

## Introduction to Mentor Graphics Licensing on Unix (FLEXIm v8.2)

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### Will These Instructions Work for Me?

This application note applies to licenses that use the Mentor Graphics vendor daemon, mgcld. The vendor daemon that the license requires is specified in the third field of the INCREMENT line. In the below example, you see the vendor daemon "mgcld" appears between "designarch\_c" and "2004.070":

```
INCREMENT designarch_c mgcld 2004.070 27-Jul-2004 3 \  
3CD82D31591E0ADE2EB3 VENDOR_STRING=62A3D84F
```

### What Have You Sent Me?

Mentor Graphics provides floating licenses for products running in the Unix environment. "Floating" licenses require a license server in operation somewhere on the network. A license file requires a server if it contains a SERVER line, a DAEMON line and the quantity of each of the INCREMENT lines is greater than zero.

The licenses in the example below are floating licenses and so require a license server. In this example the expiration date is 27-Jul-2004 and the quantity for each license is 3:

```
SERVER put_server_name_here 77446B53 1700  
DAEMON mgcld path_to_mgcld  
INCREMENT designarch_c mgcld 2004.070 27-Jul-2004 3 \  
3CD82D31591E0ADE2EB3 VENDOR_STRING=62A3D84F  
INCREMENT falconfw_s mgcld 2004.070 27-Jul-2004 3 \  
0CF8BD611154DB92FBCE VENDOR_STRING=257525FB
```

This application note addresses how to set up and use this type of license.

### Step 1: Editing the Licensing Information

The license file which Mentor Graphics provides contains some placeholder information. This information must be replaced with information correct for your site. You need to edit the license file to provide this information before you are able to use the license file.

### SERVER Line

The first step of this process is to identify the system that is designated as the server.

- a. **Check the SERVER line of the provided license file.** The third field ("77446B53" in the above example) is the hostID of the computer you previously selected as the license server. This information must match the hostID of the actual node that you use as your license server.

**Tip:** The third field of the SERVER line should never be edited. If it is incorrect then the licenses need to be regenerated with the correct hostID. Editing this field invalidates your licenses.

If Mentor Graphics software is loaded on the system, you can verify the hostID with the command *lmhostid*. (This command is typically found in the same directory as *lmgrd*.) If the value reported is the same as the third field of the SERVER line then the licensing information is for that node.

- b. **Prepare the license file for editing.** If the license file was sent as an attachment to email, detach the file and save it to a directory which will permit you to make edits to the file. If the licensing information is embedded in an email, copy the contents of the email to a file you are permitted to edit. Edit the file to remove any email header information.
- c. **Determine the hostname of the license server node.** Find this value with the *hostname* command:

```
%hostname  
hood
```

Alternatively, you may use the *uname -a* command:

```
%uname -a  
SunOS hood 5.8 Generic_108528-15 sun4u sparcsun4 SUNW,Sun-Blade-1000
```

The hostname of the system in the example above is hood.

- d. **Edit the SERVER line of the license file to reflect the correct hostname.** For example:

**BEFORE:**

```
SERVER put_server_name_here 77446B53 1700
```

**AFTER:**

```
SERVER hood 77446B53 1700
```

### DAEMON Line

The DAEMON line shows where the Mentor Graphics license manager software (or vendor daemon) resides.

- e. **Edit the DAEMON line to include the path to the mgcld licensing software, as referenced from the license server node.** The path to this software varies by tool and must be stated as the absolute path. For example:

**BEFORE:**

```
DAEMON mgcld path_to_mgcld
```

**AFTER:**

```
DAEMON mgcld /usr2/Mentor/pkgs/mgls/lib/mgcld
```

### INCREMENT Lines

The last items to check are the INCREMENT lines. Normally, there should be no need to modify these lines. Notice that each INCREMENT line has several key words and can continue on multiple lines with the \ used as the line continuation character. INCREMENT lines cannot continue on multiple lines without the line continuation character.

```
SERVER hood 77446B53 1700
DAEMON mgcld /usr2/Mentor/pkgs/mgls/lib/mgcld
INCREMENT designarch_c mgcld 2004.070 27-Jul-2004 3 \
    3CD82D31591E0ADE2EB3  VENDOR_STRING=62A3D84F
INCREMENT falconfw_s mgcld 2004.070 27-Jul-2004 3 \
    0CF8BD611154DB92FBCE  VENDOR_STRING=257525FB
```

- f. **Check that the INCREMENT lines do not have trailing spaces.** This is sometimes caused by electronic mail formatting. However, trailing spaces are not allowed within the license file.

At this point your license file should be ready to use. Save it somewhere as a backup copy of the licenses.

### Step 2: Installing the License File

Copy the license file to a place where the software can use it.

### Step 3: Starting the License Server

Once you have placed the license file in your chosen location, you should be able to start the license server. Mentor Graphics recommends using a log file, especially when starting a new server. The log file provides excellent tracking and troubleshooting information helpful for resolving any future problems.

- a. **You need to find the lmgrd in order to start the server.** The lmgrd is normally found in one of two locations:

```
$MGC_HOME/pkgs/mgls/bin
OR
The same directory as mgcld
```

- b. **Start the server with this command:**

```
lmgrd -c <path_to_the_license_file> -log <path_to_the_log_file>
```

For example:

```
/Mentor/pkgs/mgls/bin/lmgrd -c /licenses/mentor.lic -log \
/licenses/mentor.log
```

**Tip:** Ensure that you provide an actual filename for the log file. Unspecified problems may occur if you only specify a directory when using the -log switch. You may store the log file anywhere you wish, however storing it in the same directory as the license file makes it easier to cross-check information between the two when troubleshooting.

- c. **Press enter** and the prompt displays.
- d. **Verify that the license server is working by issuing the following command:**

```
lmstat -a -c <path_to_license_file>
```

For example:

```
/Mentor/pkgs/mgls/bin/lmstat -a -c /licenses/mentor.lic
```

The following text shows example output from running the above command:  
lmstat - Copyright (C) 1989-2002 Globetrotter Software, Inc.  
Flexible License Manager status on Wed 10/22/2003 13:30

```
License server status: 1700@hood
  License file(s) on hood: /usr2/licenses/mentor.lic:

  hood: license server UP (MASTER) v8.2
```

Vendor daemon status (on hood):

```
  mgcld: UP v8.2
```

Feature usage info:

```
Users of falconfw_s: (Total of 3 licenses available)
```

```
Users of designarch_c: (Total of 3 licenses available)
```

### **Pointing client workstations to the license server**

Client workstations find licenses via an environment variable. Either MGLS\_LICENSE\_FILE or LM\_LICENSE\_FILE may be used. When pointing to a license server, the recommended format is port@host.

The “port” is the port number through which the license server communicates. The port number is the last field of information on the SERVER line in the license file. In the following example the port number is 1700:

```
SERVER hood 77446B53 1700
```

The “host” is the hostname of the license server. This can be obtained by looking at the second field of information on the SERVER line in the license file, or by running the `uname -a` command on the license server. In the example SERVER line above, the hostname is hood.

**Tip:** The hostname used in the environment variable should be an exact match for the hostname in the license file. If the license file uses the fully qualified domain name, the environment variable should as well; if it does not, the variable should not either.

So, in this example the correct environment variable value is:

```
1700@hood
```