

Intel[®] Software License Manager 2.6 User's Guide

Copyright © 2002–2017 Intel Corporation All Rights Reserved Document Number: 251879-014US Version: 2.6 <u>http://www.intel.com/</u> Document Number: 251879-014US



Legal Information

INFORMATION IN THIS DOCUMENT IS PROVIDED IN CONNECTION WITH INTEL(R) PRODUCTS. NO LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE, TO ANY INTELLECTUAL PROPERTY RIGHTS IS GRANTED BY THIS DOCUMENT. EXCEPT AS PROVIDED IN INTEL'S TERMS AND CONDITIONS OF SALE FOR SUCH PRODUCTS, INTEL ASSUMES NO LIABILITY WHATSOEVER, AND INTEL DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY, RELATING TO SALE AND/OR USE OF INTEL PRODUCTS INCLUDING LIABILITY OR WARRANTIES RELATING TO FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT.

UNLESS OTHERWISE AGREED IN WRITING BY INTEL, THE INTEL PRODUCTS ARE NOT DESIGNED NOR INTENDED FOR ANY APPLICATION IN WHICH THE FAILURE OF THE INTEL PRODUCT COULD CREATE A SITUATION WHERE PERSONAL INJURY OR DEATH MAY OCCUR.

Intel may make changes to specifications and product descriptions at any time, without notice. Designers must not rely on the absence or characteristics of any features or instructions marked "reserved" or "undefined." Intel reserves these for future definition and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to them. The information here is subject to change without notice. Do not finalize a design with this information.

The products described in this document may contain design defects or errors known as errata which may cause the product to deviate from published specifications. Current characterized errata are available on request.

Contact your local Intel sales office or your distributor to obtain the latest specifications and before placing your product order.

Copies of documents which have an order number and are referenced in this document, or other Intel literature, may be obtained by calling 1-800-548-4725, or by visiting Intel's Web Site (http://www.intel.com/).

Intel processor numbers are not a measure of performance. Processor numbers differentiate features within each processor family, not across different processor families. See http://www.intel.com/products/processor_number for details.

Intel, Intel logo, Itanium, and VTune are trademarks of Intel Corporation in the U.S. and other countries.

* Other names and brands may be claimed as the property of others. Copyright (C) 2002-2017, Intel Corporation. All rights reserved.



Contents

1	About	out this Guide5		
2	About Intel® Software License Manager			6
	2.1	Suppor	ted Platforms	6
	2.2	Floatin	g License	7
	2.3	Technie	cal Support	8
	2.4	Client/	Server Backward Compatibility	8
3	Installing the Intel® Software License Manager			
	3.1 Registering Your Product Serial Number. Error! Bookmark not defined			fined.
	3.2	Downlo	oads and Installs Error! Bookmark not de	fined.
		3.2.1	Intel® Software License Manager downloads	9
		3.2.2	Installing the Intel® Software License Manager on Windows	0
		3 7 3	Installing the Intel® Software License Manager on	9
		5.2.5	Linux* and OS X*	11
		3.2.4	Starting the Intel® Software License Manager	
			automatically on Linux* after reboot	11
		3.2.5	Verifying the Intel® Software License Manager on	10
		3 2 6	Shutting Down or Removing the Intel® Software Lice	13 anco
		5.2.0	Manager on Linux* and OS X*	13
4	Using	the Clie	ent Application for the First Time	15
	4.1	Installi	ng the Client Application	15
	4.2	License	e Check-out	15
		4.2.1	License Seat Allocation Overview	15
		4.2.2	Check License Allocation Status	16
5	Troub	leshoot	ing	17
	5.1	Getting	J Online Supports	17
	5.2	Changi	ng Host Information for Your License	17
	5.3	Creatin	g Debug Logs for License Checkout Issues	17
		5.3.1	Verify Compatible Versions	19
		5.3.2	Identifying the Host Name and Host ID	19
		5.3.3	How to Specify Ports for License Servers	20
	5.4	Inform	ation Needed for Support Requests	21
		5.4.1	Client Information	21
		5.4.2	Inter Software License Manager Information	22
6	Licens	se Serve	er/Client Installation Checklist	23



6.1	License Server Host System Checklist	23
6.2	Client Systems Checklist	24
Anno	, adicac	26
Appe	luces	20
7.1	Appendix A: Latest Revision of User's Guide	26



1 About this Guide

This guide helps you get started using the Intel[®] Software License Manager with your Intel[®] Software Development Product.

Related Publications

- For information on FLEXIm* and FlexNet* software created by Flexera* Software, see http://www.flexerasoftware.com.
- For information on Intel[®] Software Development Products, see <u>http://developer.intel.com/software/products</u>.
- For more information about Intel[®] Software Development Product licenses and their usage, see https://software.intel.com/en-us/faq/licensing.



2 About Intel® Software License Manager

The Intel[®] Software License Manager is a collection of software components that helps you manage your license file(s) in a multiple-user environment. Before you can use Intel[®] Software Development Products, you must have the correct license installed. The Intel[®] Software License Manager can be downloaded separately from your product if you purchased a floating license.

This document describes the installation and use of the Intel[®] Software License Manager for <u>supported platforms</u>.

The Intel[®] Software License Manager's primary function is to serve a finite number of license seats concurrently to a larger number of users of a software product. You only need the Intel[®] Software License Manager when you have a floating license (see <u>License</u> <u>Types</u>).

2.1 Supported Platforms

The Intel[®] Software License Manager is supported on the following platforms:

- Microsoft Windows* for IA-32 and Intel[®] 64 architectures
- Linux* IA-32 and Intel[®] 64 LSB (Linux Standards Based) compliant architectures
- OS X* IA-32 and Intel[®] 64 architectures

More information about downloading the Intel[®] Software License Manager license server that best matches your license host server OS can be found in the <u>Intel®</u> <u>Software License Manager downloads</u> section of this guide.

NOTE: The minimum LSB 3 requirement for installing and using the Intel[®] Software License Manager is that the shared object Id-Isb.so.3 (32-bit systems) or Id-Isb-x86-64.so.3 (64-bit systems) is located in /lib (32-bit) or /lib64 (64-bit).

Please refer to the installation section to setup the shared library if it's not in place on your system.

You can run the Intel[®] Software License Manager on any supported platform, with Windows^{*}, Linux^{*}, or OS X^{*} applications running on separate network nodes. For example, you can install the Intel[®] Software License Manager and license file on a Linux^{*} operating system to manage floating licenses for Windows^{*}, Linux^{*}, or OS X^{*} applications.



2.2 Floating License

With the floating license, users run the Intel[®] Software Development Product on their local system, and the license served by the Intel[®] Software License Manager runs on a central system. The floating license is used in multiple-user environments, and the Intel[®] Software License Manager monitors the number of concurrent users (counted) permitted in the license file.

The sample counted floating license file below is for an Intel[®] Software License Manager installed on Linux^{*}. The same license file is used with Windows^{*}, Linux^{*}, and OS X^{*} products that rely on the Intel[®] Software License Manager to serve and count licenses.

```
Floating License Sample
SERVER licserver 00270e00ffff 27009
VENDOR INTEL
PACKAGE IF83F2F10 INTEL 2018.0515 E4AB5E0CA283 COMPONENTS="AdvXEl \
        ArBBL CCompL Comp-CL Comp-FL Comp-OpenMP Comp-PointerChecker \
        DAAL-L DbgL FCompL MKernL PerfAnl PerfPrimL StaticAnlL \
        ThreadAnlGui ThreadBB" OPTIONS=SUITE ck=147 SIGN=BC6DBB4847FA
INCREMENT IF83F2F10 INTEL 2018.0515 permanent 2 73866154322D \
        VENDOR_STRING="SUPPORT=COM \
        https://registrationcenter.intel.com" HOSTID=ANY \
        PLATFORMS="i86_r i86_re it64_lr it64_re amd64_re i86_mac \
        x64_mac" BORROW=169 DUP_GROUP=UH ck=108 SN=SMSA6W6KC6M5 \
        SIGN=1E20119EACBA
```

The essential components of the sample license file are listed below along with their corresponding values:

- Host name: licserver
- Host id (Imhostid): 00270e00ffff
- Port Number: 27009
- Supported Software Products: AdvXEl (Intel[®] Advisor for Linux^{*}), Comp-CL (Intel[®] C++ Compiler for Linux^{*}), Comp-FL (Intel[®] Fortran Compiler for Linux^{*}), etc.
 - Older license files may not have feature codes used by newer product versions.
- Supported Product Platforms: i86_r, i86_re (Linux* on IA-32 architecture), it64_lr, it64_re (Linux* on IA-64 architecture), i86_mac (Intel®-based systems running OS X*)
 - This is the platform running the product, and does not restrict the platform used for the license manager.
- Intel Support Expiration Date: 2018.0515 (May 15, 2018)
 - The support expiration applies to access to product updates and support. Products built after the support expiration date are not supported by the license.
- **Product Expiration Date:** permanent (Never expires)



- The license will always support products built before the support expiration date, even if the support expiration date has passed.
- License Count: 2.
 - Two licenses can be checked out simultaneously.

Note: While host name and port numbers can be changed, editing many parts of the license file renders the entire license file invalid. References to IA-64 architecture platforms are for legacy purposes only.

2.3 Technical Support

Every new product purchase or renewal of an Intel[®] Software Development Product includes one year free product updates and priority support in the <u>Online Service</u> <u>Center</u>.

2.4 Client/Server Backward Compatibility

The Intel Software Licensing Manager **MUST BE** the latest version to support the new Intel product version. Please make sure to download the latest ISL Manager when you upgrade to a newer product version. The older ISL manager will not support newer product version.



3 Installing the Intel® Software License Manager

Before installing the Intel[®] Software License Manager, you must have a registered license. Registering the license links it to you, but does not associate it with a particular server until you activate it.

If you have not registered your license, you may do so in the Intel Registration Center by following the steps in this guide: <u>Steps to register a floating license</u>

You may also activate your license at this time if your license server is not connected to the internet for remote activation.

3.1 Intel® Software License Manager downloads

The Intel[®] Software License Manager can be installed on Windows^{*}, Linux^{*}, or OS X^{*} machines regardless of the OS for each of your floating Intel[®] Software Development Product licenses. It is important that you have the latest version.

Please follow the instructions here - <u>Where can I download Intel® Software License</u> <u>Manager servers?</u>

The most recent version of the User Guide for the Intel[®] Software License Manager is also available from the <u>web site</u>.

3.2 Installing the Intel® Software License Manager on Windows

- 1. Download the latest Intel[®] Software License Manager for Windows* that matches your environment (w_isl_server_<ver>.exe).
- 2. Run the self-extracting executable downloaded in the previous step.
- 3. Accept the license agreement to continue with the installation.



4. To configure the license manager, you must provide a serial number or license file:

fa Intel® Software License M	lanager —	
Getting started	Configure Your License Manager	
 License agreement 	● I have a <u>s</u> erial number	
O License activation	How to buy	
Options	How to find my serial num	iber
Installation	It requires an Internet connection to generate the license file by a serial number.	
Complete	There are multiple host IDs found on the system. Select one to use to generate the	ie license file.
	2015 and 2012 2010 and 2012 2010	
	○ I have a <u>l</u> icense file	
		Browse
	You can go to Intel(R) Software Development Products Registration Center to ge download the license file.	enerate and
(intel)	The machine's hostID is "705a0f822fdb a434d9ee80d6". Please refer to	
	https://software.intel.com/en-us/articles/changeserverhost-data-node-locked- license for the steps to acquire your server license file.	or-floating-
	<u>B</u> ack Next	<u>C</u> ancel

- a. To use a serial number, you must be connected to the internet.
 - 1. If you have already activated your license, select the same host ID that you provided to the registration center. This will generate the license file in a default folder used by the license manager.
 - 2. If you have not activated your license, select either host ID. This will automatically activate your license with the server's host name and host ID you selected, along with default port values for the license manager daemons.
- b. To use a license file, browse to the location of your activated license file.
- c. The license manager uses C:\[Program Files]\Common
 Files\Intel\ServerLicenses as the default license folder. It will automatically detect licenses in that location.
- 5. If there are any invalid license files in the default license folder, be sure to remove them.
- 6. Finish the installation process. The license manager should start automatically as a service.



The Intel[®] Software License Manager will always launch the license server with the license selected (copy to the *[COMMONFILE]\Intel\ServerLicenses*) and all other license file(s) in the [*COMMONFILE]\Intel\ServerLicenses*.

You can also <u>update the license file</u> used and restart the license server. Follow these steps to start the Intel[®] Software License Manager on Windows^{*}:

- From the Windows* Start menu, select Programs > Intel® Software Development Products > Intel(R) Software License Manager > Configure Intel(R) Software License Manager.
- 2. Select the license file.
- 3. Click **Apply** and close the window.

3.3 Installing the Intel® Software License Manager on Linux* and OS X*

Follow the steps below to install the software for the Intel[®] Software License Manager on Linux* or OS X* systems:

- 1. Place the downloaded package <!|m>_isl_server_<ver>_<architecture>.tar.gz in the directory to which you wish to extract its files. This need not be the same location in which you plan to install the Intel[®] Software License Manager files.
- 2. Extract the files from the package with the following command:

```
tar -zxvf <l|m> isl server <ver> <architecture>.tar.gz
```

This command extracts the files and prepares you for installation.

- 3. Run one of the following scripts from the directory created to begin installation:
 - a. **install.sh** command line
 - b. install_GUI.sh graphical interface
- 4. Accept the license agreement to continue with the installation.



5. To configure the license manager, you must provide a serial number or license file: Step 3 of 6 | Configure Your License Manager

- a. To use a serial number, you must be connected to the internet.
 - 1. If you have already activated your license, select the same host ID that you provided to the registration center. This will generate the license file in a default folder used by the license manager.
 - 2. If you have not activated your license, select either host ID. This will automatically activate your license with the server's host name and host ID you selected, along with default port values for the license manager daemons.
- b. To use a license file, browse to the location of your activated license file.
- c. The license manager uses **/opt/intel/serverlicenses** as the default license folder. It will automatically detect licenses in that location.
- 6. If there are any invalid license files in the default license folder, be sure to remove them.
- 7. Finish the installation process. The license manager should start automatically as a service.



3.3.1 Starting the Intel® Software License Manager automatically on Linux* after reboot

To set up the Intel[®] Software License Manager to start automatically follow the steps below:

For Linux*, add the following steps to the system startup files (which may be /etc/rc.boot, /etc/rc.local, /etc/rc2.d/Sxxx, /sbin/rc2.d/Sxxxx, or the startup files in the /etc/init.d/rcX.d directories, where X is 1, 2, 3, or 5) to ensure that the Intel® Software License Manager server starts after reboot. It is important that the network has been initialized before the license server is started. Ensure that there is a white space ("") between each argument. It is not necessary for server startup be done as root.

```
cd <server-directory>
`pwd`/lmgrd -c `pwd`/<licensefile> -l `pwd`/<log file>
    or
$(pwd)/lmgrd -c $(pwd)/<licensefile> -l $(pwd)/<log file>
(non-csh)
```

Ensure that the change directory is set to the one created in **Step 1** above. The -c <license file> should point to the license file copied to the server directory from the registration e-mail. Use the full path to the license file, including the full license file name.

The -l <log file> will capture information that will be useful for debugging unanticipated server or license check-out problems. Use the full path where the log file should be created, including the log file filename.

3.3.2 Verifying the Intel® Software License Manager on Linux* and OS X*

Follow these steps to verify that the Intel[®] Software License Manager is running on Linux^{*} or OS X^{*} systems:

- 1. Use the cd command to move to the <server-directory>.
- 2. Execute the command Imstat –c license file>. Use the full path to the license file, including the full license filename.

3.3.3 Shutting Down or Removing the Intel® Software License Manager on Linux* and OS X*

To shut down or remove the Intel[®] Software License Manager from Linux* or OS X* systems, follow these steps:

1. Use the cd command to move to the <server-directory>.



- Execute the command: Imdown –c license file> (use the full path)
- 3. Killing the Imgrd and INTEL processes is not recommended. However, if Imdown cannot successfully shut down the Intel[®] Software License Manager, you may need to kill those processes.
- 4. To permanently remove the Intel[®] Software License Manager, delete the lines that were added to the system startup files (for example, /etc/init.d/rcX.d directories, where X is 1, 2, 3, or 5). This step only applies to some Linux* systems.



4 Using the Client Application for the First Time

You must complete the following steps to use an Intel client application with the Intel[®] Software License Manager for the first time.

4.1 Installing the Client Application

The Intel[®] Software Development Product installers allow you to provide information to connect to the license manager in the following ways:

Option 1:

A client license file with the license server information. This contains the SERVER lines from the full license file, followed by the USE_SERVER directive. This file will be generated if the user enters the serial number during installation, or it can be downloaded from the Intel[®] Registration Center. The license file would be in the following format:

```
SERVER <server name> <hostid> <port>
USE SERVER
```

where <server name>, <hostid>, and <port> all come from the SERVER line in the license file which was used to install the license server.

If using a redundant server setup, all three servers should be listed.

Option 2:

Setting the INTEL_LICENSE_FILE environment variable on the client system to port@host. This can be done through the product installer or manually. If using a redundant server setup, all three servers should be listed.

Using the full server license file is not recommended.

4.2 License Check-out

4.2.1 License Seat Allocation Overview

For an Intel[®] compiler product, the license seat is checked out (allocated) as soon as the application is started; and returned when the application work is "done".



Note: For performance libraries (Intel[®] Integrated Performance Primitives, Intel[®] Threading Building Blocks, and Intel[®] Math Kernel Library), and some other Intel[®] Software Development Products, license check-out is only done during product installation.

All floating license seats are available on a first-come first-served basis for check-out by any number of products installed on client systems that have been configured to check-out floating license seats from the license host server system.

However, if all license seats are allocated for the requested product, additional users are forced to wait for one of the client systems to release a floating license seat. This is automatically done in our products, and means that some users may experience delays if all license seats are simultaneously allocated. The wait time for a license seat is forever, until a license seat is available, and is not configurable by end users.

When all license seats are allocated, a new license check-out request will retry every 30 seconds until a license seat is available for the request. The license seat wait time may appear like the product is hung or that performance has suddenly degraded.

4.2.2 Check License Allocation Status

To determine how many floating license seats are checked-out, use the command lmstat:

On the license host server system, execute one of the following commands:

Linux*

```
lmstat -a -c <license file>
Windows*
lmutil lmstat -a -c <license file>
```

<license file> is the full path including filename to the floating license file.

On the client system, execute one of the following commands:

Linux*

lmstat -a
Windows*
lmutil lmstat -a



5 Troubleshooting

This chapter explains how to generate debug logs, lists the information you should provide when opening a support request, and provides solutions for some common problems.

5.1 Getting Online Support

You may visit the <u>Getting-Started Support Page</u> first to search for an answer to your license manager problem. If you don't find a solution, continue on with the next section.

5.2 Changing Host Information for Your License

If yours floating or named-user licenses are already activated and you wish to make changes to the host information for your licenses. Please follow the instruction of this <u>article</u> to change your host name and ID

5.3 Creating Debug Logs for License Checkout Issues

If your licensing does not work properly, review the previous sections to verify the installation. If the problem persists after you verify correct installation, you should open a support case with <u>Online Service Center</u> or the <u>Intel® Software Development Products</u> <u>Download</u>, <u>Registration & Licensing User Forum</u>.

In preparation for opening the support case, set the environment variable INTEL_LMD_DEBUG to 1 and execute the product (see <u>Setting Environment</u> <u>Variables</u>). This will generate detailed information on the licensing failure. Please provide this information when filing a support issue. A product support engineer will then work closely with you to resolve the outstanding issue.

If you are running a command-line application on Windows*, use this command to set the environment variable:

```
SET INTEL LMD DEBUG=1
```

View the current value of an environment variable. For example: SET INTEL LMD DEBUG returns INTEL LMD DEBUG=1

Set the environment variable to a file name. For example: SET INTEL LMD DEBUG="C:\temp\LicenseCheckout.log"



If the license debugging information is no longer needed, you can turn it off with the following command:

SET INTEL LMD_DEBUG="" or unset INTEL_LMD_DEBUG

Note: It is very important that you clear this debugging environment variable once your issue has been resolved or once you have submitted the support request. Not doing so will result in slower performance when the client application is running. Every time you submit a license checkout log, you must make sure that the old log is deleted and the new log has been created before it is attached to your support request.

If you are running a GUI application on Windows*, set the debugging environment variable to the appropriate value by following the steps below:

- 1. Click Start > Settings > Control Panel > System > Advanced > Environment Variables.
- 2. Under system variables click New.
- 3. Enter INTEL_LMD_DEBUG in the text box for Variable Name.
- 4. In the **Variable Value** text box, input the full path to the log file in which you would like to capture the results. For example C:\temp\LicenseCheckout.log.
- 5. Click **OK > OK > OK**.

Note: It is very important that you unset this debugging environment variable once your issue has been resolved or once you have submitted the support request. Not doing so will result in slower performance when the client application is running. Every time you submit a license checkout log, you must make sure that the old log is deleted and the new log has been created before it is attached to your support request.

On Linux* or OS X* systems, the commands used depend on the shell in use.

• With the bash shell, Bourne shell (sh), and Korn shell (ksh), use the export command and assignment command to set the environment variable:

\$ export INTEL LMD DEBUG=1

Alternatively, you can set the INTEL_LMD_DEBUG environment variable to a file name. For example,

export INTEL LMD DEBUG="/tmp/licensecheckout.log"

• To remove the association of an environment variable and an external file with the Bourne, Korn, or bash shell, use the unset command:

\$ unset INTEL LMD DEBUG

• With the C Shell, use the setenv command to set an environment variable:

```
% setenv INTEL LMD DEBUG 1
```



• To remove the association of an environment variable and an external file with the C shell, use the unsetenv command:

% unsetenv INTEL LMD DEBUG

Note: It is very important that you unset this debugging environment variable once your issue has been resolved or once you have submitted the support request. Not doing so will result in slower performance when the client application is running. Every time you submit a license checkout log, you must make sure that the old log is deleted and the new log has been created before it is attached to your support request.

5.3.1 Verify Compatible Versions

In a complex installation of multiple FLEXIm* and/or FlexNet Publisher* licensed products, which include daemons from different vendors, a single <code>lmgrd</code> is used to manage the use of all licensed products.

You can use any lmgrd whose product version (lmgrd -v) is greater than or equal to all of the vendor daemons' product versions. If your lmgrd version is less than any of the vendor daemons' versions, server startup failures may result.

Note: It is recommended that Intel license manager to be run on a separate Imgrd instance. You need to specify a dedicated port in the Intel license and then run the lmgrd -c <vendor-license-dir-list>.

5.3.2 Identifying the Host Name and Host ID

The host name and host ID are system-level identifiers use in the <u>license file</u> to identify the system on which you install the Intel[®] Software License Manager and license file.

Use the instructions below to find the host name and host id of the system.

5.3.2.1 Microsoft Windows*

- 1. From the Start menu, click Run...
- 1. Type cmd in the **Open:** field, then click **OK**.
- 2. Type ipconfig /all at the command prompt, and press Enter.

In the resulting output, host name is the value that corresponds to Host Name, and host id is the value that corresponds to Physical Address.

For example, if the output of ipconfig /all included the following:

Host Name : mycomputer . . .



Physical Address . . . : 00-06-29-CF-74-AA

The host name is **mycomputer** and the host ID is **00–06–29–CF–74–AA**. Note, the host ID will be entered without the dash character.

If you use the ISL installer with a SN, it will get the local machine's host name and hostid to activate the license directly.

5.3.2.2 Linux*

- 1. Run the hostname command to display the host name.
- 2. Run the command /sbin/ifconfig eth0 to display the hardware address.

For example, if the /sbin/ifconfig eth0 command returns

HWaddr 00:D0:B7:A8:80:AA, then the host ID is 00:D0:B7:A8:80:AA.

It is strongly recommended that you run the lmhostid utility to obtain the hostid
value required to generate counted licenses. The lmhostid utility can be found in the
install location where the Intel[®] Software License Manager is installed.

5.3.2.3 OS X*

- 1. Run the hostname command to display the host name.
- 2. Run the command /sbin/ifconfig en0 ether to display the hardware address.

The following is an example of an address that could be returned by this command:

```
en0:
```

```
flags=8863<UP,BROADCAST,SMART,RUNNING,SIMPLEX,MULTICAST>
mtu 1500 ether 00:13:20:60:23:4f
```

It is strongly recommended that you run the lmhostid utility to obtain the hostid
value required to generate counted licenses. The lmhostid utility is installed in the
same location as the Intel[®] Software License Manager.

5.3.3 How to Specify Ports for License Servers

Intel's license files specify two ports:

```
SERVER <host_name> <host_id> <port1>
VENDOR INTEL port=<port2>
```

By default, Intel sets port1 to 27009 and port2 to 28519. If port2 is omitted,



the system will randomly assign the second port when lmgrd is started. You may specify port2 to a fixed value so that you can open that port through any firewalls between the client application and the server system running the Intel[®] Software License Manager, and to ensure that restarting lmgrd uses the same port each time.

When changing either port, you must ensure:

- The port numbers in all license files match on both the license host server and client systems.
- The license server is restarted to read the updates.
- The INTEL_LICENSE_FILE environment variable on the client systems is pointing to the correctly updated license file or port@host.

You may need to add a port exception to allow the FlexNet Publisher* license server daemon, the Intel[®] Software License Manager vendor daemon, and the application using these daemons to communicate. See the OS vendor documentation for more information on adding port exception to the system firewall.

5.4 Information Needed for Support Requests

When opening a support request, you should provide the following information to the support team:

- <u>Client Information</u>
- Intel Software License Manager Information

5.4.1 Client Information

- Package ID of the product. This is the name of the file you downloaded and installed.
- Name of client application with all parameters.
- Operating system, architecture, kernel, glibc, and any service packs installed on the client system.
- Values to which the LM_LICENSE_FILE and INTEL_LICENSE_FILE environment variables are set.
- A copy of all license files used on the client system. It is important to copy the license files themselves rather than copy/pasting the contents as this can mask other potential problems with the files.
- On Linux* or OS X*, set INTEL_LMD_DEBUG to /tmp/licensecheckout.log and on Windows*, set INTEL_LMD_DEBUG to C:\temp\licensecheckout.log and run the client. Once the client finishes execution, attach the licensecheckout.log to the support issue.

If you are opening a support request about a segmentation fault issue, attach the stack dump.



5.4.2 Intel Software License Manager Information

This section is applicable only if you are using counted licenses.

- Operating system, architecture, kernel, glibc, and any service packs installed on the system on which the Intel[®] Software License Manager server is installed.
- The Intel® Software License Manager server file name that you downloaded and installed
- A copy of the server log file at one of the following locations, depending on your operating system:

```
Windows*: <install drive>:\program files\common
files\intel\flexlm\iflexlmlog.txt
```

Linux * or OS X*: <install location of servers>/lmgrd.log

- A copy of the license file you used to start the server. It is important to copy the license files themselves rather than copy/pasting the contents as this can mask other potential problems with the files.
- Values to which the LM_LICENSE_FILE and INTEL_LICENSE_FILE environment variables are set.



6 License Server/Client Installation Checklist

Note: Many of the following steps should be repeated when a floating product license is renewed or added to an existing set of floating licenses and when a combined license file is updated.

6.1 License Server Host System Checklist

Step	Task Description	For more information
1	Download the latest Intel [®] Software License Manager User Guide	http://software.intel.com/en- us/articles/license-manager-for-flexlm-users- guide
2	Download the Intel [®] Software License Manager that best matches your license host server OS and platform	http://software.intel.com/en- us/articles/performance-tools-for-software- developers-intel-flexIm-license-servers/
3	Verify your license host server machine's host name and host id. If you are using three redundant license host server systems, verify the host name and host id for all three machines.	<u>http://software.intel.com/en-</u> <u>us/articles/how-to-find-host-id-for-floating-</u> <u>licenses/</u>
4	Verify your floating licenses are registered with the correct host name and host id specified. If you are using three redundant license host server systems, verify all three host names and host ids are specified for each floating license.	Log in to the Intel [®] Software Development Products Registration Center at <u>https://registrationcenter.intel.com/</u>
5	If any of your floating licenses have incorrect or out- of-date host name or host id information, follow the instructions in the user guide to correct the information in the floating license(s) and obtain updated license file(s).	<u>http://software.intel.com/en-</u> us/articles/changeserverhost-data-node- locked-or-floating-license/
6	Verify that all individual floating license files or the combined license file resides on your license host server system. Ensure there are no Single User, evaluation, or Beta licenses residing in the Intel license folder on your license host server system.	On Linux*: /opt/intel/flexIm/ On OS X*: /opt/intel.flexIm/ On Windows*: C:\Program Files\Common Files\Intel\LicenseServer\



7	If you have specified three redundant license host server systems in your floating licenses, at least two of the three redundant license hosts servers must be up and running at all times.	<u>http://software.intel.com/en-</u> us/articles/redundancy-server-notes/
8	Install your Intel [®] Software License Manager server binary on your license host server system. If you have specified three redundant license host server systems in your floating licenses, complete all three license host server installations.	Follow the instructions in <u>Chapter 3: Installing</u> <u>the Intel® Software License Manager</u> .
9	Start your license host server process by following the instructions in <u>Chapter 3: Installing the Intel®</u> <u>Software License Manager</u> .	If you are using Windows* Vista, Windows* 7, or Windows* Server 2008 system, please see the information at http://software.intel.com/en- us/articles/installing-license-server-on-vista/. Ensure that both ports used by the Intel® Software License Manager are open and unblocked. <u>https://software.intel.com/en- us/articles/the-ports-of-the-intelr- software-license-manager</u>
10	Ensure your license server is running using the lmstat command.	http://software.intel.com/en- us/articles/when-is-a-floating-license-seat- checked-out-and-checked-in/

6.2 Client Systems Checklist

Step	Task Description	For more information
1	Download the latest Intel [®] Software License Manager User Guide	http://software.intel.com/en-us/articles/license- manager-for-flexIm-users-guide
2	Install the Intel [®] Software Development Products your users will be running on each client system. If using a copy of the complete server license file to install the product, you need to use an exact copy and place it in the default license file folder.	Follow the instructions for installing a client product in the <u>Installing the Client Application</u> section of the user guide.
3	Set the INTEL_LICENSE_FILE environment variable on each client system.	http://software.intel.com/en-us/articles/how-to-set- intel license file-environment-variable/

-



4	Launch your Intel [®] Software Development Product.	If problems occur with floating license seat check- out, please follow the steps in <u>Chapter 5:</u> <u>Troubleshooting</u> of the user guide to capture a debug log and submit an issue. Be sure to include:		
		 OS and architecture for your license host server system(s) 		
		 The name of the specific Intel[®] Software License Manager package you downloaded and installed. 		
		3. The serial number for the floating license you are using.		
		4. The environment variable settings for		
		 A copy of each floating license file you are using. 		
		6. The combined license file (if applicable).		
		7. Host server name and host id for all license		
		host servers.		
		8. Captured output of lmstat command.		
		9. License server and client-side debug logs		

Intel[®] Software License Manager **2.6** User's Guide



7 Appendices

7.1 Appendix A: Latest Revision of User's Guide

The latest information about the Intel[®] Software License Manager and use of FlexNet Publisher* in Intel[®] Software Development Products can be found at: <u>http://software.intel.com/en-us/articles/license-manager-for-flexIm-users-guide/</u>