



Installing FLEXlm

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A.1 Overview

The following steps are a simple summary of FLEXlm installation as it pertains to MSC/PATRAN. For more specific information, or information on integration with other products using FLEXlm, consult the FLEXlm documentation. See **Additional Documentation** (p. 125).

When MSC/PATRAN executes, it locates the license file, `license.dat`, which tells it the name of the license server node and the port number over which to communicate with the license manager daemon, `lmgrd`.

The `lmgrd` daemon determines what node and port are associated with the vendor daemon, `msc`, and returns that information to MSC/PATRAN. The application then contacts the vendor daemon which grants licenses if they are available.

A.2 Installing FLEXlm Using a New Server

A.2.1 Obtain an MSC/PATRAN License File for Your Server

To obtain a license file from MSC, you need to determine the hostid of the machine that will function as your license server. On **UNIX** workstations the `mscsetup` utility obtains this information for you, or you can run the `lmhostid` utility:

```
# <installation_dir>/bin/lmhostid
```

On **Windows NT** workstations you must use the setup Wizard to obtain the `lmhostid`. This id will be displayed at the top of the form when the “FLEXlm” button is selected.

Use the `mscsetup` utility (UNIX) or `setup.exe` Wizard (Windows NT) to create an Authorization Request form. Send this form to your MSC sales representative to obtain your permanent license.

A.2.2 Place the License File on the Server

The `mscsetup` utility (UNIX) or setup Wizard (Windows NT) automatically installs the `license.dat` file if you provide it during installation.

If you have other existing FLEXlm products you will need to integrate the new MSC/PATRAN license. See [Additional Documentation](#) (p. 125) for documents that will provide instructions.

The license file may be located anywhere on your license server. MSC recommends locating it in `/msc/flexlm/licenses/license.dat`.

A.2.3 Check Paths and Server Names in the `license.dat` File

Check that the `license.dat` file for your installation contains the correct server and port settings.

Below is an example of what you might get from MSC which needs to be fixed by either `mscsetup` or by the user.

```
-----Begin File-----  
# The authorization line length has necessitated display on multiple  
# lines. A "\" is used to signify a line continuation. Please enter  
# the codes exactly the way they are printed, including the "\"  
# continuation character. The VENDOR_STRING field on a feature line must be  
# entered on one line only, and not span more than one line.  
SERVER UNKNOWN 72767c4d 1700  
DAEMON MSC /user_defined_path/msc
```

```
FEATURE PATRAN MSC 1997.0801 15-AUG-1997 5 5C22EC5AE79928E63033 \  
VENDOR_STRING=OPT:PT=PA_VDA,PT=PA_CADDS_5,PT=PA_ProENGINEER,PT=PA_CATIA,PT=P  
A_Euclid_3,PT=PA_Unigraphics,PT=PA_IGES \  
ISSUED=10-JUL-1997 ck=86 SN=12345678  
  
FEATURE PA_ADVANCED_FEA MSC 1998.1201 24-APR-1998 600 CC0207085167EC550247 \  
VENDOR_STRING=BLV:120 ISSUED=24-APR-1997 SN=12345678  
FEATURE PA_PATRAN MSC 1998.1201 24-APR-1998 390 ACA207581166B271A261 \  
VENDOR_STRING=BLV:78 ISSUED=24-APR-1997 SN=12345678  
-----End File-----
```

The first 5 lines are comments. They can be removed or ignored.

The 6th line is the SERVER line:

- SERVER must be in all caps, followed by the hostname, then the lmhostid, then the port the daemon will run on.
- The hostname can be determined by typing “hostname” on the machine you wish to be your license server. Replace “UNKNOWN” with this hostname.
- The lmhostid should be correct. To verify this, run “mscsetup id.” If the lmhostid is not correct, new codes must be generated. Contact your local MSC sales office.
- The port is defaulted to 1700 but can be any free port. If you don’t know what ports are free, use the default.

The 7th line is the DAEMON line.

- DAEMON must be in all caps, followed by MSC which also must be in all CAPS. This is followed by the path to the msc vendor daemon executable which is in lower case.
- The executable is found in the FLEXlm directory. If your installation directory is /msc on a **UNIX** system, then the executable is found in /msc/flexlm/<arch>/msc where <arch> is machine dependent - either hpux, irix, solaris, aix, alpha.
- If your installation directory is c:\msc on a **Windows NT** installation, then the executable is found in c:\msc\flexlm

Here is an example of the changes needed to be made for the above file. In this example, the server name is kasane, the installation directory is /msc, and port 1700 is busy (1701 is free).

```
# The authorization line length has necessitated display on multiple  
# lines. A “\” is used to signify a line continuation. Please enter  
# the codes exactly the way they are printed, including the “\  
# continuation character.The VENDOR_STRING field on a feature line must be
```

```
# entered on one line only, and not span more than one line.
SERVER kasane 72767c4d 1701
DAEMON MSC /msc/flexlm/solaris/msc
FEATURE PATRAN MSC 1997.0801 15-AUG-1997 5 5C22EC5AE79928E63033 \
VENDOR_STRING=OPT:PT=PA_VDA,PT=PA_CADDS_5,PT=PA_ProENGINEER,PT=PA_C
    ATIA,PT=PA_Euclid_3,PT=PA_Unigraphics,PT=PA_IGES \
    ISSUED=10-JUL-1997 ck=86 SN=12345678
FEATURE PA_ADVANCED_FEA MSC 1998.1201 24-APR-1998 600 CC0207085167EC550247 \
    VENDOR_STRING=BLV:120 ISSUED=24-APR-1997 SN=12345678
FEATURE PA_PATRAN MSC 1998.1201 24-APR-1998 390 ACA207581166B271A261 \
    VENDOR_STRING=BLV:78 ISSUED=24-APR-1997 SN=12345678
```

Note: The 9th and 10th line shown here are one line, although it wraps in this document. From “VENDOR_STRING=” to the last “PT=” entry **must** be one line in the file, and cannot contain spaces or continuation characters. Note that your codes may have fewer “PT=” entries than this example.

A.2.4 Start the Manager Deamons

This step is necessary only on UNIX workstations. On Windows NT the setup Wizard should perform the remaining steps automatically.

On the license server, start the license manager daemon with the `FLEXlm` script. Do not execute this as root since it may create a security risk on your network.

```
% <installation_dir>/bin/flexlm lmgrd
```

If the `license.dat` file is located in `/msc/flexlm/licenses`, this script will start the following daemons:

- `lmgrd` - the server daemon
- `msc` - the vendor daemon

A.2.5 Set the lmgrd Daemon to Execute on Reboot

This step is necessary only on UNIX workstations. If you are installing using `mscsetup` on UNIX or the setup Wizard on Windows NT to install FLEXlm, the remaining steps should be done automatically.

Modify the `/etc/inittab` script to start the `lmgrd` daemon as a user (this is all one line):

```
msc1:23456:once:su username -c '(umask 022; <installation_dir>/bin/lmgrd -c  
<license_path> -l <log_file>)'
```

Where `license_path` is the location of the `license.dat` file (i.e. `/msc/licenses/license.dat`), and `log_file` is the file to which the daemon will write messages.

A.2.6 Set up Clients to Access the Floating License

You have two options for setting the file location on clients:

- Make the license.dat file available on each client. The default location is
`/msc/flexlm/licenses/licenses.dat` on UNIX or
`x:\msc\flexlm\licenses\license.dat` on Windows NT.
- Set the MSC_LICENSE_FILE environment variable to
“<port>@<hostname>”. See **Environment Variables** (p. 70) for information on
setting environment variables for MSC/PATRAN.

A.3 Replacing Codes on an Existing Server

Follow these steps if you have an existing MSC/PATRAN installation (version 7.0 or later) and have received new codes (as a renewal, change, etc.).

Important: During this process, users will lose contact with the license server, and will not be able to access modules etc. This should not adversely affect databases, but it is advisable to have all users exit MSC/PATRAN until it is completed.

A.3.1 Edit The New License File

Place the new codes as a license file in the same directory as the existing license.dat file. Call it `license_new.dat`. Change the SERVER and DAEMON lines in the new license file to include the same port number, server name, and paths as the existing file. For example:

```
SERVER server1 123465 1700
DAEMON MSC /msc/flexlm/bin/msc
```

A.3.2 Replace License File

Rename the existing license.dat file to `license_old.dat`, and the new file to the current license file name (i.e. `license.dat`):

```
# mv license.dat license_old.dat
# mv license_new.dat license.dat
```

On Windows NT use Explorer to rename the files.

A.3.3 Force Daemon to Read New License File

Use the `lmreread` command to cause the `lmgrd` daemon to reset using the new license file.

UNIX:

```
# <installation_dir>/bin/lmreread -c <path>/license.dat
```

Windows NT (from a DOS prompt):

```
x:\msc\flexlm\lmutil lmreread -c <path>\license.dat
```

You should now be able to run MSC/PATRAN products using the new licenses. If for some reason this fails, kill and restart the daemons as follows.

UNIX:

```
# <installation_dir>/bin/lmdown -c <path>/license.dat
```

```
# <installation_dir>/bin/lmgrd -c <path>/license.dat
```

Windows NT:

Stop the FLEXlm service under Control Panel | Services, then at a DOS prompt execute the following command:

```
x:\msc\flexlm\lmgrd -app -c <path>\license.dat
```


A.4 Installing Using a Nodelock File

A FLEXlm nodelock license file differs from a network file with the addition of a host id at the end of each FEATURE line.

If you have a temporary or demonstration license it may be supplied as a nodelock license.dat file. To use this file place it in the MSC/PATRAN home directory (/msc/flexlm/licenses/license.dat) or set the MSC_LICENSE_FILE environment variable to its location:

```
# setenv MSC_LICENSE_FILE /users/license_files/license.dat
```

See **Environment Variables** (p. 70) for information on setting environment variables for MSC/PATRAN.

A.5 MSC_LICENSE_FILE verses LM_LICENSE_FILE

By default, all FLEXlm products use the environment variable `LM_LICENSE_FILE` to define the location of the license file (i.e. `license.dat`), or the server and port number (i.e. `1700@servername`). This includes MSC/PATRAN products. For example:

```
# setenv LM_LICENSE_FILE /msc/flexlm/licenses/license.dat
```

This presents a problem, however, when MSC/PATRAN is used in the same environment with other products (CAD packages, solvers, etc.) that also use FLEXlm. If the `LM_LICENSE_FILE` variable is set to the MSC/PATRAN license file location, these other products may not locate their licenses and vice versa.

For this reason, all MSC products use their own variable, `MSC_LICENSE_FILE`, to identify the location of the license file, or the server and port number. The MacNeal-Schwendler Corporation recommends using `MSC_LICENSE_FILE` for all MSC products. However, for all intents and purposes, these variables are equivalent.

```
# setenv MSC_LICENSE_FILE /msc/flexlm/licenses/license.dat
```

If both environment variables are set, MSC/PATRAN will use the `MSC_LICENSE_FILE` setting.

If you wish more information on `LM_LICENSE_FILE` consult the Globetrotter supplied documentation (see [Additional Documentation](#) (p. 125)). For additional information on the `MSC_LICENSE_FILE` variable see [Environment Variables](#) (p. 70).

A.6 Additional Documentation

MSC provides a FAQ and End Users Guide in HTML format on the CD-ROM. To view these documents you need an HTML compatible World Wide Web browser such as Netscape Navigator, or Mosaic.

The documents are stored in `<installation_dir>/flexlm/htmlman/index.htm`. Note that we only provide the End User Guide and FAQ.

To obtain additional information and information on auxiliary products such as FlexAdmin, visit the Globetrotter Web Page. If you have Internet access, set your browser to:

<http://www.globetrotter.com/>

▼ Options



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