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# Installation and Licensing of Geomagic Products

## Concepts

All Geomagic products operate by one of three licensing schemes:

- **Node-locked licensing with Ethernet** - The license file (**geowatch.dat**) file authorizes a specific product to operate on one specific computer. This license is not transferrable because it is tied to a hardware ID in the host computer. The license file will be downloaded into your PC from Raindrop Geomagic, Inc. when the product is run for the first time (or emailed to you if necessary).
- **Node-locked licensing with USB or Parallel Dongle** - The license file (**geowatch.dat**) authorizes a specific product to operate on any one of several computers -- the one to which a USB or parallel dongle is currently attached. The USB or serial dongle is shipped with the software by Raindrop Geomagic or a distributor. The license file will be downloaded into your PC from Raindrop Geomagic, Inc. when the product is run for the first time (or emailed to you if necessary).
- **Floating licensing** - The network administrator installs license server software (FlexLM V8.1a or higher) on any computer in the local network. The Geomagic product can be installed on multiple computers, and each instance is configured to look for the license server. The license server contains a license file (**geowatch.dat**) file which authorizes a specific number of simultaneous executions of the product. Basic instructions for installing FlexLM are contained in this booklet. For advanced information on FlexLM, see the GlobeTrotter Software manual that is distributed on the Geomagic product CD.

For technical support on licensing issues, contact [support@geomagic.com](mailto:support@geomagic.com) or USA (919) 474-3036. Be sure to have your Entitlement Number available for all inquiries.

## Installing a Geomagic Product

1. Terminate all other applications including anti-virus software.

2. Insert the Geomagic CD into the CD-ROM drive. If the installation does not start automatically, open Windows Explorer, navigate to the CD-ROM directory, and double-click the **D:\Autorun\Auto-G.exe** file.
3. Click **Install Program Name**.
4. On the InstallShield Wizard window, click **Next**.
5. If you agree to the license terms, click **Accept**, then click **Next**.
6. On the Custom Setup window, choose the installation directory for the new software, or accept the default. Click **Next**.
7. Click **Install**.
8. Click **Finish**.
9. If the Raindrop Geomagic installation window is still open, click **Exit**.
10. Verify that you have an Entitlement Number for the Geomagic product. (When upgrading a node-locked license, the previous Entitlement Number is sufficient.)
11. If you plan to use a floating license, a network license server must be operational before you continue. If necessary, go to *Applying for a Floating License*.
12. Start the Geomagic product. The License Wizard starts automatically.
  - **For a Node-Locked License**, the Wizard prompts you for information and attempts to download a license file from the internet. If the Wizard succeeds, the Geomagic product starts. If the Wizard cannot establish internet access, it presents a summary of information that must be used in the next step. Go to *Applying for a Node-Locked License*.
  - **For a Floating License**, the administrator must have completed the steps at *Applying for a Floating License*. The Wizard prompts you for information and configures this client to seek authorization from the license server.

## Applying for a Node-Locked License

Use this procedure to apply for a Node-Locked License (for use with or without a USB or parallel dongle) only if the License Wizard could not establish internet access. You will supply information to Raindrop Geomagic on a web form, and receive a license file (**geowatch.dat**) file and additional instructions by email.

1. Obtain the summary of information that was generated by the License Wizard.
2. Write down the email address where you wish to receive the license file (**geowatch.dat**) from Raindrop Geomagic.
3. Write down the mail address where Raindrop Geomagic can communicate with you.
4. (With Internet access and Microsoft Internet Explorer 6.0 or higher) go to <http://www.geomagic.com/support/license.req/>
5. Enter the recorded information and click **Send Request**.
6. Within one business day, receive the license file by email, store it in a safe place, and install it according to instructions that are included in the email.

## Applying for a Floating License

Use this procedure to apply for a Floating License. You will supply information to Raindrop Geomagic on a web form, and receive a license file (**geowatch.dat**) file for installation on the License Server.

1. Obtain your entitlement number, printed on the paperwork from Raindrop Geomagic or a distributor.
2. Write down the Windows version number.
3. Ask the Administrator to run the LMTOOLS utility on the license server. Record the following information:
  - Computer Name of the license server,
  - IP port number of the license server.
4. Write down the email address where you wish to receive the license file (**geowatch.dat**) from Raindrop Geomagic.
5. Write down the mail address where Raindrop Geomagic can communicate with you.
6. (With Internet access and Microsoft Internet Explorer 6.0 or higher) go to <http://www.geomagic.com/support/license.req/>
7. Enter the recorded information and click **Send Request**.
8. Within one business day, receive a license file (**geowatch.dat**) by email and store it in a safe place. Install the license file according to instructions that are included in the email.

## Installing a Floating License

Use this procedure to install a license file (**geowatch.dat**) on the License Server.

1. Verify that the administrator has completed the procedure *Installing a Windows-Based FlexLM License Server* or *Installing a UNIX-Based FlexLM License Server*.
2. Copy the license file (**geowatch.dat**) file (received as an email attachment from Raindrop Geomagic) to the directory where the FlexLM server software is installed, typically C:\Program Files\Raindrop Geomagic\FLEXlmServer.
3. Start the Geomagic application on the client.

# Installing a FlexLM License Server

## Installing a Windows-Based FlexLM Server

Geomagic products with floating licenses require FlexLM 8.1a to be installed on one computer in the network. If your site uses FlexLM for other applications, check with the application vendor to verify compatibility with FlexLM 8.1a.

### Installing FlexLM 8.1a from Geomagic Product CD

1. On the computer that will serve as the license server, put the Geomagic product CD in the CD-ROM drive.
2. Click **START | Run**, and type the CD-ROM drive letter such as **D:\**, and press **Enter**.
3. Browse to **\FlexLM\Win32\** and double-click **Setup.exe**.
4. On the **Wizard** screen, click **Next**.
5. Click the **Complete** radio button and press the **Next** button.
6. Click **Install**.
7. Verify that **Install FlexLM Server as System Service** is checked, then click **Finish**.
8. Click **Finish** to exit the wizard.

### Obtaining Host ID and Name of FlexLM Server

1. Click **START | All Programs | Raindrop Geomagic | FlexLM | FLEXinfo**. Record the HostID and Hostname on paper, then click **OK**.
2. Obtain your entitlement number.
3. Right-click **My Computer**, click **Properties**, write down the Windows name and version number, then click **OK**.
4. Click **START | All Programs | Raindrop Geomagic | FlexLM | Imtools**. Click the **System Settings** tab. On paper, write the Computer/Hostname and Ethernet address.
5. Click the upper right-hand **X** to close the Imtools window.
6. Write down the mail and email address where Raindrop Geomagic can communicate with you.

7. (With Internet access and Microsoft Internet Explorer 6.0 or higher,) go to **<http://www.geomagic.com/support/license.req/>**
8. Enter the recorded information and click **Send Request**.
9. Within 24 hours, receive a license file (**geowatch.dat**) by email and store it in a safe place.

## Starting the FlexLM Floating License Server

1. Copy the license file (**geowatch.dat**, received by email) to C:\Program Files\Raindrop Geomagic\flexlmserver\. When prompted whether to overwrite the existing file, click **OK**.
2. Click **START | All Programs | Raindrop Geomagic | FlexLM | Imtools**.
3. Click the **Service/License File** tab, and **Configuration Using Services**.
4. Highlight **Raindrop Geomagic** in the list.
5. Click the **Config Services** tab.
6. Verify that the **Start Server at Power Up** and **Use Service** checkboxes are checked.
7. Click **Save Service**, then **Yes**.
8. Click the **Start/Stop/Reread** tab and **Start Server**.
9. Click **ReRead License File**.
10. Click the upper right-hand **X** to close the window.

The Windows-Based FlexLM License Server is ready to be accessed by clients with Geomagic applications.

## Installing a UNIX-Based FlexLM License Server

Geomagic products with floating licenses require FlexLM 8.1a to be installed. If your site uses FlexLM for other applications, check with the application vendor to verify compatibility with FlexLM 8.1a.

## Installing FlexLM 8.1a from Geomagic Product CD

1. Log in as the root user and open a winterm window.
2. Pick an install location for FlexLM software and utilities, such as **/opt/flexlm**.

3. Create all the following directories by typing:
  - \* `mkdir /opt/flexlm`
  - \* `mkdir /opt/flexlm/bin`
  - \* `mkdir /opt/flexlm/etc`
  - \* `mkdir /opt/flexlm/log`
4. Copy all files from the appropriate location on the CD-ROM of the Geomagic product (such as IRIX from `cdrom/flexlm/Irix`) into `/opt/flexlm/bin`.
5. Change to the `/opt/flexlm/bin` directory.
6. Edit ONLY the following lines in the `lmgrd.server` shell script to reflect your specific site installation. The file may be read-only.
  - \* `RUNAS=nobody`
  - \* `LMGRD=/opt/flexlm/bin/lmgrd`
  - \* `LMDOWN=/opt/flexlm/bin/lmdown`
  - \* `DEBUGFILE=/opt/flexlm/log/flexlm.log`
  - \* `LM_LICENSE_FILE=/opt/flexlm/etc/geowatch.dat`
7. Save `lmgrd.server` file.

## Obtaining Host ID and Name of FlexLM Server

1. To obtain a Host ID, type:
  - \* `cd /opt/flexlm/bin`
  - \* `lmutil lmhostid`
2. Make a note of the MAC address of the Ethernet card.
3. Use the `hostname` command and note the host's name.
4. Obtain your entitlement number.
5. Write down the mail and email address where Raindrop Geomagic can communicate with you.
6. (With Internet access and Microsoft Internet Explorer 6.0 or higher,) go to **<http://www.geomagic.com/support/license.req/>**
7. Enter the recorded information and click **Send Request**.
8. Within 24 hours, receive the license file (**geowatch.dat**) by email and store it in a safe place.

## Starting The FlexLM 8.1a server

1. Copy the license file (**geowatch.dat**, received by email) to /opt/flexlm/etc.
2. To make the FlexLM server run every time the system reboots, copy the modified lmgrd.server file from the install directory to /etc/init.d, then type:
  - \* `chmod 744 /etc/init.d/lmgrd.server`
  - \* `chown root /etc/init.d/lmgrd.server`
  - \* `chgrp sys /etc/init.d/lmgrd.server`
  - \* `ln -s /etc/init.d/lmgrd.server /etc/rc2.d/S95lmgrd`
3. To start the license server without rebooting, type:  
`/etc/init.d/lmgrd.server start`
4. To check the server's status, type `lmutil lmstat`.
5. Verify that the Geomagic product is installed and licensed on the client computer.

## Stopping a Windows-Based FlexLM Server

Perform this step only if necessary.

1. Click START | Settings | Control Panel | Administrative Tools | Services, then right-click the Raindrop Geomagic service and select Stop.

## Uninstalling a Windows-Based FlexLM Server

**CAUTION:** Before continuing, create a backup copy of the license file (**geowatch.dat**). It typically resides at C:\Program Files\Raindrop Geomagic\FlexLMServer. Also, verify that other applications do not rely on the version of FlexLM that you are uninstalling.

1. Go to the directory in which your **geowatch.dat** file is installed (such as C:\Program Files\Raindrop Geomagic\Flexlmserver).
2. **CAUTION:** Do not skip this step. Copy **geowatch.dat** to a safe place on the hard drive. You will re-use it.
3. Click Start | Settings | Control Panel | Add/Remove Programs.
4. Scroll down to **Geowatch Server 8.1a**.
5. Click **Remove**.

6. To confirm your intention, click **Yes**.
7. Click the upper right-hand **X** to close the window.
8. Go to the C:\Program Files\Raindrop Geomagic\Flexlm-server and delete all the files.

## Upgrading a Windows-Based License Server

**CAUTION:** Before continuing, create a backup copy of the license file (**geowatch.dat**). It typically resides at C:\Program Files\Raindrop Geomagic\FlexLMServer.

### Stopping the FlexLM Server

1. Click START | Settings | Control Panel | Administrative Tools | Services, then right-click the Raindrop Geomagic service and select Stop.

### Uninstalling the Old FlexLM Server

**CAUTION:** Before continuing, verify that other applications do not rely on the version of FlexLM that you are uninstalling.

1. Go to the directory in which your **geowatch.dat** file is installed (such as C:\Program Files\Raindrop Geomagic\Flexlmserver).
2. **CAUTION:** Do not skip this step. Copy **geowatch.dat** to a safe place on the hard drive You will re-use it.
3. Go to Start\Settings\Control Panel\Add/Remove Programs.
4. Scroll down list to FlexLM Server.
5. Click **Add/Remove**.
6. Confirm File Deletion dialog box will ask if you're sure you wish to remove FlexLM. Click **Yes**.
7. When completed click **OK**.
8. Go to the C:\Program Files\Raindrop Geomagic\flexlm-server and delete all the files that may have remained after the uninstall, except the **geowatch.dat** file.

### Obtaining Host ID and Name of FlexLM Server

1. Go to Start/Programs/Raindrop Geomagic/FlexLM/ FLEX-info.

2. Give the Host ID, computer name and entitlement number to our licensing department. (Apply by web: <http://www.geomagic.com/support>). They in turn will send you a license file (**geowatch.dat**) as an attachment. Store it in a safe place.

## Merging the New and Original License Files

1. Back up the original and new license (**geowatch.dat**) files.
2. Begin adding the contents from the *new geowatch.dat* file to the *original geowatch.dat* by opening Notepad with word-wrap turned off.
3. Open the **NEW geowatch.dat** file.
4. Copy clip all the INCREMENT lines beginning with, and including, the word **INCREMENT**. Be careful to only copy clip the text from the first word INCREMENT to the end of the file.)
5. Now open the *original geowatch.dat* file in Notepad.
6. Paste all the INCREMENT lines from the *new geowatch.dat* to the very end of the *original* file The new INCREMENT lines should each appear on their own line The modified **geowatch.dat** file should now look just like the original, except that there should now be new INCREMENT lines added to the end of the file.
7. Save the new file as **geowatch.dat**.
8. Copy the newly merged **geowatch.dat** file that you created to a place for safekeeping.

## Starting the FlexLM Floating License Server

1. Copy the newly merged **geowatch.dat** file to C:\Program Files\Raindrop Geomagic\FlexLMServer (or customized location). Click **OK** to overwrite the old version.
2. After the **geowatch.dat** file is copied, go to Start\Programs\Raindrop Geomagic\FlexLM\lmtools.
3. Select the Service/License File tab and choose **Configuration Using Services**.
4. Highlight **Raindrop Geomagic** as a service.
5. Select the **Configure Services** tab.

6. Verify that **Starts Server at Power Up** and **Use Service** are checked.
7. Choose **Save Service**.
8. Select the Start/Stop/Reread tab and choose **Start Server**.
9. Select **Reread License File**.
10. Click the upper right-hand "X" to close the window.
11. Verify that the product is installed and licensed on the client computer.

## Upgrading a UNIX-Based FlexLM License Server

Geomagic products with floating licenses require FlexLM 8.1a to be installed. If your site uses FlexLM for other applications, check with the application vendor to verify compatibility with FlexLM 8.1a.

**CAUTION:** Before continuing, create a backup copy of **geowatch.dat**. It typically resides at C:\Program Files\Raindrop Geomagic\FlexLMServer\geowatch.dat

### Merging the New and Original License Files

1. Back up the original and new license (**geowatch.dat**) files.
2. Begin adding the contents from the *new geowatch.dat* file to the *original geowatch.dat* by copying the new geowatch.dat file to the /tmp directory.  

```
cat /tmp/geowatch.dat >> /opt/flexlm/etc/  
geowatch.dat
```
3. Open the new modified **geowatch.dat** file.
4. Delete the comment (#) lines from the bottom half of the file. Keep the ones on the top.
5. Delete the Server and Vender lines that are repeated at the bottom of the file.
6. The modified **geowatch.dat** should now look just like the original, except there should now be new INCREMENT lines added to the end of the file.
7. Save the new file as **geowatch.dat**.
8. Copy the newly merged **geowatch.dat** file that you created to a place for safekeeping.

## Restarting The FlexLM 8.1a Server

1. At the prompt, type:

```
/etc/init.d/lmgrd.server start
```

2. Version 8.1a FlexLM server should now be started.

The Windows-Based FlexLM License Server is ready to be accessed by clients with Geomagic applications.