

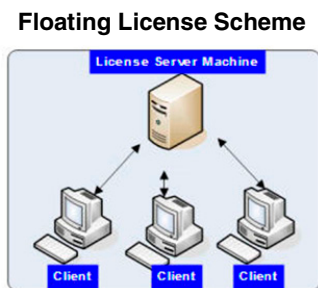
CodeWarrior Development Studio

Floating Licensing

Quick Start

This quick start guide explains how to set up a floating license server of Freescale software products licensed with FLEXlm (e.g. CodeWarrior). A floating license scheme consists of one or more license servers that run the license management process that distributes licenses to the various client machines. The client machines will have the Freescale software installed (e.g. CodeWarrior) and they will communicate with the license server(s) using TCP/IP.

The following figure shows an illustration of the floating licensing scheme:



Installing and configuring a floating license setup involves four steps:

1. Installing the license server utilities on the server(s)
2. Configuring and Installing the license file on the server(s)
3. Starting the license server(s)
4. Configuring the client machines to obtain licenses from the server(s)

Section A: Setting up Windows License Server(s)

1. Download the license manager installer for windows at:
<http://www.freescale.com/LicenseManagerInstallers>.

NOTE Installation needs to be done by someone with administrative privileges on the license server machine.

License Manager Installers Page

License Manager Installers

These downloads contain the necessary software to install the FLEXlm license manager. The license manager software should be installed on the license server machine which will facilitate floating licenses for your Freescale product.

Please locate below the appropriate download for your license server machine. If you are not sure, you should consult with your license server administrator.

Below is a table that outlines which Operating System versions we officially support and test with our license manager.
NOTE: Any installation or use outside of this scope will not be officially supported.

| Installer | Versions Supported |
|-----------|---------------------------------|
| Windows | Win2000, WinXP |
| Solaris | Solaris 7, Solaris 8, Solaris 9 |
| Linux | Red-Hat 8 |

License Manager Installers Design Tools
Development Tools
IDE - Debug, Compile and Build Tools

| ID and Description | Vendor ID | Format | Size K | Rev # | Availability |
|---------------------------------------|-----------|--------|--------|-------|--------------------------|
| License Manager Installer for Windows | FREESCALE | exe | 5106 | 1 | Download |
| License Manager Installer for Solaris | FREESCALE | tar | 3940 | 1 | Download |
| License Manager Installer for Linux | FREESCALE | tar | 2720 | 1 | Download |

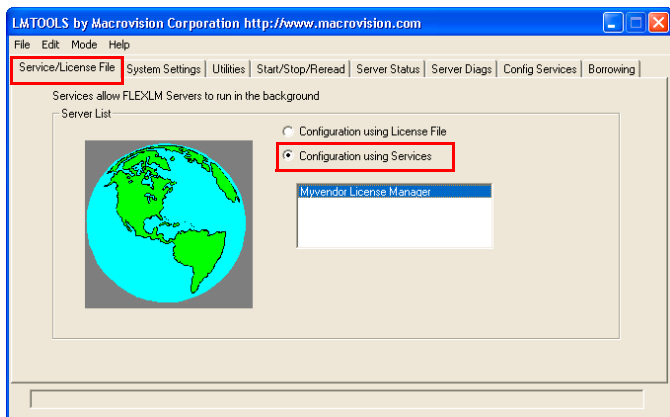
2. Click **Download** and save the appropriate license manager installer file to the desired location.
3. Access the location where you have saved the license manager installer file and install it by following the onscreen instructions.
4. The installer contains the following:
 - a. **Imtools.exe** — This is a graphical user interface program used to setup the license manager
 - b. **License manager utilities/software** — `lmgrd.exe`, `lmutil.exe`, etc., these are the actual FLEXlm utilities to enable server-based licensing.
 - c. **Vendor daemons** — `metrowks.exe`, etc., these are the Freescale specific files that are used to count and keep track of license distribution.
5. Select **Start > Programs > FLEXlm for Metrowerks Tools > FLEXlm License Manager** from the Windows taskbar.

Starting FLEXlm License Manager — LMTOLS



6. Click the **Service/License File** tab and ensure that the **Configuration using Services** option is selected.

LMTTOOLS — Service/License File Tab



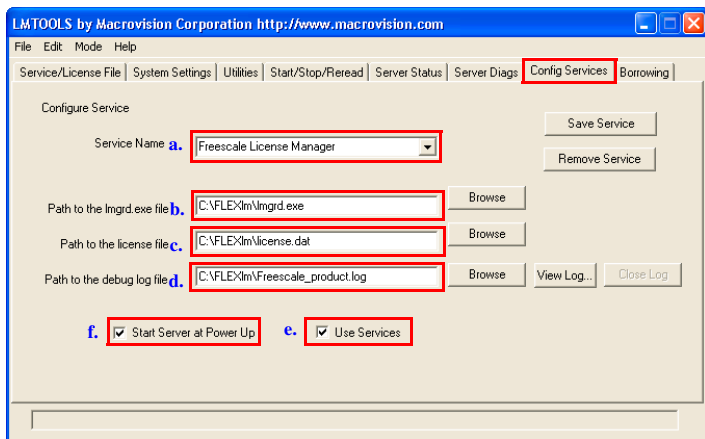
7. Click the **Config Services** tab to configure the services for your server. To configure the services:
 - a. **Service Name:** Give your license service a name (e.g. Freescale License Manager)
 - b. **Path to the `lmgrd.exe` file:** Browse to locate where your `lmgrd.exe` file resides (e.g. `C:\FLEXlm\lmgrd.exe`)
 - c. **Path to the license file:** Browse to the location of your license file (e.g. `C:\FLEXlm\license.dat`)

NOTE To complete this step, refer to the [Section B: Configuring and Installing License File on your Server\(s\)](#).

- d. **Path to the debug log file:** This is optional and can be left blank. However, if filled in, a debug log output is generated and stored in this file (e.g. `C:\FLEXlm\Freescale_product.log`)
- e. **Use Services:** Check this checkbox if you want to make this license manager a Windows service.
- f. **Start Server at Power Up:** Check this checkbox if you want the license manager service to be automatically started at power up of the server.

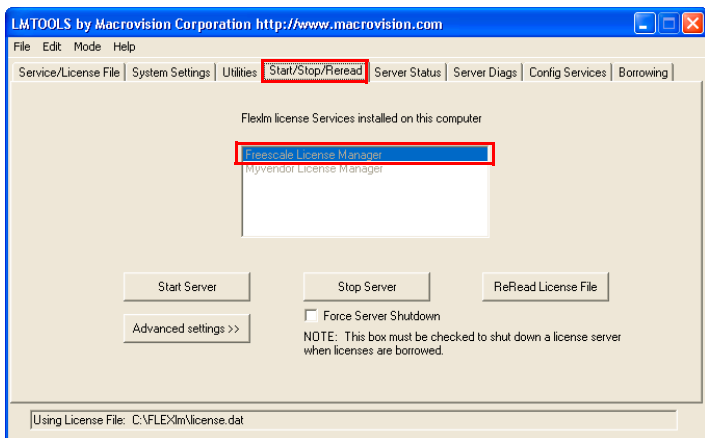
NOTE The **Start Server at Power Up** option is only selectable if you check the **Use Services** checkbox.

LMTTOOLS — Config Services Tab



- To save the new *Freescale License Manager* service, click the **Save Service** button.
- Click the **Start/Stop/Reread** tab. The Service listed in the list of FLEXIm license services installed appears in the listbox.

LMTTOOLS — Start/Stop/Reread Tab



NOTE If you have other license services enabled, they will also appear in this list.

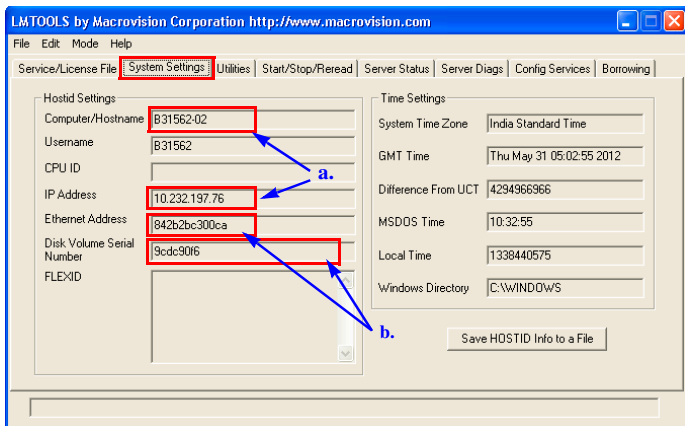
10. Click the **System Settings** tab.

You require the following information about your server to tie the license to it:

- a. Server **Hostname** OR **IP Address** (either can be obtained from lmtools) as the following figure shows. Refer to the point **a.** in the figure "[LMTOOLS — System Settings Tab](#)".
- b. **HostID of the server** (most commonly used are the **Ethernet Address** or the **Disk Volume Serial Number**, both can be obtained from lmtools), as the following figure shows. Refer to the point **b.** in the figure "[LMTOOLS — System Settings Tab](#)".

NOTE In case of HostID of the server, make sure to obtain the Ethernet address for the *local network interface card* and NOT the Ethernet address for the wireless network connection.

LMTOOLS — System Settings Tab



NOTE If a triple redundant server license configuration is desired, submit a [Service Request](#) to obtain that support. Select Category: Software Product Support and Topic: License Issue.

Section B: Configuring and Installing License File on your Server(s)

1. If you already have a license file, you may skip to *Step 10*. Otherwise, follow the instructions listed from *Step 2*.
2. Log in to **My Freescale** at www.freescale.com.

NOTE You have to log in using your registered Email address and password. In case you do not have them, register yourself with Freescale first.

3. Click **Software Licensing**.
4. Locate the CodeWarrior Suite that you would like to license.
5. Click **License Options** for the CodeWarrior Suite you selected.

License Options Button

| My Products | | | | | | | | |
|--------------|---|--------------------------|-------------------------|------------------------|-----------------|-----------------|--|-------------------------------|
| Part | Description | Reg Code | License Type | Support | Date Registered | Support Expires | Manage Licenses | Purchase Options |
| CWP-PRO-NL | CodeWarrior Professional Suite - Perpetual | CWP-PRO-NL_1-772542111 | Perpetual-Nodelocked | Submit Service Request | 07/20/2011 | 07/19/2013 | License Options | Renew Support |
| DLA-BASIC-FL | CodeWarrior Basic Suite - Annual Subscription | DLA-BASIC-FL_1-753390734 | Subscription-Floating | Submit Service Request | 05/23/2011 | 05/22/2014 | License Options Purchase More Seats | Upgrade Renew Subscription |
| CWA-BASIC-NL | CodeWarrior Basic Suite - Annual Subscription | CWA-BASIC-NL_1-748882384 | Subscription-Nodelocked | Submit Service Request | 05/12/2011 | 05/11/2013 | License Options | Upgrade Renew Support |

6. When you registered your suite, you locked it to a particular license server. If you will be using a license server other than the one to which you initially locked the suite, select **Rehost**.

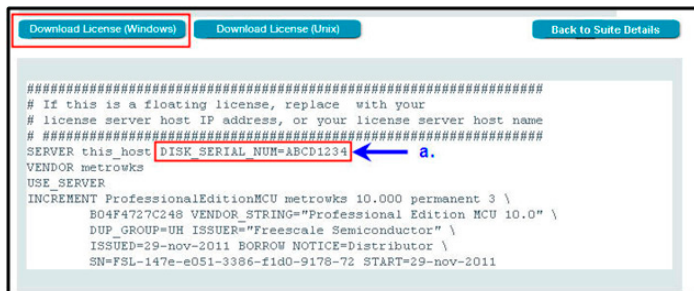
Enter the HostID of your server, obtained from the [Step b. on page 5](#) in the *Section A* of this manual, to rehost the CodeWarrior Suite to your license server.

NOTE You must rehost the license to match it with *your* license server.

7. Either select **Repair License** (for the products that you have already activated), or select **Get License** (for the products that you have NOT activated) to retrieve the new permanent license for your product.
8. Ensure that your server's HostID, appears in the retrieved license file.

The following figure shows an example:

Retrieved License File

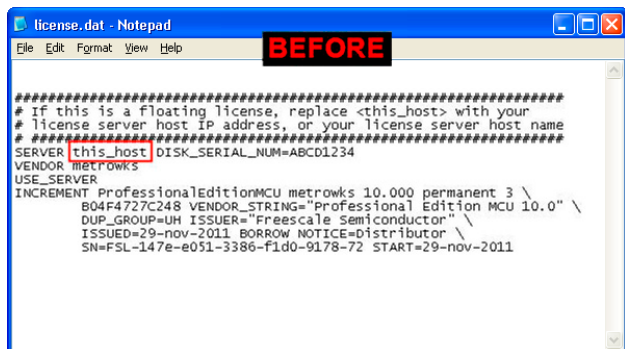


9. Click the **Download License (Windows)** button and save the `license.dat` file to to the directory `C:\FLEX1m\` on the server.
10. Open your `license.dat` file with a text editor, like Notepad, to edit it.
11. Replace `this_host` with either your server Hostname or server IP address that you obtained from the [Step a. on page 5](#) in the *Section A* of this manual.

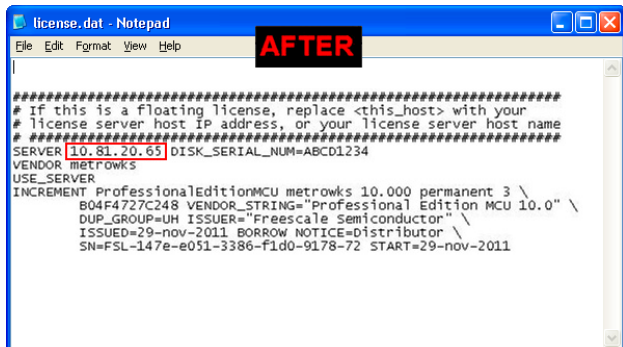
NOTE Do NOT edit the HostID portion of the license file as it will break the encryption of the license file.

The following figure shows the license file before and after replacement of `this_host` variable:

Before Replacing this_host Variable



After Replacing this_host Variable



```
license.dat - Notepad
File Edit Format View Help
#####
# If this is a floating license, replace <this_host> with your
# license server host IP address, or your license server host name
#####
SERVER 10.81.20.65 DISK_SERIAL_NUM=ABCD1234
VENDOR metrowks
USE_SERVER
INCREMENT ProfessionalEditionMCU metrowks 10.000 permanent 3 \
B04F4727C248 VENDOR_STRING="Professional Edition MCU 10.0" \
DUP_GROUP=UH ISSUER="Freescale Semiconductor" \
ISSUED=29-nov-2011 BORROW NOTICE=Distributor \
SN=FSL-147e-e051-3386-F1d0-9178-72 START=29-nov-2011
```

12. **TCP/IP Port usage:** FLEXIm uses two TCP/IP ports when operating a floating license server, they are as follows:

- License Server port — This is the port that the license server (lmgrd.exe) utilizes
- Vendor Daemon port — This is the port that the vendor daemon (metrowks.exe or perhaps another) utilizes

NOTE If these ports are not specified in the license, FLEXIm selects a default License Server Port and a Vendor Daemon port is assigned at runtime by the operating system.

13. *(Optional)* **Specification of TCP ports in the license file:** In order to use a firewall or security applications with FLEXIm on your server, you need to configure your license file to specify static ports that you have pre-determined and then open those ports in any network security that you have enabled. You can specify both ports in the license file, for example,

- License Server port = 27000
- Vendor Daemon port = 1710

NOTE Do NOT edit the HostID portion of the license file as it will break the encryption of the license file.

Specification of TCP Ports in the License File

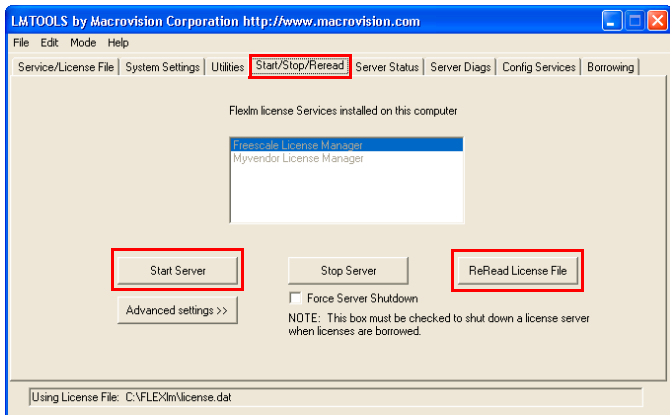


14. Your license file is now ready to install in the location you specified in the [Step c. on page 3](#) of the *Section A* in this document.

Section C: Starting License Server(s)

You can now start the server by clicking the **Start Server** button from the **Start/Stop/ReRead** tab as the following figure shows:

Starting the Server



NOTE In case you need to modify/update the license file, make sure that you always click the **ReRead License File** button after installing or saving it.

Section D: Configuring Client Machines to Obtain Licenses from Server(s)

You can set up your client machines in many ways to access licenses from the license server. The most commonly used methods are:

- 1. Installing the same license file on the client machine and the server:** Place the same license file that you have installed on your server into each client machine. To do this place a copy of `license.dat` in the CodeWarrior installation root directory of each computer on which you plan to use CodeWarrior with the floating license:
 - In the case of CodeWarrior for MCU v10.x, you can save this file here:
`C:\Program Files\Freescale\CW MCU v10.x\MCU`
 - In the case of CodeWarrior for Power Architectures v10.x, you can save this file here:
`C:\Program Files\Freescale\CW PA v10.x\PA`

- In the case of CodeWarrior for StarCore v10.x, you can save this file here:

```
C:\Program Files\Freescale\CW SC v10.x\SC
```

- In the case of other CodeWarrior IDE products, you can save this file here:

```
C:\Program Files\Freescale\CW XX vX\XX
```

2. **Using an environment variable:** Setting an environment variable is another way to point your client machines to retrieve the licenses from the license server. You can set the Windows environment variable `METROWKS_LICENSE_FILE` to point the license files.

NOTE You may use the `set` command at the Windows command prompt, followed by the expression/syntax to set the environment variable.

You can set the Windows environment variable for your license file by using the following syntax:

```
port@host
```

for example,

```
set METROWKS_LICENSE_FILE=27000@my_license_hostname
```

Each client machine must define this environment variable in order to successfully point towards the license server to retrieve their license files.

NOTE The `LM_LICENSE_FILE` is another environment variable option that can be used, but its usage is discouraged as it points ALL FLEXlm enabled applications towards the same license server, which may not be the desired behavior if you have several FLEXlm enabled applications running from your license server.

Section E: Installing Multiple Licenses

If you have license files for more than one (e.g. one license file for the HIWARE daemon, one license file for the Metrowerks daemon), you have to follow below listed steps:

1. On the server, copy the 2nd license file to another folder.
2. Check if the license file is using another port, than the other licenses already in use.
3. Start the FLEXlm License Manager (`lmttools.exe`) and click the **Config Services** tab.
4. Enter a new service name in the **Service Name** combo box (e.g. FLEXlm HIWARE)
5. In the **Path to the lmgrd.exe file** text box, enter the path or click **Browse** to select the `lmgrd.exe` file.
6. In the **Path to the license file** field, enter the path or click **Browse** to select the license file.
7. Click the **Save Service** button.
8. Click the **Start/Stop/Reread** tab (if you are prompted to save the information entered, click **Yes**).
9. Click the **Start Server** button.
10. To check the status, click the **Server Status** tab and click the **Perform Status Enquiry** button.
11. On the client machine, the license files must be stored in different directories or must have different file names.
12. Set the Windows environment variable `LM_LICENSE_FILE`, to point both the license files, to use the semicolon (;) as delimiter.

Section F: Troubleshooting and Getting Help

For troubleshooting and getting help, you may refer our licensing FAQs at:

<http://www.freescale.com/LicensingFAQ>

OR

You can submit a service request at:

1. Log in with your user name and password to submit the request at:

<http://www.freescale.com/support>

2. Select **Create a Service Request**.
3. From the **Category** drop-down list, select **Software Product Support**.
4. From the **Topic** drop-down list, select **License Issue**.
5. Click **Next**.
6. Enter the rest of the required information for the service request.
7. Click the **Submit** button at the bottom of the page.

Congratulations!

You have just configured a floating license for your CodeWarrior software!

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