

SETTING UP AN LMADMIN LICENSE SERVER

To use GeoStudio® with network licenses, you must install **FlexNet™ Publisher License Server Manager** (hereafter referred to as “**lmadmin**”) on a server on your network. Lmadmin can also serve network licenses for older versions of GeoStudio. When a client computer runs GeoStudio and opens a file or creates a new analysis, the appropriate license is checked out from the license server; the license is checked back in when the client closes the file.

Please follow these instructions carefully to ensure a successful lmadmin installation.

REQUIREMENTS

SERVER

Running an lmadmin license server requires:

- A TCP/IP network;
- A “license server” computer running Microsoft® Windows Server® 2016, Windows Server® 2012 R2, Windows® 10, or Windows® 8.1.
- The operating system must be installed on a physical computer or on one of these VM platforms: VMware® ESXi™ 5.5 or 6.0; VMware® Workstation™ 11 or 12; Microsoft® Hyper-V® on Windows Server® 2016 or Windows Server® 2012 R2 or Windows® 10; or Citrix® XenServer® 6.2, 6.5 or 7.0.

Any Windows PC on the network can function as the license server computer; a file server is not necessary. The license server computer will run a FlexNet Publisher License Server Manager (lmadmin.exe) provided by Flexera® and a vendor daemon (geoslope.exe) provided by GEO-SLOPE.

Select a license server computer that is not shut down frequently, as the license server must be running whenever clients are using network licenses.

FIREWALL

If you use Windows Firewall, the lmadmin installer will register the appropriate exceptions and no further action is required on your part.

If you use a different firewall, you should register exceptions for these programs:

Program	Description
%ProgramFiles(x86)%\GEO-SLOPE\lmadmin\lmadmin.exe	License Server Manager – opens inbound ports for remote administration and for GeoStudio clients.
%ProgramFiles(x86)%\GEO-SLOPE\lmadmin\geoslope\geoslope.exe	Vendor Daemon – opens inbound port for GeoStudio clients.

Or open these inbound ports:

Port	Direction	Description	How to change
8091	Inbound	Optional. Only required if you wish to administer the License Server remotely through a web browser.	In lmadmin web interface: Administration – Server Configuration – Web Server Configuration
27009	Inbound	License Server Manager Port—GeoStudio clients connect to this port to look for licenses.	In lmadmin web interface: Administration – Server Configuration – License Server Configuration
<varies>	Inbound	Vendor Daemon Port—GeoStudio clients also connect to this port to look for licenses. This port changes when the daemon restarts, unless you choose a static port.	In lmadmin web interface: Administration – Vendor Daemon Configuration – Administer – General Configuration

In addition, this outbound TCP port is required while installing a new license:

Port	Direction	Description
80	Outbound	Required while activating or returning licenses, downloading license files, or checking for updated licenses. (Used by LicenseInstaller.exe and Gsi.TS.Server.exe.)

If you are unable to allow outbound traffic on port 80, contact us about offline activation.

For specific instructions on how to set these exceptions in your firewall, refer to the firewall vendor's documentation.

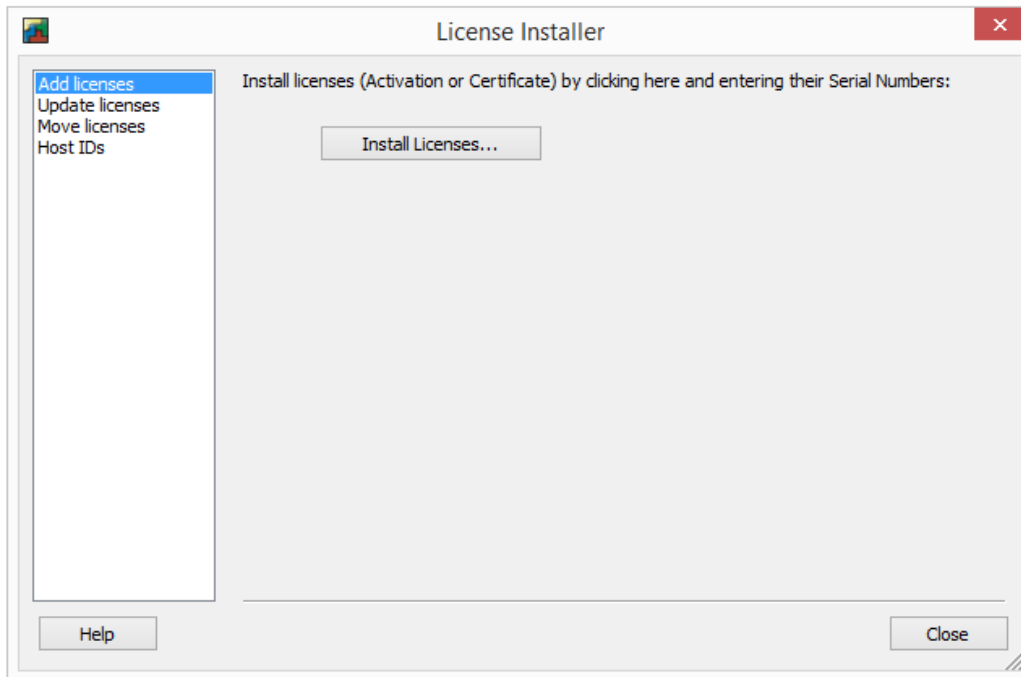
INSTALLING THE LICENSE SERVER SOFTWARE

1. INSTALL LMADMIN

Lmadmin is a program created by Flexera that runs on your license server; together with a GEO-SLOPE “vendor daemon,” it manages your network licenses.

Download and run “**geoslope-lmadmin (FlexNet Publisher)**” from <https://www.geoslope.com/support/downloads/network-license-server>.

After a successful installation, the License Installer will run to complete the remaining steps.



2. INSTALL LICENSES

GEO-SLOPE issues two types of licenses depending on a variety of factors. It is important to identify which type of license you were issued. The steps to install and maintain the licenses on your server are slightly different depending on the type of license.

- **Activation Licenses** can only be activated on one server at a time. Should you need to move them to a different server, you must first “return” them from the original server, then activate them on the new one.
- **Certificate Licenses** are text files with a .lic extension that are connected to a piece of hardware, normally a USB key. These licenses need to be downloaded to a computer. The license file can be on any number of computers, but the USB key must be attached for the license to be useable.

If you were issued a **Certificate License** file
(generally tied to a MAC address or a USB key)



- Install the Driver:** If you were issued a USB key, download and install the latest HASP Device Driver from <https://www.geo-slope.com/support/downloads/resources/geostudio>.
- Attach the USB key** if you have one.
- Install the Licenses:** Click on “Add licenses” in the panel on the left. Then click the “Install Licenses...” button and paste (or type) the Serial Number exactly as it appears in the email you were sent (it should be in the form *1234-123456-123456-1234*), or type the hostid of your USB key (which will begin with FLEXID=).

If you were issued an **Activation License**

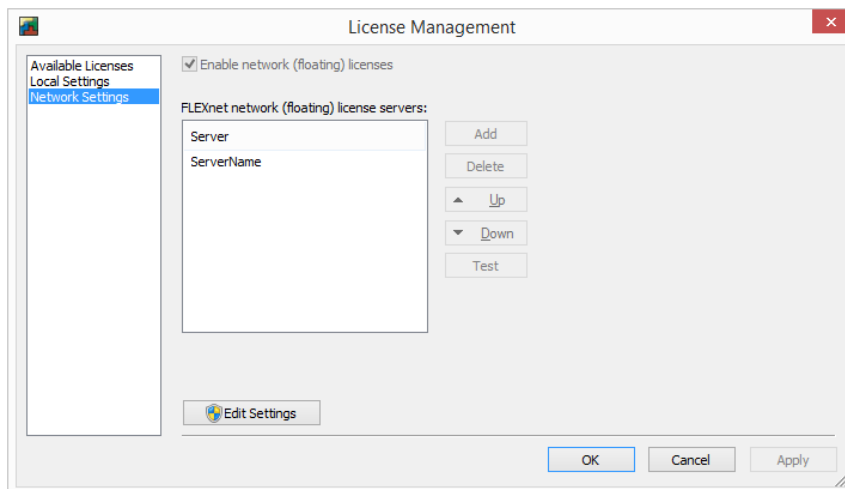


Install the Licenses: Click on “Add licenses” in the panel on the left. Then click the “Install Licenses...” button and paste (or type) the Serial Number exactly as it appears in the email you were sent. It should be in the form *1234-123456-123456-1234*.

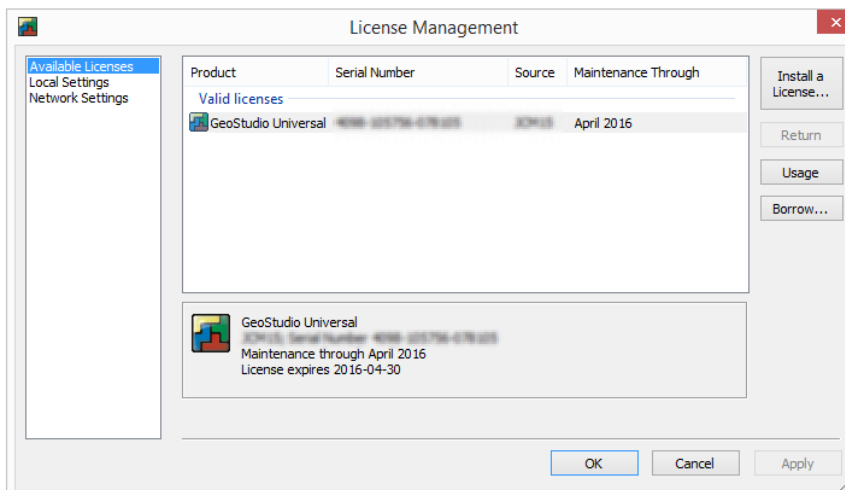
CONFIGURING THE GEOSTUDIO CLIENT SOFTWARE

Now that your license server is running, all that's left is to configure GeoStudio on the client computers so they know where to look for licenses.

1. If you haven't already done so, on each client computer, install and run GeoStudio and choose Help – License Management, then click on **“Network Settings”** in the panel on the left.
2. If you see an “Edit Settings” button, click it to run as an administrator.
3. Check the “Enable network (floating) licenses” box.
4. Click “Add” to add a server to the list, and type in the server name. Use the form “1234@server” if you have configured a static license server manager port.
5. Click “Apply.”



6. Click on **“Available Licenses”** in the panel on the left to confirm the licenses you activated on the server are available to this client.



ADDITIONAL TASKS

Your new license server is now running, and your licenses are ready for GeoStudio clients on your network to use. The following sections give a brief overview of some of the tasks required of an IT administrator during a typical license lifecycle.

FLEXNET PUBLISHER WEB INTERFACE

Lmadmin can be accessed using a web browser, at <http://your-server-name:8091> (or <http://localhost:8091> from the server itself). On the server, a shortcut to the lmadmin web interface is installed under Start – All Programs – GEO-SLOPE – FlexNet Publisher Dashboard.

This web interface shows information such as what licenses are available, how many are in use, and so on. Please refer to the FlexNet Publisher documentation provided by Flexera for complete details. (As of this writing, documentation is available on the Flexera web site at <https://www.flexera.com/producer/products/software-monetization/flexnet-licensing/tab/resources>.)

Click “Dashboard” on the upper-right corner of the page, and then choose Concurrent to display your network licenses. From here you can also view all of the detailed information about the licenses, such as current usage.

Click “Administration” to make other configuration changes to lmadmin or the vendor daemon. The default username is “admin”, and the password is also “admin”.

You can safely clear any errors or warnings listed in the Alerts from the initial setup and configuration. You can also set the Dashboard to display only the Concurrent license models by selecting the Concurrent radio button under Administration – Server Configuration – User Interface.

The screenshot displays the FlexNet Publisher web interface. The top navigation bar includes the Flexera Software logo, the text 'FlexNet Publisher', and user information: 'User Name: admin', 'Help', and 'Sign Out'. Below the navigation bar, there are two main sections: 'Alerts' and 'Licenses'.

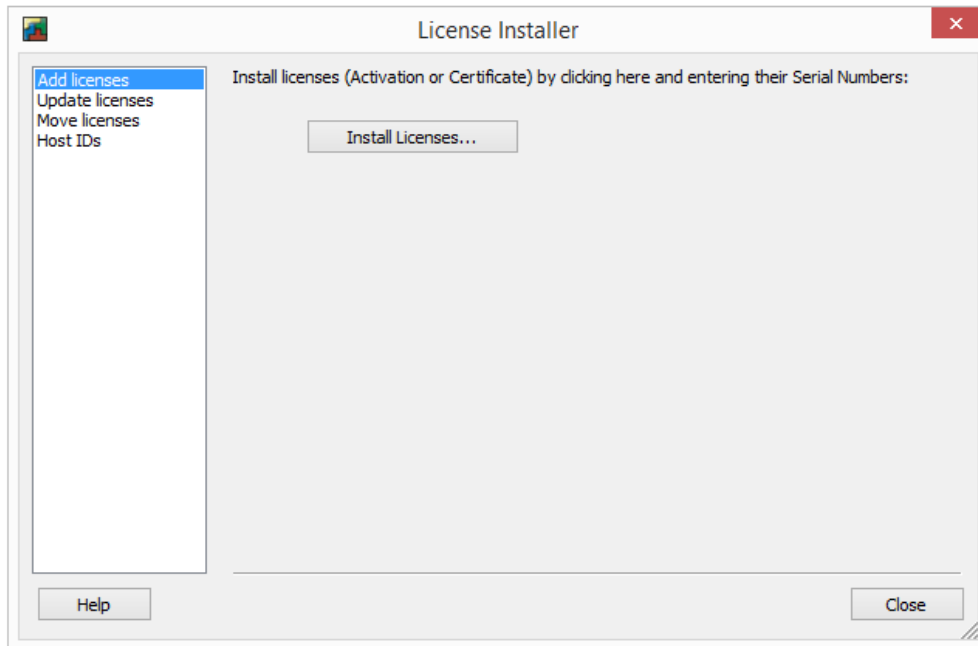
The 'Alerts' section shows 8 Critical alerts, all of which are 'Vendor daemon down: geoslope' with timestamps from Tuesday, May 15, 2012. Each alert has a red 'X' icon.

The 'Licenses' section shows the 'Vendor Daemon: geoslope' and two license models: 'Activatable' and 'Concurrent'. The 'Concurrent' model is selected. Below this is a table of licenses:

Feature	Version	In Use (Available)	Expiration
QuakeW	2012.0531	0 (5)	15-MAY-2013
basic	2012.0531	0 (5)	15-MAY-2013
pkc_quakew	2012.0531	0 (5)	15-MAY-2013
quake	2012.0531	0 (5)	15-MAY-2013

ADDING LICENSES

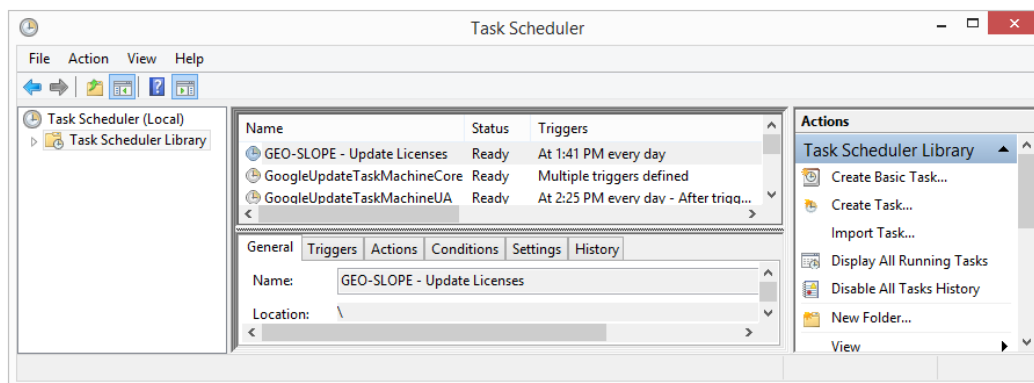
At times you may purchase additional network licenses from GEO-SLOPE. Add these licenses to the server using the License Installer found at Start – All Programs – GEO-SLOPE – License Installer, following the same steps as you did during the initial installation. Click the “Install Licenses...” button and enter the new Serial Numbers.



UPDATING LICENSES

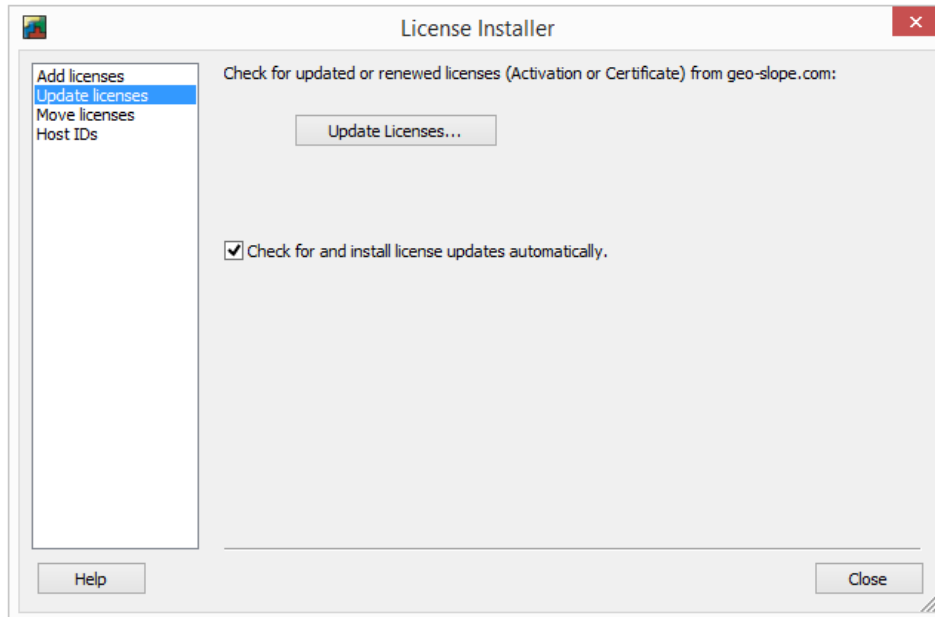
Even if you purchase a perpetual license—which entitles you to use the software forever—the license itself typically expires annually, and a new license is issued at no charge. This replacement license is automatically available on GEO-SLOPE servers at least 30 days before your license expires, but must be installed on your server before it can be used by your GeoStudio clients.

When you install Imadmin on a Windows Server 2012 R2 or newer OS, a task is scheduled on your server to check for replacement licenses and install them automatically. You can see it and adjust its schedule if necessary by running the Task Scheduler.



You can also use License Installer to update licenses whenever you choose to. Run Start – All Programs – GEO-SLOPE – License Installer, click “Update licenses” in the panel on the left, then click the “Update Licenses...” button and wait as licenses are updated.

Use the checkbox (“Check for and install license updates automatically every week.”) to add or remove the scheduled task mentioned earlier.



If you need to schedule the task manually, use the Task Scheduler (in the Control Panel) to schedule a daily task that runs a command line like this:

```
"C:\Program Files (x86)\GEO-SLOPE\ladmin\geoslope\LicenseInstaller.exe"  
/update:licenses /hidden /log:"C:\Program Files (x86)\GEO-  
SLOPE\ladmin\logs\license-update.log"
```

The task can be configured to run under the SYSTEM account.

MOVING A LICENSE TO A NEW SERVER

An Activated License can only be used on one server at a time. To move an Activated license to a new server, it must first be “returned” (or “deactivated”) from the old server. On the old server, run Start – All Programs – GEO-SLOPE – License Installer, click “Move licenses” in the panel on the left, then click the “Return Licenses...” button. Select the licenses you wish to return (use ctrl-click or shift-click to select more than one) and follow the instructions in the wizard.

After the licenses have been successfully returned, go to the new server, run Start – All Programs – GEO-SLOPE – License Installer, click “Add licenses” in the panel on the left, then click the “Install Licenses...” button and paste in the Serial Numbers.

A Certificate License is just a text file, and thus can exist on any number of servers, but is only valid on the server that has the USB key attached. Therefore moving a Certificate license to a new server involves first attaching the USB key to the new server, then running Start – All Programs – GEO-SLOPE – License Installer,

clicking “Add licenses” in the panel on the left, then clicking the “Install Licenses...” button and entering the Serial Numbers.

In some cases a Certificate license is tied to a MAC address rather than a USB key. In this case you will need to contact support@geoslope.com and provide them with your license’s Serial Number and the new MAC address in order for a license to be issued for the new server.

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