# TUTORIAL: License Manager Installation

**This tutorial describes how to install the FLEXLM License Manager.**

## General

Veritools license requires the flexlm/lmgrd server. If you do not have it, you can download the same and the "verid" from our website for your corresponding platform at: http://www.veritools.com/download_latest.shtml .

Users can also add new Perl functions to a central library for all local users. Please see chapter 6 of the Undertow User Guide and Tutorial.

**Step 1: Contact support@veritools.com for username and password.**

I%gunzip LicenseMgr_****.tar.gz
%tar xvf LicenseMgr_****.tar
The foll. will be generated:
LicenseMgr/ LicenseMgr/install_license.txt
LicenseMgr/license_support.txt
LicenseMgr/lmgrd
LicenseMgr/lmutil LicenseMgr/verid

Follow the instructions in the install_license.txt & license_support.txt files for installing the License Manager and the daemon.
1. Append your license code into the license file or save it as 'license.dat' in the LicenseMgr directory.
2. Use the foll. UNIX command to set the permissions for your license file. For example:
%chmod 444 license.dat
3. In your shell start up script (~/.cshrc), set the LM_LICENSE_FILE environment variable to point to your license file.
% setenv LM_LICENSE_FILE <path>/license.dat
4. Use the foll. UNIX command to source your .cshrc file
%source ~/.cshrc

**Step 2) Make sure that your hostname in your license corresponds to your machine.**
%hostname (should give you your hostname)
If the license.dat file doesn not have the correct hostnamenot, modify it.

**Step 3)** Stop and restart your license server from your LicenseMgr directory.
%./lmutil lmdown -c license.dat (to stop)
%./lmgrd -c license.dat -l log.txt (to start)
If you modify the license.dat file, you should reinitialize lmgrd by running lmreread.
%./lmutil lmreread -c license.dat
%./lmutil lmstat -c license.dat (will let you know whether the license is up or not)

**Step 4)** If you have any problem with getting your license up, you can try the following:
1. Set the hostname of your machine to be its ip address.
2. Replace hostname in the license file with its ip adress.
3. Change the VENDOR line in the license file to DAEMON /path/verid

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**Step 5) Environment Variables:**
Once your license is up and running, make sure you set the following environment variables and source your .cshrc file:
1. setenv UT_ROOT_DIR <path_to_undertow_installation_directory> UT_ROOT_DIR points to the installation directory of the Undertow Suite.
2. setenv UT_WORK_DIR <path_to_working_directory> Sets the default directory for Undertow Suite file dialogs. You can set it to the current directory.
3. PATH variable: If the Undertow executable (ut) is in a directory path that you specified in the UNIX PATH variable, then you can specify only the executable name (ut) when you start the software.
4. setenv LM_LICENSE_FILE <path to license file>/license.dat Set the LM_LICENSE_FILE environment variable to point to your license file.
5. Then source your .cshrc file before you use ut: %source ~/.cshrc 6. Verify the above as follows: %echo $UT_ROOT_DIR %which ut These should give you the path to the Undertow installation directory.

**Step 6) Download Software:**
You can get the latest version of the Undertow software at:
http://www.veritools.com/download_latest.shtml
Contact support@veritools.com for username & password. Download the ut****.tar.gz file for the platform that you currently use.
% gunzip ut****.tar.gz tar xvf ut****.tar
Please make sure you download the version compatible to your platform.

LINUX (Redhat 7.2, 8.0) is for GLIBC 2.2 or older.
LINUX (Redhat 9.0, Enterprise) is for GLIBC 2.3 or higher.

So make sure you are using the correct installation according to the GLIBC that you have in your LINUX machine.

To find out which version of the standard C libraries you have in your LINUX machine, please use one of the following ways:
a) Enter the following command in your system: ls -l /lib/libc.so.6

If this file is a link to libc-2.0.x.so your system is based on glibc2.0, if it is a link to libc-2.1.x.so your system is based on glibc2.1, if it is a link to libc-2.2.x.so your system is based on glibc2.2, if it is a link to libc-2.3.x.so your system is based on glibc2.3 If the file /lib/libc.so.6 exists, but is not a link, call it. (yes, execute it!). glibc 2.1.1 will report some infos, glibc 2.0.x will segfault since that's one of its errors.

b) You can also check: /usr/include/features.h
features.h defines __GLIBC_MINOR__ which is 0 for glibc 2.0.x, 1 for glibc 2.1.x. etc.

c) You can also enter the command /lib/libc.so.6 | grep "C Library"

You will receive a message telling you what library you use.

**Step 7) Setup/Quickstart/Tutorial/Linking PLI:**
Here is the quick setup information and tutorial for Undertow Suite.

The first link should guide you on how to set up and go through the basic functionalities of the product. You can also find the files at

http://www.veritools.com/support/training.html

This document, FSM_README.html, will give you step-by-step instructions for simulating the Verilog design (FSM example) using various simulators like FINSIM, VSIM, VCSI, NCSIM, NC Verilog XL, NC Verilog and Verilog XL, instructions for linking the PLI and examples for using Undertow in interactive mode with these simulators as well as batch mode. Please refer to the /FSM directory for the FSM example design. The README's are also available in this directory.