

Version 2017

SCHLUMBERGER LICENSING

User Guide

Schlumberger

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About Schlumberger licensing

Schlumberger licensing uses Flexera FlexNet Publisher to license commercial applications. The license server can provide a locking mechanism using CodeMeter dongles (or appropriate machine fingerprint based licenses) for additional security.

If you use a Schlumberger application on a standalone machine, you can install and run:

- An installation of Schlumberger Licensing tool with the FlexNet utilities.
- A CodeMeter dongle and associated runtime software.
- A license file from Schlumberger.

A typical license file has the following form:

```
# Dongle Tracking Number: 1-1047472
SERVER this_host
SLBID=7C3D50AB726AD6486E5CC0F41F87BBEDD76910473B463F968CB8670F0000000094912EEF982D
6C59E276E7F3F0F5602D739F9402DAD2D244E41D139900000000
VENDOR slbsls
USE_SERVER
FEATURE Petrel_0_MAAAAAGBHsTUA slbsls 2018.07 09-aug-2018 1 \
VENDOR_STRING=nynnyyyyyyyyyynnnynnnnnnnnyn \
SUPERSEDE=Petrel_0_MAAAAAGBHsTUA ISSUED=10-May-2007 \
SN=1-BSC7D5-0 TS_OK AUTH={ lmgrd.slb=( LK=15EFFBAF2EA4 \
SIGN="0053 DA87 00B1 12CE BEA6 32DE 6A17 8A00 0569 E602 6264 \
8094 B139 D7E0 B43E" SIGN2="0084 2DFF B6EE 3CD5 CE26 8196 DE97 \
CF00 6616 BC9E B580 1F62 3875 52A5 9928") \
slbfd=( SIGN="0089 8171 DE2E 43D0 32E2 ABCC 4575 F800 6F2A \
6B94 2C27 71EC 6C00 0D5A 19D8") slbsls=( SIGN="0089 8171 DE2E 43D0 \
32E2 ABCC 4575 F800 6F2A 6B94 2C27 71EC 6C00 0D5A 19D8") \
```

The license above is for Petrel, has an expiry date of August 9 2018, and allows one concurrent user to run the application.

If you install Schlumberger licensing on Windows, Schlumberger provides a licensing tool that is installed at the same folder as the FlexNet license server and associated utilities.

Note: A license feature encodes 2 different dates.

- An expiry date, 09-aug-2018 in the example above. After which time the license will no longer be valid and all checkout requests will be denied.
 - A Version number, usually known as DBV (date based versioning), in the example above the DBV is 2018.07. This controls the latest version of the application that can run. In this example versions of Petrel released in or before the 7th month of 2018 will work with this license. Versions released after the 7th month will not work even though the license remains valid and will work for earlier versions.
-

Release information

Note: The SIS License Server 2017 release contains critical security and stability updates. All SIS major software releases (starting with 2017.1) commercialized after April 2017 will require installation of SIS License Server 2017. This affects all SIS product lines with the exception of the software utilizing the SPT license server. The SIS License Server

2017 is compatible with prior versions of SIS license files and software versions. It is advised to upgrade the current SIS License Server to SIS License Server 2017 once it is available to avoid unnecessary delays in uptake of new SIS software releases.

This release of the Schlumberger license server includes the following changes:

- Minor amendments have been made to the Schlumberger Licensing Tool. A message window is now included to provide users with status information on the license configuration being used.
- On Linux the functionality of most of the executables that have a name starting lm have been rolled into the single executable lmutil. For example to request the license server to perform a reread, run the command "lmutil lmreread -c license.dat". As an alternative it is possible to copy the lmutil executable and call it lmreread, then call it as previously. This does not apply to lmgrd which is unchanged.
- The license server is now built on FlexLM 11.14 technology.
- IPV6 is now supported for Windows Clients.
- On Windows the default paths for the license log and diagnostic log have been revised to now be in the location pointed to by the environment variable ALLUSERSPROFILE. Typically this will be under the following path C:\ProgramData\Schlumberger\Schlumberger Licensing
- As part of the security enhancements in the 2017 License Server, the license server now runs as the "LOCAL Service" user when configured to start with Windows. If the Schlumberger License Tool is used to configure the license server then it will modify the file and folder permissions so that the service can read the license files and executables and create and write logs. Full details of what is changed can be found in the [Troubleshooting/FAQ section of this document. \(p.29\)](#)

Supported platforms for licensing

The Schlumberger Licensing server, with or without CodeMeter dongles, is supported on the following platforms:

Windows

- Windows 7 SP1 and 10 64-bit
- Windows Server 2012, 2012 R2 and 2016 64-bit

Linux

- Red Hat Enterprise Linux Server version 6 Update 5 or later (x86_64)
- Red Hat Enterprise Linux Server version 7 Update 1 or later (x86_64)

Platform Notes:

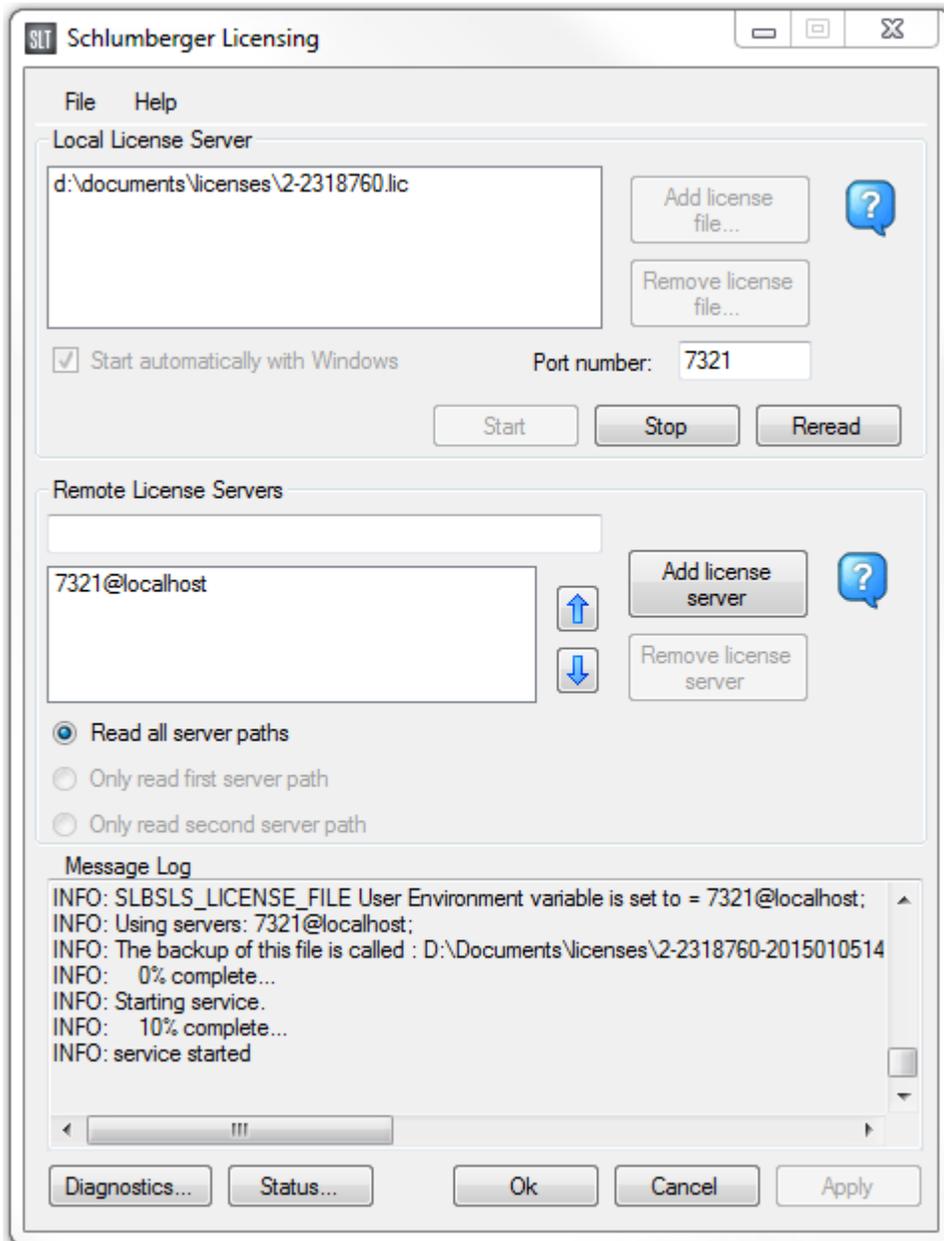
- CodeMeter runtime version 6.30d or later is required. We recommend that CodeMeter dongles be set to HID mode. See [http://localhost:22350/\\$help/CmUserHelp/us/index.html?msd_to_hid.htm](http://localhost:22350/$help/CmUserHelp/us/index.html?msd_to_hid.htm).
- The Schlumberger License Server works best when all the Schlumberger license files on a license server are locked to the same ID. Either a single CodeMeter dongle or a single MAC address (if the software supports it). Adding multiple dongles to a single license server or mixing MAC and dongle licenses is strongly advised against.
- Only command line utilities are available on Linux platforms, there is no GUI-based license configuration tool.
- The Schlumberger licensing tool is not supported on any version of Windows Server. On Windows server we recommend the lmtools program be used, it is installed in the same directory as the license server.
- The Schlumberger licensing tool is intended as a single user tool. It does not support multiple users. If run with Admin rights the tool can setup a service, this will configure the license server to start up when the computer is rebooted. If the License Tool is run without admin rights it can only start a process. This will not automatically restart the license server when the machine reboots and may stop if the user logs out.
- The Schlumberger license server is only supported on physical hardware and on virtual machines based on VMWare ESX 5 or 6 or Windows Hyper V 2012 and 2012R2. The Virtual Machines must be running one of the Windows Server operating systems listed above. If a dongle is required for licensing, the only supported way to connect the dongle to the Virtual Machine is using a Digi AnywhereUSB/14 device. Further details of the device can be found at

<http://www.digi.com/products/model?mid=3609>. To ensure reliability update the firmware on the device before using it with CodeMeter dongles. Problems may be seen using other types of virtualization or if the VM is running Linux.

- When installing on Windows you may be prompted to reboot the machine. The license server and licensing tool will not work properly if when prompted you do not reboot the computer.
- This version of the Schlumberger Licensing tool does not support HASP dongle licenses. If your software requires a HASP dongle please use an older version of the licensing tool.

The Schlumberger Licensing tool

The Schlumberger Licensing tool is a front-end to FlexNet licensing server and is used to manage the locally installed license server for Schlumberger products.



The licensing tool is divided into the following main sections:

- The upper panel is used for adding and removing license files, and starting or stopping the local license server.
- The lower panel is used to configure the user environment and check if licenses are available, both locally and on other servers.

Note: With the licensing tool the only logging option available for logging users and modules is the Flexlm debug log.

Using the licensing tool does not preclude running other Flexlm/FlexNet licenses on your system from other vendors using the standard Flex tools like lmttools. The standard administration tools for FlexNet license servers are installed along with the Schlumberger Licensing tool. You can find out more information about these tools in the FlexNet End User Guide.

License server quorum

Setting up a quorum license can reduce downtime if you have a problem with a license server. Setting up a quorum requires three license servers all with the same (specially generated) file. One of the three servers will be a master, the other two slaves; if the master fails, one of the slaves takes over as a master and all licenses remain available. Provided therefore two of the three servers are working, the entire set of licenses will be available.

Note: Using a quorum does not provide any form of load balancing; in fact the license servers will be able to handle slightly less traffic as the three servers must exchange synchronization data in addition to the usual license traffic.

Note: If the goal is high availability, it is worth considering deploying the license server in a highly available VM. Typically this works just as well and provides less admin overhead than setting up a quorum.

When using a quorum license server it is important to specify it correctly on the clients, a quorum is always specified with commas between rather than colon or semi colons which are usually used. For example a standard setting would look something like this. 2345@qserver1,2345@qserver2,2345@qserver3

If there are several servers then commas should only be between the members of the quorum. For example. 3456@serverA;2345@qserver1,2345@qserver2,2345@qserver3;4567@serverB

If specifying 2 quorums, then ensure they have the standard separator between them.

2345@qserver1,2345@qserver2,2345@qserver3;2345@qserver4,2345@qserver5,2345@qserver6

If entering a quorum in the license tool, all 3 servers and the commas should be entered on one line.

Setting up a quorum

Setting up a quorum is much the same as setting up three servers individually. However, in addition to requiring three servers, the quorum must also be setup on a reliable local network. This functionality does not work well over slow or large latency links. If using CodeMeter dongles then three dongles are required, one for each of the members of the quorum.

The Schlumberger Licensing tool is not able to install quorum licenses, so they must be setup by hand or with lmttools. To setup a license server quorum, follow the instructions from <http://www.flexerasoftware.com>

- An expired license can cause a quorum to shut down. Always remove expired licenses as soon as possible.
- If you start a quorum on Linux with no port specifically set in the license file, the license server crashes with a segmentation fault:

```
lmgrd[8110]: segfault at 0000000000000050 rip 000000000040b120 rsp
00007ffffd5abf3a8 error 4
```

You must set a port in the license file.

- Quorum license servers are only supported when a mac address or a single dongle based license is used on each member of the quorum. Using multiple dongles on each member of the quorum is not supported.

Managing licenses on Windows

Installing the Schlumberger Licensing tool

1. If you are installing the licensing tool as part of installing another Schlumberger application,
 - a. Click **Install Products**
 - b. Click **Schlumberger Licensing 20xx**Alternatively, search the installation media, find, right-click on SlbLicenseInstallerXXX.exe and pick "Run as Administrator"
2. When the installation wizard opens, follow the instructions clicking **Next** on each window to proceed.
3. By default, the licensing tool is installed into C:\Program Files (x86)\Schlumberger\Schlumberger Licensing\. To change the installation location, in the **Destination Folder** window, click **Change**, select your preferred location and click **Next**.

Note: Do not put the license files or logs in or under c:\Program Files (x86), C:\Program Files or C:\Windows, on most installations these locations are protected and using them to store license files will cause problems.

4. In the **Ready to Install the Program** window, click **Install**, and when installation has completed click **Finish**.

Installing the CodeMeter Runtime

To use dongle-based licenses, you must install the CodeMeterRuntime application. This may be available on the software DVD in the same directory as the Schlumberger Licensing installer or can be downloaded from the WIBU systems website. The required version is 6.30d or later.

1. Download the correct runtime version for your operating system from the WIBU systems website (http://www.wibu.com/download_user.php).
2. Once downloaded, double click CodeMeterRuntimeXX.exe.
3. When the installation wizard opens, follow the instructions clicking **Next** on each window to proceed.
4. Finally, install the runtime and when installation is completed click **Finish**.

Note: After installation, a reboot may be required before the dongle is recognised by the license tool.

Configuring Schlumberger licensing

1. If you are using dongle-based licensing, insert the dongle into the USB port of your computer.
2. Run the Schlumberger Licensing tool from the Windows start menu: **Start » All Programs » Schlumberger » Schlumberger Licensing 20xx.x**
3. Click **Add License File** and browse to the directory where you saved the license file.

In the configuration tool you should now see that your license file has been added to the list of license files. If you want the license to be automatically available every time you restart your computer, select **Start Automatically with Windows**. This capability is only available if the tool was started with Admin rights.
4. Click **Start** to launch the license service. Then click on **OK** to apply the changes.

At the bottom of the window you will see that the license server is set to `@localhost`. This is the address that the application will use when trying to find licenses. With this setting it will look for the license on your local computer. You do not need to make any changes to this as long as you have just a local license server.

To verify that a license is available you can click **Status**. This will show you which licenses are available and if there is a problem with any of the license features.

If there is a problem with any license feature, click **Diagnostics** to get more information. This will list the license file(s), information about the license server and enable access to the FlexNet debug log file.

The *Troubleshooting* section describes known issues that may be encountered, and their solutions. If you cannot solve the problem and you need to contact Schlumberger support, please always send the contents of the diagnostics to the support.

See also:

- [Schlumberger Licensing dialog \(p.7\)](#)
- [Advanced options dialog \(p.10\)](#)
- [Troubleshooting \(p.22\)](#)

Connecting to an external license server

To connect to a license server, Schlumberger applications need to know the address of the server. The address is of the form `portnumber@machine.domain` or `portnumber@IP_address`.

For example, if your server is called `server1` and it is using port number 27000, the address is `27000@server1`. If you do not know the address of the license server please contact your system administrator.

Note: If the license server has been configured with a port number within the default range of 27000–27009 the port number can be dropped, in that case `@server1` will also be a valid address.

Not adding the port number during installation makes the set up slightly simpler, but not setting port numbers may adversely affect the performance

To connect to an external license server:

1. In the Schlumberger licensing dialog, enter the server details in the **Manage Remote Servers** panel.
2. Click **Add license server** to update the environment variable.

To remove details of a license server, select the entry in the list and click **Remove license server**.

See also:

- [Schlumberger Licensing dialog \(p.7\)](#)
- [Advanced Options dialog \(p.10\)](#)

Managing flex services

A small utility is available for license service management and it can be accessed from the **File** menu. It lists the FlexNet services that are installed on your computer and lets you view the details about each service or remove a service.

See also:

- [Manage flex services \(p.13\)](#)

Schlumberger Licensing dialog

The Schlumberger Licensing dialog provides an interface to manage license files for a local license server, and connections to external FlexNet license servers:

- License files are managed through the [Local License Server \(p.8\)](#) panel.
- Connections to external license servers are managed through the [Remote License Servers \(p.8\)](#) panel

Local License Server

This panel shows the Schlumberger license files available to your local server. By default the Schlumberger Licensing tool adds or removes individual license files. If you have several license files in the same folder, you can configure the Schlumberger Licensing tool to use folders and add or remove all license files found within the selected folder.

Add license file

Select the license files that the local license server will use.

Remove license file

Remove the selected license file from the list.

Add license folder

Select a folder containing all the license files with `.lic` extension with the license server. You can only select one folder and the folder should not contain any license files from other vendors and a maximum of 4 license files. This option is available if you have configured Schlumberger Licensing tool to use folders. You can set this option using the **Advanced options** dialog.

Remove license folder

Remove the selected license folder. This option is available if you have configured Schlumberger Licensing tool to use folders. You can set this option using the **Advanced options** dialog

Start automatically with Windows

Creates a service will be created on your local computer to run the license server. If you reboot the machine, the license server will automatically start when windows is loading.

Port number

The port number is the TCP/IP port that this FlexNet server uses when communicating with other computers. The tool will automatically set the port number to a free port number in the range 27000-27009. If you need to specify the port number manually, for example, if you have to open the firewall for this port number you can just type the number in the **Port Number** box.

Note: Flexera best practices recommend not using the default range between 27000-27009

Start

Starts the license server on your local computer.

Stop

Stops the local license server.

Reread

Reinitializes the licenses running on the local license server without stopping the license server. This can be used, for example, if have edited your license file and want to update the server.

See also:

- [Advanced options dialog \(p.10\)](#)

Remote License Servers

This panel shows all the license servers you wish to access for licenses for different Schlumberger products. The panel shows the available servers set using the `SLBSLS_LICENSE_FILE` environment variable. Other environment variables can be configured through the Advanced Options dialog.

If you wish to add a license server, this can be done by typing `port@servername` into the highlighted box and then clicking on the **Add license server** button. If you wish to remove a license server, highlight the server and click on **Remove license server**.

Important: This will only remove the server from the user environment variable; if you wish to remove the system variable, you must do so manually.

Some applications require the license server that they are checking out from to be the first in a long list of license servers, to do this, highlight the server that the application will be checking a license out from and click on the up arrow to move it to the top of the list.

Add license server

Adds a new server from which licenses can be drawn.

Remove license server

Removes the selected license server from the list of servers provided licenses.

Read all server paths

Uses all the license servers in the panel.

Only read first server path

Only use the first line of servers in the panel.

Only read second server path

Only use the second line of servers in the panel.

Diagnostics

Shows the various settings on your machine related to FlexNet. The Diagnostics window shows the following information:

- The Schlumberger license daemon version information.
- The Schlumberger Licensing tool version information.
- The licensing environment variables settings.
- The changes that have been made to the license files.
- The contents of the license files.

Use the text box next to the magnifying glass to search for a string within the diagnostic log.

Click **Open flex log** to display the flex log to which your local license server writes information. The information found in the diagnostics is very useful for locating the source of any problem. If you require support for the license server, this information should be supplied to Schlumberger support.

Status

Shows which licenses are available from the servers in the license server list.

The text box next to the magnifying glass allows you to search for a string within the log by clicking on the magnifying glass button. The **Open flex log** button will display the file that the local license server writes its output to.

OK

Saves the changes made and closes the Schlumberger Licensing tool.

Cancel

Closes the Schlumberger Licensing tool without saving any of the changes made.

Apply

Saves the changes made, but does not close the Schlumberger Licensing tool.

See also:

- [Environment Variables to Set \(p.10\)](#)

File menu

Advanced options dialog

Used to configure some of the license tool default settings such as the environment variable used to store license server information and remove entries in that variable, set log file and diagnostic information, update the CodeMeter settings, and use an option file with licenses for a local server.

The **Advanced options** dialog is accessed from the **File** menu and contains the following:

- [Settings tab \(p.10\)](#).
- [Options File tab \(p.11\)](#).
- [Reset tab \(p.13\)](#).

Settings tab

Environment Variables to Set

Sets the user environment variable to which external license server information is added. You should select the appropriate variable for the application for which you require a license:

- `SLBSLS_LICENSE_FILE` — the recommended variable for all recent Schlumberger applications.
- `SLBFD_LICENSE_FILE` — compatible with ECLIPSE 2006.1 to 2007.2, Geoframe and Avocet
- `LMGRD.SLB_LICENSE_FILE` — compatible with OFM, ECLIPSE 2001A - 2005
- `LM_LICENSE_FILE` — the default variable used by FlexNet servers. This variable should not be selected as it may affect many programs from many different vendors.

If a system variable of the same name is set, the user environment variable overrides the system variable settings. If the variable is changed, the license servers panel is updated to reflect that environment variable. To remove the content of the user environment variables, select the variable and click **Remove variable**.

CAUTION: It is strongly recommended that you do not use the `LM_LICENSE_FILE` variable; this variable could be used by all applications using the FlexNet license server, including non-Schlumberger applications.

Log File Settings

Determines whether to append to, or overwrite, the existing log file every time license server starts.

The **Log file path** is the directory in which license server log files are stored. Click **Browse** to change the log file path, and click **Remove old diag file** to delete the existing flex debug log files.

Note: You must stop the license server to make any changes to the log file settings.

Diagnostics Settings

Sets the location where diagnostic files are stored. Click **Remove old diag file** to remove all diagnostic files.

These diagnostics files provide useful information for Schlumberger support in the event of any problems.

CodeMeter Settings

Note: The CodeMeter detector can only be used with a local license service using the Schlumberger Licensing tool.

Select **Install CodeMeter detector** to install the CodeMeter detector service. The service detects whether a CodeMeter dongle is plugged in, and will perform a reread on the local license server so that any licenses connected to the dongle will be enabled for checkout.

Use **Update CodeMeter dongle times** to update the time on all CodeMeter dongles. This may resolve problems when you see errors in the flex log file indicating that the daemon cannot get the CodeMeter dongle ID. Your computer will need an Internet connection in order to be able to update the time on the CodeMeter dongles.

License Usage Settings

Determines the type of license used by the local license server:

- **File** - the license server uses a single license file.
- **Folder** - the license server uses all license files in a specified folder. If this option is selected, license files must use a `.lic`. You can only select one folder and the folder should not contain any license files from other vendors.

If **Verify license file** is selected, the license tool will verify that the hostID in any new license file is valid for the server.

Note: You must stop the license server to make any changes to the license usage settings.

Vendor Port Settings

Sets the port on the VENDOR line in all license files, this may improve performance in checkouts when the user points directly to the VENDOR port.

Note: If you set one of the environment variables to point directly to the vendor daemon, quorum and lmstat functionality will not work.

Note: Flexera best practices recommend not using a port in the default range of 27000-27009.

Reread or stop/start the license server to configure the license server to use the vendor port.

Options File tab

The options file is used to control various operating parameters of FlexNet Licensing for the local license server. Users are identified by their user name, host name, display, IP address or project (set with the `LM_PROJECT` environment variable).

Add options file

Add an options file to the selected license file.

Replace Options File

Replace an existing options file with your new selection.

Remove Options File

Remove the options file from the selected license file.

Edit

Open the options file to edit in your default editor.

FlexNet options file

The options file provides a platform for a license administrator to control the distribution of licenses. The license administrator can allow or deny the use of features, enable a report log file and free up timed out licenses. Using the options file the license administrator can configure the users and machines that are permitted to interact with the license server.

Important: If more than 1 license file is in use do be sure to add the same options file to every license file.

DEBUGLOG

```
DEBUGLOG [+]debug_log_path
```

Specifies a location for the debug log output from the vendor daemon associated with this options file. To append log entries rather than overwrite the file every time the daemon starts, place a + character before the debug_log_path

Note: This only affects output from the vendor daemon associated with this options file. The debug log output of lmgrd and any other vendor daemons in the same license file is not captured in this file.

On Windows, path names which include spaces have to be enclosed in double quotes. If lmgrd is started as a service, the default location for the report log file is the C:\winnt\System32 folder unless a fully qualified path is specified.

EXCLUDE

```
EXCLUDE feature[:keyword=value] type {name | group_name}
```

Excludes a user or predefined group of users, etc., from the list of who is allowed to use the feature. EXCLUDE supersedes INCLUDE; conflicts between the EXCLUDE list and the INCLUDE list are resolved by the EXCLUDE taking precedence.

feature	Name of the feature being affected.
keyword=value	Feature name modifier to denote a group of licenses
type	One of USER, HOST, DISPLAY, INTERNET, PROJECT, GROUP, or HOST_GROUP.
name	Name of an item of type type for which license usage is excluded
group_name	Name of the group to exclude.

For example, to exclude the user "hank" from the list of users able to use feature "f1":

```
EXCLUDE f1 USER hank
```

INCLUDE

```
INCLUDE feature[:keyword=value] type {name | group_name}
```

Includes a user or predefined group of users, and so on, in the list of who is allowed to use licenses for this feature. Anyone not in an INCLUDE statement is not allowed to use that feature. EXCLUDE supersedes INCLUDE; conflicts between the EXCLUDE list and the INCLUDE list are resolved by the EXCLUDE taking precedence.

feature	Name of the feature being affected.
keyword=value	Feature name modifier to denote a group of licenses.
type	One of USER, HOST, DISPLAY, INTERNET, PROJECT, GROUP, or HOST_GROUP.
name	Name of an item of type type for which license usage is included.
group_name	Name of the group for which license usage is included.

For example, to include user "bob" in the list of users able to use feature "f1":

```
INCLUDE f1 USER bob
```

Note: INCLUDE is required for USER_BASED or HOST_BASED features. The system administrator specifies which users are allowed to use the product, using INCLUDE, and the license limits the number of users that are included.

TIMEOUT

TIMEOUT feature[:keyword=value] seconds

Sets the time after which an inactive license is freed and reclaimed by the vendor daemon

Note: The vendor must have enabled this feature in the FlexNet enabled application for it to work. Contact your software vendor to find out if this feature is implemented. The vendor must have enabled this feature in the FlexNet enabled application for it to work. Contact your software vendor to find out if this feature is implemented.

feature	Name of the feature.
keyword=value	Feature name modifier to denote a group of licenses.
seconds	Number of seconds after which inactive license is reclaimed. The vendor sets a minimum value. If you specify a value for seconds that is smaller than the vendor's minimum, the minimum is used.

For example, to set the timeout for feature "f1" to one hour (3600 seconds):

```
TIMEOUT f1 3600
```

TIMEOUT checks in the licenses if the FlexNet enabled application has been inactive for a period longer than the specified time period. The daemon declares a process inactive when it has not received heartbeats from it; whereas, an active FlexNet enabled application sends heartbeats.

A TIMEOUT line must be present in the options file in order to take advantage of the vendor-enabled timeout feature.

The minimum timeout that can be set is 900 seconds.

TIMEOUTALL seconds has the same functionality as TIMEOUT, but applies to all features.

REPORTLOG

This specifies a path where the binary file will be created. This binary log file is used by the PPU service.

Reset tab

This tab allows you to remove FlexNet license settings from your machine.

Clear Schlumberger License Settings

Removes the User and System variables and registry entries for the Schlumberger SLBSLS_LICENSE_FILE, CLBFD_LICENSE_FILE, and LMGRD.SLB_LICENSE_FILE license variables.

Clear LM_LICENSE_FILE License Settings

Removes the User and System variables and registry entries for the LM_LICENSE_FILE license variables.

CAUTION: The LM_LICENSE_FILE is the default license file for the FlexNet server. Deleting this file may affect all applications that use this FlexNet server for licensing.

Manage flex services

Used to manage the license servers running on the local machine.

1. Select **Manage flex services** from the **File** menu.

This opens the **Manage flex services** dialog, this allows you to see the details of any license servers running on the local machine. You can also remove any license servers running on the machine.

1. To see details of the license a particular service is using highlight the service, then press the **Details** button.
2. To remove or delete the service press the **Remove** button.

Machine information

Used to request host ID information.

1. Select **Machine information** from the **File** menu.

This opens the **Request** dialog. This shows all the host IDs on the system and each text box displays the following:

CodeMeter dongle ID

used with most Schlumberger applications.

Network host ID

used with some Schlumberger applications.

Flex dongle or HASP dongle ID

rarely used, except for older applications.

Request license via email (Outlook only)

Formats an email that you can send to your license administrator or account manager. You can also click **Copy Text** to copy the information into clipboard.

Managing licenses on Linux

The Schlumberger license server (SLBSLS) requires the following:

- A supported version of Linux.
- Approx 40 MB free disk space. If logs are kept the disk space requirement can grow significantly.
- Root privileges on the target machine.
- The linux lsb packages are required. Usually they can be installed with `yum install lsb`
- CodeMeter drivers, available on the installation disc or can be downloaded from [WIBU systems](#).

Note: If you are installing CodeMeter drivers you may need to restart the server following installation.

To install and configure a license server:

1. If you already have a license server installed, it must be stopped before installing the new server.
2. Install the Schlumberger license server software.
3. If required, edit the license file to use the `slbsls` license server.
4. Create a startup script for the newly-installed license server.
5. Test the server installation.

Stopping an existing license server

1. Run the command `ps -ef | grep lmgrd`

The command shows if any `lmgrd` processes are running. If you have a running license server the output will be something similar to:

```
root 29769 1 0 Jul12 ? 00:00:00 /ecl/tools/linux/flexlmXX/lmgrd
-c /ecl/macros/license.dat -2 -p -l +/tmp/flex.log
root 29770 29769 0 Jul12 ? 00:00:00 lmgrd.slb -T abgkickstart
9.5 3 -c /ecl/macros/license.dat -p --lmgrd_start 44b4ed38
738 28161 27876 0 19:58 ? 00:00:00 grep lmgrd
```

The server name may be one of `lmgrd.slb`, `slbfd` or `slbsls`.

Note: The top line is the `lmgrd` license server, if you see more than one server running be careful to kill the correct one as other licenses may be being served from this machine.

2. If there is only one `lmgrd` stop it using the following command:

```
pskill lmgrd
```

3. Check again using the command

```
ps aux | grep init | grep -v grep lmgrd
```

The `lmgrd` process should be gone from the output.

4. Check if the license is automatically being started when the machine boots. There are two ways this may be configured.

- a. The `/etc/rc.local` file may contain an entry to start the license server. Search the file for `lmgrd` and comment out the command.
- b. Alternatively there could be a startup script in either `/etc/rc3.d` and/or `/etc/rc5.d`. There is no fixed name for the startup script, although it does usually begin with a capital S. If you are having trouble finding it try running the command:

```
cd /etc
grep lmgrd *
```

If this command finds any scripts containing the string `lmgrd`, the name will be shown on the screen.

5. Once you find the script move it to `/tmp` using the following command:

```
mv <filename> /tmp
```

Installing the Schlumberger license server

Note: You must perform the last step of this procedure, even if you are not using dongle-based licensing.

Note: The exact path for the license server install will vary depending on the distribution method.

1. The Linux License software may be found on the software DVD, or downloaded from the Customer Care Center. To obtain the software from the Customer Care Center.

- a. Login to <https://www.customercarecenter.slb.com>.
- b. Create a ticket and request access to Linux License Server download.

2. Extract the package using the following command:

```
tar xzvf flex11.14.tgz
```

3. If you are installing the CodeMeter Runtime, go to the directory into which the package was extracted, for example:

```
cd flex1114
```

4. Copy the CodeMeter Runtime rpm package from the software DVD, or download the appropriate package from the WIBU systems website (http://wibu.com/download_user.php) into this location.

5. Install the runtime using the following command:

```
rpm -ivh CodeMeter64-X.X-XXX.x86_64.rpm
```

Editing the license file

If you have a license file similar to the one of the two examples shown below, you will need to change the `VENDOR slbfd` or `VENDOR lmgrd.slb` line to read `VENDOR slbsls`.

```
SERVER this_host 0123456789
VENDOR slbfd
USE_SERVER
INCREMENT gasfield slbfd 2006.0 1-jun-2016 1 SUPERSEDE=gasfield \
NOTICE="0738198 A2GF-P1" START=12-jun-2006 AUTH={ slbfd=( \
SIGN="003E 9B74 A1DC 645B D177 B400 A079 E400 1D40 09BC 2C27
9800 B0AE DA4B FC48") lmgrd.slb=( LK=7689E5620621 SIGN="008D\
3799 4265 25A4 25C5 DA12 534D A800 4331 A349 9740 7B86 36BF \
A613 FBF6" SIGN2="00F9 B765 0F28 3BEE 6179 6718 22C7 0D00 B1E0 \
7030 1CEB B59E D3CB D5C8 E569") }
```

```

SERVER this_host 0123456789
VENDOR lmgrd.slb
USE_SERVER
INCREMENT gasfield slbfd 2006.0 1-jun-2016 1 SUPERSEDE=gasfield \
NOTICE="0738198 A2GF-P1" START=12-jun-2006 AUTH={ slbfd=( \
SIGN="003E 9B74 A1DC 645B D177 B400 A079 E400 1D40 09BC 2C27
9800 B0AE DA4B FC48") lmgrd.slb=( LK=7689E5620621 SIGN="008D\
3799 4265 25A4 25C5 DA12 534D A800 4331 A349 9740 7B86 36BF \
A613 FBF6" SIGN2="00F9 B765 0F28 3BEE 6179 6718 22C7 0D00 B1E0 \
7030 1CEB B59E D3CB D5C8 E569") }

```

When altered, the file should look something like the following. The change has been made to the second line of the file:

```

SERVER this_host 0123456789
VENDOR slbcls
USE_SERVER
INCREMENT gasfield slbfd 2006.0 1-jun-2016 1 SUPERSEDE=gasfield \
NOTICE="0738198 A2GF-P1" START=12-jun-2006 AUTH={ slbfd=( \
SIGN="003E 9B74 A1DC 645B D177 B400 A079 E400 1D40 09BC 2C27
9800 B0AE DA4B FC48") lmgrd.slb=( LK=7689E5620621 SIGN="008D\
3799 4265 25A4 25C5 DA12 534D A800 4331 A349 9740 7B86 36BF \
A613 FBF6" SIGN2="00F9 B765 0F28 3BEE 6179 6718 22C7 0D00 B1E0 \
7030 1CEB B59E D3CB D5C8 E569") }

```

All license files need to be updated with the VENDOR change, and saved into a common directory.

Replace the phrase `this_host` with the name of the license server.

Creating a new startup script

1. Create a new file called `slbclsflexstart`, in `/etc/init.d`.
2. Add the following lines to the file:

```

#!/bin/sh
<installation_directory>/flex11/lmgrd -c <your_license_file> -2 -p -l
+/tmp/flex.log

```

Where `<your_installation_directory>` is the installation path and `<your_license_file>` is the path to the license file.

3. Make the script executable using the following command:

```
chmod 755 /etc/init.d/slclsflexstart
```
4. Create links in both the `/etc/rc3.d` and `/etc/rc5.d` folders so the script is run at system startup.

Change to the appropriate directory (for example `/etc/rc3.d`) and create a link.

```
cd /etc/rc3.d
```

```
ln -s /etc/init.d/slclsflexstart S99slclsflexstart
```

Repeat this step for the second startup directory.

Note: The `-2 -p` options on the command line for starting the license server prevent other users from initiating a shut down or reread.

Testing the installed server

Once the scripts have been created, you can test the server to see if it works properly using the following command:

```
/etc/init.d/slbslsflexstart
```

If the server has started successfully, a log file called `/tmp/flex.log` will be generated containing information similar to that shown below. If any problems are encountered during operation or startup, these are also output to the log file.

```
0:58:30 (lmgrd) FlexNet Licensing (v11.X.X.X build XXXX x64_lsb)
              started on server01 (linux) (2/19/2016)
0:58:30 (lmgrd) Copyright (c) 1988-2016 Flexera Software LLC.
              All Rights Reserved.
0:58:30 (lmgrd) World Wide Web: http://www.flexerasoftware.com
0:58:30 (lmgrd) License file(s): lic_regular/licserver_linux_1_regular.lic
0:58:30 (lmgrd) lmgrd tcp-port 1234
0:58:30 (lmgrd) (@lmgrd-SLOG@) =====
0:58:30 (lmgrd) (@lmgrd-SLOG@) === LMG RD ===
0:58:30 (lmgrd) (@lmgrd-SLOG@) Start-Date: Thu Feb 19 2016 00:58:30 GMT
0:58:30 (lmgrd) (@lmgrd-SLOG@) PID: 15119
0:58:30 (lmgrd) (@lmgrd-SLOG@) LMGRD Version: v11.X.X.X build XXXX x64_lsb
0:58:30 (lmgrd) (@lmgrd-SLOG@)
0:58:30 (lmgrd) (@lmgrd-SLOG@) === Network Info ===
0:58:30 (lmgrd) (@lmgrd-SLOG@) Socket interface: IPV4
0:58:30 (lmgrd) (@lmgrd-SLOG@) Listening port: 1234
0:58:30 (lmgrd) (@lmgrd-SLOG@)
0:58:30 (lmgrd) (@lmgrd-SLOG@) === Startup Info ===
0:58:30 (lmgrd) (@lmgrd-SLOG@) Server Configuration: Single Server
0:58:30 (lmgrd) (@lmgrd-SLOG@) Command-line options used at LS startup:
0:58:30 (lmgrd) (@lmgrd-SLOG@) -c lic_regular -l flex.log
0:58:30 (lmgrd) (@lmgrd-SLOG@) License file(s) used:
0:58:30 (lmgrd) (@lmgrd-SLOG@) lic_regular/licserver_linux_1_regular.lic
0:58:30 (lmgrd) (@lmgrd-SLOG@) =====
0:58:30 (lmgrd) Starting vendor daemons ...
0:58:30 (lmgrd) Started slbsls (internet tcp_port 55890 pid 15213)
0:58:34 (slbsls) FlexNet Licensing version v11.X.X.X build XXXX x64_lsb
0:58:34 (slbsls)

=====
SLBSLS Version: 2017.1
Build Type: RELEASE
=====

0:58:34 (slbsls) SLOG: Summary LOG statistics is enabled.
0:58:34 (slbsls) SLOG: FNPLS-INTERNAL-CKPT1
0:58:34 (slbsls) SLOG: VM Status: 2
0:58:34 (slbsls) SLOG: FNPLS-INTERNAL-CKPT2
0:58:34 (slbsls) Server started on linserver01 for: test1
0:58:34 (slbsls) test2 test3
0:58:34 (slbsls) EXTERNAL FILTERS are OFF
0:58:34 (lmgrd) slbsls using TCP-port 55890
0:58:34 (slbsls) Serving features for the following vendor names:
slbsls slbfd lmslb
0:58:34 (slbsls) SLOG: Statistics Log Frequency is 240 minute(s).
0:58:34 (slbsls) SLOG: TS update poll interval is 10 minute(s).
0:58:34 (slbsls) SLOG: Activation borrow reclaim percentage is 0.
0:58:34 (slbsls) (@slbsls-SLOG@) =====
0:58:34 (slbsls) (@slbsls-SLOG@) === Vendor Daemon ===
0:58:34 (slbsls) (@slbsls-SLOG@) Vendor daemon: slbsls
0:58:34 (slbsls) (@slbsls-SLOG@) Start-Date: Thu Feb 19 2016 00:58:34 GMT
0:58:34 (slbsls) (@slbsls-SLOG@) PID: 15213
0:58:34 (slbsls) (@slbsls-SLOG@) VD Version: v11.X.X.X build XXXX x64_lsb
0:58:34 (slbsls) (@slbsls-SLOG@)
0:58:34 (slbsls) (@slbsls-SLOG@) === Startup/Restart Info ===
0:58:34 (slbsls) (@slbsls-SLOG@) Options file used: None
0:58:34 (slbsls) (@slbsls-SLOG@) Is vendor daemon a CVD: Yes
0:58:34 (slbsls) (@slbsls-SLOG@) Is TS accessed: No
0:58:34 (slbsls) (@slbsls-SLOG@) TS accessed for feature load: -NA-
0:58:34 (slbsls) (@slbsls-SLOG@) Number of VD restarts since LS startup: 0
0:58:34 (slbsls) (@slbsls-SLOG@)
```

```
0:58:34 (slbssl) (@slbssl-SLOG@) === Network Info ===
0:58:34 (slbssl) (@slbssl-SLOG@) Socket interface: IPV4
0:58:34 (slbssl) (@slbssl-SLOG@) Listening port: 55890
0:58:34 (slbssl) (@slbssl-SLOG@) Daemon select timeout (in seconds): 1
0:58:34 (slbssl) (@slbssl-SLOG@)
0:58:34 (slbssl) (@slbssl-SLOG@) === Host Info ===
0:58:34 (slbssl) (@slbssl-SLOG@) Host used in license file: linserver01
0:58:34 (slbssl) (@slbssl-SLOG@) Running on Hypervisor: Hyper-V
0:58:34 (slbssl) (@slbssl-SLOG@) LMBIND needed: No
0:58:34 (slbssl) (@slbssl-SLOG@) LMBIND port: -NA-
0:58:34 (slbssl) (@slbssl-SLOG@) =====
```

Firewall Settings

We recommend for increased security a firewall be setup. Some suggested settings follow, refer to the documentation for your operating system if further details are required.

Windows Firewall Settings

By default a Windows system will have a firewall enabled.

The first time you start the license server you should see 2 warnings from the firewall pop up. Please accept the prompts and disable the firewall.

If you do not accept the prompts or the warnings do not appear then it is possible to set the exceptions manually.

If the computer running the license server moves from Network to Network, for example a Laptop that is used at home and at work, ensure that the exceptions are ticked for all the networks the computer may be on.

To configure the firewall to allow license server communication:

1. Select **Start » Settings » Control Panel » Windows Firewall**. The Windows Firewall utility will start up.
2. Select the **Exceptions** tab.
3. Click **Add Program** and then click **Browse** and navigate to the Flexnet install directory.

The default location is C:\Program Files (x86)\Schlumberger\Schlumberger Licensing\201X.X and select slbsls.exe and lmgrd.exe.

4. Click **OK** when you have completed the configuration of the Windows Firewall.

Linux Firewall Settings

For Linux it is easiest to lock the license server to fixed ports, then open those ports in the firewall. To lock the server to fixed ports a couple of edits need to be made to the license file. First add a port number for lmgrd at the end of the line starting SERVER and add a different port to the end of the VENDOR line for the vendor daemon. When picking a port ensure that an unused port is picked.

The example license file below sets the ports to 7321 and 7322 for lmgrd and slbsls respectively.

```
# Dongle Tracking Number: 1-1047472
SERVER this_host SLBID=7C3D50----00000 7321
VENDOR slbsls port=7322
USE_SERVER
FEATURE Petrel_0_MAAAAAGBHSTUA slbsls 2018.07 09-aug-2018 1 \
VENDOR_STRING=nynnyyyyyyyyyynnnynnnnnnnnn \
SUPERSEDE=Petrel_0_MAAAAAGBHSTUA ISSUED=10-May-2007 \
SN=1-BSC7D5-0 TS_OK AUTH={ lmgrd.slb=( LK=15EFFBAF2EA4 \
SIGN="0053 DA87 00B1 12CE BEA6 32DE 6A17 8A00 0569 E602 6264 \
8094 B139 D7E0 B43E" SIGN2="0084 2DFF B6EE 3CD5 CE26 8196 DE97 \
CF00 6616 BC9E B580 1F62 3875 52A5 9928") \
slbfd=( SIGN="0089 8171 DE2E 43D0 32E2 ABCC 4575 F800 6F2A \
6B94 2C27 71EC 6C00 0D5A 19D8") slbsls=( SIGN="0089 8171 DE2E 43D0 \
32E2 ABCC 4575 F800 6F2A 6B94 2C27 71EC 6C00 0D5A 19D8") \
```

Once the license server file is set correctly open the firewall ports with the following commands, a root login will likely be required to run the following commands

On systems that use iptables (such as Redhat 6)

```
iptables -A INPUT -p tcp --dport 7321 -j ACCEPT
iptables -A INPUT -p tcp --dport 7322 -j ACCEPT
iptables save
```

On systems that use the firewall-cmd command (such as Redhat 7)

```
firewall-cmd --add-port=7321/tcp --permanent
firewall-cmd --add-port=7322/tcp --permanent
```

If you are setting a firewall we recommend that you set port information in the license variables on the clients even if you have set the default of 27000-27009. For example use the setting 27000@license-server rather than the default @license-server. This will speed up communications between the client and server.

Troubleshooting /FAQ

The following are known issues and list some useful tips and information. If the license server does not start correct, or exits soon after starting there are many possible causes. Please check through the following list to see if any apply.

License Server Not Starting

There are a number of reasons why the license server will not start.

Firstly ensure that all license files are valid.

- Open the Schlumberger License Tool.
- Ensure that the license server is stopped.
- Remove all license files and folders.
- Click on the File Menu and pick Advanced options.
- Set the license tool to use files (not folders).
- Ensure that Verify License File is ticked.
- Ensure the CodeMeter runtime has been installed and any CodeMeter dongles are plugged in.
- Press OK and go back to the main screen.
- Add each license file one by one. Remove each license file before adding the next. The License Tool will refuse to a license file if it finds a problem.
- Once each has been checked in turn and any invalid files removed, set the tool back to using folders and pick the folder containing all the license files. A maximum of 4 license files is recommended.
- Finally try again to start the license server.

If all files are valid, another common issue is that the network ports are not correctly detected. This can be solved by following the following procedure which sets ports explicitly. When picking port numbers do be careful to choose ports that are not in use. The range 27000–27009 are generally only used by license servers. If there is already a license server on the machine, check which ports it is set to use. Flexera best practices recommend not using the default ports between 27000-27009

- Open the Schlumberger License Tool
- If any license files or folders have been added remove them, then press ok.
- Click on the File Menu and pick Advanced options.
- Near the bottom of the dialogue there is a field called SLBSLS port, key in the port number, e.g. any number between 1025 – 65535 typically 27010–27020 is a good choice. Ensure whatever number you pick is not in use. When finished click ok.
- In the Schlumberger License Tool Main window, set the port to a fixed address as well. This port must be different from the SLBSLS port, as previously 27010–27020 are generally good choices. Do ensure it is not in use.
- Add the license file or license folder into the SLT. If adding a folder ensure all license files are valid, in particular check all files are valid (for the correct machine and not expired) and are locked to the same dongle or MAC address.
- Click start to start up the license server.
- Watch progress in the Message Log Window.
- When prompted, by the firewall security dialogue allow communications for the license server for both slbsls and Imgrd.

License error -1

The license error -1 usually means that the application cannot find the license server. However it can also mean that the application cannot find a license server of the correct version. If you get this error after checking that the SLBSLS_LICENSE_FILE variable is set correctly and the server is up, please also check that the server is the correct version.

tcp_s is bad!!! Exiting

This error means that the license server daemon cannot open a port for communication. It can be because security settings have blocked or closed the ports. But more usually it is because the same port has been chosen for Imgrd and slbsls. If ports are chosen they must be free and different.

Mixing MAC (hostid) and dongle licenses

Note: We strongly recommend that you do not combine dongle and hostid based licenses on the same server.

Running mixed MAC and dongle based Schlumberger licenses on the same license server may not work well. So long as a separate Imgrd is run this limitation doesn't apply to mixing dongle based Schlumberger licenses with licenses locked to other devices from other vendors.

Wrong hostid on SERVER line for license file: with CodeMeter dongle

```
7:55:08 (slbsls) Wrong hostid on SERVER line for license file: 7:55:08 (slbsls) c:
\licences\petrel.lic 7:55:11 (slbsls) SERVER line says
SLBID=ACCFD28545AC962CE110A2AAA81F1ED5366FC9577BD6517D9B7C84AF00000000DD4CBD297E8412
6AA9F10C97883B7C0A7EAB7DC06E8C203E3B8C8C000000000, hostid is (Can't get hostid of
type 1001 []) 7:55:11 (slbsls) Invalid hostid on SERVER line
```

This occurs if the dongle is not plugged in, if the time needs to be updated on the dongle, or if the server hasn't been rebooted since the CodeMeter drivers were installed.

It can also occur if the license file has been reread and includes invalid features.

See also:

- [CodeMeter settings \(p.10\)](#)

Invalid license key (inconsistent authentication code)

The license file has been tampered with, or is being served on the wrong machine. You need to obtain the correct license file or remove incorrect characters and spaces from the license file.

Upgrading firmware

It is recommended that the firmware on the CodeMeter dongles be updated periodically. This will help ensure that any known issues are fixed. Before upgrading the firmware note:

- Note that the license server may stop working during the upgrade and need to be restarted once the upgrade has finished.

- The dongle may need to be unplugged, then plugged in again to reset it after updating the firmware. A message is displayed if this is the case.
- An internet connection is required during the update to download the firmware from wibu.com.
- We have seen problems upgrading dongles with early firmware on USB to Network devices. We recommend updating the dongles only when plugged directly into a system.

To upgrade the firmware:

1. Start the CodeMeter Control Center by double clicking on the CodeMeter icon near the clock on your taskbar.
2. Then press the update button (this looks like a circular arrow).
 - a. Alternatively use the command line with the `cmu32 -d` command or `cmu -d` on Linux.

CodeMeter dongle detection

We have seen a few systems, which have problems finding older CodeMeter dongles if the dongle is set in UMS or Storage mode.

Switching the dongle to work in HID or Human interface mode can work around the issue. Full instructions for how to switch modes can be found here (if the CodeMeter runtime is installed and running) [http://localhost:22350/\\$help/CmUserHelp/us/index.html?msd_to_hid.htm](http://localhost:22350/$help/CmUserHelp/us/index.html?msd_to_hid.htm).

Note: You must upgrade the firmware of the dongle to at least version 2.02 before attempting to switch the dongle to HID mode. New dongles with an ID of the form 3-XXXXXXX are supplied preset to HID configuration. If you have trouble with the above steps ask your account manager for a new dongle and license.

Dongle performance

If the license server is under a heavy load, with more than 10 checkouts per second, you will see better performance with a new metal dongle numbered 2-XXXXXXX or 3-XXXXXXX compared to the older grey plastic dongles numbered 1-XXXXXXX. There is no appreciable performance difference between dongles with numbers starting 2 or 3. If you need a new dongle please contact your account manager.

License server stops responding or shuts down just after midnight

Any invalid features or options files can cause the license server to exit or stop responding when it runs an automatic reread just after midnight. Please ensure that the license file is valid and any options file if they exist contain valid syntax. If any issues are seen they will be reported in the license server log at startup.

Changing the date and time

Note: Do not change the time or date on your local machine as this will cause FLEXnet to think you have tampered with your time to gain more time on an expiring license file.

You should update your time zone to the country your are in:

1. Right-click on the clock and click **Adjust Date/Time**.
2. Click the **Time Zone** tab.
3. Select your time zone from the drop-down list and select **Automatically adjust clock for daylight saving changes**.

4. Click **OK** to save your changes.

Licenses are not released

If licenses are not released when an application exits, please check your network settings and any routers on your network. If you have McAfee Host Intrusion Prevention (HIP) this will need to be turned off. Additionally the TIMEOUTALL setting can be added to the options file.

FlexNet pay per use

FlexNet Pay Per Use has a more restrictive set of supported operating systems. For more details, refer to the FlexNet Pay Per Use documentation.

If the pay per use service does not start up, ensure all firewalls are configured correctly and that the email and mail server details to be used are valid.

Booting from dongle at startup

This can be fixed in two ways. If you have an old dongle with a number starting 1 you will need to change the boot order set in the machine BIOS and set the machine to boot from disk not USB first. Details will vary depending on the computer in use. Alternatively follow the instructions above for setting the dongle to HID mode.

Cannot start licenses due to character length

The FlexNet License Server can only handle up to a 256 character string for the path to licenses. Change the settings in the Schlumberger Licensing tool and point it to a folder rather than files. Then copy all the license files into this folder, ensuring all license files have an extension of `.lic`

Note: Even when in a folder a maximum length still applies. The total characters in the complete path to all license files (including both the name and directory) must be below 2048 characters.

See also:

- [License Usage Settings \(p.11\)](#)

Using Schlumberger licensing on Windows with IPv6 enabled and default

Windows 8 is one of the first versions of Windows that uses IPv6 by default. It is possible in some cases this may stop some applications communicating with the license server. This generally happens when the computer has IPv6 enabled, but it is not configured correctly. It is possible to change the default from IPv6 to IPv4. The current setting can be seen by running the command:

```
netsh interface ipv6 show prefixpolicies
```

Precedence	Label	Prefix
50	0	::1/128
40	1	::/0
35	4	::ffff:0:0/96
30	2	2002::/16
5	5	2001::/32

```

3      13  fc00::/7
1      11  fec0::/10
1      12  3ffe::/16
1      3   ::/96

```

The above table shows the default entries for Windows 8, and the line ending /128 means that IPv6 is the default. To change to IPv4, a registry key needs to either be created or edited if it already exists.

Note: Always backup any data and edit the registry with extreme caution.

The registry key you need to create is:

```
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\tcpip6\Parameters
\DisabledComponents
```

If this is not currently set, create the dword key with a hex value of 20. If the key already exists, add 20(hex) to the current setting. Once updated, you will need to reboot to make the setting active.

You can find more information about IPv6 in Windows on the [Networking and Access Technologies](#) section of Microsoft TechNet.

Upgrading or uninstalling shortcut error warning

When upgrading or uninstalling the License server, you may see the following error during the process:

Warning 1910. Could not remove shortcut Schlumberger Licensing.lnk. Verify that the shortcut file exists and that you can access it.

If the message is displayed, you can click **OK** and ignore the message as it has no effect on the upgrade or uninstall process.

License server not starting up with many licenses

We have seen problems with license server start up in some configurations which have many license files. For best performance we recommend no more than 4 license files are used. There are 2 workarounds that can help. Firstly a system environment variable called TCP_NO_DELAY can be created and set to 1. It is also possible to combine many licenses into a single file so long as they are locked to the same dongle or MAC address. When combining files ensure that there is only one copy of the header (the first 3 or 4 lines of the file), then cut and paste in all the INCREMENT and FEATURE blocks. For example you can combine the two files below:

```

SERVER server 001122334455 1234
VENDOR slbsls
USE_SERVER
INCREMENT feature1 slbsls 2011.0 30-jun-2018 4 AUTH={ lmgrd.slb=( \
  LK=1CD108B950E0 SIGN="00FC 66DF 02F9 F70A 53A4 686A 6EE5 7A00 \
  42EC E2EB CD09 7792 2161 B8C3 DDBF" SIGN2="00B0 96D1 C71D 29A1 \
  2C9D 7A7F 38B5 6200 52A0 A3B7 3BA3 265B 14DF F3C8 C936") \
  slbfd=( SIGN="00F1 CCEC 07B1 AC7C 2643 B762 1A1F 1E00 EEE1 \
  8FB8 0524 5CC6 7BD1 15CD D48E") slbsls=( SIGN="00F1 CCEC 07B1 \
  AC7C 2643 B762 1A1F 1E00 EEE1 8FB8 0524 5CC6 7BD1 15CD D48E") \
  }

```

And

```

SERVER server 001122334455 1234
VENDOR slbsls
USE_SERVER
INCREMENT feature2 slbsls 2011.0 30-jun-2018 4 AUTH={ lmgrd.slb=( \
  LK=1CD108B950E0 SIGN="00FC 66DF 02F9 F70A 53A4 686A 6EE5 7A00 \
  42EC E2EB CD09 7792 2161 B8C3 DDBF" SIGN2="00B0 96D1 C71D 29A1 \

```

```

2C9D 7A7F 38B5 6200 52A0 A3B7 3BA3 265B 14DF F3C8 C936") \
slbfd=( SIGN="00F1 CCEC 07B1 AC7C 2643 B762 1A1F 1E00 EEE1 \
8FB8 0524 5CC6 7BD1 15CD D48E") slbsls=( SIGN="00F1 CCEC 07B1 \
AC7C 2643 B762 1A1F 1E00 EEE1 8FB8 0524 5CC6 7BD1 15CD D48E") \
}

```

Into the single file

```

SERVER server 001122334455 1234
VENDOR slbsls
USE_SERVER
INCREMENT feature1 slbsls 2011.0 30-jun-2018 4 AUTH={ lmgrd.slb=( \
  LK=1CD108B950E0 SIGN="00FC 66DF 02F9 F70A 53A4 686A 6EE5 7A00 \
  42EC E2EB CD09 7792 2161 B8C3 DDBF" SIGN2="00B0 96D1 C71D 29A1 \
  2C9D 7A7F 38B5 6200 52A0 A3B7 3BA3 265B 14DF F3C8 C936") \
  slbfd=( SIGN="00F1 CCEC 07B1 AC7C 2643 B762 1A1F 1E00 EEE1 \
  8FB8 0524 5CC6 7BD1 15CD D48E") slbsls=( SIGN="00F1 CCEC 07B1 \
  AC7C 2643 B762 1A1F 1E00 EEE1 8FB8 0524 5CC6 7BD1 15CD D48E") \
  }
INCREMENT feature2 slbsls 2011.0 30-jun-2018 4 AUTH={ lmgrd.slb=( \
  LK=1CD108B950E0 SIGN="00FC 66DF 02F9 F70A 53A4 686A 6EE5 7A00 \
  42EC E2EB CD09 7792 2161 B8C3 DDBF" SIGN2="00B0 96D1 C71D 29A1 \
  2C9D 7A7F 38B5 6200 52A0 A3B7 3BA3 265B 14DF F3C8 C936") \
  slbfd=( SIGN="00F1 CCEC 07B1 AC7C 2643 B762 1A1F 1E00 EEE1 \
  8FB8 0524 5CC6 7BD1 15CD D48E") slbsls=( SIGN="00F1 CCEC 07B1 \
  AC7C 2643 B762 1A1F 1E00 EEE1 8FB8 0524 5CC6 7BD1 15CD D48E") \
  }

```

If multiple license files are in use, ensure that all files are valid, locked to the same hostid or dongle ID and not expired. If in any doubt set the License Tool to use files (not folders) and add the license files one by one. This way the License Tool will perform some basic checks on the files before adding them.

Server management interfaces

Many servers come with management interfaces that allow remote control over the server. These include devices such as RSA/iDRAC/IMM/CIMC/SSP/ilo. Many of these devices have the capability to remotely mount disks and cdroms. We have seen occasions when the use of these devices, particularly when mapping and un-mapping devices (which modifies the USB stack) has caused the CodeMeter dongles to drop temporarily. This in turn can cause the license server to restart or stop serving licenses.

Expired licenses can cause problems

License files that contain expired licenses can cause problems when adding licenses or starting the server. If you experience issues remove the expired license(s), then try to re-add the file or folder.

Administrator rights

The License tool has limited functionality when run as a user with non administrator rights. If run as an administrator then it is capable of setting a configuration that a user with normal access rights cannot change. We therefore recommend that the tool is run with Administrator rights. If used with non administrator rights, ensure that you have sufficient access to perform the tasks you require. Without using administrator rights the license server can only be configured as a process, which means it must be manually started up at each reboot, or after plugging in the dongle.

Quorum Server reread failures

We have seen an instance of a quorum license server failing occasionally at reread when the application was set to checkout a license direct from the slbsls port. No problems have been seen when the main lmgrd port was in use, we therefore recommend as a precaution that if a quorum is in use that only the main lmgrd port is used for communications

License Server exiting straight after startup

The installer will automatically install the c runtimes and .NET runtime if required. If any problems are seen, then the required runtimes can be downloaded and installed manually. C runtimes can be downloaded from <http://www.microsoft.com/en-gb/download/details.aspx?id=30679>. Note that the license server requires 32 bit C runtimes. .NET 4.5 can be downloaded from <http://www.microsoft.com/en-gb/download/details.aspx?id=30653>. This is usually shown by the license server starting up repeatedly in the license server log. Sometimes this will be shown alongside a "Create Process Error". For example

```
11:20:46 (lmgrd) Since this is an unknown status, license server
11:20:46 (lmgrd) manager (lmgrd) will attempt to re-start the vendor daemon.
11:20:46 (lmgrd) REStarted slbsls (pid 9224)
11:20:47 (lmgrd) slbsls exited with status 255 ( )
11:20:47 (lmgrd) Since this is an unknown status, license server
11:20:47 (lmgrd) manager (lmgrd) will attempt to re-start the vendor daemon.
11:20:47 (lmgrd) REStarted slbsls (pid 4256)
11:20:52 (lmgrd) slbsls exited with status 255 ( )
```

License server not detecting free ports correctly

Problems may be seen when more than 1 license server on the same machine is set to use automatic port numbers. There are 2 ways to solve this. The first option is to set the ports manually. The second is to ensure that all the lmgrd executables on the computer are the same version (and the latest required).

Server problems when running in Low Power mode

Some problems have been seen when laptops are run with the incorrect power supply. This causes the laptop to run in a powersaving mode, which means all applications run much more slowly. The license server does not work properly in this state. There are several workarounds. Firstly use the correct PSU, switch the laptop into high performance mode, accessible from the control panel power settings, or finally remove the PSU and run the system with just battery power.

License File Names

When using license files, ensure that the file names are composed of just letters, numbers and the two special characters "_" and "-". In particular commas and the @ character have been known to cause problems.

CodeMeter version 5.10 can stop working

Some early version of CodeMeter 5.1 can stop working, with an error message like the example below.

```
Faulting application name: CodeMeter.exe, version: 5.10.1224.501, time stamp:
0x5286593b
Faulting module name: RPCRT4.dll, version: 6.3.9600.17919, time stamp: 0x558ed276
Exception code: 0xc00000fd
Fault offset: 0x0000b045
Faulting process id: 0x6e4
```

```
Faulting application start time: 0x01d11464cfc9671f
Faulting application path: C:\Program Files (x86)\CodeMeter\Runtime\bin\CodeMeter.exe
Faulting module path: C:\Windows\SYSTEM32\RPCRT4.dll
Report Id: 48245cb0-9164-11e5-80dd-005056b3660cFaulting package full name:
```

CodeMeter 6.30 or later should be installed. It can be downloaded from Schlumberger, or from (<https://www.wibu.com/downloads-user-software.html>).

License Server program versions must match

The license server consists of several programs which must all be of compatible versions. This requirement also extends to programs on client machines as well as those on the license server itself. When updating the license server also ensure that any client programs such as Imutil, which may be installed by other Schlumberger applications, are upgraded at the same time. Typically the client programs start with the 2 letters Im. Depending on the install there may be many such programs including Imutil, Imstat, Imreread etc.

File and folder permission changes

As part of the security enhancements in the 2017 License Server, the license server now runs as the “LOCAL Service” user when configured to start with Windows. If the Schlumberger License Tool is used to configure the license server then it will modify the file and folder permissions so that the service can read the license files and executables and create and write logs. The following permissions will be set by the license tool for the Local Service user when the start button is pressed.

- License daemon executables Imgrd.exe, slbsls.exe and the folder containing them, read, list and execute permissions.
- The license files, the directory containing the license files and the folder 1 level above, read and list permissions.
- The license log and the directory containing the log, read, list and write permissions.

CVD License file has been Tampered.

The following text may be reported in the license server log if exactly the same license FEATURE or INCREMENT appears more than once in the license file(s). CVD License file has been Tampered. So no. of license Restricted to Original count. It can be ignored and is purely informational.