IMSpost™ and IMSverify ™ Licensing
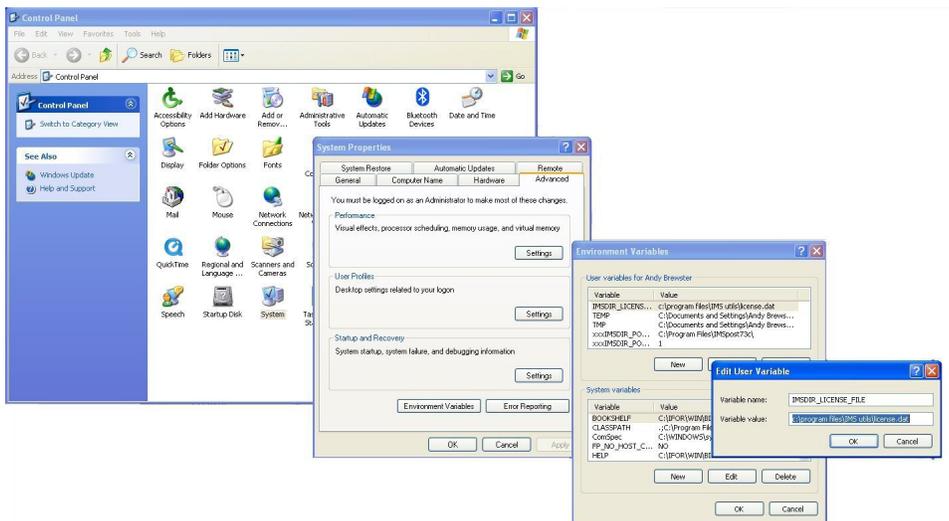
Updated October 16, 2015

Beginning with IMSpost version 7.3 and IMSverify 2007 IMS Software products are licensed using Flexlm licensing for both nodelocked and floating configurations.
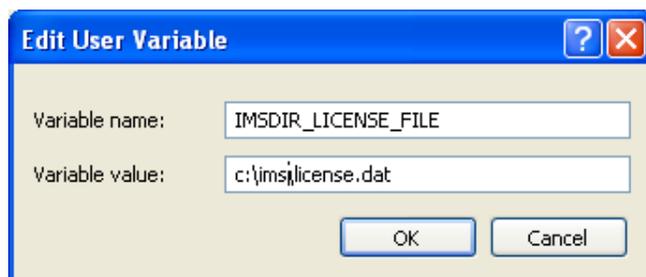
Nodelocked Configuration

Nodelocked configurations may use either an Ethernet address or a USB dongle for the hardware ID.

1. Define a location of the license file
       Place the license file in any directory.
       For purpose of this example we will use C:\IMS\license.dat.
2. Define the environment variable

The environment variable **IMSDIR_LICENSE_FILE** indicates to the IMS software where to find the license information. In the Microsoft Windows™ operating system, environment variables are defined via the "Advanced" tab in the System Properties under the Control Panel:

For a nodelocked configuration, the environment variable should be the full path to the license file:

Floating License Configuration

Floating licenses may use either a single server or a three-server redundant configuration. This type of installation contains two parts: Server and Client configurations.
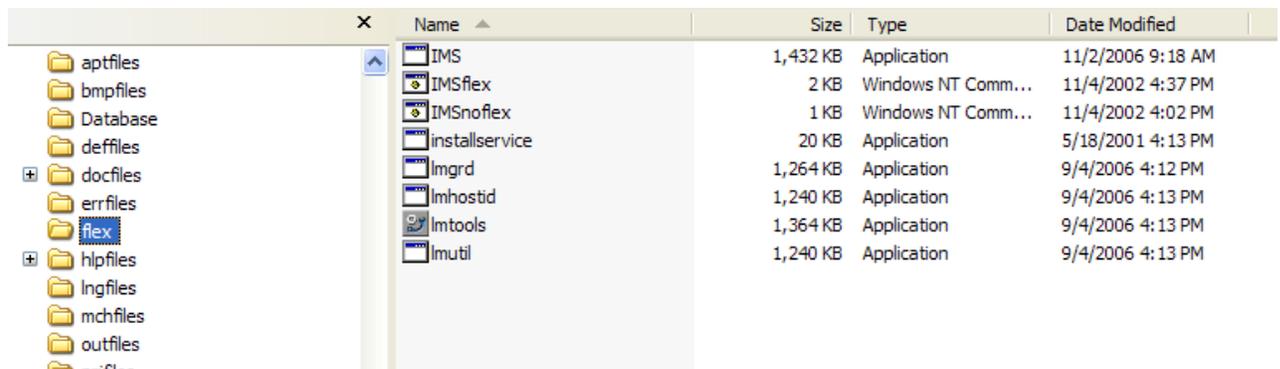
I. Server setup

1. Define a location for the FLEXlm files

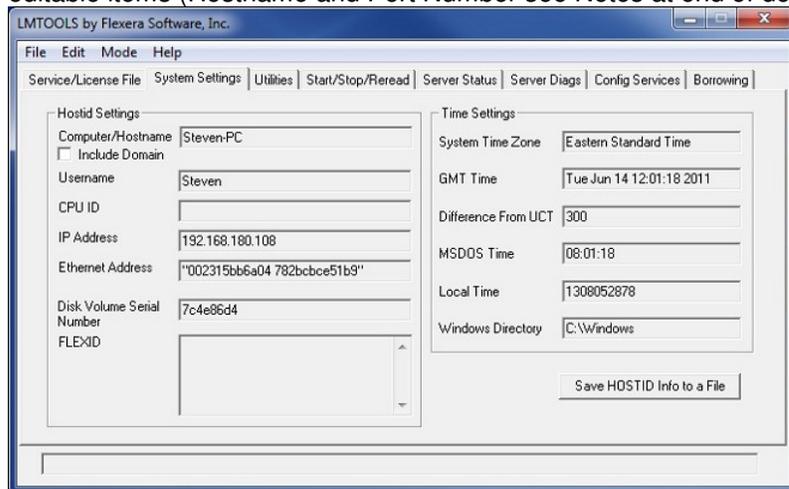   (For purposes of this example, we will use the pathname *'c:\flexlm'*.)

2. Obtain the FLEXlm server software

Copy *flex* directory from any IMS installation to the selected directory. If you do not have IMS installed, you can retrieve it from our downloads section on Drivers tab. (https://www.ims-software.com/en/downloads)

Name ▲	Size	Type	Date Modified
aptfiles			
bmpfiles			
Database			
deffiles			
docfiles			
errfiles			
flex			
hlpfiles			
lngfiles			
mchfiles			
outfiles			
IMS	1,432 KB	Application	11/2/2006 9:18 AM
IMSflex	2 KB	Windows NT Comm...	11/4/2002 4:37 PM
IMSnoflex	1 KB	Windows NT Comm...	11/4/2002 4:02 PM
installservice	20 KB	Application	5/18/2001 4:13 PM
lmgrd	1,264 KB	Application	9/4/2006 4:12 PM
lmhostid	1,240 KB	Application	9/4/2006 4:13 PM
lmtools	1,364 KB	Application	9/4/2006 4:13 PM
lmutil	1,240 KB	Application	9/4/2006 4:13 PM

3. Other required files

   Place the floating FLEXlm license file provided by IMS into *c:\flexlm*. Edit the license file and make sure the second parameter on the first line is the name or IP address of the license server. For using specific port number you must add it to this line (i.e. SERVER LIC_SERVER 000347244555 **27010**). All these you can find in LMTOOLS utility on the System Settings page. For further information on the two editable items (Hostname and Port Number see Notes at end of document.)

```
################################################################
# Floating license server lines
################################################################
##
##       Users can edit the hostname on the server line (1st arg).
##       The (optional) daemon-path on the VENDOR line (2nd arg).
##       Most other changes will invalidate this license.
##

SERVER LIC_SERVER 000347244555
VENDOR IMS
USE SERVER
```
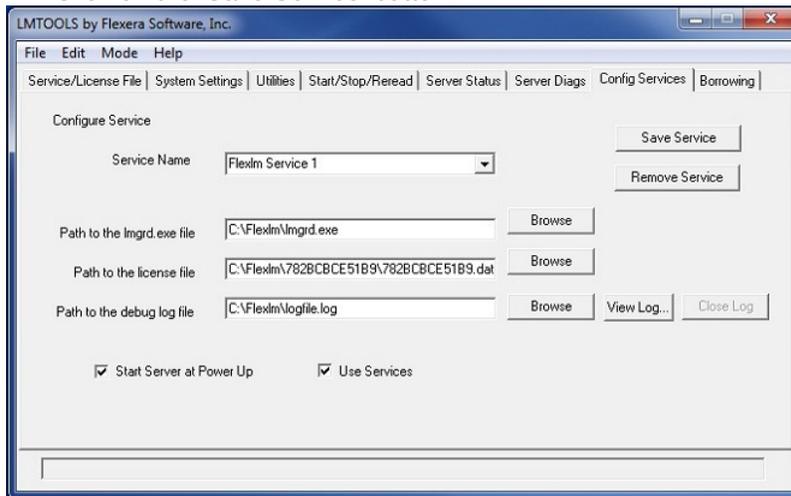
4. Configure the FLEXlm daemon (from the FLEXlm User's Guide)

   Operations are performed on a service, which allows starting lmgrd processes. On NT/2000/XP, you configure a Windows Service.

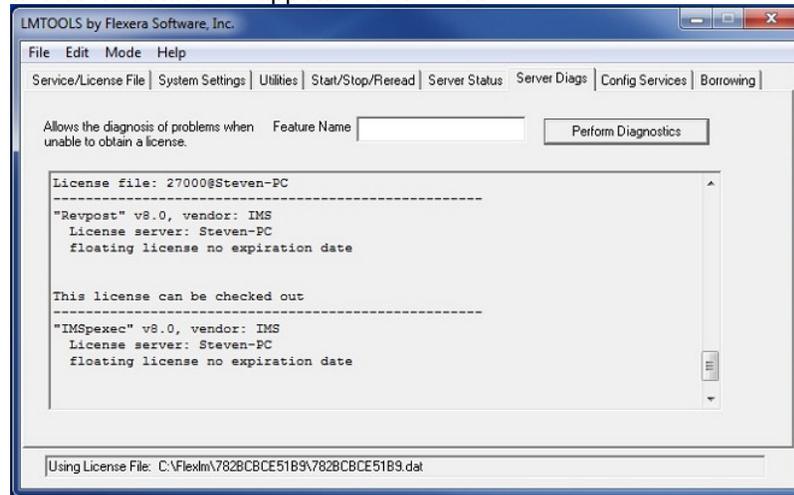   To configure a license server as a service, you must have Administrator privileges.

   a. Run LMTOOLS.

   b. Click the 'Configuration using Services' radio button, then click the 'Config Services' tab.

   c. In the 'Service Name' field, type the name of the service you want to define, or use the default.

   d. In the 'Path to the lmgrd.exe file' field, enter or browse to lmgrd.exe for this license server.

   e. In the 'Path to the license file' field, enter or browse to the license file for this license server.

   f. In the 'Path to the debug log file' field, enter or browse to the debug log file that this license server writes to.

   g. To make this license server a Windows service, check the 'Use Services' check box. You can also check the box 'Start Server at Power Up' to have the server start at system startup time.
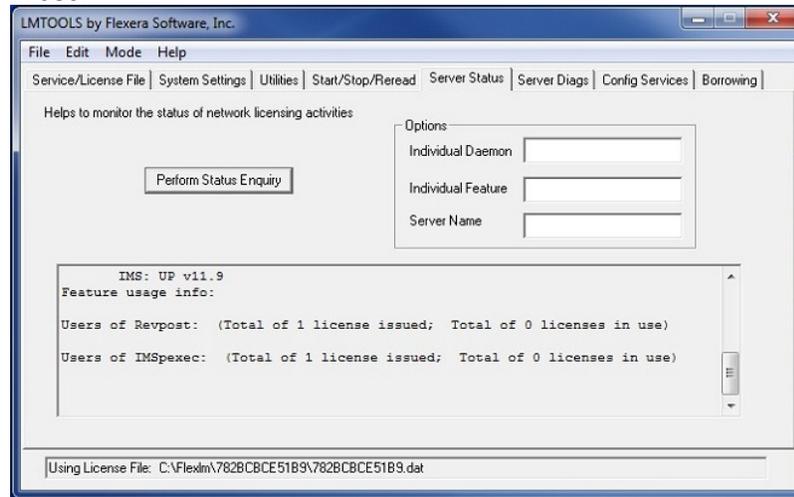   h. Click on the 'Save Service' button.

5. Testing the FLEXlm status.

   a. Start Server and checkout his statement. "Server Start Successful" is the working statement.
   b. Go to the Server Diags tag and click on the 'Perform diagnostics' button. Report must contain information about the license. If it is running well, the expiration date, server name

and other details will appear in this window.

c. Go to the 'Server Status' tab and click on the 'Perform Status Enquiry' button. In the status window you'll get information about running the floating license and the number of licenses in use.
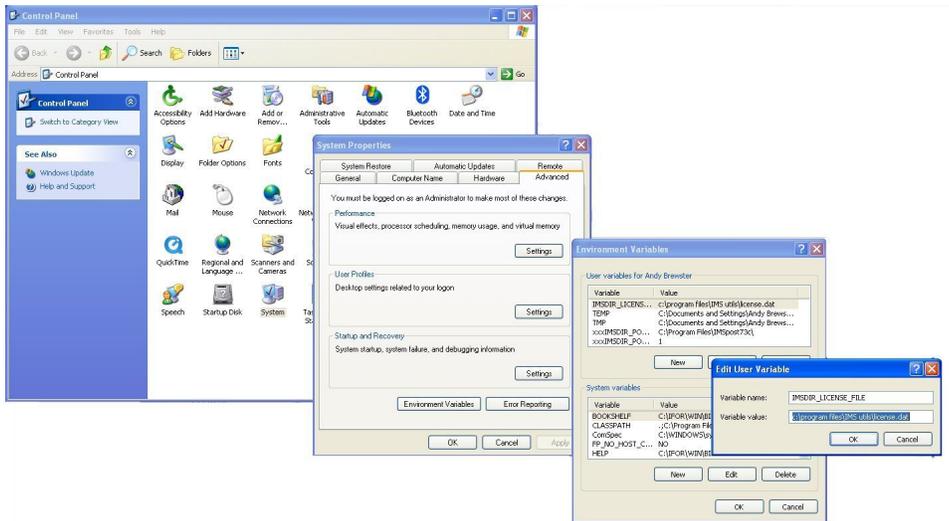

NOTE: Issues can occur based on the file path for the lmgrd.exe file. If receiving a STATUS 32 issue in the log file, please stop the service and place all the related flexlm files in a folder which is not in FlexLM. i.e. the path to the lmgrd.exe and IMS.exe should not be C:\FlexLM\IMS. In fact, if this folder does exist you can experience issues starting the service.

NOTE: When changing the path of the files related to the license service (lmgrd.exe,license, log file) please ensure that you have stopped the service before editing it. If you edit or delete the service before it has been stopped there is the risk of an old version of the service still existing and presenting issues with starting a new instance of the service.

NOTE: For three server redundant configuration, you repeat this process on each server and then during the client setup, specify the port and host name of each server in the environment variable separated by commas. (ie. = 1704@sv1,1704@sv2,1704@sv3)

II. Client setup

The environment variable **IMSDIR_LICENSE_FILE** indicates to the IMS software where to find the license information. In the Microsoft Windows™ operating system, environment variables are defined via the 'Advanced' tab in the System Properties under the Control Panel:
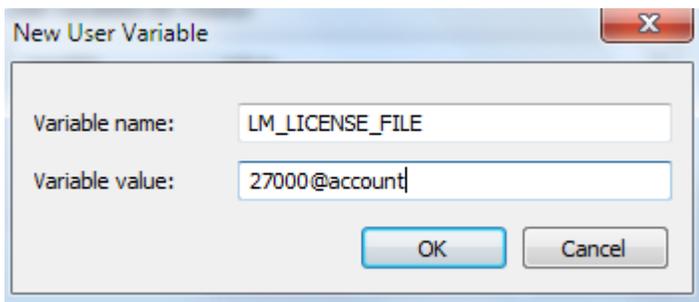

For a floating configuration the environment variable should be the port number (usually 27000) and the server name of the license server machine. Usually it is happened when serval software products are running with the same license server.

Mixed licenses configuration

(Mixed Configuration will use 1st instance of license feature found. All features for a specific software should be in the same license file.)

If you have two types of licenses that must work simultaneously from the same seat you must define the variable **LM_LICENSE_FILE** for the floating type and the variable **IMSDIR_LICENSE_FILE** for the nodelock license.

If you have problems with license configuration pick 'Diagnostics' from the 'Help' menu.
Pick the 'Build Report' button, and email the diagnostic.txt file to support@ims-software.com

III. **Notes on Hostname Port Number**

Within the Flexlm type floating license two machine specific items can be edited within the file to adjust for which hostname and port of server the license server will be run.

```
################################################################
# Floating license server lines
################################################################
##
##     Users can edit the hostname on the server line (1st arg).
##     The (optional) daemon-path on the VENDOR line (2nd arg).
##     Most other changes will invalidate this license.
##

SERVER LIC_SERVER 000347244555
VENDOR IMS
USE SERVER
```
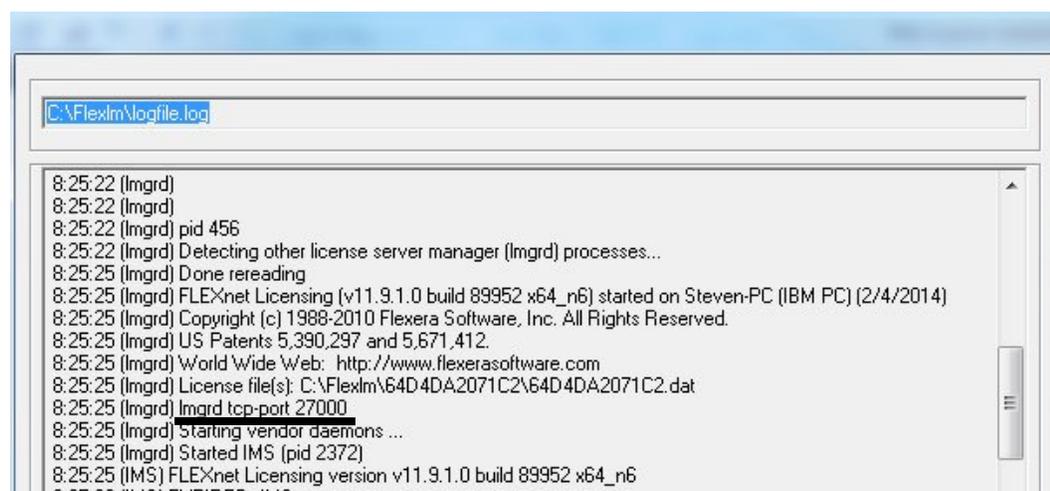
In the example the name LIC_SERVER is the HOSTNAME of the server which the floating license service is running upon. When the service is started the FLEXLM software is checking both the host name and the MAC address listed in the file against the information is it reading from the system it is running on. Both of these items must match in order for the software to function. The file can be edited to update the HOSTNAME if it should change, however a change in MAC address requires a new and unique license file to be created.

Editing the host name can be done by opening the file within a text editing program and then replacing the existing name listed with the correct name. For example if the correct name of the server is ENG_SRV then the file would need to be edited to reflect this:

SERVER ENG_SRV 000347244555

In addition to editing the hostname, the specific port which the license service will run on can be added to the file. By default no port is listed in the file, the FLEXLM software is then allowed to automatically select an available port on which the service can run. The default port is 27000, however if this is already occupied the software is able to assign a different one based on its existing list of ports. This means that if a number of FLEXLM services are running only the first one started will sit at 27000 and the rest will be assigned incrementally higher ones based on the order they are started (27001, 27002, etc.).

On a system where multiple FLEXLM license services are running it can become prudent to assign a specific port within the license file. The best recommended procedure is to start the service without listing a specific port, and allow the software to automatically pick one. Then note the selected port number from within the LOG file.

After this, stop the IMS license service and edit the license to specify the port which was listed in the log file.
SERVER LIC_SERVER 000347244555 **27000**
After this you can restart the license service and the service should be continually running on that port.

IV. <u>Notes on IMS.exe Port</u>

In addition to setting the port which the license service will communicate upon, it is possible to also specify the port which the IMS.exe vender deamon will communicate upon. This is a step that is not required in most cases but can be undertaken in cases of the service occasionally not starting due to the Flex software attempting to start the vender daemon on a blocked port.

If this setting is not specified the software will randomly assign the IMS.exe to listen on a specific port. This port number can be seen in the log file, however it can change from one startup of the service to another as it is picked at startup time.

9:27:49 (lmgrd) FLEXnet Licensing (v11.9.1.0 build 89952 x64_n6) started on Steven-PC (IBM PC) (10/16/2015)
9:27:49 (lmgrd) Copyright (c) 1988-2010 Flexera Software, Inc. All Rights Reserved.
9:27:49 (lmgrd) US Patents 5,390,297 and 5,671,412.
9:27:49 (lmgrd) World Wide Web: http://www.flexerasoftware.com
9:27:49 (lmgrd) License file(s): C:\Flexlm\64D4DA2071C2\64D4DA2071C2.dat
9:27:49 (lmgrd) lmgrd tcp-port 27000
9:27:49 (lmgrd) Starting vendor daemons ...
9:27:49 (lmgrd) Started IMS (pid 13824)
9:27:50 (IMS) FLEXnet Licensing version v11.9.1.0 build 89952 x64_n6
9:27:50 (IMS) Server started on Steven-PC for: IMSpexec
9:27:50 (IMS) RevEditor Custom3X   Custom5X
9:27:50 (IMS) EXTERNAL FILTERS are OFF
9:27:50 (lmgrd) IMS using TCP-port 53978

This in most cases does not pose an issue as this port is mostly used only for communications internal to the server between the LMGRD and IMS executable services. As such it is not a port which needs to be accounted for or reflected on the client side of the software usage.

An example of this implementation would be:

```
#####################################################################
# Floating license server lines
#####################################################################
##
##     Users can edit the hostname on the server line (1st arg).
##     The (optional) daemon-path on the VENDOR line (2nd arg).
##     Most other changes will invalidate this license.
##
SERVER Steven-PC 64D4DA2071C2 27000
VENDOR IMS PORT=27020
USE_SERVER
#####################################################################
# Features using floating license
#####################################################################
```

On the VENDOR line there was the addition of the phrase 'PORT=' and then the port which will be assigned to the vender service and which the LMGRD license service will attempt to communicate to the vendor daemon on.

This step is specifically suited to resolve issues in the case of servers for which the firewall blocks port communications internal to the server, as this ensures a permenant assignment of port for the IMS.exe which means that a permenant rule can be enacted to allow communication on the assigned port.