



**REPORTER by ReadSoft**

# **REPORTER 5-4**

## **Configuring FLEXIm for Use With REPORTER**

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# Introduction

FLEX $lm$ , a flexible license manager server from Macrovision Corporation, is used with ReadSoft software to manage software licenses. This document describes specific details related to FLEX $lm$  and ReadSoft REPORTER.

Since REPORTER requires invoices from ReadSoft INVOICES software, it is assumed that FLEX $lm$  is already installed and set up according to *Installing and Configuring FLEX $lm$  for use with ReadSoft INVOICES*, a separate document that is available when you click **Installation guides** in the main menu on REPORTER's installation CD.

If that is not the case, you can still follow instructions in that document to set up FLEX $lm$ , and refer to this one for information pertaining specifically to REPORTER.

If necessary, it is also possible to run REPORTER as a stand-alone application, without FLEX $lm$  running on a server. You need a stand-alone license file for that.

## Obtaining a new license file from ReadSoft

ReadSoft creates the license file (`license.dat`) that is used by FLEX $lm$  to manage your different ReadSoft licenses. When you add REPORTER, you will receive a new license file from ReadSoft by email. The new license file should contain your REPORTER license *and* all of your old ReadSoft product licenses.

If you have not already received it, contact your local ReadSoft representative for details on how you can obtain the license file.

## Adjusting the license file

*Skip this section if you are using a stand-alone license configuration, without FLEX $lm$  running on a server.*

The words "Change\_This" are listed in the `license.dat` file as a temporary server name.

Using Notepad or another text editor, open `license.dat`, located in `C:\FLEX $lm$` .

Replace "Change\_This" with the name of the server where your FLEX $lm$  software will be located.

Save the change. If the license file you received has some numbers in the file name (for example `license12345.dat`), delete the numbers. **The file name must be `license.dat`.**

**⚠ Warning:** If FLEX $lm$  is running on a server, the **SERVER** and **VENDOR** lines are the only ones that can be changed without damaging the license file.



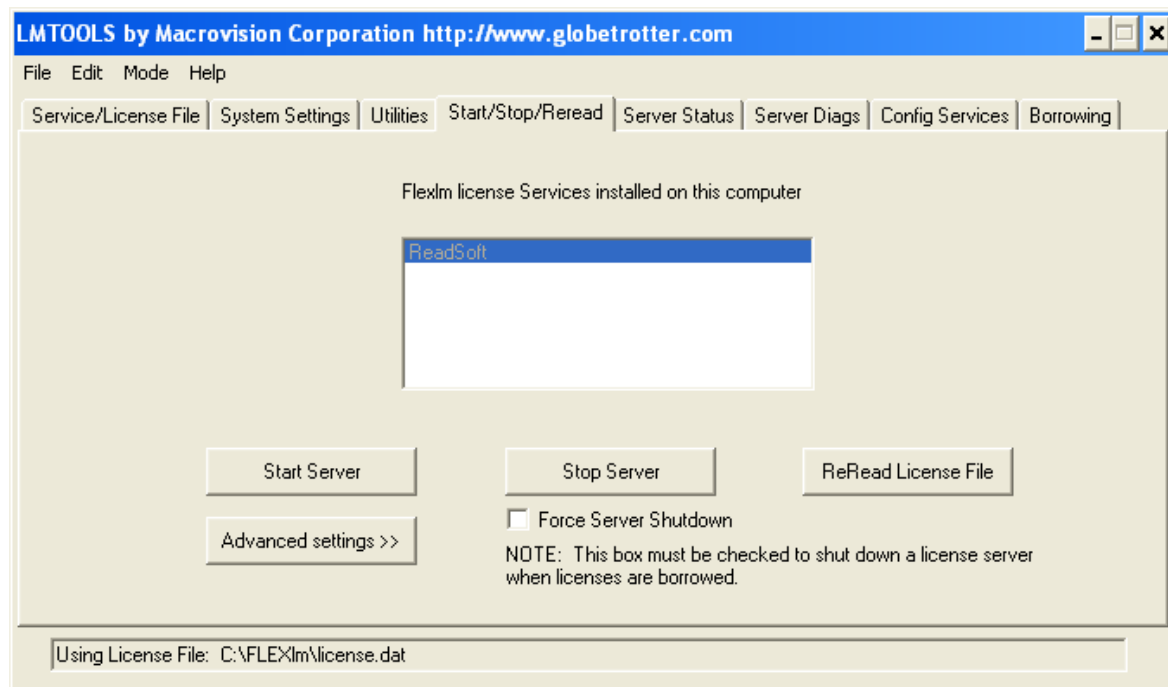
The license file is described in detail in “About the license file” on page 8.

## Replacing the original license file

*Skip this section if you are using a stand-alone license configuration, without FLEXlm running on a server.*

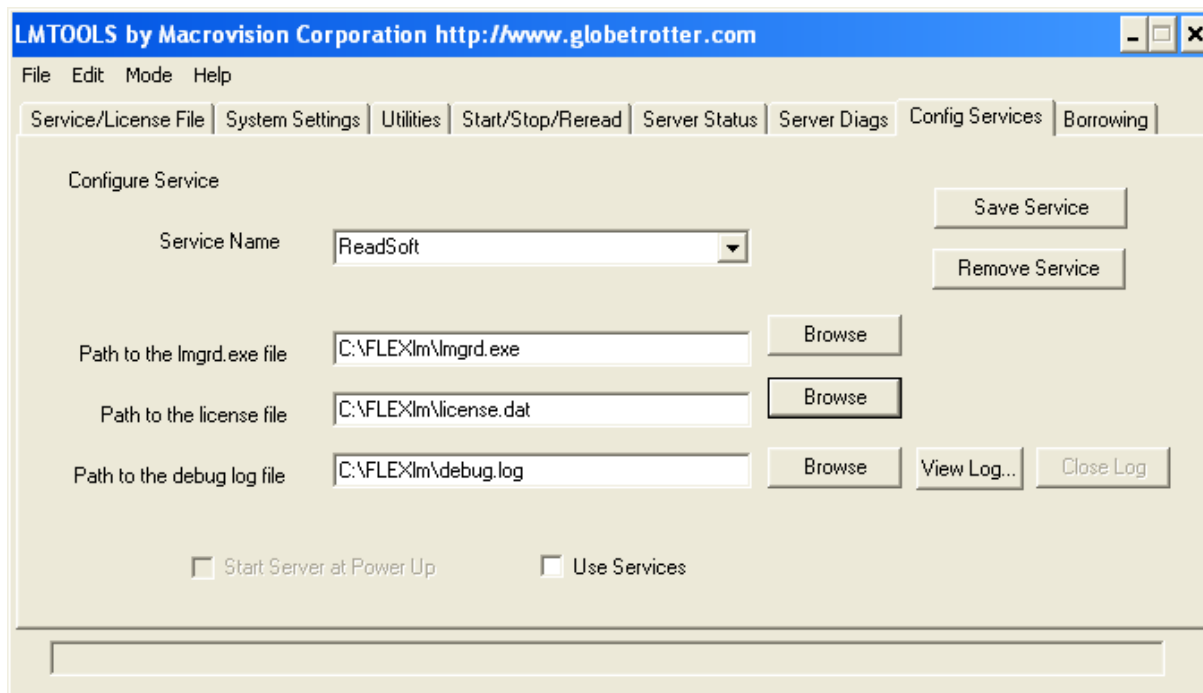
**Note:** This assumes that FLEXlm server is already installed. If it is not, install FLEXlm according to instructions in *Installing and Configuring FLEXlm for use with ReadSoft INVOICES*, a separate document that is available when you click **Installation guides** in the main menu on REPORTER’s installation CD.

1. Double-click `lmtools.exe`, located in `C:\FLEXlm`.
2. Click the **Start/Stop/Reread** tab.
3. Click **Stop Server**.



Make a backup copy of your original `license.dat` file. Normally this file is located in `C:\FLEXlm` on the server where `FLEXlm` is running.

If it is not there, the **Config Services** tab of LMTOOLS tells you where to find it. It usually looks like this:



Copy your new license file to the same location as the original file.

On the **Start/Stop/Reread** tab of LMTOOLS, click **Start Server**.

After the “**Server Starting**” message is displayed in the status bar (lower left corner), select **File** ⇒ **Exit** to close the tool.

The `FLEXlm` server is now started and is using your new license file.

If you want to ensure that it is running, use Windows Explorer to look in the `C:\FLEXlm` folder, where you should see the `ehlm` file (with no extension). This file is created just after you click **Start Server**. Alternatively, use the **Task Manager** ⇒ **Processes** tab to check that `ehlm.exe` and `lmgrd.exe` are listed as running processes. You can also check the log file, `Debug.log`.

If you replaced `license.dat` before stopping `FLEXlm`, open LMTOOLS as described above, and click **ReRead License File** on the **Start/Stop/Reread** tab.



# How the license request process works internally

## When FLEXlm is running on a server

1. When the REPORTER server starts, it finds the license file (`ReporterLicense.dat`), a simple text file that contains the server name where the FLEXlm software is located. (This file is installed with REPORTER—not to be confused with `license.dat`. You can see an example of `ReporterLicense.dat` on page 10.)
2. The REPORTER server establishes a connection with the license manager daemon (`lmgrd.exe`) and tells it which vendor daemon it needs to talk to, which in this case is `ehlm.exe`.
3. The license manager daemon determines which machine and port correspond to the vendor daemon and sends that information back to the REPORTER server.
4. The REPORTER server establishes a connection with the specified vendor daemon and sends its request for a license.
5. The vendor daemon checks in its memory to see if any licenses are available and sends consent or refusal back to the REPORTER server.
6. If a license for the REPORTER server is available, it can run.

## With a stand-alone license

The license process is similar when running with a stand-alone license, except that no connection to the license manager daemon is established.

## Abnormal termination

Abnormal termination is usually not a problem.

If the REPORTER server crashes, the license is released when it is restarted.

If the Workflow Engine hangs, the license is released automatically when FLEXlm detects this. The Workflow Engine restarts automatically after a crash.

If you want to release the license in a controlled way, restart the Workflow Engine:

1. Click **Start** ⇒ **Settings** ⇒ **Control Panel** ⇒ **Administrative Tools**.
2. Double-click **Services**.
3. Double-click **ReadSoft Workflow Engine**.
4. In the dialog that is displayed, click **Start**.



# About the license file

ReadSoft sets up any `license.dat` file in one of three ways:

With a dongle number

With a time limit

With a dongle number and a time limit

Examples of all three are found below.

## License file with a dongle number (no time limit)

The image below shows a `license.dat` file with a dongle number. The **FEATURE** lines represent separate licenses (that is, ReadSoft products or modules) that were purchased. An explanation of the fields in the license file is listed below the fields. “Permanent” means there is no time limit.

```
# DO NOT EDIT THIS FILE EXCEPT FOR THE SERVER NAME (IF NEEDED)
# -----
SERVER Change_This RS_DONGLE=23445
VENDOR EHLM
FEATURE EIFULL EHLM 1.002 permanent 1 5A5A5A5A5ACD DUP_GROUP=UHD
FEATURE IRFULL EHLM 1.002 permanent 25 74F74F74FB66 HOSTID=ANY
# The different fields in the license file, above, are described below.
```

**Warning:** If *FLEXlm* is running on a server, the **SERVER** and **VENDOR** lines are the only ones that can be changed without damaging the license file.

## License file with a time limit

Instead of using a hardware dongle number, you might use a license file that has a time limit. In the example below, the limit is November 26, 2010. In this case, the field that usually contains the hardware dongle number contains the text, “ANY”.

Example from a **REPORTER** license file with a time limit:

```
SERVER Change_This ANY
VENDOR EHLM
FEATURE EIFULL EHLM 1.002 26-Nov-2010 1 525454A84568 DUP_GROUP=UHD
FEATURE IRFULL EHLM 1.002 26-Nov-2010 50 220454547E8F HOSTID=ANY
```





## License file with a dongle number and a time limit

You might use a license file that has a time limit and a hardware dongle number. In the example below, the limit is November 26, 2010 and the hardware dongle number is 23123.

Example from a REPORTER license file with a dongle number and a time limit:

```
SERVER          Change_This RS_Dongle=23123
VENDOR          EHLM
FEATURE EIFULL  EHLM      1.002    26-Nov-2010    1    1B3443158905    DUP_GROUP=UHD
FEATURE IRFULL  EHLM      1.002    26-Nov-2010    50   CE03444C48ECE   HOSTID=ANY
```

## License file for a stand-alone license

For a stand-alone license there is no SERVER or VENDOR setting in the license file.

Example from a REPORTER stand-alone license file with a time limit:

```
FEATURE IRFULL  EHLM      1.002    26-Nov-2010    50   GGDW24C48ECE   HOSTID=ANY
```

# Troubleshooting

The information above describes how FLEXlm is supposed to work. If you have any problems with FLEXlm, then check each of the following items.

## Checking dongles

If dongles were moved, removed, or replaced in the process of adding REPORTER licenses to FLEXlm, check these points:

If you received a parallel port dongle from ReadSoft, ensure that it is properly connected to the parallel port.

Alternatively, if you are using a USB dongle, ensure that it is properly connected to the USB port of the computer where FLEXlm is running. **Important note:** See instructions regarding your USB dongle in *Installing and Configuring FLEXlm for use with ReadSoft INVOICES*, a separate document that is available when you click **Installation guides** in the main menu on REPORTER's installation CD.

Ensure that there is nothing wrong with the port that the dongle is connected to. If you use a parallel port dongle, try to print a document on a printer connected to the port. If you use a USB dongle, try connecting a peripheral device to the port to see if it works.

If the port that the dongle is connected to is not damaged, then you may need a new hardware dongle from your local ReadSoft representative.

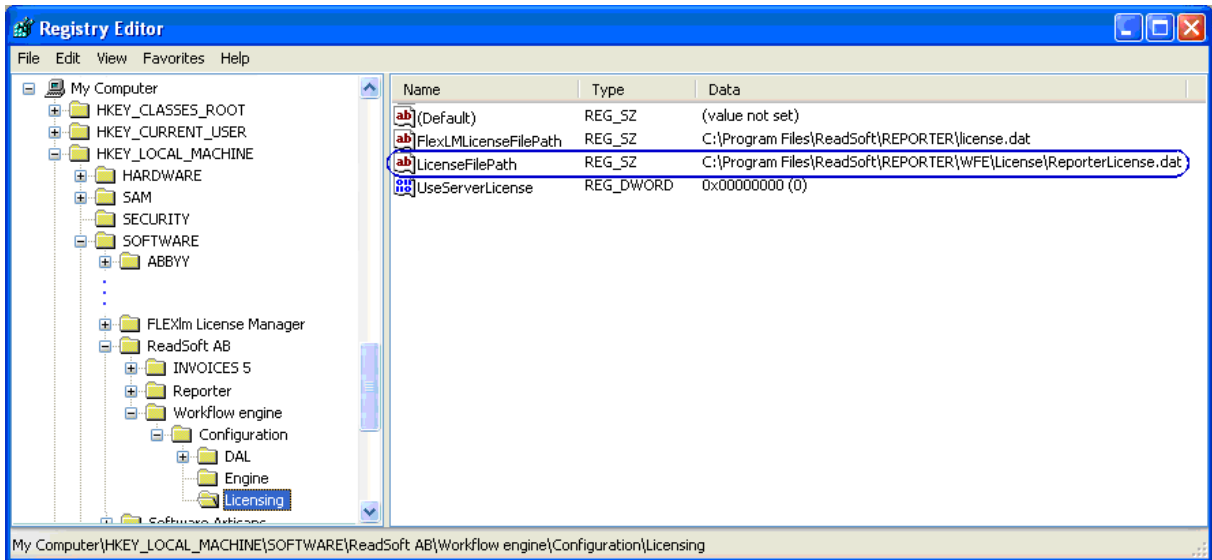


## Checking the LicenseFilePath key and the ReporterLicense.dat file

REPORTER's installation program makes this registry entry:

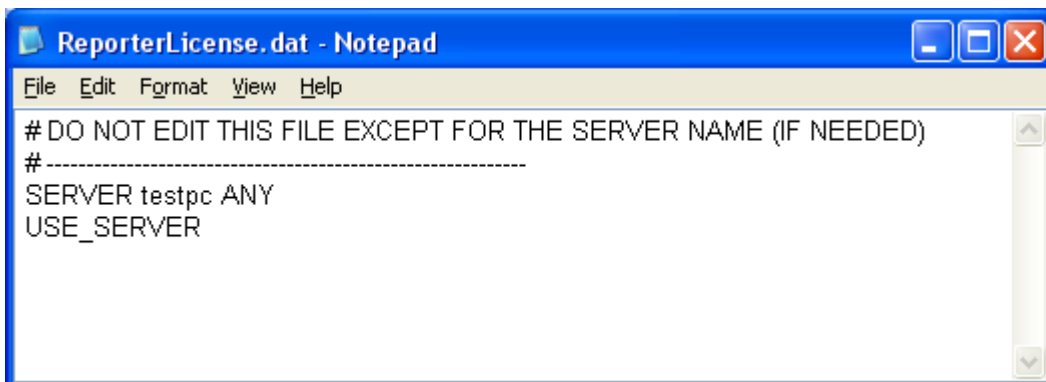
[HKEY\_LOCAL\_MACHINE\SOFTWARE\ReadSoft AB\Workflow engine\Configuration\Licensing]

1. On the server where REPORTER is installed, check that entry's LicenseFilePath key:



2. Ensure that ReporterLicense.dat is found at the location specified by LicenseFilePath.
3. Open ReporterLicense.dat using Notepad (or another text editor) and ensure that your FLEXlm server is correctly specified in this file.

ReporterLicense.dat looks something like this:



## Checking the license.dat file

This section applies only if FLEXlm is running on a server.

1. Open `license.dat`. (The file name *must* be `license.dat`.) Normally this file is located in `C:\FLEXlm` on the computer where FLEXlm is running. If it is not there, the **Config Services** tab of LMTOOLS tells you where to find it (see page 6).
2. When you received the file, the words “Change\_This” were listed as a temporary server name. Ensure that it has been changed as described on page 4. That is, ensure that the correct server name is listed in the license file after **SERVER** on the first line.
3. `license.dat` may also need to be adjusted if the Windows XP firewall is causing problems—see page 15.

## Checking the C:\FLEXlm folder

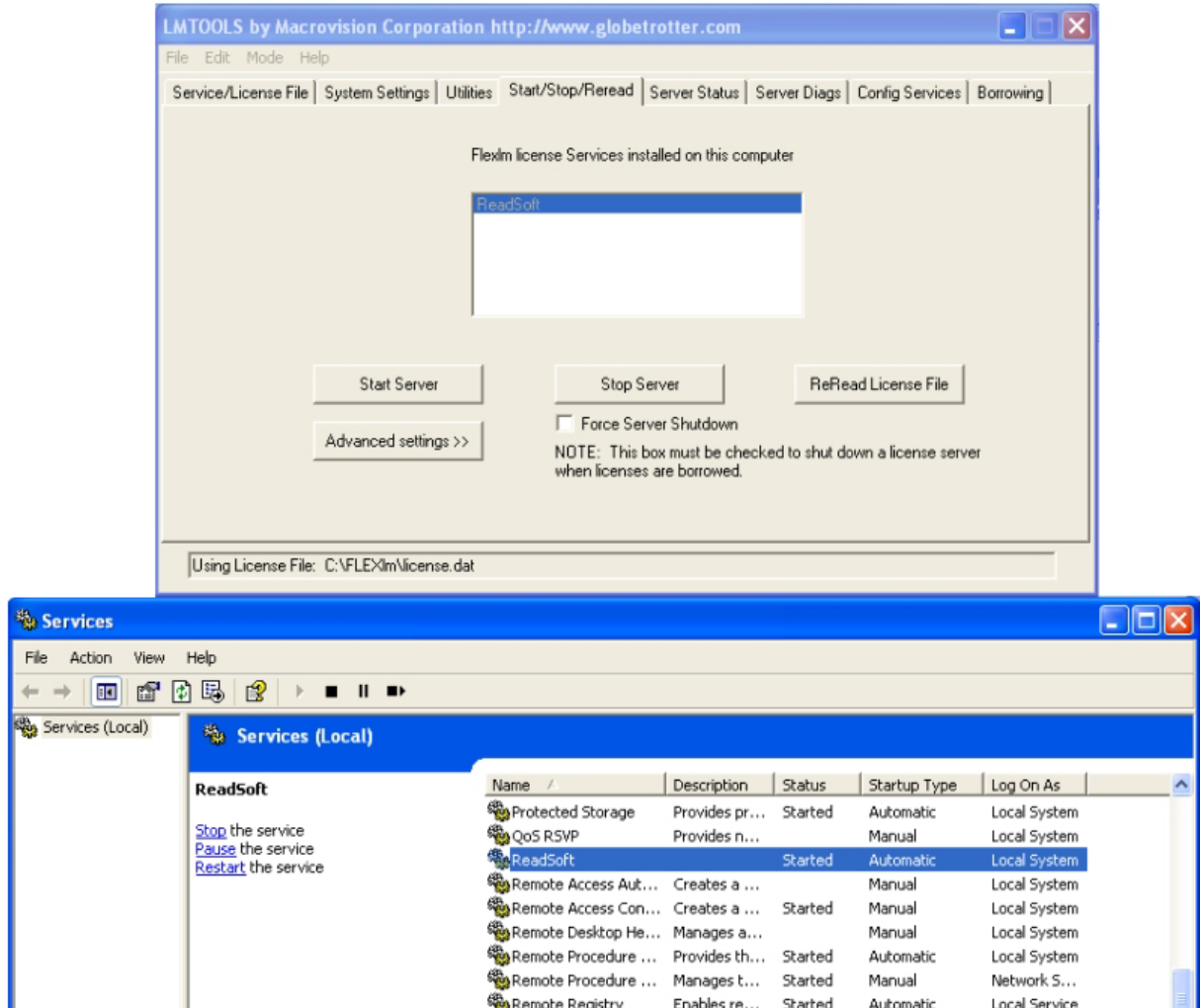
When the FLEXlm server is running, ensure that `ehlm` (a file with no extension) is located in the `C:\FLEXlm` folder.

Whenever the FLEXlm server is about to be started (that is, just before you click **Start Server**), `ehlm` (a file with no extension) should *not* be located in the `C:\FLEXlm` folder.



## Checking the FLEXIm server

Ensure that the FLEXIm service (named “ReadSoft” by default) has the status **Started** and is set to **Automatic** on the computer where FLEXIm is running.



When the FLEXIm server is started and running, ensure that the following lines can be seen at the beginning of the `Debug.log` file. Normally this file is located in `C:\FLEXIm` on the server where FLEXIm is running. If it is not there, the **Config Services** tab of LMTOOLS tells you where to find it (see page 6).

```
11:54:35 (Imgrd) -----
11:54:35 (Imgrd) Please Note:
11:54:35 (Imgrd)
11:54:35 (Imgrd) This log is intended for debug purposes only.
11:54:35 (Imgrd) There are many details in licensing policies
11:54:35 (Imgrd) that are not reported in the information logged
11:54:35 (Imgrd) here, so if you use this log file for any kind
11:54:35 (Imgrd) of usage reporting you will generally produce
11:54:35 (Imgrd) incorrect results.
11:54:35 (Imgrd)
11:54:35 (Imgrd) -----
11:54:35 (Imgrd)
11:54:35 (Imgrd)
11:54:35 (Imgrd) Detecting other Imgrd processes...
11:54:35 (Imgrd) Done rereading
11:54:35 (Imgrd) FLEXIm (v8.4a) started on serverpc (IBM PC) (2/24/2005)
11:54:35 (Imgrd) Copyright (c) 1988-2003 by Macrovision Corporation. All rights reserved.
11:54:35 (Imgrd) US Patents 5,390,297 and 5,671,412.
11:54:35 (Imgrd) World Wide Web: http://www.macrovision.com
11:54:35 (Imgrd) License file(s): C:\FLEXIm\license.dat
11:54:35 (Imgrd) Imgrd tcp-port 27000
11:54:35 (Imgrd) Starting vendor daemons ...
11:54:35 (Imgrd) Started EHLM (pid 2964)
11:54:36 (EHLM) Server started on serverpc for:          EIFULL
11:54:36 (EHLM) IRFULL
11:54:36 (Imgrd) EHLM using TCP-port 1805
11:54:40 (EHLM) OUT: "IRFULL" SYSTEM@serverpc
=====
```

If there is a message like “Invalid hostID on SERVER line”, and you have already checked the points listed above, you probably need to reinstall the Sentinel driver – see below.



## Other problems with FLEXlm

These error messages are indications of other FLEXlm problems:

- “No license could be checked out. Contact the system administrator.”

This message is displayed when FLEXlm is turned off.

- “A valid license could not be found. Contact the system administrator.”

This message is displayed when FLEXlm did not find your REPORTER license.

In both cases, do the following:

- Ensure that FLEXlm is installed and started.
- Ensure that the license file (`ReporterLicense.dat`) is saved in the correct location:
  - XP – normally `C:\Program Files\ReadSoft\REPORTER\WFE\License`.
  - Vista – `C:\Users\Public\ReadSoft\REPORTER\WFE\License`
- Ensure that the server name of the FLEXlm server is correct in the `ReporterLicense.dat` file.
- Try restarting FLEXlm and logging in again.

For additional information, please refer to *Installing and Configuring FLEXlm for use with INVOICES*, a separate document that is available when you click **Installation guides** in the main menu on REPORTER’s installation CD.

## Installing (or reinstalling) the Sentinel driver

If you received a USB dongle from ReadSoft, then the dongle must use the driver supplied by ReadSoft and installed during INVOICES installation.

Here are some lines from `Debug.log` that point to a problem that could be caused by using the wrong USB driver. (Normally `Debug.log` is located in `C:\FLEXlm` on the server where FLEXlm is running. If it is not there, the **Config Services** tab of LMTOOLS tells you where to find it –see page 6.)

```
19:31:20 (EHL) Wrong hostid on SERVER line for license file:
```

```
19:31:20 (EHL) C:\FLEXlm\license.dat
```

```
19:31:20 (EHL) SERVER line says RS_Dongle=1234, hostid is (Can't get hostid of type 1001 [])
```

```
19:31:20 (EHL) Invalid hostid on SERVER line
```

Another sign of using the wrong driver is if you see this error message when you try to start INVOICES: “The connected hardware lock is not valid for this module...”



If you have one of these problems, try rebooting. If that does not work, reinstall the Sentinel driver according to the instructions provided in *Installing and Configuring FLEXlm for use with ReadSoft INVOICES*, a separate document that is available when you click **Installation guides** in the main menu on REPORTER's installation CD.

## If the Windows XP firewall causes problems

Depending on what a computer is used for, different ports need to be opened. The list below shows the default ports to open for FLEXlm. If default ports are not used, then you must open the ones that *are* used.

Port	Role	Description
23	FLEXlm server	This port is used to communicate with FLEXlm using Telnet, as the LMTOOLS and LMSTAT tools do.
744	FLEXlm server	Used to communicate with FLEXlm.
1090	EHLM.EXE	ReadSoft FLEXlm agent.
27000	LMGRD.EXE	FLEXlm server daemon.

Instructions are provided in a separate document, *Using Windows XP Service Pack 2 with ReadSoft Products*. This document is available when you click **Installation guides** in the main menu on the installation CD.

You must also edit your `license.dat` file, specifying the TCP/IP port number that the daemon uses. Below is an example of how to change the `SERVER` and `VENDOR` lines in `license.dat` to specify ports 27000 and 1090. For example:

Before:

```
SERVER      Change_This RS_Dongle=23123
VENDOR      EHLM
```

After:

```
SERVER      Change_This RS_Dongle=23123 27000
VENDOR      EHLM port=1090
```

## If problems persist

You may encounter other types of errors that are not described in this document. If problems persist after checking the above points, please also check *FLEXlm™ End Users Guide*, provided by



Macrovision Corporation. This document is available when you click **Installation guides** in the main menu on the installation CD.

You may also contact your ReadSoft Support representative. Information on how to reach the local support channels is available at <http://www.readsoft.com/services/support.htm>.

