



**License Utilities &  
Trouble Shooting Guide  
Version 6.0**

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# The IGES/Works License Manager

Version 6.0 (August 2001)

IGES/Works® uses the FlexLM License Manager version 7.0c. There are a variety of commands that are available for querying and configuring the license manager that are provided by FlexLM. For IGES/Works users, these commands are provided in the 'license and then name of the platform' directory.

## ***If you have other software that uses FlexLM:***

*You can either set up a license server for IGES/Works to use a different port and keep your other FlexLM software using the first port, or you can combine them. If you want to combine them, remember to use the lmgrd daemon that is the most current. For example if your CAD system is using v5.0 of FlexLM, you will want to use the FlexLM sent with IGES/Works which is v7.0 because it is more up-to-date. The CAD system will still work with FlexLM v7.0. If you have questions or concerns, feel free to contact TranscenData tech support ([works\\_supp@transcendata.com](mailto:works_supp@transcendata.com))*

## ***Installation***

The license installation process is described in detail in the installation documentation (refer to the [IGES/Works Installation Guide](#)). Remember, that the license server files needs to be installed only once on the server for a floating license. Likewise, the license file only needs to be created once. If you have a valid license file (IGES/Works\_License.dat) with license codes, to activate a floating license in another location (but still on the same network), just copy the license file (IGES/Works\_License.dat) into the license directory where IGES/Works is installed (for example: /igesworks/v6.0/license ).

## ***Scripts***

During the license server installation, the following scripts are created that you can use to start, stop, and receive license server status:

- Start\_License.csh (.bat on NT) - This script will start up the TranscenData FlexLM license daemons, stopping them first if they are already running. This can be used to start or to restart the license server if the need arises.
- Stop\_License.csh (.bat on NT) - This script will stop the TranscenData FlexLM license daemons.
- Status\_License.csh (.bat on NT) - This script will report the license server status, including what features are available as well as who has each feature checked out.

See *Files Related to License Management* for more information on the scripts.

## **Logs**

There are two log files that are located in the license server directory, under a directory which bears the name of your current platform.

For example:

```
plat-aix4
plat-hp-uxB
plat-irix6
plat-irix6-n32
plat-sunos5
```

The logs are:

- ITI\_FlexLM\_Log.txt - The log written by FlexLM (but only if started via boot up or the startup script). This contains a record of check ins and checkouts as well as diagnostic and error messages. If you are having trouble starting or using your FlexLM server, please check this log file, as it may contain information as to what the problem is. Please try to have this file available if you need to call tech support with a FlexLM server related question.
- ITI\_Boot\_log.txt - Written during the boot up process. See

IGES/Works Installation UNIX Boot Files for details.

## ***Terminology and Misc. License Information***

**License Code, Password, Key, and Authorization Code** all refer to the same thing: a hexadecimal number given out by TranscenData which allows licensed access to the IGES/Works product depending on the type and quantity of license(s) purchased or evaluated at a given time. Without this, you cannot successfully execute IGES/Works software.

**Types of Licenses** available for IGES/Works.

- **Node lock** license, which allows anyone to use the software as long as they are logged onto a specified node or machine. The license is locked to that machine and cannot be used on other machines.
- **Floating** license which has a license server to manage the license(s). This will allow the software to be used on any machine within that network regardless of the platform. Each platform has different executable files, so make sure you use the correct executable files. However, the exact same license file will be used by all platforms.

**License Server(s)** is a designated machine, which has the license server installed on it and keeps track of your license(s). It has the necessary services or daemons running to check in and out license(s). Only one license server is needed, but three machines can be selected to set up a set of redundant license servers if desired. It is also the machine that the Imgrd & the itiohio daemons/services are running on. For node locked licenses, it is the machine that a license is node locked to. For floating licenses, it is the machine that is keeping track of your licenses. Either way it is the machine that you gave TranscenData information for at the time of requesting your license code(s). Feature(s) is what identifies which produce you have licensed. For IGES/Works, you have two choices:

- Full
- Lite (limited version for script running only)

**The software installation\_directory** is the location where you installed IGES/Works, such as /users/igesworks/v6.0.

**Redundant License** - instead of one server, the license control is spread out over three machines.

**License file** is [IGESWorks\_License.dat] or product.dat file(s) is located in the /installation\_directory/v6.0/license directory.

## Files Related to License Management

### File Definitions:

<b>start_license.csh (or .bat for NT)</b>	installs the service and starts it
<b>stop_license.csh (or .bat for NT)</b>	stops the service
<b>status_license.csh (or .bat for NT)</b>	shows status of license server

**lmgrd:**

- license manager daemon
- usually located in:
  - NT: C:/usr/flexlm
  - UNIX: /usr/local/flexlm
- should be started by some other user besides root
- should automatically be started at boot-up

**Syntax:**

```
lmgrd [-2 -p] [-c license_file]
        [-f license_finder_file]
        [-l logfile] [-s timestamp_interval]
        [-t timeout_interval]

[-v] displays the version
[-x lmdown|lmremove] [-nfs_log]
```

**Example:**

```
lmgrd -c IGESWorks_license.dat
```

You should not call this directly. Use the start\_license.csh (or .bat for NT) instead.

**itiohio:**

the TranscenData license daemon

found in the plat-xxx directory of IGESWorks where <plat-> is the name of the platform you installed FlexLM on. Valid directories are aix, solaris, irix, and hpux, and win32.

**Syntax:**

You will never call this directly. Only lmgrd calls this daemon.

## ***IGES/Works Installation UNIX Boot Files***

The files that get added or created on each platform are listed below.

If you want to remove these files from the bootup process, simply delete them or move them into a different directory.

### **Windows NT**

A service is installed called ITI\_FLexLM\_License. You can edit or remove this service using the lntools.exe, which is installed both with the FlexLM server software and the product itself. These can be found under the START menu icon or under the "license" directory in the product or server install. It should also be a shortcut on your desktop.

### **Sun**

S86itiohio is added to /etc/rc2.d

FlexLM initialization and startup lines are placed the S86itiohio file.

### **SGI**

Itiohio file is added to /etc/init.d

S86itiohio is added to /etc/rc2.d

FlexLM initialization and startup lines are placed in the Itiohio file.

S86itiohio is a link which points to the Itiohio file in /etc/init.d

### **AIX**

rc.itiohio is added to /etc

The following string is appended to the end of the inittab file in the /etc directory:

```
rcitiohio:2:wait:/etc/rc.itiohio > /dev/console 2>&1
```

FlexLM initialization and startup lines are placed in the rc.itiohio file.

## HP-UX

Itiohio file is added to /sbin/init.d

S860itiohio is added to /sbin/rc2.d

FlexLM initialization and startup lines are placed in the Itiohio file.

S860itiohio is a link which points to Itiohio file in /sbin/init.d

### ***Files Used to Initialize FlexLM***

The following lines are used to initialize and startup FlexLM. This is an example installation. Some parts, such as directory paths and username, will vary depending on your machine and product installed.

```
/bin/su username -c 'echo starting lmgrd >
/usr/local/flexlm/license/solaris/ITI_Boot_log.txt'

/bin/su username -c 'umask 022; >
/usr/local/flexlm/license/solaris/lmgrd -c username
/usr/local/flexlm/license/license/Product_license.dat -
l /usr/local/flexlm/license/solaris/ITI_FlexLM_Log.txt
>> /usr/local/flexlm/license/solaris/ITI_Boot_Log.txt'

/bin/su username -c 'echo sleep 5
>>/usr/local/flexlm/license/solaris/ITI_Boot_log.txt'

/bin/su username -c
'/usr/local/flexlm/license/solaris/lmutil lmdiag -n -c
/usr/local/flexlm/license/Product_license.dat >>
/usr/local/flexlm/license/solaris/ITI_Boot_log.txt'
```

## Getting Your IGES/Works Authorization Code

Before you can successfully run any IGES/Works product, you will need a license file with valid license codes. ITI will issue this after receiving the necessary information from you (the user/installer). You will need to contact ITI with the following information. ITI will then be able to issue the license codes, which turn on IGES/Works licenses.

There are a few ways to collect the necessary information:

1. Download a utility found on the TranscenData support website [www.transcendata.com/support](http://www.transcendata.com/support) Pick the License code utilities for IGES/Works for your specific platform.
2. Run the license installation part one and create a license file to e-mail to TranscenData.
3. Manually gather the information to send to TranscenData - see below.

<b>Information you'll need:</b>	<b>Your specific information:</b>
Your <b>customer number</b> (found on the packing slip).	
Server machine information given to you by part one of the license installation. (Or the results of the Imutil Imhostid)	
Hostname or <b>machine name</b> of server.  <b>All UNIX platforms</b>  Hostname  <b>NT machines</b>  Start => Settings => Control panel => Network => Identification	
Port number	

E-mail the above information to [works\\_supp@transcendata.com](mailto:works_supp@transcendata.com) and ITI will e-mail you your License codes.

## Warranty and Maintenance/Enhancement/Support (MES)

ITI software products carry a 30-day warranty. MES is available at no charge during the warranty period. MES includes software updates, new releases, and customer support. After the warranty period, MES is available at annual rates indicated in the appropriate product price table.

If you have a questions or problems regarding the operation or proper use of the software, you may access TranscenData's product support. Access product support using any of the methods listed either in your product's Resource Center (accessible from the Help menu in the product) or on TranscenData's Product Support web site at <http://www.transcendata.com/support>. Customer hotline support is provided during normal TranscenData business hours (Eastern time) via phone or e-mail.

Product support is available to assist you in the installation, licensing, and answering general usage questions related to the product. If you have advanced needs such as customizing the product for your environment, extending the functionality of the product for your specific needs, or other similar requirements, these requests are best fulfilled by contacting the product's Consulting Services manager for a quotation.

Major, minor, and patch releases of the software are provided. These releases are numbered as *major.minor.patch* (such as 2.4.0 or 6.0) and provide new functionality and/or defect corrections. To find the latest released versions, go to <http://www.transcendata.com/support>.

If you detect an error in the software, ITI encourages you to report the problem. Errors can be submitted through your product's Resource Center (accessible from the Help menu in the product) or on ITI's Product Support web site at <http://www.transcendata.com/support>. Problems that ITI determines to be "serious" are usually fixed in the next minor release of the product. Those that are not "serious" may be fixed in a later major release. Occasionally, a problem may be found which ITI determines is serious enough that warrants a patch release on one or more supported platforms. These patch releases will be provided to the customer who reported the problem and other customers who have indicated that they also have the problem.

ITI encourages you to submit enhancements that you believe will increase the ease of use and functionality of a product. Enhancements can be submitted using your product's Resource Center (accessible from the Help menu in the product) or on TranscenData's Product Support web site at <http://www.transcendata.com/support>. For those problems that fall outside this service, you may contract with us for consulting assistance.

## **Renewing Product Maintenance/Enhancement/Support**

### **(MES)**

Before the expiration of your product MES contract, TranscenData will send a letter indicating the expiration date and remind you to renew your contract. Active MES customers continue to receive access to product support and new product releases. If your MES contract expires and you renew at a later date, your MES period is retroactive to when the maintenance expired.

## **Policy on Transferring Software Product Licenses**

This defines TranscenData's policy regarding customer requests for transferring a license as part of a machine transfer (transferring a software product license from one CPU to another CPU from the same manufacturer) and for a platform transfer (transferring a software product license from one CPU to a CPU from a different manufacturer).

### ***For Maintenance Paying Customers***

For maintenance paying customers, TranscenData allows one free license transfer to an upgraded platform in each annual maintenance period. For the second and subsequent request(s) for transferring a license during an annual maintenance period, a charge of \$250 applies per request.

### ***For Non-Maintenance Paying Customers***

If you do not have a current maintenance contract with TranscenData for the product you are using, and you need to transfer your license to an upgraded platform, you may either:

- renew your product maintenance at the current annual maintenance price and as part of the renewal, TranscenData will allow you to transfer your license free of charge. Your maintenance period becomes retroactive to when your maintenance expired.
- if you do not wish to renew maintenance, then a \$400 charge applies to each license transfer you request.

## **Moving Your Software Product License**

TranscenData requires a written statement on company letterhead which states your desire to transfer your product license to a different CPU and that you agree to permanently delete TranscenData's product on your legacy CPU and agree never to operate TranscenData 's product on such legacy CPU in the future.

Upon receipt of a purchase order issued by an authorized representative of your company and the written statement mentioned in the previous paragraph, ITI will issue the new authorization code and provide product support to assist you in the license transfer.

TranscenData reserves the right to modify the product support services outlined above at any time.

## **License Manager Utilities**

FlexLM Imutil command sent along with IGES/Works to help you learn more about license related issues. It can be found in the /license/plat-xxxx directory. It is also used to track license(s) usage. For more information about FlexLM, contact TranscenData technical support [works\\_supp@transcendata.com](mailto:works_supp@transcendata.com) or [www.transcendata.com/support](http://www.transcendata.com/support).

The Imutil which is a copyright (C) 1989-1999 Globetrotter Software, Inc is the primary utility for working with FlexLM. The syntax is found by typing in "Imutil" at a command prompt. Remember that when it specifies a -c, include the license file iwfull\_license.dat after the -c. See the TranscenData support page [www.transcendata.com/support](http://www.transcendata.com/support) for more details about working with FlexLM

## **Trouble Shooting Other Problems**

<b>Error</b>	<b>Description</b>
-1	Software cannot find license file (IGESWorks_License.dat found in the install directory).
-2	Indicates an invalid license file syntax.
-3	There is no server for this feature.
-4	The licensed number of users already reached.
-5	Indicates that no such feature exists.

<b>Error</b>	<b>Description</b>
-6	There is no port number in license file and FLEXlm service does not exist [pre-v6 only].
-7	There is no socket connection to license manager server
-8	Indicates an invalid (inconsistent) license key. The license-key and data for the feature do no match. This usually happens when a license file has been altered.
-9	Indicates an invalid host. The hostid of this system does not match the hostid specified in the license file.
-10	Feature has expired.
-11	Invalid date format in license file.
-12	Invalid returned data from license server.
-13	No SERVER lines in license file.
-14	Cannot find SERVER hostname in network database. The lookup for the hostname on the SERVER line in the license file failed. This often happens when NIS or DNS or the host's file is incorrect. Workaround: Use IP-Address (e.g., 123.456.789.123) instead of hostname.
-15	Cannot connect to license server. The server (lmgrd) has not been started yet, or the wrong port@host or license file is being used, or the port or hostname in the license file has been changed.
-16	Cannot read data from license server.
-17	Cannot write data to license server.
-18	License server does not support this feature.
-19	Error in select system call.
-20	[Obsolete]
-21	License file does not support this version.

<b>Error</b>	<b>Description</b>
-22	Feature check-in failure detected at license server.
-23	License server temporarily busy (new server connecting).
-24	Users are queued for this feature.
-25	License server does not support this version of this feature.
-26	Request for more licenses than this feature supports.
-27	[Obsolete]
-28	[Obsolete]
-29	Cannot find Ethernet device.
-30	Cannot read license file.
-31	Feature start date is in the future.
-32	No such attribute.
-33	Bad encryption handshake with daemon.
-34	Clock difference too large between client and server.
-35	In the queue for this feature.
-36	Feature database corrupted in daemon.
-37	Duplicate selection mismatch for this feature.
-38	User/host on EXCLUDE list for feature.
-39	User/host not on INCLUDE list for feature.
-40	Cannot allocate dynamic memory.
-41	Feature was never checked out.
-42	Invalid parameter.

<b>Error</b>	<b>Description</b>
-43	*No FLEXIm key data supplied in initializing call.
-44	*Invalid FLEXIm key data supplied.
-45	*FLEXIm function not available in this version.
-46	[Obsolete]
-47	Clock setting check not available in daemon.
-48	*FLEXIm platform not enabled.
-49	*Date invalid for binary format.
-50	*FLEXIm key data has expired.
-51	*FLEXIm not initialized.
-52	FLEXIm vendor daemon did not respond within timeout interval.
-53	Checkout request rejected by vendor-defined checkout filter.
-54	No FEATURESET line in license file.
-55	Incorrect FEATURESET line in license file.
-56	Cannot compute FEATURESET data from license file.
-57	+socket() call failed.
-58	[Obsolete]
-59	Message checksum failure.
-60	Server message checksum failure.
-61	Cannot read license file data from server.
-62	Network software (tcp/ip) not available.
-63	You are not a license administrator.

<b>Error</b>	<b>Description</b>
-64	Imremove request before the minimum Imremove interval.
-65	*Unknown VENDORCODE struct type passed to Im_init().
-66	*FLEXIm include file/library version mismatch.
-67	[Obsolete]
-68	[Obsolete]
-69	[Obsolete]
-70	[Obsolete]
-71	Invalid TZ environment variable.
-72	*Old VENDORCODE (3-word) struct type passed to Im_init().
-73	Local checkout filter rejected request.
-74	Attempt to read beyond end of license file path.
-75	+SYS\$SETIMR call failed (VMS).
-76	Internal FLEXIm Error - Please report to Globetrotter Software.
-77	Bad version number - must be floating point number, with no letters.
-78	*FLEXadmin API functions not available.
-79	FLEXIm internal error -79.
-80	FLEXIm internal error -80.
-81	FLEXIm internal error -81.
-82	Invalid PACKAGE line in license file.
-83	FLEXIm version of client newer than server.
-84	USER_BASED license has no specified users -- see server log.

<b>Error</b>	<b>Description</b>
-85	License server doesn't support this request.
-86	License object already in use (Java only).
-87	Checkout exceeds MAX specified in options file.
-88	System clock has been set back.
-89	This platform not authorized by license.
-90	Future license file format or misspelling in license file. The file was issued for a later version of FLEXlm than this program understands.
-91	ENCRYPTION_SEEDs are non-unique.
-92	Feature removed during lmreread, or wrong SERVER line hostid.
-93	This feature is available in a different license pool. This is a warning condition. The server has pooled one or more INCREMENT lines into a single pool, and the request was made on an INCREMENT line that has been pooled.
-94	Attempt to generate license with incompatible attributes.
-95	Network connect to THIS_HOST failed. The license file indicates THIS_HOST, and the server is not running on this host. If it's running on a different host, THIS_HOST should be changed to the correct host.
-96	Server node is down or not responding. See the system administrator about starting the server, or make sure the you're referring to the right host (see LM_LICENSE_FILE).
-97	The desired vendor daemon is down. 1) Check the lmgrd log file, or 2) Try lmreread.
-98	This FEATURE line can't be converted to decimal format.
-99	The decimal format license is typed incorrectly.
-100	Cannot remove a linger license.

<b>Error</b>	<b>Description</b>
-101	All licenses are reserved for others. The system administrator has reserved all the licenses for others. Reservations are made in the options file. The server must be restarted for options file changes to take effect.
-102-105	Unused
-106	License server out of network connections The vendor daemon can't handle any more users. See the Imgrd debug log for further information.
-107-109	Unused
-110	Dongle not attached, or can't read dongle Either the hardware dongle is unattached, or the necessary software drivers for this dongle type is not installed.
-111	Imgr.res, Windows Resource file, not linked.
-112	Missing Dongle Driver In order to read the dongle hostid, the correct driver must be installed. These drivers are available at <a href="http://www.globetrotter.com">www.globetrotter.com</a> or from your software vendor.

If you need further assistance, don't hesitate to contact IGES/Works Technical Support. It would be helpful if you could e-mail ([works\\_supp@transcendata.com](mailto:works_supp@transcendata.com)) or fax (513) 576-3994 the following information and files to Technical Support if you are unable to start IGES/Works.

**Results of the status\_license.csh (or .bat for NT)**

**Files:**

**/installation\_directory/v6.0/bin/IGESWorks\_License.dat**  
**/installation\_directory/v6.0/license/installation.log**

Also, remember to have or include your **customer number** on all correspondence with Technical Support.

THANKS!

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