

# *Licensing Management*

**This chapter gives you more information about the procedures for managing the licenses that are used in Telelogic Tau.**

**The following topics are discussed:**

- **How to update and start the FLEXlm license server**
- **What will happen if the FLEXlm license server goes down**
- **Where you will find FLEXlm log information**

## FLEXlm Management Procedures

### Updating the FLEXlm Server (UNIX)

Every time you edit your `license.dat` file to add features, replace expired FEATURE lines, etc., you must advise the “lmgrd” daemon of the changes. To do this, use the `updatelicd` utility:

```
$telelogic/bin/updatelicd
```

(where `$telelogic` is the Telelogic Tau installation directory)

### Updating the FLEXlm Server (Windows)

Every time you edit your `license.dat` file to add features, replace expired FEATURE lines, etc., you must advise the “lmgrd” daemon of the changes. To do this, use the FLEXlm utility:

```
C:\Telelogic\SDL_TTCN_Suite4.2\flex\wini386flex\lmtools.exe
```

and select the *Stop/Reread* tab to update your running license server with the new information.

### Automatic Server Startup (UNIX)

In order to start up the Telelogic Tau tool License Server automatically at boot time, the following should be performed:

#### SunOS 5

1. Copy the file `$telelogic/flex/sunos5flex/sdtlmgrd` to `/etc/init.d/sdtlmgrd`. (Where `$telelogic` is the Telelogic Tau installation directory.)
2. Change the file permissions with the following commands:

```
chmod 744 /etc/init.d/sdtlmgrd
chown root /etc/init.d/sdtlmgrd
chgrp sys /etc/init.d/sdtlmgrd
```

3. Set up the following links:

```
ln -s /etc/init.d/sdtlmgrd /etc/rc3.d/S17sdtlmgrd
ln -s /etc/init.d/sdtlmgrd /etc/rc3.d/K17sdtlmgrd
```

## HP

1. Copy the file `$telelogic/flex/hppaflex/sdtlmgrd` to `/sbin/init.d/sdtlmgrd`. (Where `$telelogic` is the Telelogic Tau installation directory.)

2. Change the file permissions with the following commands:

```
chmod 744 /sbin/init.d/sdtlmgrd
chown bin /sbin/init.d/sdtlmgrd
chgrp bin /sbin/init.d/sdtlmgrd
```

3. Set up the following links:

```
ln -s /sbin/init.d/sdtlmgrd /sbin/rc3.d/S17sdtlmgrd
ln -s /sbin/init.d/sdtlmgrd /sbin/rc3.d/K17sdtlmgrd
```

## Automatic Server Startup (Windows)

The FLEXlm master daemon, “lmgrd”, can be installed as a service on a Windows system so that it can be managed from the Control Panel. To install `lmgrd` as a service:

1. Double-click `C:\Telelog-ic\SDL_TTCN_Suite4.2\flex\wini386flex\lmttools.exe`
2. Select *Configuration Using Services*.
3. Select the *Configure Services* tab and fill out the paths.
4. Select the *Start/Stop/Reread* tab and click *Start Server*.

The `lmgrd` is now installed as a Windows service and will be started automatically each time your system is booted. The account must have the privilege to log on as a service or otherwise the operation will fail.

### Note:

Beware that when running “lmgrd” as a service, it is possible for the user to inadvertently shut down the license server by pressing the *Stop Server* button when running `lmttools.exe` from a client machine.

## Manually Starting the FLEXlm Server (UNIX)

If the license server goes down for some reason (but the computer does not need to be restarted), you will have to restart the license server manually.

You can start the license server from command line. Proceed as follows:

1. Log in on the computer where the license server is to run.
2. Type:

```
$telelogic/bin/startlicd
```

(where `$telelogic` is the Telelogic Tau installation directory)

## Manually Starting the FLEXlm Server (Windows)

If you have not installed `lmgrd` as a service on Windows NT or Windows 2000, or in a Windows 95 or Windows 98 batch file, or if the license server goes down for some reason (but the computer does not need to be restarted), you will have to restart the license server manually.

You can start the license server as an application from the Windows console with the `-app` option. Proceed as follows:

1. Log in on the computer where the license server is to run.
2. Type:

```
cd c:\Telelogic\SDL_TTCN_Suite4.2\flex
c:\Telelogic\SDL_TTCN_Suite4.2\flex> lmgrd -app >
license.log
```

## Adding FEATURES to an Existing Server

If your system is already using FLEXlm for general license management, it is sufficient to add any `VENDOR` and `FEATURE` lines you receive in a license file from Telelogic Customer Support to your existing `license.dat` file.

# If the FLEXIm Server Goes Down

In some cases, the Telelogic Tau tools may lose contact with the license server. This could happen, for instance, if there is a communication failure in your network, or if the license control processes terminate for some reason. A recovery mechanism is provided – currently running sessions of the Telelogic Tau tools will only have to wait for the license server to come up again. (They will not have to perform any special operations.)

## Losing Contact with the License Server

From a Telelogic Tau user's point of view, the following will happen if the license server goes down:

- Telelogic Tau tool disables the Organizer's menu commands. Some other functionality which is managed by the Organizer is disabled as well. It is however possible to finish the current session (saving and printing diagrams for instance).
- The license failure is reported in the Organizer Log window.

## Regaining Contact with the License Server

When the license server comes back up, the Telelogic Tau tools can be used again. Users are notified by a message in the Organizer Log window and the Telelogic Tau tools resume normal functionality.

## FLEXIm Event Logging

**On UNIX:** All events that `lmgrd` administrates are logged in a file named `license.log`, available in the `$telelogic` directory. (Where `$telelogic` is the Telelogic Tau installation directory.)

**In Windows:** When the license server has been installed as a service on Windows NT or Windows 2000 (see “Updating the FLEXIm Server (Windows)” on page 54) all events that it administrates are logged in a file named `lmgrd.log`, available in the `system32` directory. For Windows 95 and Windows 98, you can specify the directory and file name for the log file, by using the ‘>’ sign (see “Automatic Server Startup (Windows)” on page 55). Our default location is

```
c:\Telelogic\SDL_TTCN_Suite4.2\flex\wini386flex\license.log
```

The events logged include:

- Startup and shutdown of the license server
- Checking in and checking out licenses
- Denying licenses

Each event involving a license also specifies:

- The corresponding Telelogic Tau tool (license controlled tools only)
- The user
- The node
- The date and time
- The usage time (for check-in log entries)

**Note:**

The log file will grow as users run Telelogic Tau. You may consider deleting the head of the file from time to time to save disk space.