



Troika International Limited

# **Troika FlexNet Publisher Guide**

Version 11.18.10



# Chapter 1 Introduction to FlexLM

This document serves to provide a brief guide to implement FlexNet licensing for your Troika International software. Note that included within your software package is a PDF file named **fnp\_LicAdmin\_11\_10\_1**, which provides comprehensive coverage of the FlexNet Publisher Licensing Toolkit.

Further information about FlexNet license server managers, utilities, and documentation can be found at the following URL:

[http://www.globes.com/support/fnp\\_utilities\\_download.htm](http://www.globes.com/support/fnp_utilities_download.htm)

**Note: Troika software is built with version 11.10.1 of the FlexNet Publisher toolkit.**

Your **FlexNetPublisher-11.10.1.0** package contains the following files to set up FlexNet Publisher:

• troika vendor daemon	• lminstall
• fnp_LicAdmin_11_10_1.pdf	• lmnewlog
• Troika-FlexNet-Publisher-Guide.pdf	• lmpath
• lmutil	• lmremove
• lmtools	• lmread
• lmgrd	• lmstat
• lmborrow	• lmswitch
• lmdiag	• lmswitchr
• lmdown	• lmver
• lmhostid	

Install the package to a directory that can be conveniently accessed (e.g. C:\Program Files\Troika). It is recommended, but not required, to also place the Troika license issued to you in the same folder.

**Note: lmadm is not included, but is explained within this guide. You may download the appropriate version for your system as desired at the previously listed URL.**

## Chapter 2 Concurrent licensing

Troika International uses a Concurrent (or **Floating**) FlexNet licensing model for your Troika software. Once the desired software has been installed on the appropriate system(s), it is now necessary to set up your FlexNet License file and server.

A customised **.lic** file should be included along with the software ordered from Troika International. If you open the license file as a text file, you will notice the specific **FEATURE(S)** written to your system (listed after the lines: "SERVER...", "VENDOR...", and "USE\_SERVER...").

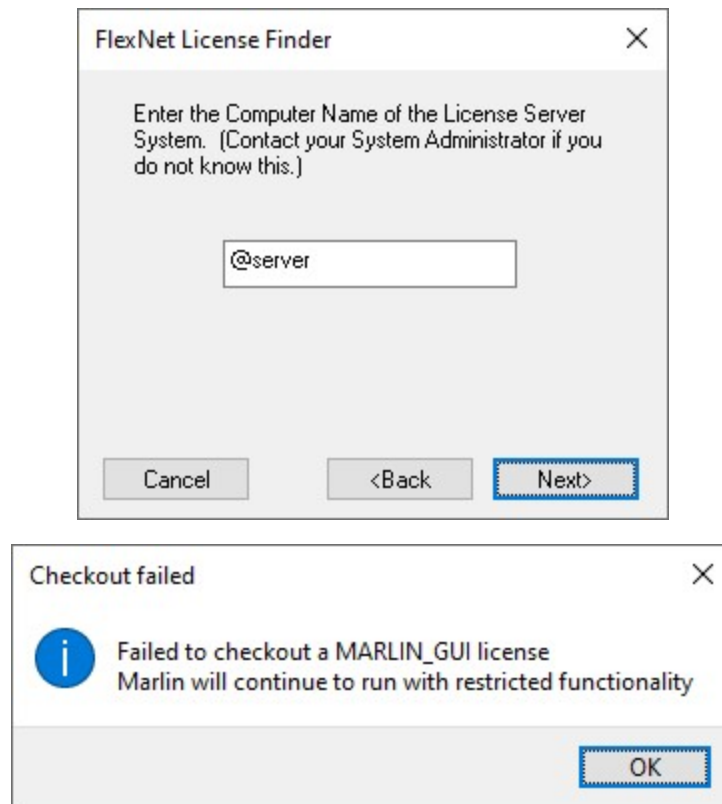
There are two possible versions of a license server manager for FlexLM:

- **lmgrd** – Control your licensing options through the original command-line interface.
  - **lmtools (only on Windows)** provides a GUI to manage your license file as a service.
- **lmadmin** – Control your licensing options through a web browser, with command-line availability as well.



**Note:** Once you install Imadmin on a system, it will override attempts to use Imgrd. Refer to pages 99 – 102, within the included **fnp\_LicAdmin\_11\_10\_1** document, to view the “**Migrating from Imgrd to Imadmin**” section for further details. However, migrating from Imadmin to Imtools can be considered.

Marlin is running in unlicensed mode with restricted functionality. To license Marlin to trawl for seismic files please contact Troika international.



**Note:** No matter which form of a license manager you choose, if the license isn't established correctly for your specific Troika software, a display will appear notifying the user of a missing license. Such as the following:

## Chapter 3 Using Imgrd as the license server manager

Imgrd is an application-based version of the license server manager. On most platforms, it is controlled from a command-line. On Windows, Imtools can be used to manage Imgrd (explained later in this guide).

## Chapter 4 Use Imgrd manually - UNIX

To start Imgrd manually, access the directory containing Imgrd within a command-line window, and type the following:

```
Imgrd -c license_file_list -L [+]debug_log_path
```

The `license_file_list` could refer to a single license file's full path name or a directory containing `.lic` files (in which all `.lic` files within said directory will be used). `debug_log_path` refers to the full path of the debug log file (the `[+]` addition appends logging entries).

To start **Imgrd** automatically in UNIX, or to find more detailed information about manual starts, please reference pages 103 – 104 in the **fnp\_LicAdmin** document.

## Chapter 0 1 1 Lorem ipsum

# Chapter 5 Use Imgrd manually – Windows

To start **Imgrd** manually, access the directory containing the **Imgrd** executable through a command-line window, and type the following:

```
Imgrd -c license_file_list -L [+]debug_log_path
```

(i.e. **Imgrd -c C:\Program Files\Troika\Troika\_license.lic**)

The **license\_file\_list** could refer to a single license file's full path name or a directory containing **.lic** files (in which all **.lic** files within said directory will be used). **debug\_log\_path** refers to the full path of the debug log file (the **[+]** addition appends logging entries).

# Chapter 6 Imtools - Run Imgrd as a Windows Service

The **Imtools.exe** file should be included within the FlexNet installer package provided by Troika International, but is also available for download at the previously provided URL, and allows **Imgrd** to be run as a Windows service.

Install your FlexNet Publisher service by double clicking on the application filename (**Imtools.exe**) and follow the instructions given on the following pages.

# Chapter 7 Installing the License File

Copy the supplied Troika license file into the same folder as the **Imtools.exe** and **Imgrd.exe** files. The location should be the same as the initial extraction mentioned above (C:\Program Files\Troika).

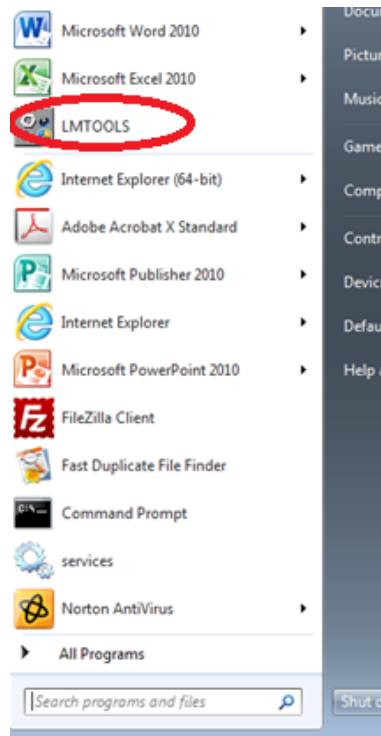
Once the license is placed in this directory, follow the steps on screen to configure the FlexNet Publisher service.

# Chapter 8 Configuring the FlexNet Publisher Service

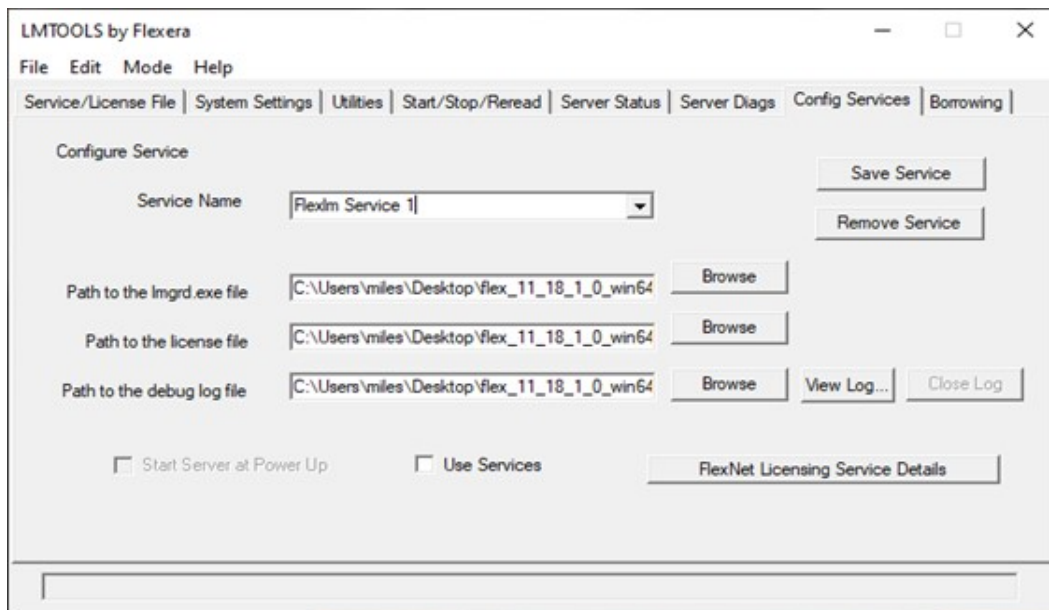
Select **LMTOOLS** from the program launcher. If this is not available, return to the installed directory, right-click **Imtools.exe**, and click **Pin to Start Menu** for easier access in subsequent uses.

The program launcher is shown below:

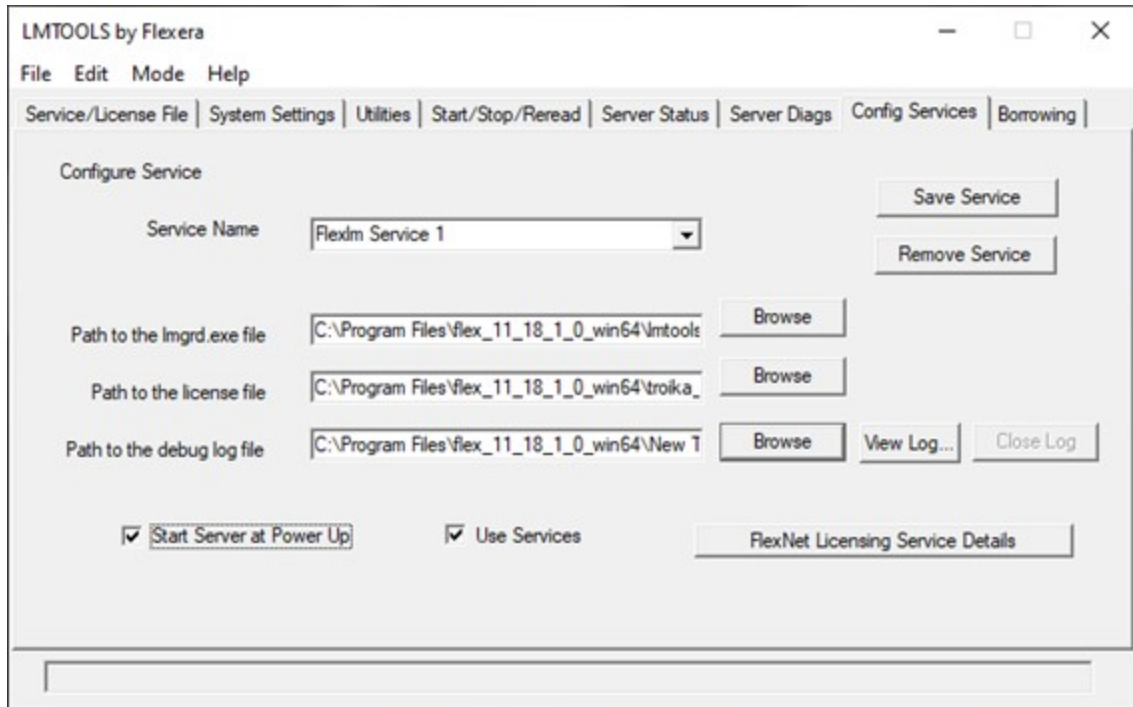




Once LMTOOLS has been launched, the window below should be displayed under the **Service/License File** tab. For this tab, click the **Configuration using Services** option:

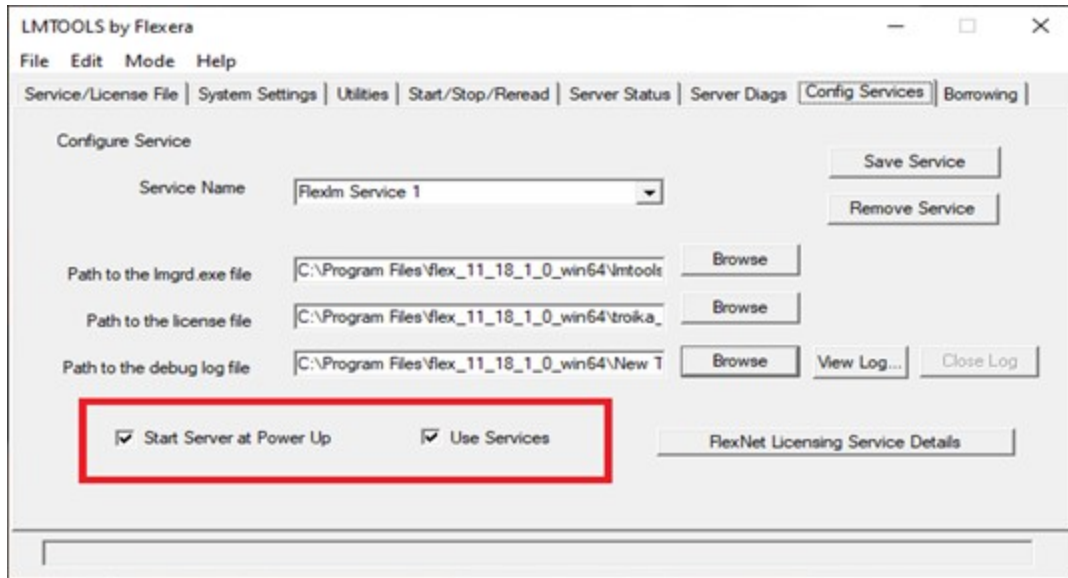


Next, click the **Config Services** tab as shown below:



1. Provide the **Service Name** if required, or use the default "Flexlm Service 1" selection.
2. Provide the **Path to the lmgrd.exe file** by typing in the pathname, or by clicking **Browse** and navigating to the file.
  - Example pathname: C:\Program Files\Troika\lmgrd.exe
3. Provide the **Path to the license file** by typing in exact pathname, or by clicking **Browse**.
  - Example pathname: C:\Program Files\Troika\your\_license\_name.lic
4. Check the **Use Services** and **Start server at Power Up** boxes to complete this tab's steps.

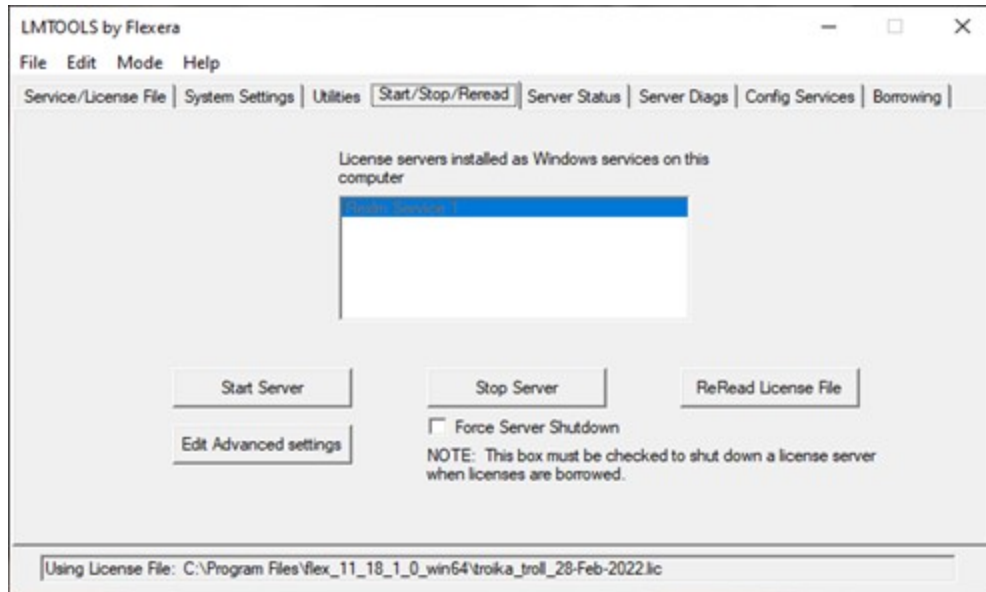
An example of the **Config Services** tab following these instructions is shown below:



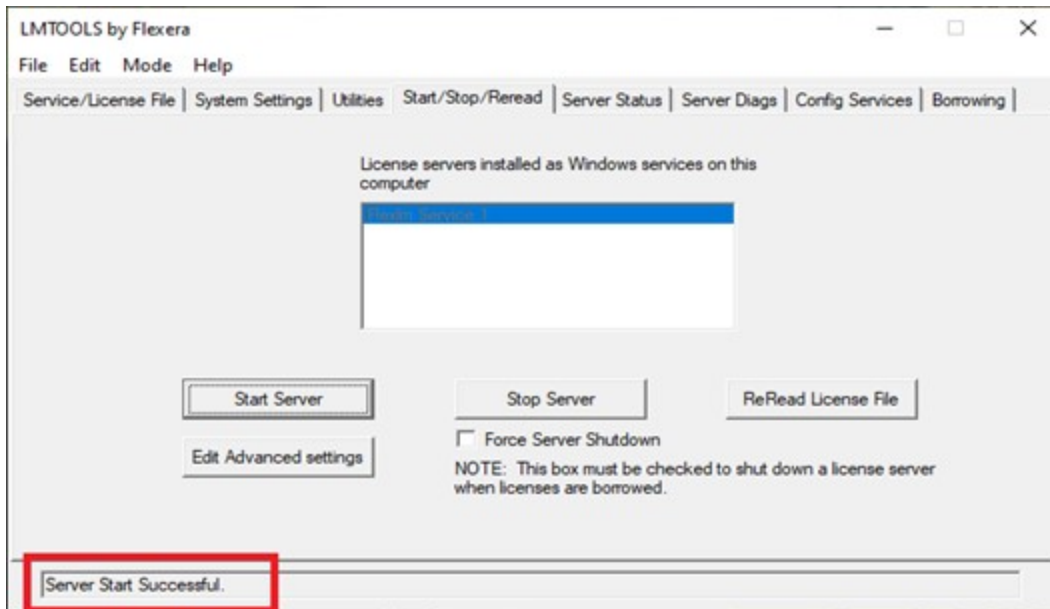
Next, click on the **Start/Stop/Reread** tab. This should produce the following window to confirm your settings for the service, click **Yes**.



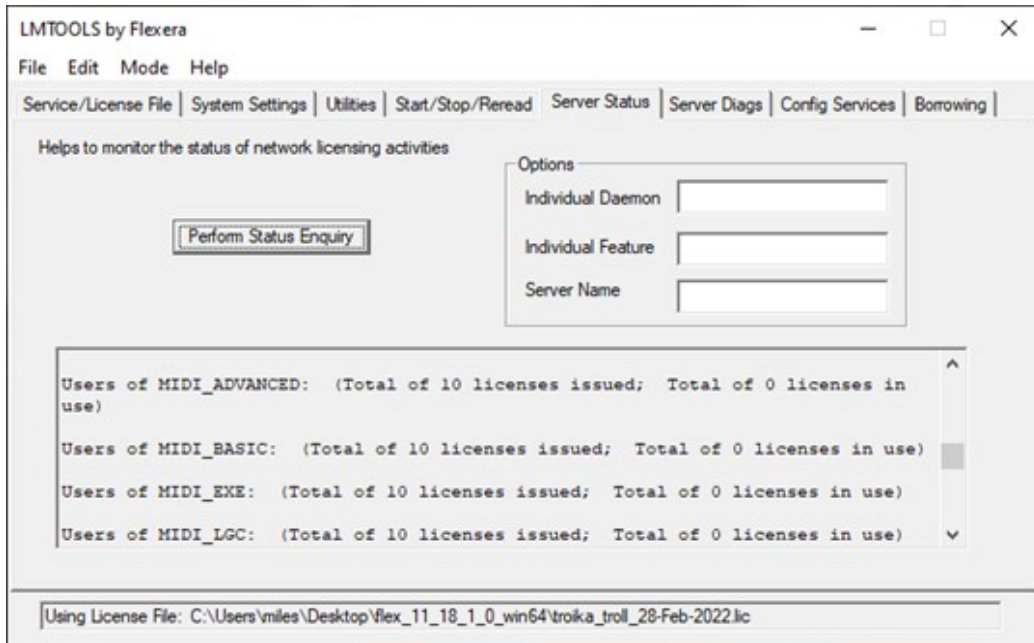
Once you have confirmed your settings, the LMTTOOLS window will display the **Start/Stop/Reread** tab. The **Service Name** you previously selected in the **Config Services** tab should be displayed as shown below (ex. "FlexIm Service 1):



Click **Start Server** to configure LMTOOLS to power-up each time the computer is restarted. The text at the bottom of the window should read "Server Start Successful" to indicate completion (shown below):



Once the server is started successfully, you may click the **Server Status** tab to verify your specific access to Troika's licenses. Click the **Perform Status Enquiry** button to view a list of licenses issued in the .lic file, and which users are accessing said licenses.



The use of this section assumes that you have already installed your Troika license on a server computer, and can access the various features purchased from Troika International Ltd. locally on that system.

The remainder of this guide serves to help you access this server computer from other systems located on the same network. Please note that firewall restrictions are unique, and accessing the server may involve specifying ports for **lmgrd** and the **troika vendor daemon**.

**Note:** For complete in-depth detail, refer to the [fnp\\_LicAdmin\\_11\\_10\\_1.pdf](#) guide provided by Flexera Software. This document is included in the FlexNetPublisher-11.10.1.0 installer provided by Troika, or available at the link below:

[http://www.globes.com/support/fnp\\_utilities\\_download.htm](http://www.globes.com/support/fnp_utilities_download.htm)

## 8.1 From a Linux Machine

Download the FlexNetPublisher package received into: /usr/local. Open a terminal window and type the following to extract the package:

Open a terminal window and type the following to extract the package:

- [usr@machine]\$ cd /usr/local
- [usr@machine]\$tar xzf /usr/local/FlexNetPublisher-11.10.0.tar.gz

This will create a FlexNetPublisher-11.10.1.0 directory that contains the necessary FlexNet features in order to access your FlexNet server system.

From this point, if this installed directory is not in your path, you will need to use “./” in front of the desired commands e.g. **./lmpath -status** or **./lmstat -a**

You will need to adjust your environment variable for your TROIKA\_LICENSE\_FILE to point at your FlexNet server. To do this, use the lmpath command, where you can type:

```
./lmpath -override TROIKA_LICENSE_FILE @yourserver
```

Where “yoursever” should be replaced with the host name of the server hosting your Troika license.

Now, you will use **lmgrd** to access your Troika license file. It’s best to follow the lmgrd start instructions from pages 89 – 92 within the included fnp\_LicAdmin\_11\_10\_1.pdf document, in order to customise your specific set-up. But the basic manual start command can be seen below:

```
./lmgrd -c license_file_list -L [+]debug_log_path
```

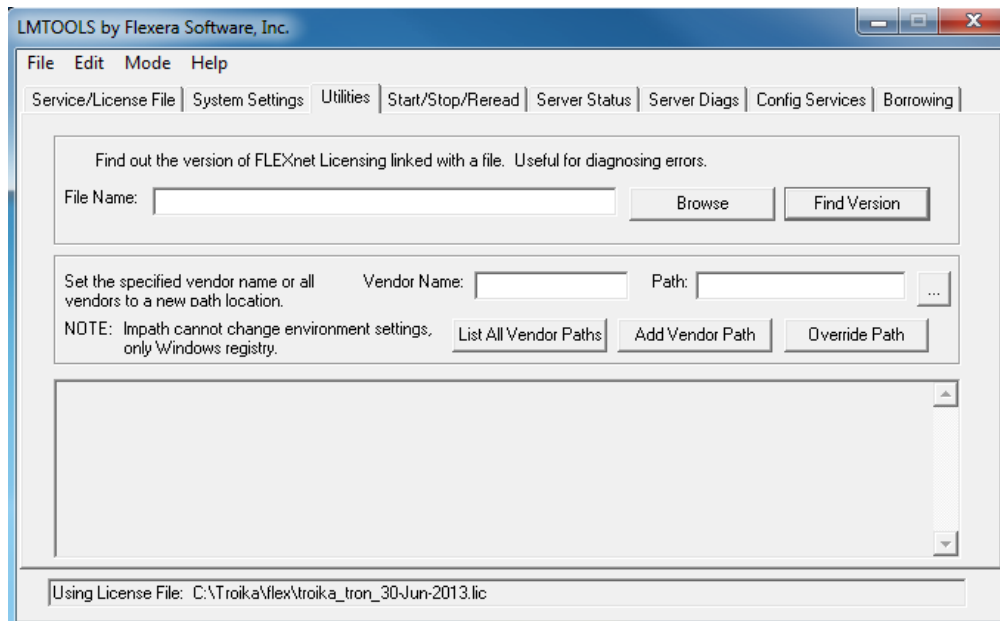
**license\_file\_list** should be one or more of the following:

- the full path to a single license file
- a directory, where all files named \*.lic in that directory are used

## 8.2 From a Windows Machine

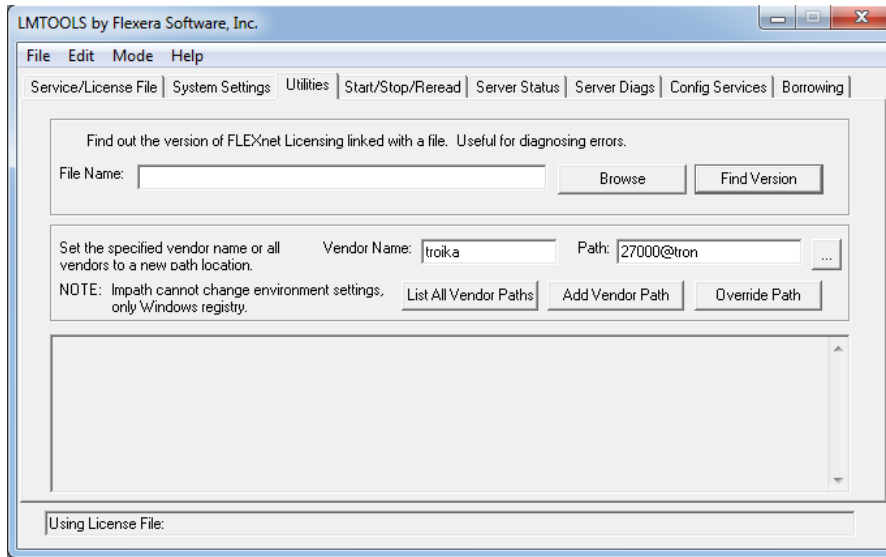
Install the FlexNetPublisher-11.10.1.0.exe package onto the system desired to access your FlexNet server. Select a directory to install the FlexNet utilities (i.e. C:\Program Files\Troika), and follow the Setup instructions on the screen to establish your FlexNetPublisher-11.10.1.0 directory.

Open the lmtools.exe file within this directory, and click the **Utilities** tab in order to change your environment variable for the TROIKA\_LICENSE\_FILE to point at your FlexNet server. An example of the window can be seen below:

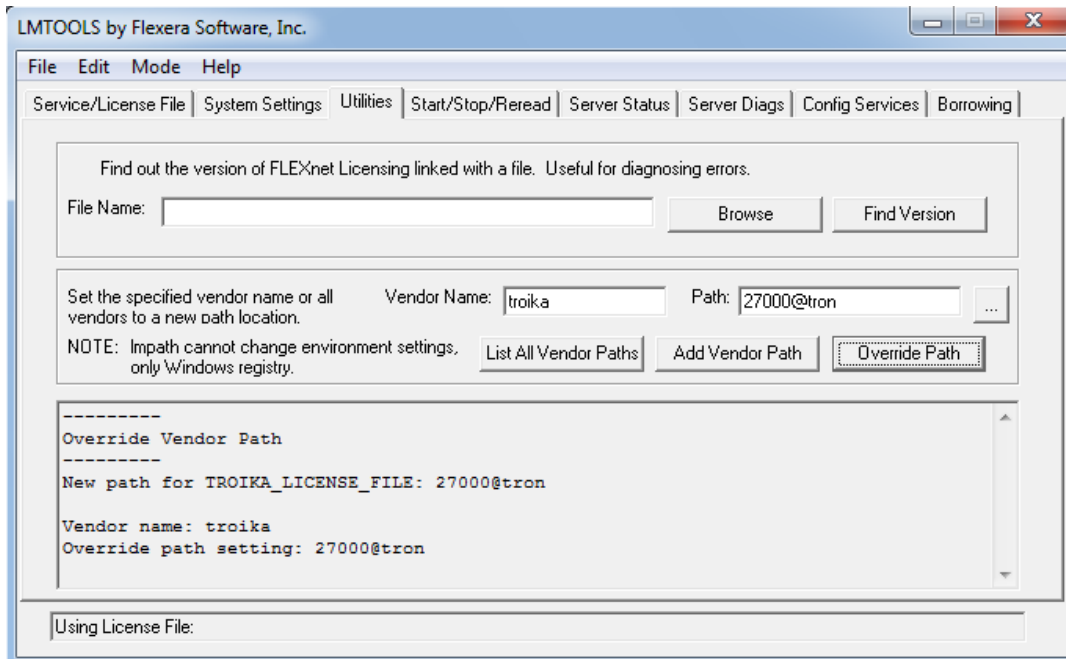


Once you have this window open, enter “troika” in the **Vendor Name** text box, and “@<your-server>” in the **Path** text box. Note that if you’ve specified a port on your SERVER line within your license file, you will need to add this before the “@” sign.

For example, the image on the following page shows the troika vendor daemon pointing at a server named “tron”, with the specified port of “27000”:

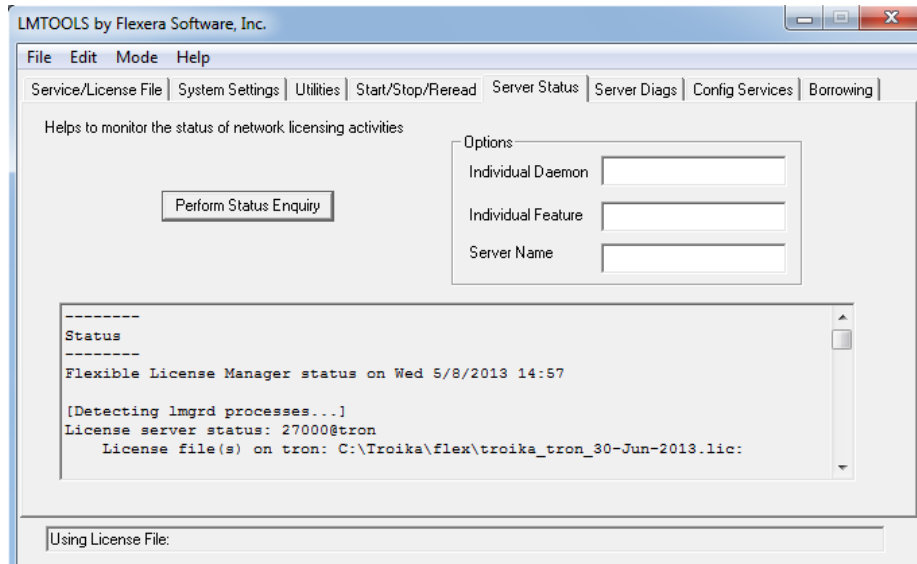


Then, click the **Override Path** button to erase and replace the default location of the TROIKA\_LICENSE\_FILE. The text in the window below the **Path** buttons will display your “New path for TROIKA\_LICNSE\_FILE” as shown in the image below:

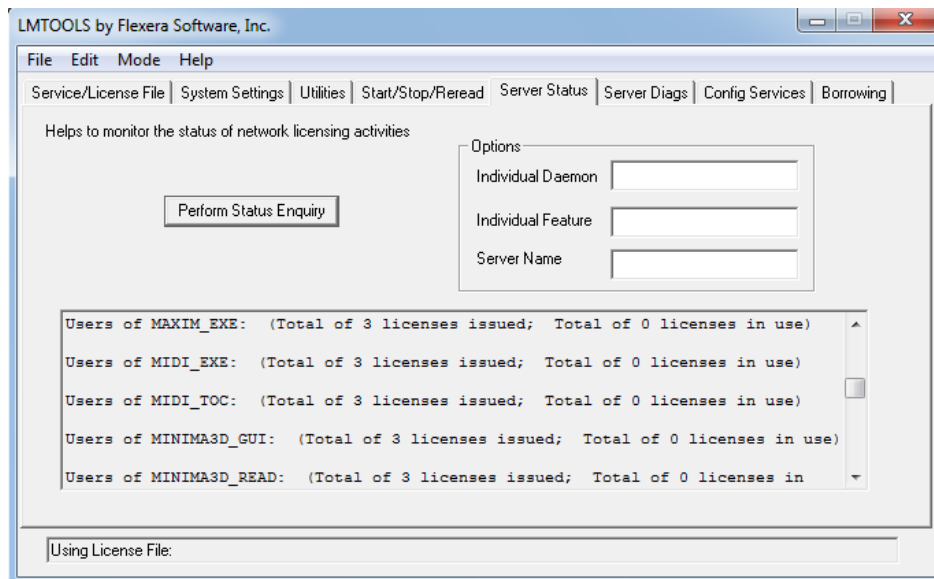


**Note:** If you host multiple FlexNet servers for your Troika software, you may add them by keeping the Vendor Name as “troika” and typing in any additional paths by entering them within the Path box, and clicking Add Vendor Path. Alternatively, you may add multiple paths within the Path box as long as they are separated with semicolons “;”.

Now you may can verify that your license may be accessed correctly by clicking the **Server Status** tab, and then click the **Perform Status Enquiry** button. An example of this can be seen on the following page:



The display above shows that the license server "tron" at port "27000" is being accessed normally. Further verification may be had by scrolling down in the text window to see the various features of your specific Troika license, an example of which is displayed below:



# Chapter 9 Troubleshooting FlexNet Publisher

The tests described in detail below were run on Windows machines, but similar issues with failed checkouts have been seen when running **lmgrd** on Linux.

The test involves two Windows 7 64-bit machines: *jungle* (Windows 7 Professional) and *jill-netbook* (Windows 7 Starter).

These are networked and can ping each from the other, using either the host name or the IP address. (If ping fails in either direction, it indicates a general network problem, and should be resolved first.)

Test	Result
Run lmgrd on either machine Run Troika software on the same machine	Successful Checkout
Stop lmgrd on <i>jill-netbook</i> Run lmgrd on <i>jungle</i> Run Troika product on <i>jill-netbook</i> Enter the license server system as <b>@jungle</b> when prompted by the FlexNet License Finder	Successful Checkout
Stop lmgrd on <i>jungle</i> Run lmgrd on <i>jill-netbook</i> Run Troika product on <i>jungle</i> Enter the license server system as <b>@jill-netbook</b> or <b>27000@jill-netbook</b> when prompted by the FlexNet License Finder (where 27000 is the port in use by lmgrd)	Checkout failed with the error  Networking Error: Failed to obtain the IP address of the machine "JILL-NETBOOK". Please contact System Administrator for assistance.

## Troubleshooting FlexNet Publisher

The tests described in detail below were run on Windows machines, but similar issues with failed checkouts have been seen when running **lmgrd** on Linux.

The test involves two Windows 7 64-bit machines: *jungle* (Windows 7 Professional) and *jill-netbook* (Windows 7 Starter).

These are networked and can ping each from the other, using either the host name or the IP address. (If ping fails in either direction, it indicates a general network problem, and should be resolved first.)

Test	Result
Run lmgrd on either machine Run Troika software on the same machine	Successful Checkout



<p>Stop Imgrd on <i>jill-netbook</i></p> <p>Run Imgrd on <i>jungle</i></p> <p>Run Troika product on <i>jill-netbook</i></p> <p>Enter the license server system as <b>@jungle</b> when prompted by the FlexNet License Finder</p>	<p>Successful Checkout</p>
<p>Stop Imgrd on <i>jungle</i></p> <p>Run Imgrd on <i>jill-netbook</i></p> <p>Run Troika product on <i>jungle</i></p> <p>Enter the license server system as <b>@jill-netbook</b> or <b>27000@jill-netbook</b> when prompted by the FlexNet License Finder (where 27000 is the port in use by Imgrd)</p>	<p>Checkout failed with the error</p> <p>Networking Error: Failed to obtain the IP address of the machine "JILL-NETBOOK". Please contact System Administrator for assistance.</p>

## Chapter 10 Solutions to Networking Issues

The ports in use by Imgrd and the roika vendor daemon had to be allowed through the Windows firewall on the machine running the license server (*jill-netbook* in this case).

Specifying the ports to use:

The ports used by the license server and vendor daemon can be set in the license file (the customer can add these without invalidating the file). If not set in the license file, the port used by the license server defaults to 27000 and the port used by the troika vendor daemon is unpredictable.

If ports need to be allowed through a firewall, it's therefore best to specify these in the license file so they have known values. Choose ports that are not already in use. For example:

**SERVER jill-netbook 123456abcdef 49000**

**VENDOR troika PORT=49001**

More details are in the Flexera License Admin manual, specifically starting on page 25 in Chapter 3's "Reading a License File" section.

After editing the license file, stop and restart the license server (don't just re-read). Users will need to change their license file path as well. For example, replace @jungle with 49000@jungle.

### 10.1 Allowing ports through the firewall - Windows:

The following steps relate to the Windows Firewall on Windows 7.

- Use **Windows Firewall with Advanced Security** (search for this from the start menu if necessary)
- Inbound rules
- New rule...
  - Port
  - TCP
  - **Specific local ports 49000, 49001 (enter the port numbers used in your license file)**
  - Allow the connections

- Choose the most restrictive settings practical (you will need to leave at least **Private** checked and possibly **Domain**, depending on your setup. Uncheck **Public**).
- Give the rule a meaningful name, e.g. FlexNet Troika

## 10.2 Allowing ports through the firewall – Linux:

The following steps relate to the Firewall on CentOS 5:

- You can check the current rules (accessing via root might be necessary) with:

**/sbin/iptables -L**

- Use Applications, System Settings, Security Level
  - Firewall Options
  - **Other ports:** 49000:tcp, 49001:tcp (enter the port numbers used in your license file)
  - OK

- Check that new INPUT ACCEPT rules have been added with:

**/sbin/iptables -L**

Notes:

If you have changed the port used by Imgrd from the default (27000), you will need to provide the new port when using utilities such as Imstat, for example:

**Imstat -a -c 49000@localhost**