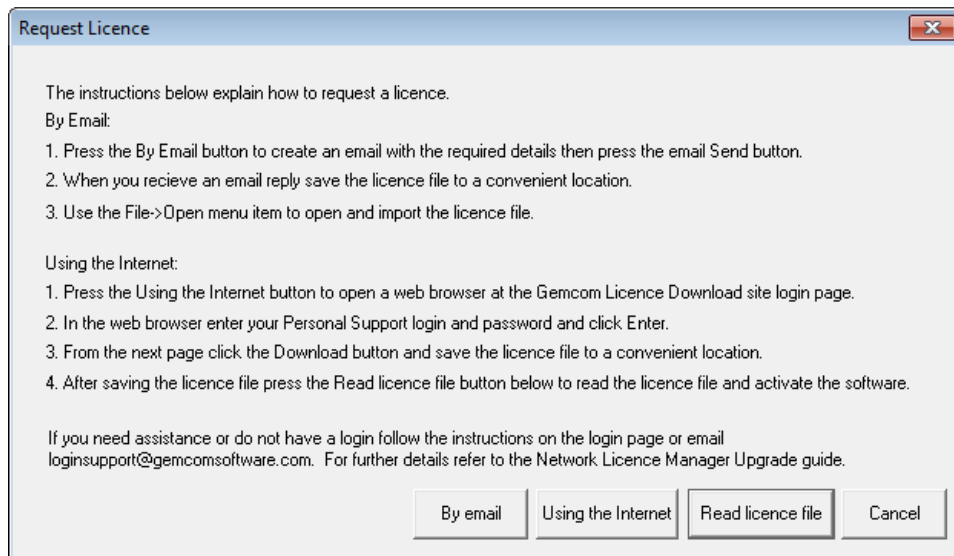


7. Click **Download**.



8. Click **Save**, and save the **.udt** file to a local folder.

9. In Licence Manager, click **Read licence file**.



10. Browse to the **.udt** file, and click **Open**.

Licence Manager lists the GEOVIA products for which there are licences on the left side. On the right side, Licence Manager displays a green check mark for each licence that is available for the selected product.

11. Choose **Service > Install**, to reinstall the **Licence Manager** service.

12. Choose **Service > Start**, to restart the service.


Licence Manager is now distributing licences across the network.

### Adding or updating tokens from a text file

Contact your local support office <https://www.GEOVIAsupport.com> to obtain written token update information.

You can copy and paste tokens from a html file for any or all of the tokens which have been purchased. If there are any defined classes in your tokens, the classes are not changed or deleted when the tokens are updated.

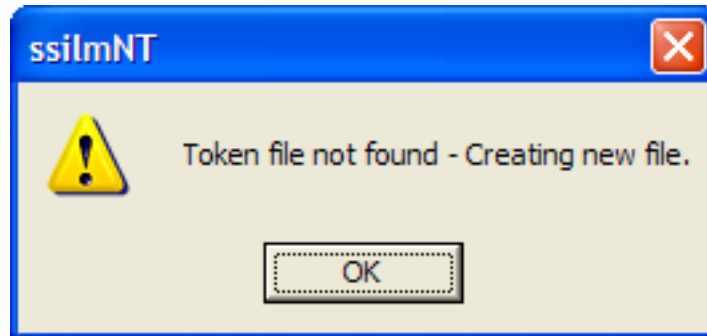
1. As a precautionary measure, use **Report > Classes** to print out a summary of the current classes if there are any. Refer to section See "Report on licence classes" on page 54 for more information.
2. Insert the sentinel into a (USB or parallel) port on the computer.

 **Caution:** If you have a parallel sentinel, and there is a printer connected to the parallel port, turn the printer on. Do not connect backup tape units, zip drives, or other

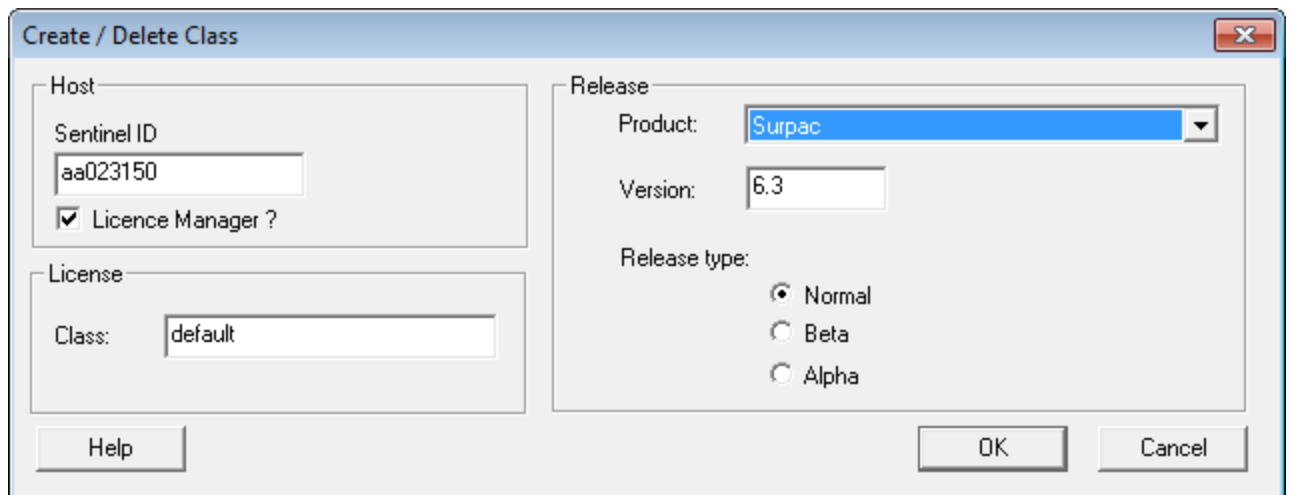
such devices to a parallel sentinel. If you need to use such a device, first remove the parallel sentinel. Devices such as these can damage the sentinel. Any sentinel damaged by such actions will incur a replacement cost.





3. Double-click the **Licence Manager** icon.  
The **Licence Manager** Control Panel opens.


The first time you start **Licence Manager** the following message is displayed. This message is informative only and there is no need to take any action.

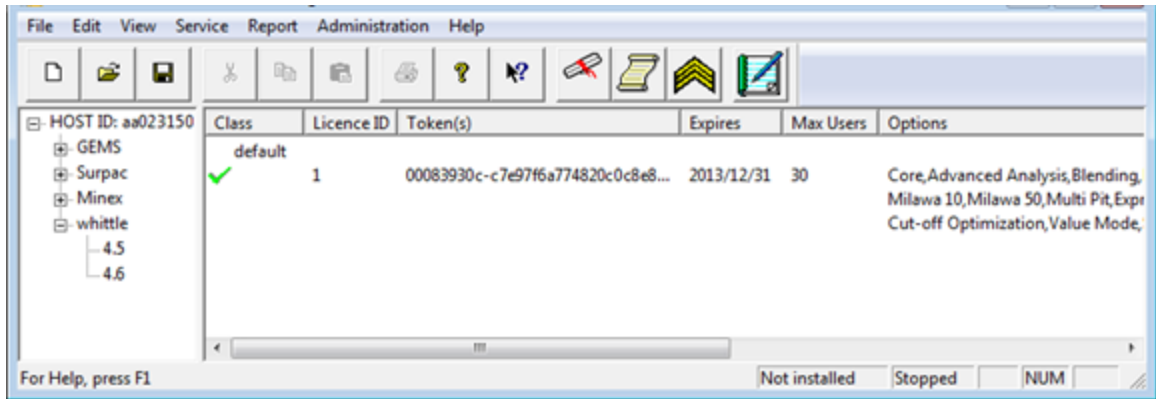


4. Click **Service > Stop**.
5. Click **Service > Uninstall**.
6. Choose **Edit > New Class**.

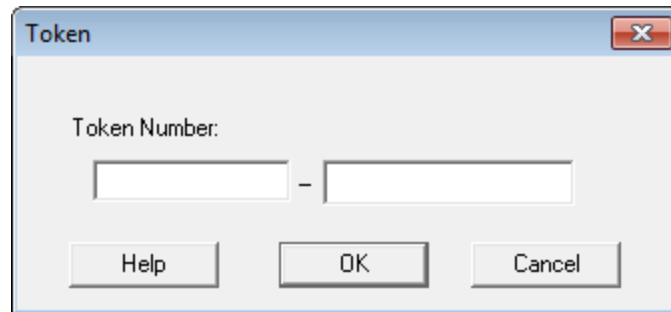


Form feature	Description
<b>Host</b>	
<b>Sentinel ID</b>	The number of the sentinel which is connected to the computer on which the licence server is running. This value <b>MUST</b> not be changed. Advanced administrators that have multiple licence servers may find this field useful because it is possible to enter the sentinel number of a sentinel other than the one connected to the licence server computer so that details of classes and tokens for a second licence server can be entered into the one token file. This token file can then be used by both licence servers, which will be running on different computers.
<b>Licence Man</b>	Do not change the setting of this field. It must be selected.
<b>License</b>	
<b>Class</b>	The name of the new licence class that you are creating. The name <b>default</b> is provided as a convenience. You can choose any name that you like. Conventional usage has shown that it is common to choose licence class names that match departmental usage of the software. For example, <b>geology, survey, engineering</b> are common names. Do not have spaces in the class names. It is useful in large installations to spread the available licences across departments so that no department can utilise all the available licences.   <b>Note:</b> For Surpac and Minex, you can modify the application shortcut to request a licence from a specific class by adding <code>-class classname</code> , where <code>classname</code> in this case is the name of the class from which the licence is being requested. Refer to topic Licence Classes for more information. To create multiple licence classes contact GEOVIA.
<b>Release</b>	
<b>Product</b>	The product name for which the new class is being created.   <b>Note:</b> This product name must match the name of the product for which the token has been generated.
<b>Version</b>	The version number, in the form <code>major.minor</code> , for which the new licence class is being created.   <b>Note:</b> The version number is the version number of the product (for example Surpac, Minex, Whittle, or GEMS) for which the token was generated. <b>It is not</b> the version of Licence Manager.
<b>Release type</b>	The release type for the new licence class.   <b>Note:</b> The release type must match that for which the licence was generated.

7. Select the new **Product** and **Version** number.
8. Leave **Release Type** set to Normal.
9. Leave **Class** set to default unless you are setting up different licences for different groups of users in which case enter the class to allocate the token number to.  
 **Note:** Refer to section See "Licence classes" on page 29 for more information.
10. Click **OK**.  
 The **Licence Manager Control Panel** is updated with new token information.



11. Choose **Edit > New Token**.



12. Enter the new token number provided by GEOVIA.  
 ⚠ **Note:** Unlike tokens for any other GEOVIA software, a token for **Licence Manager** has at least 24 digits in total. For example, 191e86aa89-744a8c9e8c1b363e
13. Click **OK**.
14. Choose **File > Save**, to save the token settings.
15. Choose **Service > Install**, to install the **Licence Manager**.  
 The server status in the status bar changes to *Installed*.
16. Click **OK**.
17. Choose **Service > Start**, to start the service.  
 The server status in the status bar changes to *Started*. In addition, the service will automatically start when the computer starts.
18. Click **OK**.

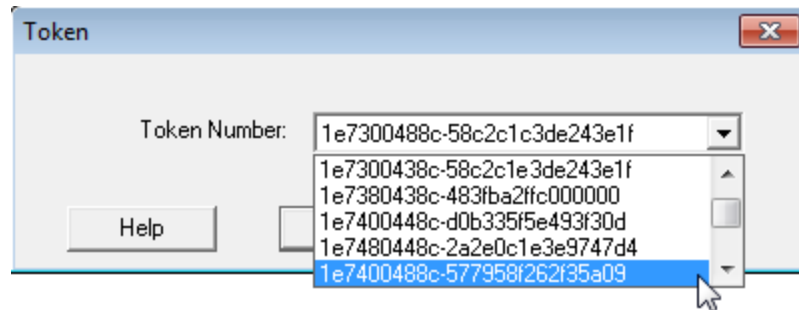
The **Licence Manager** is now distributing licences across the network.

## Changing a token class

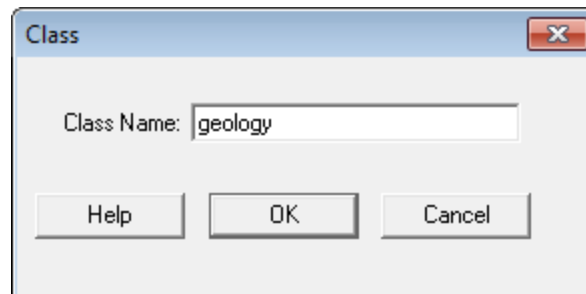
If you need to allocate a different class to a token do the following steps.

1. Start **Licence Manager**.
2. Choose **Edit > Change Token Class**.

3. Select the Token Number for reclassification.



4. Click **OK**.



5. Enter the name of the new class.
6. Click **OK**.
7. Choose **File > Save** to save the changes to the tokens file.

## Setting up the Client (Surpac, Minex, Whittle, or GEMS) to use a Network Licence

**Prerequisites:** Before you can use a network licence, Gemcom Licence Manager must be installed and running on a computer on your local area network. Surpac, Minex, Whittle, and GEMS will automatically use a network licence if Gemcom Licence Manager is running on the same subnet of your local area network.


You can force a Surpac or Minex computer to use the licence server for licensing by modifying its desktop shortcut using the following format:


**<path of the GEOVIA product executable> -lm <name or IP address of the Licence Server>**

For example,

```
C:\Program Files\GEOVIA\Surpac\613\nt_i386\bin\surpac2.exe -lm
licserv
```

```
C:\Program Files\GEOVIA\Minex60\bin\minex.exe -lm 192.168.1.56
```

 **Note:** If the Licence Manager is on a different subnet from the client, the client will not automatically receive a licence. Instead you *must* add **-lm <name or IP address of the Licence Server>** to the desktop shortcut.

 **Note:** If there are multiple classes available on the **Licence Manager**, for example survey, engineering and geology, you can also modify the Surpac or Minex desktop shortcut to use these classes.

### Set Up Surpac or Minex to Use the Licence Server


1. Install Surpac or Minex on a computer that can contact the **Licence Manager** through the network.

A shortcut appears on the desktop. By default, the product will look for a local sentinel and licence first, and then search for a **Licence Manager** licence. To change this order, the shortcut created on the desktop must be modified.

2. Right-click the (Surpac or Minex) desktop icon, and choose **Properties**.

3. Edit the **Target** field in the following format:

**<path of the GEOVIA product executable> -lm <IP address of Licence Server>**


 **Note:** For Surpac or Minex, if the network administrator has configured the **Licence Manager** to have class names, the licence class is required in the format **<path of GEOVIA product executable> -lm<IP address of Licence Server> -class <class name>**. For example, **C:\Program Files\GEOVIA\minex60\bin\minex.exe -lm 10.1.5.58 -class geologist**.

4. Click **OK**.

You can change the parameters of the desktop shortcut in the following ways.

#### Desktop Shortcut

Using the -lm option in this way causes the licence server request to be broadcast to all computers in the network. Depending on the state of the local network and the traffic load in the network, there might be a delay before a licence is granted.

 **Note:** Firewalls on a client or server computer can be set up to block certain broadcast requests and only allow requests when a specific computer has been nominated. In such cases this option will not work.

## Multiple servers

If multiple licence servers exist on the network, you can make the (Surpac or Minex) application client search the licence servers in order by adding:

`-lm licenceserver1` to the shortcut.

## Reconfigure the Port

Every server 'listens' to the network using a particular port number. The default port for Licence Manager is 1234, but any number in the range of 0 to 65535 can be used. If the server has been configured to use another port, you will use the command `-lm <servername>:<port number>`. For example:

**C:\Program Files\GEOVIA\minex60\bin\minex.exe -lm licServer:1235**

## Specify the Token Class

All licences in a Licence Manager installation are added to a class. This is so that different tokens for the same version of a product can be selected. When Licence Manager is installed all licences have the class named **default**. The person who administers Licence Manager can create additional classes, and can rename or remove the **default** class. For example, the administrator could set up a class called **surveyor**, which includes only the surveying tool tokens, and a class called **geologist**, which includes only the geology tool tokens.

To use the class named **default**, you do not need to add a `-class <classname>` to the desktop shortcut. Simply double-click the program icon on the desktop, select to use a network licence, and the **default** class is automatically selected.


If you require a specific class, or a class named **default** does not exist, you must add a `-class <classname>` to the desktop shortcut so that the licence is granted from the specified class. If you do not specify the class, the licence is not granted.

For example in Surpac:

**C:\Program Files\GEOVIA\Surpac\65\x64\bin\surpac.exe -lm licServer -class survey**

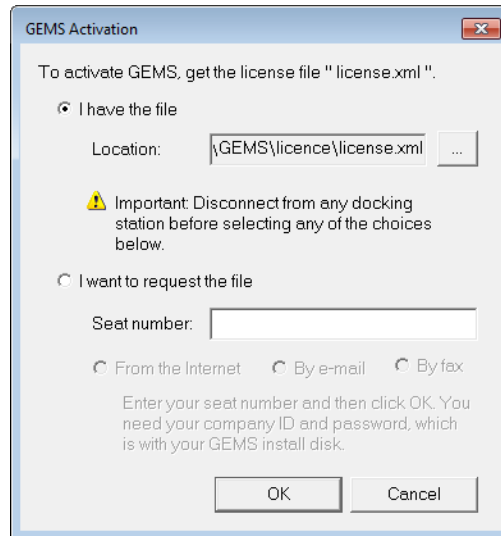
For example in Minex:

**C:\Program Files\GEOVIA\minex60\bin\minex.exe -lm licServer -class survey**

 **Note:** For Whittle, if the licence tokens were added (in Licence Manager) to a licence class other than the **default** class, you can specify the licence class in the *Network License Request* form.

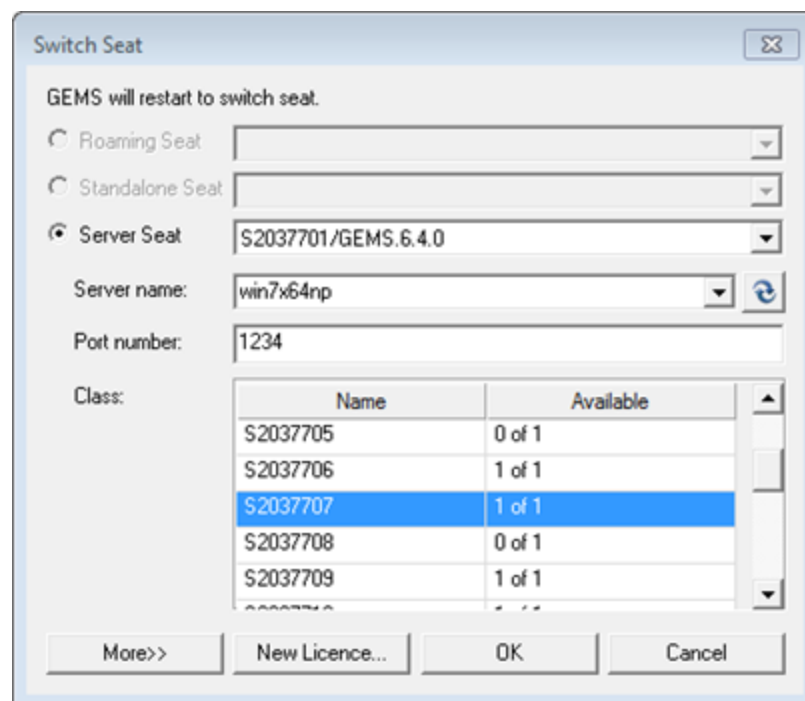
## Set Up GEMS to Use the Licence Server

1. Obtain a GEMS licence file (.xml) from GEOVIA, and save it on your computer.
2. Install GEMS on a computer that can contact the **Licence Manager** through the network.
3. Start GEMS.
  - Or if you currently have GEMS running:
    - a. Choose **File > Switch Seat**.
    - b. In the *Switch Seat* form, click **New Licence**.
4. In the *GEMS Activation* form, select **I have the file**, browse for the licence file, and then click **OK**.



Your licence file is copied to the configuration folder, and the *Switch Seat* form appears.

5. In the *Switch Seat* form, select the **Server Seat** and **Server name**, and then click **OK**.



### Reacquire Your Licence

You can use the **Update Licence** function to attempt to reacquire a lost or revoked licence.

**To reacquire a licence in Surpac:**

1. Choose **File > Licencing > Change/Inspect Licence**.

Licence Type  none Permits unlicensed use of data viewing functions. No dongle is required.

local A dongle must be plugged into a USB port.

**network** A licence is requested from a network licence server.

Request a licence from the GEOVIA Support web site

Dongle to license: aa020226

The instructions below explain how to request a licence.

By email:  
Press the By email button to create an email with the required details then press the email send button. When you receive an email reply use the Licencing->Change / Inspect licence menu item to enter the licence token.

Using the Internet:  
1. Select the dongle to be licensed from the list of attached dongles and press the Using the Internet button to open up a web browser at the GEOVIA Licence Download site login page.  
2. In the web browser enter your Personal Support login and password and click Enter.  
3. From the next page click the Download button and save the licence file to the c:/users/public/geovia/surpac/66\_beta\_1\_x64/share/etc/ folder.  
4. After saving the licence file select local as the Licence Type and press the Apply button to activate the software.

If you need assistance or do not have a login follow the instructions on the browser login page or email loginsupport@geovia.com.

2. Select **network**, and click **Apply**.

The Surpac **Network Licence Request** form is displayed. You can use this form to request a new licence.

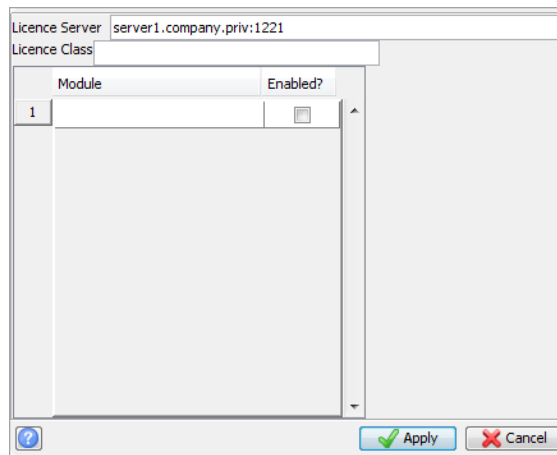
Network Licence Request

Licence Server

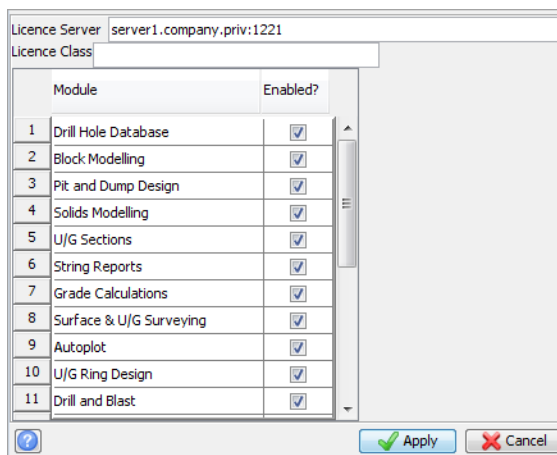
Licence Class

Module	Enabled?
1	<input type="checkbox"/>

3. Edit the **Licence Server** field, for example **server1.company.priv:1221**, and click **Apply**.



4. To check which modules you are now licensed to use, choose **File > Licencing > Change/Inspect Licence** again, and click **Apply**.



**To reacquire a licence in Minex:**

1. Choose **File > Licencing**.
2. Select **Network**, and click **Ok**.

The screenshot shows a dialog box titled "License Type" and "License Request". Under "License Type", three radio buttons are visible: "None" (unselected), "Local" (unselected), and "Network" (selected). Below this, there is a "License Request" section with a checkbox "Request a license from the GEOVIA Support web site" which is unchecked. To the right of this checkbox is a dropdown menu labeled "Dongle to license" and two buttons: "By Email" and "Using the Internet". Below these is an "Import License File" button. A large text area contains instructions for requesting a license, divided into "By email:" and "Using the Internet:" sections. At the bottom right of the dialog are "Ok" and "Cancel" buttons.

**License Type**

None Permits unlicensed use of some data viewing and manipulation functions. No dongle is required

Local A dongle must be plugged into a USB port

Network A licence is requested from a network license server

**License Request**

Request a license from the GEOVIA Support web site

Dongle to license

The instructions below explain how to request a license/token number.

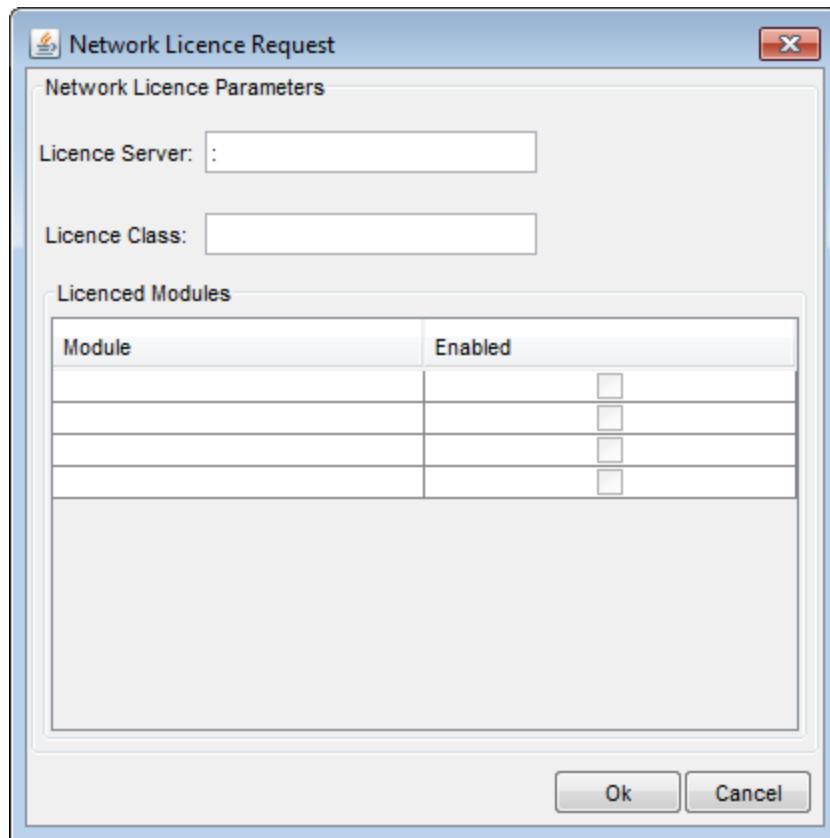
**By email:**

1. Select the dongle to be licensed from the list of attached dongles, press the By Email button to create an email with the required details and then press the email Send button.
2. When you receive an email reply, check the file received. If a license.dat file has been received, save the license file and press the Import License File button. When prompted, select the file you have downloaded and press OK to activate the software. If a token number has been received, ensure that the "Local" option is selected in the dialog and press OK. Press OK in the Update License Token dialog to activate the software.

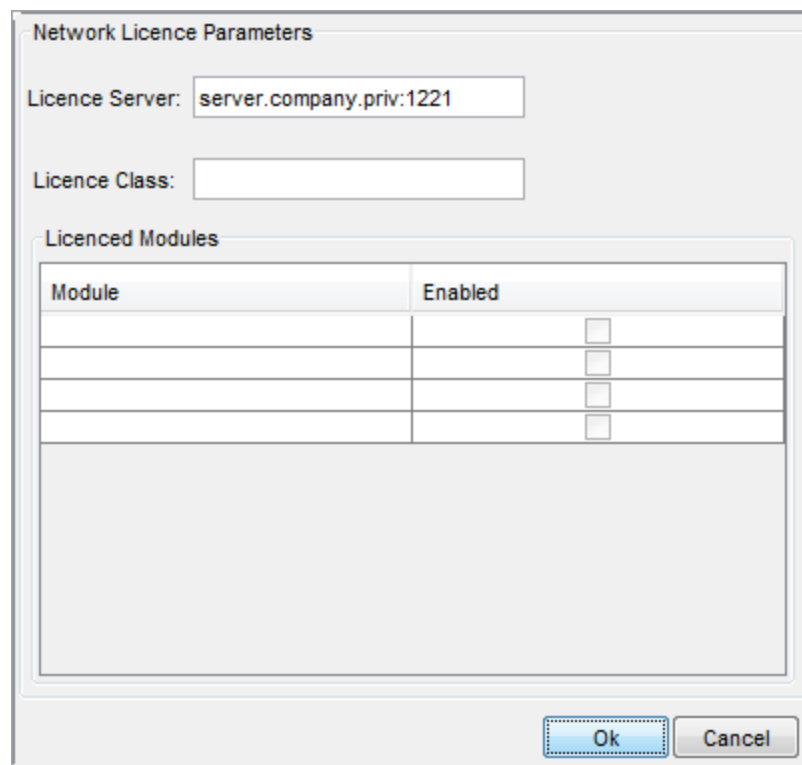
**Using the Internet:**

1. Select the dongle to be licensed from the list of attached dongles and press the Using the Internet button to open up a web browser at the GEOVIA License Download site login page.
2. In the web browser enter your Personal Support login and password and click Enter.
3. From the next page click the Download button and save the license file in your download folder.

The Minex **Network Licence Request** form is displayed. You can use this form to request a new licence.



3. Edit the **Licence Server** field, for example *server1.company.priv:1221*, and click **Ok**.



You cannot obtain a licence to continue your work if the licence has been revoked, and all available licences have been granted to other users. Functions that permit data to be saved, and do not require a licence will allow the work to be saved.

**To reacquire a licence in Whittle:**

1. Choose **File > License Validation**.
2. Select **Network**, and click **Ok**.

**License:**

- None    Permits unlicensed use of data viewing functions. No dongle is required
- Local    A dongle must be plugged into a USB port
  - Dongle to license: aa020226
- Local license validation
- Request a license from a GEOVIA Support portal
- Import license    - Network    A license is requested from a network license server

---

**About Demonstration Usage**

A demonstration version of this software is available separately from this licensed version

See [www.3ds.com/GEOVIA](http://www.3ds.com/GEOVIA) for details...

The Whittle **Network License Request** form is displayed. You can use this form to request a new licence.

**Network License Parameters**

License Server:


License Class:

---

**Licensed Modules**

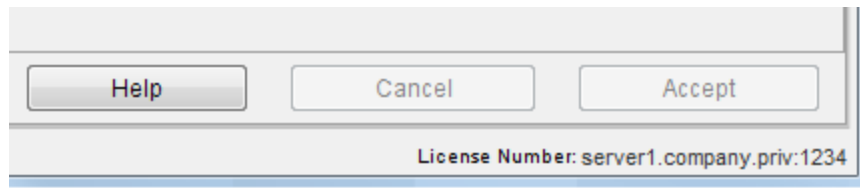
Module	Enabled
Core	<input checked="" type="checkbox"/>

3. Enter the name, or IPv4 address, of your network licence server in the **License Server** field, for example ***server1.company.priv***.

 **Tip:** If you do not receive a network licence, try specifying the TCP port, for example ***server1.company.priv:1234***.

4. Click **Validate**.

The lower right corner of Whittle shows you that you have been granted a licence and displays the name of the licence server.



You cannot obtain a licence to continue your work if the licence has been revoked, and all available licences have been granted to other users. Functions that permit data to be saved, and do not require a licence will allow the work to be saved.

**To reacquire a network licence in GEMS:**

1. Choose **File > Switch Seat**.

The **Switch Seat** form appears. You can use this form to request a new licence.

The screenshot shows the 'Switch Seat' dialog box. At the top, it states 'GEMS will restart to switch seat.' There are three radio buttons: 'Roaming Seat', 'Standalone Seat', and 'Server Seat'. The 'Server Seat' option is selected. Below these are fields for 'Server name:' (win7x64np) and 'Port number:' (1234). A 'Class:' section contains a table with the following data:

Name	Available
S2037705	0 of 1
S2037706	1 of 1
S2037707	1 of 1
S2037708	0 of 1
S2037709	1 of 1

At the bottom of the dialog are buttons for 'More>>', 'New Licence...', 'OK', and 'Cancel'.

2. Select the licence server from the **Server Seat** list, and click **OK**.

You cannot obtain a licence to continue your work if the licence has been revoked, and all available licences have been granted to other users. Functions that permit data to be saved, and do not require a licence will allow the work to be saved.

**Note:** If you have a standalone licence linked to a specific computer, use the **Remove Seat** utility to revoke the licence from that computer permanently. Then, on the new computer where you will assign the licence, use the **Save Host ID** utility to assign the licence.

## Licence classes

For a given version of Surpac, Whittle, or Minex, you can set up different licence classes for the situation where that product has one set of options or modules enabled for one group of users, and a second set for a second group of users.

For example, two Surpac version 6.1 licence classes could exist, one with options suitable for geologists and the other with options suitable for surveyors.

In order to request a specific licence class, you can add the `-class` command line option to the desktop shortcut of the Surpac or Minex executable. For Whittle, you can specify the licence class in the **Network License Request** form. If the licence class is not specified then a **default** licence class is used.

If your site does not use multiple licence classes, you can use the **default** class.

The advantage of using licence classes on large sites is to reduce the overall cost of the software by purchasing appropriate software modules for various classes of users.

Licence class names are user defined and can be any combination of alphanumeric characters.

If licence classes are used at a site, it is entirely up to the administrator which class a licence token must belong to.

If the tokens have different modules, it is bad practice to put more than one token in a licence class. If this happens, the user can never be certain what modules they will be licenced to use. If you have more than one token for a single product version, they must be put into separate licence classes.

**See also**

- See "Changing a token class" on page 18

## Troubleshooting and FAQs

### Troubleshooting

- **Overview**
- **Licence Manager will not start**
- **Licence Manager fails to grant licences**
- **Licence Manager service fails to install**
- **Licence Manager service stops after it has started**
- **Using the Service > Install menu item fails to install the service and no error message is displayed.**
- **Not all files are removed from the Licence Manager install directory when the uninstall option from the installation CD is used.**
- **When attempting to install the Licence Manager from the CD some files are not installed.**
- **The error "Could not get network licence. Could not connect to interlude process" is displayed.**
- **The error "Could not get network licence. Unable to send licence request to any server" is displayed.**
- **There appears to be no communication between the application client (e.g. Minex, GEMS, Surpac) and the Licence Manager server.**
- **Licence Manager does not allocate a licence to a specific client, and the log file displays "Error - Reading incoming messages".**

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#### Overview


To diagnose problems with a Licence Manager installation you need to exactly describe what is happening when attempting to start the Licence Manager and view the Licence Manager log file which can be viewed either by the "view > log" menu item in Licence Manager or by opening it directly. The log filename can be set as a configuration option and by default is usually `/share/etc/ssilm.log`. It may help to temporarily turn on user function logging (which logs each function executed by a user) either using the "edit > configuration" menu item of Licence Manager" or by modifying the configure file (`/share/etc/ssilm.conf`) directly. Any changes to the configuration require telling a running server to reread its configuration (via "administration->reconfigure").

Most errors which terminate the Licence Manager will be recorded in the log file so that is the first place to check. Things to try to narrow down possible problems:

1. Examine the log file and include it with any queries to your local GEOVIA helpdesk.
2. Start the Licence Manager service from the **Service >Start** menu item instead of as an installed service at startup. You normally need administrator privileges to do this.
3. Run the SSILM.EXE from a DOS prompt instead of as a service. This may allow you to see errors which are not otherwise logged to the log file. This may require administrator privileges depending on how the machine is set up.  
The `ssilm.exe` is installed in the `<install_dir>\nt_i386\bin` directory, and if you run it without parameters, you will get a list of the command line options available. Try using **ssilm > server** if you are trying to get a server started, as this will give you error messages if something is going wrong.
4. Try running the Licence Manager as a pseudo-client to see whether licences are being served by the Licence Manager. It is possible to run the Licence Manager as a pseudo-client to ensure that a separately running Licence Manager is granting licences correctly. If

this works but Surpac or Minex is not working correctly you at least know the problem is not due to the Licence Manager being incorrectly configured. For instance to get a pseudo-client which pretends to be surpac 6.0 you could try running:

```
ssilm -client surpac2 6.0 -lm <licence-server>
```


 **Note:** The product name for Surpac is still surpac2 as far as the Licence Manager is concerned.

If the process finishes running immediately and you can type more characters at the command prompt, it means that licences *are not currently being served* by the server you specified for the product and version you specified.

```
C:\Program Files\Gemcom\LicenceManager\nt_i386\bin>ssilm -client minex 6.0 -lm localhost
C:\Program Files\Gemcom\LicenceManager\nt_i386\bin>_
```

If the process continues running and you do not see a command prompt, it means that licences *are being served*.

```
C:\Program Files\Gemcom\LicenceManager\nt_i386\bin>ssilm -client minex 6.0 -lm localhost
-
```

 **Note:** Press CTRL-C to interrupt the process.

### The Licence Manager will not start

The most common things which stop the Licence Manager from running are:


1. TCP/IP networking is not installed. GEOVIA mining packages and the Licence Manager communicate using the TCP/IP networking protocol. Some Windows installations do not install TCP/IP networking by default. Installing dial-up networking usually also installs TCP/IP networking. This should be readily diagnosed by reading the log file.
2. The default port used by Licence Manager is in use by another process. Licence Manager usually starts listening for licence requests on UDP port 1234 but this can be changed by setting the port as a configuration option. If another process is already using the UDP port which the server wants to use, it will exit with an error. When using any port other than 1234 you also need to specify the port when running surpac (either as "-lm :<port#>" for a broadcast request or "-lm <ssilm-server>:<port#>" for a request to a particular server where <ssilm-server> and <port#> denote the host name and the port number which Licence Manager is using respectively). This should be readily diagnosed by reading the log file.
3. The sentinel drivers are not correctly installed, the parallel port is not configured correctly for the sentinel or multiple devices are conflicting on the parallel port. When the Licence Manager starts it checks for a sentinel in order to obtain the host ID for the valid licences. If it cannot detect a valid sentinel it will exit with an error. Make sure that the sentinel drivers are installed. There is an option to install the drivers on the surpac installation CD. If using multiple devices daisy chained on the parallel port the sentinel should be the first device in the chain (i.e. the one connected directly to the computer's parallel port). Some bi-directional printer drivers may interfere with the sentinel drivers. In order to troubleshoot sentinel problems it may be useful to check <http://www.rainbow.com/tech/faqs.html> since we use rainbow sentinels.

We now have a version of the sentinel that uses a USB port connector. This is only available for Windows 2000, XP, Vista, Windows 7, Windows Server 2003, Windows Server 2008 (USB is not supported by Windows NT 4.0), but it resolves all problems to do with parallel ports. You cannot (and do not need to) daisy chain devices through the sentinel, and hence a lot of hardware conflicts are resolved. If you are having problems with a parallel sentinel, contact your nearest GEOVIA office for details on a USB sentinel.

4. Multiple copies of Licence Manager are running. It is only possible to run one Licence Manager process at a time on a single machine. If the Licence Manager is started and it detects an already running copy of Licence Manager it will exit. This condition should be evident in the log file. Use the task manager to ensure that previous running copies of Licence Manager have terminated if you obtain this error.
5. There exists a directory called C:/SSILM, C:/SSILM is not writable or the C:/ drive is not writable. Licence Manager makes use of a lock file called C:/SSILM when it is running to ensure that conflicts do not occur. If you have a directory called C:/SSILM, the Licence Manager is unable to write to C:/SSILM or create the C:/SSILM file due to protections the Licence Manager will refuse to start. Make sure that C:/SSILM is writable and does not exist as a directory.
6. No licences are valid. If the Licence Manager does not find any valid tokens (for this hostID and haven't expired) in the tokens file (<install-dir>/share/etc/ssilm.tok) it will exit as there are no licences it can serve. You can examine the licence token information by starting the **Licence Manager Control Panel**.
7. Some versions of windows have an out of date MFC42.DLL which will not work with Licence Manager. When starting the Licence Manager this results in the error: "The ordinal 6883 could not be located in the dll MFC42.dll" (see <http://support.microsoft.com/support/kb/articles/Q262/4/83.ASP>). The solution is to install a later version of MFC42.DLL. This can be done by:
  - Install Internet Explorer or some sort of Service Pack. (This will ensure the most recent versions of MFC are installed) , or
  - <http://activex.microsoft.com/controls/vc/mfc42.cab>, or
  - <http://www.biomechsystems.com/RunTimeSetup.exe>.
 The second two are just collections of the mfc dlls and other runtimes.
8. Firewalls - Licence Manager will not in general work across firewalls unless they have been configured to allow Licence Manager traffic through the firewall. Licence Manager will work across a firewall provided that packets for UDP port 1234 (or whatever port the Licence Manager is configured with) can traverse the firewall.

### Licence Manager fails to grant licences

1. Click **File > Save** in Licence Manager. If you have loaded a licence using **Edit > New Token**, even though a green check mark appears beside the licence, you need to click **Save** to commit the change. Otherwise the NLM log file reports "unable to find requested product" when people try to get a network licence.
 

 **Tip:** Select **Report > Available** to find out which licences Whittle is distributing.
2. The Licence Manager is unable to resolve its hostname or do a reverse lookup of client hostnames. When running the Licence Manager needs to do reverse lookups of client hostnames for logging purposes. The low level API calls that Licence Manager uses seems to have problems when the hostname is not directly resolvable and the Licence Manager pauses until it times out doing the reverse name lookup. This makes it appear as if the

Licence Manager has become idle. In particular sites relying on DHCP may experience many problems. The solution is usually to add the Licence Manager hostname and the client hostnames and IP addresses in the C:/WINNT/system32/drivers/etc/hosts file. This may or may not be needed depending on how the various name services are managed. A site using DNS for name services will tend to have fewer problems with this. For more information, see What is a reverse DNS lookup

3. Using broadcast licence requests on different network segments. When a network licence is requested without a specific hostname specified it sends a broadcast request on the local subnetwork. These broadcast requests in general do not pass through network bridges or routers and so if the Licence Manager is on a separate network segment it will not see the request. In this case the specific Licence Manager hostname needs to be specified in the -lm command line switch or in the licence\_manager user option.

---

### Licence Manager service fails to install

If the services fails to install it is because a Licence Manager service has already been installed or because you do not have Administrator privileges.

Check that you have Administrator privileges and if not contact your local site systems administrator.

Choose **Service->Uninstall** to uninstall the existing Licence Manager service and then try to install the new service.

---

### Licence Manager service stops after it has been started

There are a number of possible causes.

1. The licence server computer has a dynamically allocated IP address. Change this to a fixed or static IP address and try again.
2. Some other program is using the TCP/IP port number that the Licence Manager uses for listening for licence requests.  
In Licence Manager choose the **Edit > Properties** menu item to change the port number to some other value to try and avoid the conflict. Port numbers may have any value between 1 and 65535. Try choosing a number greater than 1000.

The port number that the Licence Manager uses by default is 1234.

If you try this solution it is imperative that the application shortcut (the icon for starting Minex, Surpac, Quarry or Xplorpac) is modified by adding the **-lm** option to ensure that the client transmits the licence request on the same port as the Licence Manager is listening. For example add **-lm licenceserver:4567** to ensure that the licence request is transmitted to the computer called **licenceserver** on port **4567**.

If the client is transmitting licence requests on a port that is different to the port that the server is listening then a licence will never be granted.

---

### Using the Service > Install menu item fails to install the service. No error message is displayed.

It is possible that the Licence Manager installation has been corrupted by accidental removal of some of the files that are required.

The nt\_i386/bin directory should contain ssilm.exe, ssilmnt.exe, ssilmnt.gid and ssilmnt.hlp.

The share/etc directory should contain ssilm.cnf and ssilm.tok.

If any of these files are missing you should uninstall the Licence Manager and re-install it using the original GEOVIA installation CD.

---

**Not all files are removed from the Licence Manager install directory when the uninstall option from the installation CD is used.**

This is probably caused by the files being locked during the uninstall.

Ensure that the Licence Manager service is not running and that no other programs are connected to or using the contents of the Licence Manager directories. The uninstall will generally leave the *ssilm.tok* tokens file, so that if you re-install, you do not have to re-create your tokens file.

If you use the Licence Manager Control Panel to Stop and then Uninstall the windows service, there is nothing that needs to be uninstalled from system directories or the Registry, so it is possible to simply delete the contents of the folder containing the Licence Manager.

---

**When attempting to install the Licence Manager from the CD some files are not installed.**

This is probably caused by the files being locked by some other process during the uninstall.

Ensure that the Licence Manager service is not running and that no other programs are connected to or using the contents of the Licence Manager directories.

---

**The error "Could not get network licence. Could not connect to interlude process" is displayed.**

Sometimes timing errors during startup may cause this error to be displayed. This is most common when you **do not** have the **-lm** option on the application shortcut.

Modify the application shortcut to have the **-lm** option.

This message will be displayed if all tokens maintained by the Licence Manager have been added to classes other than the **default** class. Add **-class classname** to the shortcut options where *classname* is the name of one of the classes that have been created using Licence Manager.

This message can also be displayed if the DNS set up is incorrect ( see The Licence Manager service will not start above for more information).

An unlikely cause of this problem is that there is no *ssilm.exe* in the bin directory of your client program (Minex, or Surpac). The Licence Manager uses *ssilm.exe* at both ends of the communication, and so if the *ssilm.exe* is not at the client end, this message will be displayed.

In Licence Manager, under **Edit > Properties** you can see the location of the log file. If a client cannot get a licence, check the log file for clues.

---

**The error "Could not get network licence. Unable to send licence request to any server" is displayed.**

The server and/or port number that has been used to attempt to acquire a licence are incorrect. Confirm the correct name of the server on which the Licence Manager service is installed and running and the port number that the Licence Manager service is listening on.

It is possible that the Licence Manager service has stopped. Check the status of the Licence Manager service. The simplest way to do this is to run the *SSILMNT.EXE* program, this can also be found in the applications **nt\_i386/bin** directory. Check the indicators in the status region to ensure that **Installed** and **Running** are displayed.

If these status indicators are not displayed contact your local site administrator or the nearest GEOVIA support centre.

---

**There appears to be no communication between the application client (e.g. Minex, GEMS, or Surpac) and the Licence Manager server.**

The most important thing to establish is if there is any communication between the 2 computers at all.

To determine this, use the **ping** command from a DOS window to see if the licence server computer is visible to the computer on which you are trying to run the application client.

Type **ping <hostname>** at a DOS command prompt where <hostname> is the name of the computer on which the Licence Manager server is running. You may also use the IP address of the computer in preference to the hostname for this test.

You should receive messages indicating that there has been success in *pinging* the computer. If this test fails you need to consult your local systems administrator.

**Licence Manager does not allocate a licence to a specific client, and the log file displays "Error - Reading incoming messages".**

The log file displays this message when both Licence Manager and another software application are using the same UDP port. By default Licence Manager uses port 1234.

The solution is to change the port that one of the two applications uses. You set the Licence Manager port under **Edit > Properties**. After you have changed the port value, stop and restart the Licence Manager service.

If you change the Licence Manager port, add the following switch to the desktop shortcut for the GEOVIA application (GEMS, Surpac, or Minex) on each client computer:

**-lm <lm server or ip address>:<udp port number>**.

## Frequently Asked Questions

1. **What is Licence Manager?**
2. **What client machines can use Licence Manager and on what machines can the Licence Manager server run?**
3. **What sort of networking protocols are supported by Licence Manager?**
4. **Will Licence Manager work through a firewall?**
5. **Do I still need a sentinel?**
6. **Can the Licence Manager server have more than one sentinel plugged in?**
7. **What happens when the Licence Manager server goes down?**
8. **Can someone tie up licences by leaving GEOVIA software running while they go home, etc.?**
9. **What are Licence Manager classes?**
10. **Can I get usage reports?**
11. **Can the Licence Manager revoke a licence while processing (for example, I start a very long dtm intersection function and leave the computer alone to do its work)?**
12. **What do I do when my licence has been revoked?**
13. **Can I have several Licence Manager servers running on the same network?**
14. **Can I install the Licence Manager to the directory c:\ssilm?**
15. **How can I check if the Licence Manager Service is actually installed and running?**
16. **When do I need to upgrade my Licence Manager?**
17. **How do I upgrade my Licence Manager??**
18. **Can the ssilm.exe utility run from the command line?**
19. **What is the Licence ID?**
20. **Why is my token disabled?**
21. **What does the number of available licences mean?**

22. **What is a Reverse DNS lookup?**
  23. **What version of Licence Manager do I have?**
  24. **Can I run Licence Manager on a virtual machine?**
  25. **Can I update licences on Licence Manager remotely?**
  26. **Can I take a sentinel from the Licence Manager server, plug it into a client machine and start using it as a local sentinel?**
  27. **If the Licence Manager is on a different subnet from the client, can the client receive a licence?**
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### **What is Licence Manager?**

The Licence Manager is technology developed at GEOVIA to enable a site using GEOVIA software to administer all its licences from a central machine. It also enables the concept of floating licences which are not tied to a specific machine.

Basically a Licence Manager server runs to service licence requests from clients running on the same network. The Licence Manager server ensures that the site's licensing conditions, such as number of simultaneous users and options enabled, are enforced.

### **What client machines can use Licence Manager and on what machines can the Licence Manager server run?**

All of the hardware platforms currently supported by GEOVIA software (Windows NT/2000/XP/Vista/Windows 7/2003 Server/2008 Server), can be used for running the Licence Manager server.

On Windows platforms, a hardware ID is obtained from a sentinel which can be moved between different PCs. You cannot use windows 95, 98 or ME for running the server because their multi-tasking facilities are vastly inferior to those of Windows NT, 2000, XP, and later versions of Windows.

All of the hardware platforms are also supported as clients so that GEOVIA software can be run on any of the platforms which are connected to the same network as the server.

### **What sort of networking protocols are supported by Licence Manager?**

Licence Manager uses the TCP/IP family of network protocols for communication between clients and Licence Manager servers. The networking overheads are minimal and will result in very light network traffic (approximately 100 bytes/client every 30 seconds).

Windows platforms require a TCP/IP stack to be installed for networking which can easily be done using the Network Connections icon in the Control Panel. Many computers in a network will already have TCP/IP installed. There is no problem running TCP/IP at the same time as any other protocol, so it is possible to use Novell networking using SPX/IPX for file sharing at the same time as TCP/IP is used for **Licence Manager**, as long as both TCP/IP and SPX/IPX protocols are installed.

Licence Manager will not run over Novell networking (SPX/IPX) or NetBEUI/NetBIOS directly.

### **Will Licence Manager work through a firewall?**

Licence Manager will not in general work through a hardware firewall. There are some firewall products which could be configured to allow Licence Manager traffic through the firewall, however the setup and maintenance of such configurations would be very difficult.

Use of Licence Manager through a hardware firewall is not recommended and is not supported.

If Licence Manager appears to be installed correctly except that it fails to issue licences, try temporarily turning off Windows Firewall. If Licence Manager then successfully issues licences, turn Windows Firewall on again and ensure that **ssilm.exe** (in the folder where licence manager is installed) is added to the list of program exceptions.

**Do I still need a sentinel?**

Although the use of Licence Manager negates the need for each computer with a running version of the software to have a sentinel attached to it, the machine running the **Licence Manager** server must have a sentinel attached. This results in a much simpler setup for a multi-licence site because only one sentinel must be maintained.

**Can the Licence Manager server have more than one sentinel plugged in?**

No. The **Licence Manager** server can have only one sentinel plugged in.

**What happens when the Licence Manager server goes down?**

When the **Licence Manager** server, or the machine running the Licence Manager server, crashes, all clients will time out and lose their licences. GEOVIA client software will prompt the user when a licence is lost to allow the user to obtain a new licence by connecting to the same or another **Licence Manager** server. The client software will then continue from the point at which the licence was lost. It is possible to perform some operations such as saving files without a valid licence so that the user can save any work in progress if it is not possible to regain a licence.

Sites may distribute their licences between a number of Licence Manager servers (for example 20 licences with 2 servers serving 10 licences each) so that if a hardware fault results in one server host being unavailable the other can still service requests (although with a reduced number of total licences).

In the case where the **Licence Manager** server is running on a Windows platform which has a hardware failure it is a simple matter of transferring the sentinel to another computer and run the **Licence Manager** server software on that computer.

**Can someone 'tie up' licences by leaving GEOVIA software running while they go home?**

**Licence Manager** can put licences into a standby state if they have been idle for some specified period of time. These standby licences will be revoked if any new licence requests are received and there are no free licences. Thus the user may not tie up a licence indefinitely while leaving the software idle if other users require a licence. If no other users require a licence then the licence is not revoked and will be changed to a non-standby state when the software is no longer idle.

As well as standby licences, licences may also be revoked by any user having sufficient privilege.

**What are Licence Manager classes?**

**Licence Manager** provides a class mechanism so that a site administrator can split the users into a number of groups, for example surveyors and geologists, and have that many types of licences so that each group would have available only the software options that they require. In this way it is possible for a site to reduce the cost of their licences.

With some versions of the **Licence Manager**, classes also had the effect of **Combining** tokens, but this functionality was found to be very confusing and difficult to use, and so it has been replaced by the **update token** functionality (explained later). So now, all classes do is, quite simply, divide a number of tokens into distinct groups, so that the exact modules that a user requires can be guaranteed (as long as there is licences left).

**Can I get usage reports?**

It is possible to get reports from a currently running **Licence Manager** server which show: which users have licences granted to them, a licence summary for each class of licence including the maximum number of simultaneous users for that class so far, and the licences which are available to be granted. These reports can be requested from any machine on the network.

A site manager can also configure **Licence Manager** to log events to a file so that it can be analysed later. This log can contain details of each GEOVIA software function run as well as licensing information.

### **Can the Licence Manager revoke a licence while processing (for example, I start a very long dtm intersection function and leave the computer alone to do its work)?**

The only time a licence should go into **standby** mode is when the software is idle. The definition of idle is not related to keystrokes rather it is if an application has been started but has had no activity for a particular amount of time. The **Licence Manager** is very careful about ensuring that licences are maintained while processing.

### **What do I do when my licence has been revoked?**

You will be presented with the **licence Type** dialog box when you attempt to run another function after a licence has been revoked. You can attempt to get another licence from the network by choosing the **network** option, and clicking **Apply**. The GEOVIA program will then attempt to get another licence from the network. If it not possible (perhaps because there are no available licences), the form will reappear. You can either try again later, or, if you have Surpac or Minex, you can choose the licence type **none**. This will permit you to save your work. If you are running Surpac (for example) and you want an idea of the functions that are available with licence type **none**, start Surpac with the profile **free\_functions**. If you want to try to get another licence again later, use the menu item **File > Licensing** to display the licence type form again.

### **Can I have several Licence Manager servers running on the same network?**

Yes, it is possible to have more than one Licence Manager server on the network. Each machine with Licence Manager installed will still require a sentinel and a token number for a specific number of licences. This kind of arrangement is not a true substitute for **mirrored** servers (where all possible licences can be served by either server in the event that one of them becomes unavailable.)

When the client application (for example GEMS, Surpac, or Minex) starts it can either send a broadcast request (to all servers on the local network segment) or connect to a particular server. When using a broadcast request a number of servers may respond and the client application will use the first licence grant that it receives. Unfortunately the broadcast requests only work for the local network segment and so do not, in general, work between sites.

There is the ability to have the Licence Manager server specification being a comma separated list of servers so that software will try each server in turn until it gets a licence. This could give the appearance of 'failover' functionality by setting up the **licence\_manager** and **licence\_manager\_timeout** options to appropriate values.

### **Can I install the Licence Manager to the directory c:\ssilm?**

No. You should install the software to a directory of some other name. This is due to a security precaution taken to ensure that only one Licence Manager is running on a single machine at any one time.

### **How can I check if the Licence Manager Service is actually installed and running?**

The status of the Windows service that controls the licence serving is displayed at the very bottom right of the Licence Manager window. If the service is installed correctly and running, you should see **Started** and **Running** at the bottom right of the window. You can also check the list of services in the Control Panel.

### **When do I need to upgrade my Licence Manager?**

The Licence Manager server must be upgraded to properly manage licences for new modules when they are introduced in the software. GEOVIA version numbers are of the form major.minor (ie. 3.2 or 4.1). Within a version, there are maintenance releases (ie. release 6.0.1 and 6.0.2) to satisfy small

enhancements and fix bugs. New functionality is only introduced with major and minor versions. As a result, it is necessary to upgrade the Licence Manager each time a minor release is introduced. For example, the Licence Manager must be upgraded between 3.2 and 4.0 as well as between 4.0 and 4.1.

### How do I upgrade my Licence Manager?

When you launch the setup program from the latest distribution DVD, the previous version of Licence Manager is automatically uninstalled, and the tokens are moved across to the new version.

### Can the `ssilm.exe` utility run from the command line?

The Licence Manager can be run as a command line command to query the licence server, produce reports, or simulate a client. Experienced users can use this command line interaction to track down problems with the Licence Manager communication. Command line parameters are passed with the `ssilm.exe` command to pass directives to the Licence Manager server.

By running the `ssilm.exe` program with no arguments it will print a summary of the command line options that can be used.

The most useful command line switch used for tracking down problems is the `-client` switch which you can use to determine if a server is serving licences.

To do so, start a new DOS window, change the current directory to the `/nt_i386/bin` directory of the Licence Manager installation and issue a command in the following format:

```
ssilm -client "<product name>" <major version>.<minor version>
```

A report of licence granted or refused (with a reason) will be printed in the DOS window.

### What is the Licence ID?

The licence ID is a new feature of the Licence Manager that has a number of uses. First and foremost, it is a unique ID for an individual licence. GEOVIA's internal licensing system contains all of our clients, and every client has a list of licences. Each licence is simply a set of modules and a number of users they are entitled to. We keep track of all these licences using a licence ID.

However, often when our clients have a problem with a particular licence, we had no way of referencing the licence that they were seeing with the licence we have in our database. That is the primary purpose of the licence ID. It allows us to help our clients by knowing what they have in their classes.

The second reason is that, previously, when you changed the modules on a licence, it required a new token to be generated and sent to you. You would then have to delete your old token, before adding the new token. If you didn't delete the old one, the merging of tokens gave sometimes incorrect, but always confusing results. With the licence ID, it is very easy to identify the token being upgraded, and simply overwrite the old token with the new one, giving the user a very simple path to make changes to their tokens.

### Why is my token disabled?

Tokens can be disabled for a number of reasons.

1. The token has been manually disabled using the **Licence Manager Control Panel**. This can be done to help diagnose network problems. If this token is disabled manually, then it can simply re-enabled by using the **Licence Manager Control Panel**.
2. The token has expired. If this occurs, then the licence will be disabled.
3. As an added security measure, the Version 5.0 or later Licence Manager contains a new method of determining the validity of a token. All tokens for a particular product and version **must** have been generated by GEOVIA on the same day. It does not matter when you install the tokens, but they must be generated on the same day. What it means for

the user, is that if you are updating a token (due to a change in modules, etc), then you must update **all** tokens for that version of that product.

If you do not update all tokens for a product and version, then the only tokens that will be enabled will be the tokens that have the latest creation date. All others will be disabled. If this happens to you, then the only way to fix it is to update the disabled tokens.

To check why a token is disabled, use the Licence Manager Control Panel, select the token, and then use the right mouse button to pop up a menu. The bottom menu option is "Properties" which will give you one of these three reasons why the token is disabled.

**What does the number of available licences mean?**

Available licences can be retrieved by going to the Licence Manager Control Panel and using **Reports > Available** to generate a report. Sometimes, the numbers here can get a little confusing.

For example, if you had 8 users of Surpac 4.1, but decided to only maintain 4 of those into Surpac 5.0, then you would receive a version 5.0 licence that only has 4 users. If you did an availability report on these licences, you would find that it would report the following :

Product	Max Users	Available users
Surpac	8	8
Surpac 4.1	8	8
Surpac 5.0	4	4

But if you were to be using 2 licences of version 4.1, you would have the following :

Product	Max Users	Available users
Surpac	8	6
Surpac 4.1	8	6
Surpac 5.0	4	4

The number of available users for a product (e.g. Surpac, GEMS, or Minex) is the maximum of all the available users in all versions of that product. However, the maximum users for a particular version is dependant on the number defined in the token. So in the above case, you could have 8 versions of Surpac started, but a maximum of 4 of those licences could be version 5.0. This simple case is easily understood, but it does seem more confusing when you talk in terms of multiple tokens.

**What is a Reverse DNS lookup?**

A reverse DNS lookup is something that causes Licence Manager problems on some network configurations. In TCP/IP, computers on a network are designated an address (IP), which looks something like this : 192.100.168.72

To make these cryptic numbers easier to understand, computers are given a name that relates to that number (ie FRED). These names and their numerical equivalent are stored somewhere on the network, on a machine called the "Domain Name Server" (DNS). A DNS lookup translates the user typing in a machine name, into the numerical value needed to process the request.

When the Licence Manager grants a licence, it returns to the client the IP address (numerical) of the server that granted the licence. The client, in an attempt to be helpful, tries to do a **Reverse** DNS lookup to find out the server name from the IP address. This is done so that the messages related to the user are output using the name, not the number.

On some networks, however, this reverse DNS lookup is either not possible (due to incorrect or incomplete network configuration), or it is very slow. In either case, the client waits for a response, and when it does not come for a given length of time, the server will actually revoke the licence it's just granted. This is the cause of much grief on some sites.

The ability has been added to turn off the reverse DNS lookup on networks that have this problem.

**What version of Licence Manager do I have?**

Select the **Help - About** menu item to display the help box. This will give you details of the **Licence Manager** and the **Licence Manager Control Panel** versions.

If the versions of the **Licence Manager** and the **Licence Manager Control Panel** are not identical, uninstall all versions of the **Licence Manager**, and then re-install the most recent version.

In some cases, the **About** box may display a message that says "No Licence Manager (ssilm.exe) found". Re-install the software immediately.

**Can I run Licence Manager on a virtual machine?**

No, the sentinel must be physically plugged in to the licence server machine.

**Can I update licences on Licence Manager remotely?**

Yes. To do so, you log into Licence Manager remotely, and update the tokens (which updates the licences). However, you must have a sentinel physically plugged into the computer running Licence Manager.

**Can I take a sentinel from the Licence Manager server, plug it into a client machine and start using it as a local sentinel?**

If you have a single user licence, then you can use the sentinel locally with your single-user token. The single-user token has 16 digits whereas the network token has 26 digits.

Alternatively, for Surpac or Minex, you can run Licence Manager on your local machine, and add the **-lm localhost** switch to the shortcut target of your client application (Surpac, or Minex).

**If the Licence Manager is on a different subnet from the client, can the client receive a licence?**

The client will not *automatically* receive a licence. However if you explicitly specify the licence server by adding **-lm <name or IP address of the Licence Server>** to the end of the **Target** field of the Surpac or Minex desktop shortcut, it will receive a licence.

**User Defaults Folder**

The **User Defaults** folder holds user settings and customised files. When you install **Licence Manager**, you can choose the location of the **User Defaults** folder. Unless you specify otherwise, the location will be as follows.

Operating system	User Defaults location
Windows XP	C:\Documents and Settings\All Users\Gemcom\LicenceManager\share
Vista	C:\Users\Public\Gemcom\LicenceManager\share
Windows 7	C:\Users\Public\Gemcom\LicenceManager\share
Windows Server 2008	C:\Users\Public\Gemcom\LicenceManager\share

## Control Panel

The **Licence Manager Control Panel** will display which tokens are ready for use, what products and classes those tokens are used for, whether a token is disabled for any reason, whether the Licence Manager service is installed and running correctly. You can see which token contains, specifically the number of simultaneous users, the expiry date of the token, and the modules that are licensed by that token.

The user interface allows you to modify the setup using a set of context-sensitive right-click menus to perform the most common tasks.

### User interface menus

#### Menu Bar

The menu bar contains all the functions available, sorted into appropriate menus. Use the menu functions to perform all tasks.

#### Tool Bar

The tool bar makes the most common tasks available as buttons.

#### Left Pane

The left pane displays the products that you have tokens for, and the versions of each product. Selecting a product will display the list of versions that are available, and will display the tokens for the latest version of that product in the right pane. Selecting a version will display the tokens available for that version.

#### Right Pane

The right pane is the important one. It displays the list of tokens that you have entered into the Licence Manager, and gives important information about each token. The information displayed is :

##### Token Status

The token status is displayed as either a green tick (if the token is enabled) or a red cross (if the token is disabled). Tokens can be disabled for a number of reasons, for more information read [Why is my token disabled?](#)

##### Class Name

All tokens are given a class when they are entered, and this class name is used to reference a particular token when you are starting up a client program. They are used especially where there are several tokens for a single class.

##### Licence ID

The Licence ID provides a way for a GEOVIA program to reference the tokens you have with GEOVIA's internal distribution database. It is also used for easily updating tokens, and can be used to create "Update" tokens.

##### Token(s)

This column shows you the token numbers that you currently have entered into the Licence Manager. It displays both **master** tokens and **update** tokens. The **master** token is always the top token displayed for any licence ID, and the **update** tokens will follow it.

You will only ever have one **master** token per licence ID, but you can have a number of **update** tokens. **Update** tokens simply add modules to an existing **master** for a short period of time, usually a trial period to see if you wish to buy the licence. Any permanent changes in your licence will be granted an entirely new **master** token. More information on update tokens can be found in the glossary.

**Expiry**

All tokens will expire at some point. This displays that expiry date so you can see it and get in contact with your local GEOVIA office when the expiry date gets close.

**Max Users**

All tokens have a maximum number of simultaneous users associated with them. This column will display that number.

**Options**

This shows the available licence modules that your token number contains. This list is a complete list of the modules available in your **master** token and any **update** tokens you might have. If you have purchased modules that do not appear in this list, contact your nearest GEOVIA office.

## Using the Interface Functions

You can use the two buttons on your mouse to select a token or a licence class, and perform functions on the selected object. To select a token place the mouse over the token, and click the left mouse button.

The shaded area displays the token you have selected. Moving the mouse to anywhere over that shaded area, and then selecting the right mouse button will allow you to perform a number of functions on the token.

The functions you can perform are :

**Delete Token**

Deletes the token from the Licence Manager, the same as the Edit > Delete Token function.

**Delete All Tokens with Licence ID**

You will possibly have a number of tokens in the Licence Manager that have the same licence ID. These tokens will be in different versions of the same product as the currently selected token. For example, you may have a licence in Surpac 5.0 and Surpac version 6.0 with the same licence ID. This function will check across all versions of the product, and delete all tokens with the given licence ID.

**Change Token Class**

This function allows you to move a token between classes in the Licence Manager. It also allows you to create a new class for a token. It is identical to the **Edit > Change Token Class** function.

**Enable Token**

This function allows you to re-enable a token that was previously disabled. There are several reasons why a token might be disabled (see Why is my token Disabled? for more information). One of those reasons is that the user has disabled the token. If this is the case, then the token may be enabled. If the token is disabled for another reason, you will be told why the token cannot be enabled.

**Disable Token**

This function allows you to disable a token. This is only done for the purpose of finding a system error, and is very rarely used.

**Properties**

This function gives you the properties of the currently selected token, such as the expiry date, the creation date (critical information for Why is my token Disabled?) and a description of whether the licence is enabled or disabled, and the reason for it being disabled if it is disabled.

The other pop-up menu relate to classes. You can select a class name in the same way you select a token. Move the mouse over the class name and left-click the mouse button. The display will highlight the class that you have selected.

The functions you can perform are :

### New Token

This function allows you to enter a new token, which will be included in the current Product, Version and the selected class. You can make the process of entering a new token much easier and quicker.

### Delete Class

This function removes the class from the view. All tokens in the deleted class will still be available, they will just be moved into the "default" class.

## Menu commands

The user interface of the **Licence Manager Control Panel** is designed to give you the simplest and quickest way of determining the status of your **Licence Manager**. The toolbar displays a number of menu commands which allows you to view, setup, modify and perform the most common tasks.


- File
- Edit
- View
- Service
- Report
- Administration

### File menu

The File menu permits you to load and save the tokens file used by the Licence Manager. The default name of the tokens file is **ssilm.tok**. This file is found in the **share\etc** directory. It is also possible with the file functions to import a Update Token File (**.udt**) file. For more information on Update files, please see Automatic Configuration.

You can use token files with different names although the file must still reside in the **share\etc** directory.

You might find it useful to use a different tokens file when adding new tokens if you wish to test the addition of the new tokens before modifying the **ssilm.tok** file for production users of the software.

 **Note:** Only one tokens file is used by the **Licence Manager** at a time.

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### New

When the Licence Manager is installed as a service for the first time, the default tokens file **share\etc\ssilm.tok** is created. Because of this the **File > New** is rarely used.

Choosing the **File > New** menu option will create a new (in memory only) tokens file to which you may then add licence tokens.

 **Note:** You must use **File > Save** to save the new tokens file.

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## Open

This menu option will open a tokens file and load the contents of that token file into the **Licence Manager**. When Licence Manager starts, it automatically loads the default tokens file **share\etc\ssilm.tok**.

It is also possible to load an Token Update File using the **File > Open** command. The update token file allows you to easily add and update tokens that exist in your licence manager. For more information on update files, please see Automatic Configuration.

You will only use the **File > Open** menu option if you are using a tokens file named other than **ssilm.tok**, or are importing an update file. Note that using a tokens file called something other than **ssilm.tok** is not recommended.

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## Save

This menu option will save the current tokens file to disk.

You must use this option after changes have been made to the tokens file by using any of **Edit > Properties**, **Edit > New Token** or **Edit > New Class** menu options.

Each of these options makes changes to the (in memory copy) tokens file which you must save for the licence server process to recognise that the changes have been made. The save process also causes the Licence Manager server to reload and/or reconfigure itself to use the new changes. If this fails, it might be necessary to use **Service > Stop** followed by **Service > Start** to get the licences serving correctly.

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## Save As

This menu option will save the current tokens file to a file and permit you to change the name of the file before saving.

Generally this option is useful after changes have been made to the tokens file by using any of **Edit > Properties**, **Edit > New Token** or **Edit > New Class** menu options. If you wish to save the changes to a different tokens file for testing before implementing the changes in a production environment you should use this option.

Each of these options makes changes to the (in memory copy) tokens file which you must save for the licence server process to recognise that the changes have been made.

## Edit menu

The **Edit** menu permits you to modify the tokens file by adding and deleting tokens and adding and deleting classes through a simple and easy to use dialogue based editor.

Various properties of the Licence Manager can also be modified. These properties determine how the server process works and how it responds to requests for licences from various client programs.

Many of these functions are now available by means of right-mouse button context menus, which will make it much easier to perform these functions. See Licence Manager User Interface for information on how to perform these tasks graphically.

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## Properties

This option permits you to view, and if necessary, change various properties of the Licence Manager. Changing these properties will modify the behaviour of the Licence Manager server process.

All properties for the Licence Manager are stored in the configuration file `share\etc\ssilm.cnf`. The **Edit > Properties** option displays the properties currently stored in this file and if you click **OK**, saves the changed properties back to the same file.

After saving the properties to the configuration file, the licence server process is sent a reconfigure signal. This causes it to read the configuration file and operate with the new parameters.

Not all properties can be changed in this manner because active licences restrict the ability to change some of the characteristics of the licence session.

The UDP port number to use will only be changed after the licence manager is **Stopped** and **Started** or if it is **Restarted**.

These properties are presented on the form.

- **Log File Pathname**

This is the name of the file to which all reports are sent. When a report is requested, the details of the report are sent to this file first and the contents of the file are then read and displayed in a dialogue window. By default, the log file is always called **share/etc/ssilm.log**.

Because the log file can become very large in size, you can restrict the size of the log file. This is done through the **Max. Log file size** option (see below).

- **Standby Timeout**

After a licence held by a client has been idle for the period specified by this parameter, its licence is changed to a *standby* licence which can then be revoked and granted to a new client if there are no other available licences. This prevents a user who forgets to exit an application from holding a licence forever. A value of zero is treated as an infinite period (that is, the licence will never become a standby licence). The recommended value is 600 seconds (that is 10 minutes).

- **Heartbeat**

Each client process (i.e. Surpac, Quarry, Minex, etc) session which is using the licence manager for authorisation sends a *heartbeat* message at regular intervals so that the licence manager is aware that the licence is still active. If the server stops receiving these *heartbeat* messages, it assumes the client has crashed, and will release the licence for re-use. These heartbeat messages are sent even when the client is busy processing data.

The heartbeat interval is the time delay between these regular messages sent by the client to the server.

Ideally this should be a number between 10 seconds and 300 seconds. Greater values reduce network traffic (very small to start with), but at the expense of holding licences for longer if a client crashes. Lower values increase network traffic but allow the server to detect crashed clients faster. The recommended value is 30 seconds.

- **Maximum Unacknowledged Packets**

This is the maximum number of heartbeat messages a client will allow to be unacknowledged before it assumes that it has lost its licence. Because the client/server protocol used by Licence Manager is layered on top of UDP/IP (an unreliable protocol) it is possible for some heartbeat messages to be lost in the normal course of events. The "heartbeat interval" multiplied by "maximum unacknowledged heartbeats" must be less than 300 seconds. The recommended value for this parameter is 3, giving the best mix of "usual events" security, while still allowing the server to respond to a crashed client in a timely fashion.

- **UDP Port**

This is the Universal Datagram Packet (UDP) port number to use for two way

communication between the client and server processes. This should be left at the default value of **1234** unless it clashes with some other application which is using that port number.

See the Glossary for more information on UDP ports.

- **Function logging**

If this item is checked, when you use the **View > Log** option, a line will be written to the log file for each entry and each exit of a function. An administrator might find this information useful to record statistics of the usage of the installed GEOVIA programs. Note that with this option selected, the log file might become large very quickly.

- **Max Log File Size**

The log file generated (especially with **Function Logging** enabled) can become very large very quickly. However, it is very unlikely that you will need more than the last few messages to debug any problems that you are having, so an enormous file is not required. This option gives you the ability to limit the size of the log file.

It does this very simply. When the log file reaches the limit selected (Default size is 100KB), it simply backs up the current log to `ssilm.bak`, and starts a brand new log file. In this way, it is very easy to see the last several hundred messages, without sacrificing large amounts of disk space. Be aware, however, that since the old log is backed up, the disk space used may be up to double the size selected here. Any previous logs called `ssilm.bak` will be erased.

- **Enable Reverse DNS lookup** The reverse DNS lookup is a useful feature, but it can cause problems on some incorrectly configured networks. This option allows you to turn off the feature to see if that is the cause of the problem. If you are having no problems with your Licence Manager, you should always leave this option enabled. See [What is a Reverse DNS lookup?](#) for more information on this feature of the Licence Manager.

- **Server to Administer** If this field is blank and you run a command on the **Report** menu, the report shows information for all instances of Licence Manager that are currently running on your subnet of the local network. If you specify the server in this field, the report shows information for that licence server only.

**Server to Administer** is useful because it enables you to run reports across virtual private networks (VPN) and across wide area networks (WAN). It is also useful when there are several running Licence Managers, or the network configuration is blocking the message. The format of the server definition is **<server name or IP address>[:<port number>]**. Some examples are:

```
LMserver
127.0.0.1
LMserver:1234
127.0.0.1:1234
```

Change the values on the form and click **OK** to reconfigure the licence server.

### New Token

As new versions of GEOVIA programs are installed, as additional modules are purchased, or even as additional licences are purchased, it is necessary to add or update licence tokens to the tokens file.

This option enables you to enter tokens into the tokens file.

The token is a hexadecimal number and consists of the numbers **0** to **9** inclusive and the letters **a** to **f** inclusive.

You can obtain valid tokens only from an authorised GEOVIA support office.

Enter the new token and click **OK** for the new token to be accepted. If the token is a modification to an old token, the old token will be updated to the new modules and values. If the token is a new one, it will be added to the currently selected class.

Note that you must save the token file using **File > Save** for these changes to be permanently recorded. After saving the tokens file, the licence server will reload the tokens file so that the new tokens are immediately available for licence grants.

---

### New Class

If you are using licence classes at a site to give more control over the usage of GEOVIA products, you will need to use this option to create two or more licence classes and assign various tokens to each of the licence classes which are created.

Creation of a new class requires that you define the Host (should be filled in correctly when the form appears), Product, Version (of the client program such as Surpac, minex or GEMS, **not the version of Licence Manager**) and the name of the new class being created.

---

### Delete Token

This option permits you to delete a token from the tokens file.

Choose **Edit > Delete Token** to display a form that permits you to select the token to remove from the tokens file. Select the required token, and click **OK** to delete the token.

Note that after making changes to the tokens file you must use **File > Save** to save the changes to the tokens file.

---

### Delete Class

This option permits you to delete a class from the tokens file.

Choose **Edit - Delete Class** to display a form where you can enter the details of the class to be deleted from the tokens file. To delete a class you must specify the Host, Product, Version and the name of the class to delete.

Note that after making changes to the tokens file, you must use **File > Save** to save the changes to the tokens file.

---

### Change Token Class

This option permits you to change a token from an existing class to another class. Note that a token can only exist in one class.

Choose **Edit > Change Token Class** to display a form where you can select the token whose class is to be changed.

Press **OK** to display a second form where you can enter the name of the new class for the token.

Note that after making changes to the tokens file you must use **File > Save** to save the changes to the tokens file.

---

### View menu

The **View** menu permits you to change the presentation of the Licence Manager program by providing options to add or remove the Toolbar buttons (at the top of the Licence Manager window)

and the Status bar (at the lower end of the Licence Manager window).

You can also view a log of the activities of the Licence Manager server process to monitor client/licence manager communications.

---

### Toolbar

This item is selected if the Toolbar is visible. To remove the Toolbar from the top of the Licence Manager window, clear the **View -Toolbar** option.

To enable the Toolbar if it is not displayed, select the **View - Toolbar** option.

With the Toolbar displayed, you can start some of the Licence Manager options by pressing the corresponding Toolbar button.

---

### Status Bar

This item is selected if the Status bar is visible. To remove the Status bar from the bottom of the Licence Manager window, clear the **View -Status bar** option.

To enable the Status bar if it is not displayed, select the **View - Status bar** option.

---

### Log

This is one of the reporting functions provided by the Licence Manager to help the administrator and technical support staff from GEOVIA to investigate the activity of the Licence Manager.

The information recorded in the log file, **share/etc/ssilm.log** is quite detailed and for each entry in the log file there is a Date/Time stamp and a Diagnostic message that indicates the activity.

GEOVIA support staff might request this information to diagnose and correct problems with the Licence Manager.

```
Wed Jul 09 09:10:25 1997 - Server host id is aa0a1000
Wed Jul 09 09:10:25 1997 - Server starting
Wed Jul 09 09:51:57 1997 - Granted licence 4682b8ca to
steve@steves/175: surpac/6.1
Wed Jul 09 09:52:55 1997 - steve@steves/246 requested report
function: licences
Wed Jul 09 09:53:39 1997 - steve@steves/233 requested report
function: licences
Wed Jul 09 09:57:43 1997 - steve@steves/206 requested report
function: licences
Wed Jul 09 09:59:52 1997 - steve@steves/199 requested report
function: licences
Wed Jul 09 10:00:39 1997 - steve@steves/241 requested report
function: licences
Wed Jul 09 10:01:02 1997 - steve@steves/168 requested report
function: licences
Wed Jul 09 10:10:59 1997 - Licence 4682b8ca changed to
standby mode
Wed Jul 09 15:30:50 1997 - Licence 4682b8ca was relinquished
by client: Exited
```

Wed Jul 09 18:00:23 1997 - Server host id is aa0a1000

Wed Jul 09 18:00:23 1997 - Server starting

## Service menu

The Windows operating systems have a concept of a **System Service**, which is basically a program which starts running when the operating system starts, and stops again when you shut the computer down. You do not have to log in to run a service, and you have no control over what a service does while it's running. Basically, they do useful tasks in the background.

The **Licence Manager** is such a program. After it is successfully installed, the Licence Manager service is listed in the **Services** section, in the **Control Panel** (in some operating systems under **Control Panel - Administrative Tools**). After it is correctly configured, you **start** a service, and then it continues to run automatically whenever that machine is running, until you manually force it to stop.

You can start and stop the **Licence Manager** service by using the Windows **Services** icon in the **Control Panel** but you will find it easier to use the **Licence Manager Control Panel**, supplied by GEOVIA, to perform all Licence Manager service management tasks including starting and stopping.

As the following functions all communicate with the underlying Windows architecture, it might take several seconds to perform the operations.

You will need to **Stop** and **Uninstall** the service using the **Licence Manager Control Panel** before upgrading to a new version of the Licence Manager.

---

## Install


Choose **Service > Install** to install the **Licence Manager** as a service under Microsoft Windows.

Windows 95/98/ME will not support the services required to run **Licence Manager**.

A warning message will be displayed if the **Licence Manager** has already been installed as a service.

A confirmation message will be displayed if the **Licence Manager** was not previously installed as a service.

You must have **Administrator** level privilege to install the Licence Manager as a service.

 **Note:** Installing the **Licence Manager** as a service **DOES NOT MEAN** the service is started. You must at some stage choose **Service > Start** option to start the service. Before starting the service you must also have entered at least one valid token and saved the token file.

---

## Uninstall

Choose **Service > Uninstall** to remove the Licence Manager from the installed services.

Uninstalling a service immediately shuts down the licence server process and any currently running sessions of Licence Manager enabled products which are relying on that server process for authorisation will soon lose their licence.

Uninstalling a service requires Administrator level privileges.

If the Licence Manager is not already installed as a service a warning message is displayed.

After successful removal of the Licence Manager service, a confirmation message is displayed.

---

## Start

Choose **Service > Start** to start the Licence Manager program as a service under Windows.

If the Licence Manager service is already running, attempting to start it has no effect.

The Licence Manager program **MUST BE** installed as a service before you try to start it as a service. After successfully starting the service, a confirmation message is displayed.

---

### Stop

Choose **Service > Stop** to stop the Licence Manager program running as a service under Windows.

If the Licence Manager service is already stopped, attempting to stop it has no effect.

The Licence Manager program **MUST BE** installed as a service before attempting to stop it as a service.


After successfully stopping the service, a confirmation message is displayed.

### Administration menu

The **Administration** tools provided with the Licence Manager permit an administrator to perform various tasks related to the issue and release of licences.

The **Administration** tools permit the following tasks to be performed:

- requesting a licence from GEOVIA, or loading the licences you have already received
- revoking of a licence currently in use
- restarting the licence server process
- reloading of the tokens file by the Licence Manager server to take note of new tokens which have been added to the tokens file.
- reconfiguring the Licence Manager server process by reloading the configuration file **ssilm.cnf**.

 **Note:** The options available on the **Administration** menu are 'silent' and provide no feedback to indicate success or failure. You can however choose **View > Log** to display the log file after executing any of the **Administration** functions because a record of the Administration operation is written to the log file if it is successful.

---

### Request Licence

This option allows you to get the licences you have purchased from GEOVIA automatically by clicking the **Using the Internet** button. This procedure is described in See "Adding or updating tokens using self-service licensing" on page 12.

Alternatively, you can click **By Email** to request the licences from GEOVIA by email.

After you have received a **.udt** file, you use the **Read licence file** button to load the licences.



**Tip:** Alternatively, you can use **File > Open** to load the **.udt** file.

---

### Revoke

This option permits an administrator to revoke a licence which is currently in use. This feature is useful when all licences are in use and a licence is required by another user to complete some urgent task.

Revoking a licence requires that the licence ID of the licence to be revoked be known. The licence ID can be determined by choosing the **Report > Licences** option.

This function produces a report which includes the licence ID, the user name, and the state of the licence. Note that licences which are in standby mode will automatically have their licence revoked by the Licence Manager and this licence will be granted to satisfy a request for a new licence.

When revoking a licence it is preferable if a licence which is in idle mode is revoked, as such a licence is not actively being used.

To revoke a licence

- Choose **Report > Licences** to display a report of licences currently in use.
- From the list of licences, choose a licence which is in idle mode. If no licences are in idle mode you will have to contact someone currently using a licence and advise them that their licence is about to be revoked.
- Choose **Administration > Revoke** option to enter the licence ID into the dialog and press **OK**.

The licence is immediately revoked and is subsequently available for use by a different person.

The session which has had its licence revoked is able to perform a restricted range of functions so that any unsaved work can be saved and the system exited.

---

### Restart

After making changes to the properties of the Licence Manager (see **Edit > Properties**) it is sometimes necessary to restart the licence server process to cause the new settings to take effect.

This function sends a restart message to the Licence Manager service process which causes it to read the configuration file, **share/etc/ssilm.cnf** and use the new properties.


Note that if there are licences currently being used then changes to the UDP port number will not take effect as this property cannot be changed for active sessions.

To make the Licence Manager service use a different port number you will have to **Stop** the Licence Manager service and then **Start** the Licence Manager service.

---

### Reload

This option will cause the tokens file to be reloaded by the Licence Manager server process.

 **Note:** This option will be rarely used as the tokens file is automatically reloaded whenever the **File > Save** option is used to save changes to the tokens file.

---

### Reconfigure

This option will cause the Licence Manager server process to use the properties defined in the **ssilm.cnf** file.

Note that this option will be rarely used as the **Edit > Properties** option causes the Licence Manager server process to automatically reconfigure after making changes to the Licence Manager properties and pressing the **OK** button.

## Reporting

You can manage **Licence Manager** using reports which provide usage statistics of licences currently in use and currently available.

You can use the **Licences** report to determine which users hold which licence.


**Licence Manager** generates the reports by sending requests for information to the licence server process. The server process then responds by sending the requested information to the **Licence Manager** which then displays it in a dialog window.

Network traffic can have an impact on the time to send and receive this information. It may take a few seconds to collate all of the report data.

All of the following log functions broadcast the log report on the local network, so that all Licence Managers running within the limits of the broadcast (local network) will send a reply. If there are two (or more) Licence Managers running on a network, a complete report of all classes, licences and available licences is available from all Licence Managers. This is useful in diagnosing if all of your Licence Managers are working correctly.

## Report on licence classes

- Choose **Report > Classes** to display a report of the various classes of licences defined in the tokens file currently being used by the **Licence Manager**.

 **Note:** This report might take a few moments to query the Licence Manager server before the report is displayed.

The report is displayed. Use the scrollbars to view the entire report.

The report includes details, for each licence class which has been defined, of the number of licences currently in use and the number of licences currently available in that class.

An example of the licence class report is displayed.

```

Collecting report(s); please wait ...
Report from server VAN-CVACALARES]
Licence Manager Server Version 14.4
Dump of licence tokens
Product      Release    Class      ID      Expires    Max Users  Users  Enabled
-----
Surpac       6.4       default    1       2013/09/30 12         0      yes
Options: Core Modules, Drill Hole Database, Block Modelling, Pit and Dump Design
Solids Modelling, U/G Sections, String Reports, Grade Calculations
Surface & U/G Surveying, Autoplot, Mesh Tools, Dynamic Shells, U/G Ring Design
Drill and Blast, MineSched - Development, MineSched - Production
Geostatistics, Basic Statistics, Standard Plug-ins, Interpolator
Underground Design, Hub, DraftSight Connector, MineSched - Blending
Graphical Sequencer, Road Design


whittle      4.5       S2093801   1       2014/02/28 20         0      yes
Options: Core, Advanced Analysis, Blending, Mining Width, Multiple Child Nodes
Multi Element, Milawa 10, Milawa 50, Multi Pit, Express, Practical Pushbacks
Pushback Chooser, Cut-off Optimization, Value Mode, Simultaneous Optimization

GEMS        6.5       S2093801   1       2014/02/28 20         3      yes
Options: Core, Viewer, Survey, Survey Maps, Volumetrics, Polygons, Surface and Solids Modelling
Pack & Go, Jet Database for GEMS Users, Drillhole Management, Basic Statistics
Geostatistics, Block Modelling, Ore Control, Unwrinkle/Unfold, GDM Strip Log
Short Term Planning, Pit and Dump Design, Surface Blast Design, Go Simulator
Mine Roads, Production Scheduler, Reconciliation Reporting, Long Term Planning
Underground Blast Ring Design, Tunnel Design, Tunnel Viewer, Optech CMS Interface
Drillhole Excavation Warning System (DEWS), PCBC Module in GEMS
Cave Management Module, Footprint Finder, LSQ Grade Management, Schedule Optimization
Daily Operations Tools, Expanded Slice File, Block Caving Base, Internal Services Tools
Internal Development Tools, PCSLC Module in GEMS, Dynamic Shells

Minex       6.2       S2093801   1       2014/02/28 20         0      yes
Options: Core, Borehole Database and Modelling, Fault Modelling, Coal Washability
Open Pit Design and Reserves, Open Pit Earth Works, Open Pit Drill and Blast
Open Pit Surveying, Pit Optimiser, Spoil Reshaper, Open Pit Scheduling
Underground Engineering, Geostatistics, Open Pit Dump Scheduling
Open Pit Haulage Planning
  
```

## Report on licences used

1. Choose **Report > Licences** to display a report of the licences usage and being managed by the **Licence Manager**.

 **Note:** This report might take a few moments to query the **Licence Manager** server before the report is displayed.

The report is displayed. Use the scrollbars to view the entire report.

The report includes details, for each licence currently in use:

- The host on which the licence is running
- The user name of the session using that licence
- The product being used
- The version of the program being used

- The class of licence being used
- The Licence ID of the licence being used
- The state of the licence. The **standby** state indicates that the licence is not active. The licence can be reassigned to another user if all licences are currently in use.

An example of the licence usage report is displayed.

```

Collecting report(s); please wait ...
Report from server VAN-CVACALARES
Licence Manager Server Version 14.4
Dump of licences
Licence Host      User      Product  Release  Class  ID  State
239e8850 VAN-CVACAL ui3/15728 Surpac   6.4     default 1  standby
239e884e Van-SGreen  SGreene/21488 Surpac   6.4     default 1  standby

Report from server server1.company.priv
Licence Manager Server Version 14.4
Dump of licences
Licence Host      User      Product  Release  Class  ID  State
05b478d5 COMPANY  SRyabchins/16992 GEMS     6.6     S2093801 1  Core GEMS
05b478d4 VAN-CLIM  CLim/09048 GEMS     6.6     S2093801 1  Core GEMS
05b478ac WIN7X64NP  nenadp/11116 GEMS     6.6     S2093823 21920 PRG entries Range GEMS

Report from server Win7x64np
Licence Manager Server Version 14.3
Dump of licences
Licence Host      User      Product  Release  Class  ID  State
52c8013b VAN-CCHENE  chrisc/13148 GEMS     6.6     S2518901 1  Tunnel Design GEMS
52c8013a Van-SGreen  SGreene/22940 Surpac   6.4     default 1  standby
52c8012f van-AChow1  achow/07344 GEMS     6.6     S2518901 1  Core GEMS
52c8012a P-SQL-STG  HChen/08156 GEMS     6.6     S2518901 1  Tunnel Design GEMS
52c80119 Windows7x6  CompanyTest/02532 GEMS     6.6     S2518901 1  Block Modelling GEMS

```


The **State** of a licence is reported as either:

- The name of the function being executed.  
The name of the function currently executing or which has just completed execution. The licence state will revert to **Idle** within a few seconds of the function being completed.
- Idle  
The licence was recently in use but has not been idle long enough to be placed in standby mode. Licences will be changed from “idle” to “standby” after the **Standby Timeout** period defined in the **Edit - Properties** option has been exceeded.
- Standby  
A licence in “standby” mode has been inactive for at least the number of seconds defined by the **Standby Timeout** property which can be found in the **Edit > Properties** option.

Licences which are in standby mode are candidates for being revoked when no more licences are available, and a licence is required by a new user.

## Report on licences available

1. Choose **Report > Available** to display a report for each licence token. The numbers of licences currently in use and the number of licences still available..

 **Note:** This report might take a few moments to query the **Licence Manager** server before the report is displayed.


The report is displayed. Use the scrollbars to view the entire report.

The report includes details, for each licence token in the tokens file, the number of licences currently in use, and the number of licences currently available.

An example of the licences available report is displayed.

```
Collecting report(s); please wait ...
Report from server VAN-CVACALARES
Licence Manager Server Version 14.4
Dump of licence availability
```

Product	Release	Class	Max Users	Users	Standby	Available
Surpac			12	2	0	10
Surpac	6.5		12	2	0	10
Surpac	6.5	default	12	2	0	10
Surpac	6.4		12	2	0	10
Surpac	6.4	default	12	2	0	10
Surpac	6.3		12	2	0	10
Surpac	6.3	default	12	2	0	10
Surpac	6.2		12	2	0	10
Surpac	6.2	default	12	2	0	10
Surpac	6.1		12	2	0	10
Surpac	6.1	default	12	2	0	10

 **Note:** Licences which are listed under **Standby Available** are licences which can be made available for other users.

## Glossary

---

### Client

This is the GEOVIA software application (e.g. Surpac, Minex, GEMS) that is run on a computer on the network. It is possible for the client to be running on the same computer as the licence server.

---

### Dongle/Sentinel

Hardware lock device that plugs into the server machine, in order to run the Licence Manager. Can be either parallel or USB device.

---

### Dynamic Host Configuration Protocol (DHCP)

A protocol for assigning dynamic IP addresses to devices on a network. With dynamic addressing, a device can have a different IP address every time it connects to the network. On some systems, the device's IP address can even change while it is still connected. DHCP also supports a mix of static and dynamic IP addresses.

Dynamic addressing simplifies network administration because the software keeps track of IP addresses rather than requiring an administrator to manage the task. This means that a new computer can be added to a network without the hassle of manually assigning it a unique IP address. Many ISPs use dynamic IP addressing for dial-up users. DHCP client support is built into Windows XP and NT workstation. NT 4 server includes both client and server support.

---

### Domain Name System (or Service) (DNS) Server

An Internet service that translates domain names into IP addresses. Because domain names are alphabetic, they're easier to remember. The Internet however, is based on IP addresses. Therefore, every time you use a domain name, a DNS service must translate the name into the corresponding IP address. For example, the domain name `www.example.com` might translate to `198.105.232.4`.

The DNS system is, in fact, its own network. If one DNS server doesn't know how to translate a particular domain name, it asks another one, and so on, until the correct IP address is returned.

---

### Dynamic IP address

An IP address that is assigned to a computer using DHCP. This IP address may change each time the computer connects to the network or even during the course of a network connection.

---

### Internet Protocol (IP) Address

A unique number consisting of four parts separated by dots, e.g. `165.113.245.2` Every machine that is on the Internet has a unique IP address - if a machine does not have an IP address, it is not really on the Internet. Most machines also have one or more Domain Names that are easier for people to remember.

---

### Licence ID

See the FAQ for information.

---

### Licence Manager

Licence Manager refers to the `ssilm.exe` that is found in the `bin` directory after successfully installing the software. Common usage has found that the term **SSILM** has been moderately corrupted and people often pronounce it as *slim* or *the slim*. Licence Manager is the same thing as GEOVIA Licence Manager.

---

### Licence Manager Control Panel

The Licence Manager installation includes an administration utility that simplifies the configuration and management of licences for the licence server.

---

### Network Licence Server (NLS)

The Network Licence Server refers to the `ssilm.exe` program that is running and the computer on which it is running on the network. The licence server is installed as a service on the computer and responds to licence requests from clients running on other computers on the network.

---

### Port

In TCP/IP and UDP networks, different styles of network traffic, and different programs 'listen' on different ports. A port is analogous to a TV channel. To receive information, you have to be tuned

---

correctly. Therefore, if a licence server instance is listening on the default "1234", then all clients trying to converse with this server also have to be using the same port. The port number can often identify what type of port it is. For example, port 80 is used for HTTP (Web) traffic.

---

**Sentinel/Dongle**

Hardware lock device that plugs into the server machine, in order to run the Licence Manager. Can be either parallel or USB device.

---

**Service**

A service is a special class of program that exists on Windows NT/2000/XP that is generally started each time the computer starts up and is always running until the computer is powered down. Even when you log out of a session at the computer, the services continue to run. This is important for the Licence Manager as it must be running at all times to service licence requests from other computers.

---

**Static IP address**

An IP address that is fixed and never changes. This is in contrast to a dynamic IP address, which may change at any time.

---

**Transmission Control Protocol (TCP), TCP/IP**

Pronounced as separate letters, TCP is one of the main protocols in TCP/IP networks. Whereas the IP protocol deals only with packets, TCP enables two hosts to establish a connection and exchange streams of data. TCP guarantees delivery of data and also guarantees that packets will be delivered in the same order in which they were sent.

---

**Token, licence Token**

A token, also called a licence token, is a hexadecimal number, in two parts, separated by a hyphen. This hexadecimal number is a sequence of at least 24 numbers or letters (a to f). When you add a token to Licence Manager (LM), LM makes available on your local area network, one or more licences to use specific modules of GEOVIA software. You can add a token automatically with a **.udt** file, or you can type in the details from a text file.

If the number contains letters other than a, b, c, d, e, or f, a mistake has been made. To contact your local support office for help, go to [www.GEOVIAsupport.com](http://www.GEOVIAsupport.com).

---

**UDP**

This is the Universal Datagram Packet (UDP) port number to use for two way communication between the client and server processes. Ideally, this should be left at the default value of **1234** unless it clashes with some other application which is using that port number. If you use a different port number, it is **essential** that the client (for example Surpac) be started with the **-lm** switch defined to use the same port number.

---

**UDT file**

An update token (UDT) file is a file with a **.udt** extension that contains one or more licence tokens. You add a **.udt** file to Licence Manager to make the licences associated with those tokens available to users on the local area network. By adding a **.udt** file, you can make modules available to users for a period of time. When the expiry date on the token has passed, those modules become unavailable again.