EViews License Manager

IHS Markit™

EViews License Manager

Disclaimer

Trademarks

Third Party Licenses

Table of Contents

Introduction

The EViews License Management System regulates both EViews *concurrent use* (*floating*), and *laboratory* licenses across a set of machines connected by a network.

With this system, licenses purchased from IHS Global Inc. are installed on a central computer running the EViews License Server. The license server's job is to communicate with concurrent use clients and laboratory machines, granting or renewing licenses to run EViews.

Under concurrent use licensing, whenever a copy of EViews is launched on a client machine, it connects to the license server and requests a license. If licenses are available, the license server grants the request and the copy of EViews is allowed to run. If all licenses are in use, the license server denies the request and the client machine is unable to run EViews at that time.

Under laboratory licensing, copies of EViews launched on laboratory machines must occasionally connect to the license server to renew their licenses. There is no limitation on the number of licenses that may be issued, but each license must be renewed within 30 days, otherwise the laboratory machine will not be unable to run EViews until the license is renewed.

This remainder of this document describes the installation, configuration, and operation of the EViews License Management System. The discussion is divided into three main sections:

- Chapter 1. "Quick Start," beginning on page 3, offers simple, step-by-step instructions for setting up your concurrent use or laboratory network. Also included in the discussion is a section outlining "Frequently Asked Questions" and the corresponding answers.

- Chapter 2. "Advanced Topics," on page 29 describes advanced license management topics. Among the topics considered are issues in selecting and setting up the EViews License Server, advanced server and client configuration settings, and planning for disaster recovery. As the title suggests, consideration of this material is not required for setting up your network, but the discussion should prove useful should you need to customize the EViews License Management System for specific needs.

- Chapter 3. "Troubleshooting," on page 49 discusses techniques for troubleshooting the License Management System. This section offers a set of detailed steps that you should take to diagnose the causes of failures in your network or laboratory, and offers solutions to the most commonly encountered problems.

We expect that the material in Chapter 1. "Quick Start" will be sufficient for most users who wish to set up and manage the EViews License Management System. The remaining mate-

rial should only be of interest if the default configuration settings do not meet your specific needs, or if you encounter problems.

We do recommend, however, that you at least glance at the list of topics in these latter two chapters to see the range of issues addressed. We also recommend that once you get your concurrent use network or laboratory up and running, you consider, at least briefly, the material in "Recovering from License Server Failure," beginning on page 44 and "Planning for Disaster Recovery," beginning on page 47.

Chapter 1. Quick Start

This chapter offers simple, step-by-step instructions for installing and configuring the EViews License Management System. The material is divided into several sections:

We begin by describing key concepts that you should understand when working with the License Management System. We then provide step-by-step instructions for installing and configuring the License Manager software, for installing the EViews program software on individual clients or a file server, and for launching and monitoring the EViews application on machines in the concurrent use network or in the laboratory. The final section offers a set of "Frequently Asked Questions" and the corresponding answers.

This material in this chapter should be all that most users require to install and configure the EViews License Management System. Additional documentation is available should the default configuration settings not meet your specific needs (Chapter 2. "Advanced Topics"), or if you encounter problems with the operation of your network or laboratory (Chapter 3. "Troubleshooting").

Key Concepts

Before beginning our discussion, we list a few key concepts that you should understand when working with the EViews License Management System:

Use License

A *use license* (or simply, *license*) allows a single EViews session to run across a network.

For concurrent use, each time a user initiates a session, EViews will request a license from an EViews License Server. In addition, EViews will maintain a connection to the license server for the balance of the session. When the EViews session ends, the license is returned to the license server and made available to another user.

With laboratory licensing, copies of EViews launched on laboratory machines must occasionally connect to the license server to renew their licenses. There is no limitation on the number of licenses that may be issued, but each license must be renewed within 30 days.

License Pack

A *license pack* is a collection of licenses purchased from IHS Global Inc. Each license pack is associated with a single serial number provided by IHS Global Inc.

If your EViews Volume License allows for 20 concurrent users, you will typically be issued a single serial number for one license pack containing 20 licenses. Under some circumstances, your use licenses may be provided as part of two or more license packs. For example, an EViews Volume License allowing 20 concurrent users might be provided using two license packs, each with its own serial number, and each containing 10 licenses.

License Group

A *license group* (or simply, *group*) is a collection of one or more concurrent use license packs.

When managing multiple license packs, it may be convenient to group them together so they may be treated as a single license pack. This may be accomplished by placing the license packs in a common license group. Groups have the additional advantage that you may refer to the constituent license packs using a single user-specified name instead of the set of individual serial numbers.

EViews License Manager

EViews License Manager regulates licenses across a set of machines connected by a network. The License Manager consists of two applications: EViews License Server and EViews License Management Console (described immediately below).

EViews License Server

EViews License Server is an application (more precisely, a Windows Service) that manages licenses, allocating them to users when they initiate an EViews session and retrieving them when the concurrent use EViews session ends, or allocating and renewing them for laboratory use. The License Server must be installed as a continuously running background service on a computer (typically a network server) offering continuous network access to all potential concurrent and laboratory EViews users.

EViews License Management Console

The EViews License Management Console provides a graphical interface for monitoring and administering one or more EViews License Servers. The management console may be installed on the same computer as the license server, or it may be installed on another computer (*e.g.*, the network administrator's workstation) allowing for remote management of the license server.

Among the tasks handled through the license management console are: starting and stopping the license server, installing and removing license packs for management by the license

server, adjusting the allowed list of client computers which may request a license from the server, and monitoring concurrent EViews use across the network.

Items Checklist

You should have received the following items with your shipment of EViews:

1. An EViews License Manager download link for new installations. You may additionally receive an update link if you have an older version of the license manager installed.

2. A download link for the EViews 11 application.

3. One or more license pack serial numbers.

4. A cloning key (*for unlimited laboratory licensing only*).

You should have received one serial number for each license pack purchased. You may also have received a serial number for testing. Each EViews serial number contains 24 characters, with a typical number looking like:

```
11K00001 - 02E05595 - B386EEB9
```

A concurrent use license pack serial number will have the letter "J," "K," or "U." A laboratory license pack serial number will have "Z" as the third character. All other serial numbers are for standalone or seat installation of EViews, and cannot be installed on a license server system.

If you have purchased one or more concurrent use license packs, you have also been provided with a special license pack for testing your network configuration. Permanent license packs (those with a "J" or "K") may only be installed once without contacting IHS Global Inc. for assistance (see for exceptions to this restriction). Obviously this requirement limits your ability to test the license management system on different computers and across different network configurations. A special license pack/serial number has been provided to facilitate testing. The test license pack has the letter "U" as the third character and can be installed on up to five host computers. The test license pack contains three licenses (3 concurrent users) and will expire 30 days from the time of the first test installation. We encourage you to install and test your EViews network installation using the test license pack prior to installing your permanent license pack.

For unlimited laboratory licensing, you should also have received a cloning key. The cloning key is a 36-character alphanumeric string of the form:

```
VATSR0-RTFW78-WW3TG5-T3Z601-RAmD4W-GKPC33
```

This key is used when preparing an installation of EViews for subsequent cloning to laboratory computers.

Please contact IHS Global Inc. immediately if did not receive any of the above, or if you believe you have been provided with the wrong number or types of serial numbers.

Installing the License Manager

There are three main steps in installing the EViews license management system:

1. Install the license manager (license server and license management console) software.

2. Start the license server.

3. Add one or more license packs to the license server.

The remainder of this section describes each of the steps in turn.

Note also that once the server is installed and running using valid license packs, you will need to install the EViews Application software on clients or on a network file server machine, and then configure the application to use the license server. This procedure is described below ("Installing the EViews Application" on page 17).

Installing the Software

The license manager software (license server and license management console) may be installed on any machine running a Windows 2003 or newer operating system. The license server component should be installed on a continuously running machine offering continuous network access to all potential concurrent EViews users. Note that the license server requires few resources so it may be installed on an older machine or a machine that is also used to run other software.

When installing your permanent licenses (as opposed to a "U" serial number designated for testing) you should choose the host machine carefully because once a license pack has been installed on a license server host machine, it cannot be moved to another machine without contacting IHS Global Inc. for assistance.

(An important exception to this restriction is granted for temporary installation in the event of license server failure. See "Temporary Installation of License Packs" on page 42.)

If you have already configured a copy of the EViews License Management software on this machine, note some steps in the installation process will be skipped. Run the EViewsLM-Patch.exe file to update your copy. Otherwise, if this is a new installation, run EViewsLMInstaller.exe. You will be prompted to read and accept a License Agreement and to choose a directory into which program files and supporting files will be installed. By default, all license manager files will be installed into "\Program Files\EViews License Manager." You may specify another directory by clicking on **Browse**. Note that if the program files are placed on a remote network drive, the account from which you will run the license server service must have permission to read from the network drive.

If you have downloaded the License Manager installer simply double click on the file to start the installation procedure.

After accepting the License Agreement and selecting an installation folder, EViews will display a dialog asking you to select which components you wish to install:

When installing on the machine chosen to host the license server, you should generally install both the License Server and the Management Console. You may choose to install just the Management Console on a machine that will only be used to monitor the License Server. In this case, simply uncheck the EViews License Server box before clicking on **Next**.
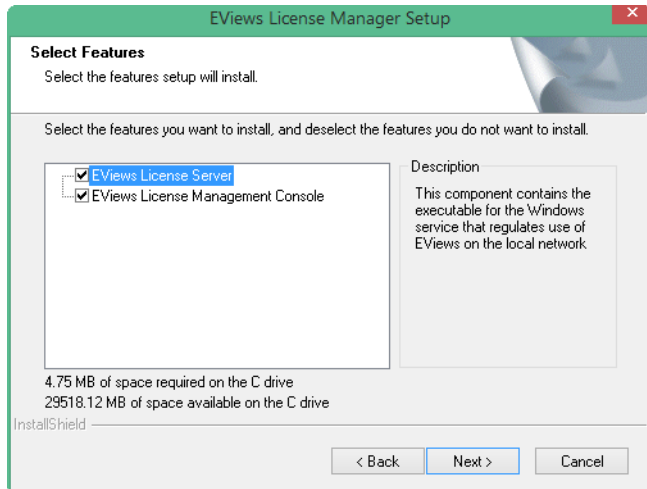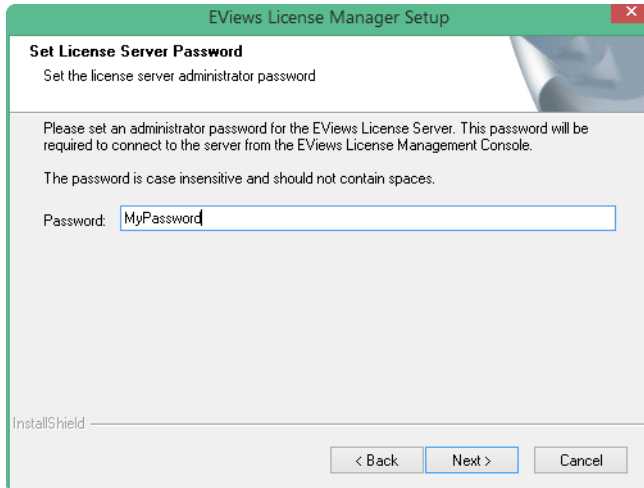
When installing the EViews License Server, five additional dialogs will prompt you for important configuration information.

The first dialog asks you to specify the TCP/IP port number on which the server should listen for incoming connections. The default port, "25750," has been chosen by IHS Global Inc. because it is not known to conflict with any other software, but you may instead choose any port that does not cause conflicts on your network (see "Choosing a TCP/IP Port for Incoming Connections" on page 31 for addi-

tional guidance). If you choose to specify a different port, please keep a record of the setting you have chosen since it will be needed when later configuring EViews.
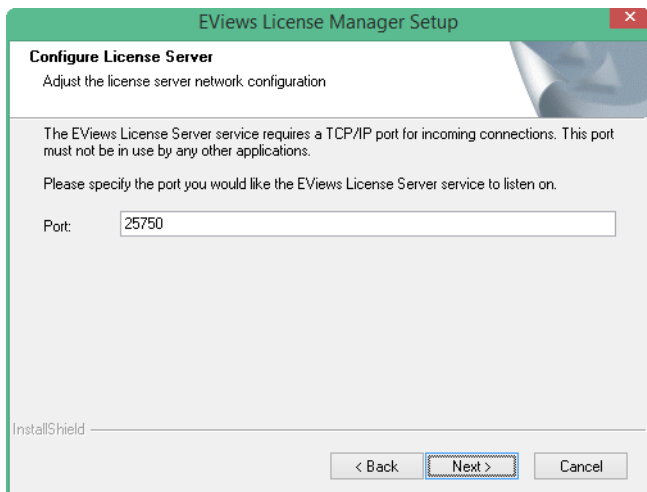
The second dialog prompts you to specify an administrative password. This password must be entered each time a user connects to the license server using the license management console, preventing unauthorized users from managing the server. The password field may be left blank, in which case all users who are able to connect to the license server will also be able to administer the license server from the management console.

Note that the License Server administrative password is unrelated to Windows security settings so that knowledge of the password *does not* grant a user permission to start and stop the license server nor does it permit the user to modify the license server configuration files. Permissions for these actions are determined by the underlying Windows security settings.

The third dialog provides you with the option of specifying a proxy server to be used for internet access. Licenses installed on a license server are periodically refreshed to keep them up to date. To refresh a license, the license server needs to make a standard http connection (on port 80) to one of the IHS Global Inc. registration web servers (register1.eviews.com and register2.eviews.com). If a proxy server is required for internet access from your site, please make sure you enter the address and port of the proxy server in the dialog. If the proxy server requires authentica-

tion, enter the proxy user name and password. If you do not require a proxy server to access the internet at your site, you may leave this field blank and move to the next page.

To refresh the installed licenses, the license manager will need to communicate with IHS Global Inc. registration web servers. Due to security concerns, you may not want to the license manager to communicate with the registrations servers automatically. The fourth dialog allows you to choose if you would like license manager to periodically and automatically refresh its licenses or if you would like to manually update the license via the management console yourself.
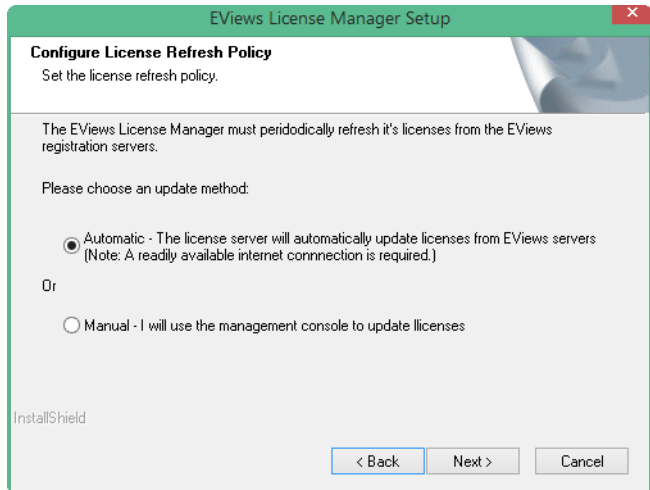
The fifth dialog allows you to enter one or more email addresses that should be used if IHS Global Inc. needs to contact you about your license management system. IHS Global Inc. monitors license requests to ensure that all license servers are functioning correctly. If it appears that your license server is no longer refreshing your licenses, IHS Global Inc. will contact you and work with you to resolve any problems. Any email addresses provided will not be used for any other purpose. If no email address is provided, IHS Global Inc. will use contact information available from our site license records to try to alert you of any problems.
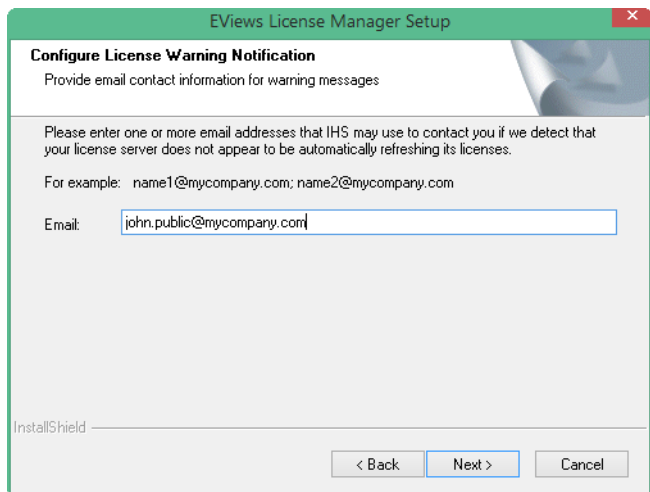
When installing the License Management Console, an additional dialog will prompt you to create or select a program folder in the Windows **Start menu** for installing a shortcut to EViews License Management Console.

Once you have responded to all of the installation dialogs, the main installation process will begin. The installer will copy any files required to the installation directory, register the license server as a Windows service, register the management console as a snap-in, and add the license server as an exception to Windows Firewall. Please see Chapter 3. "Trouble-shooting," beginning on page 49 if any of these operations fails.

Starting the License Server

At this point, all of the necessary license management software should be installed. However, the license server has not yet been started nor have any licenses been installed. These tasks are performed by the License Management Console.

Starting the License Management Console

The EViews License Management Console can be launched by using the previously installed shortcut in the start menu (by default, **Start/Programs/EViews License Manager/EViews License Management Console**) or by double clicking on the file "eviewslm.msc" in the license manager program directory.

The first time that the license management console is launched, a dialog will appear asking for information on the license server to be managed.

First, you must specify the license server you wish to manage. You should select **Local computer** if the console is running on the same machine as the license server, otherwise choose **Another computer** and specify the name or IP address of the license server host machine.
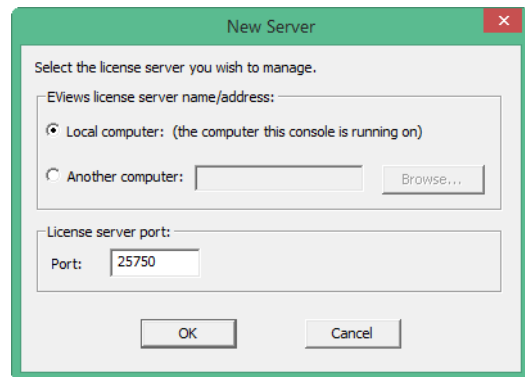
Next, you should specify the port on which server should listen for incoming connections. If you specified a port different from the default value during installation of the license server, you should enter it in the edit field.

After specifying the license server options, click on **OK** to continue. The management console will display a window showing the status of the license server:
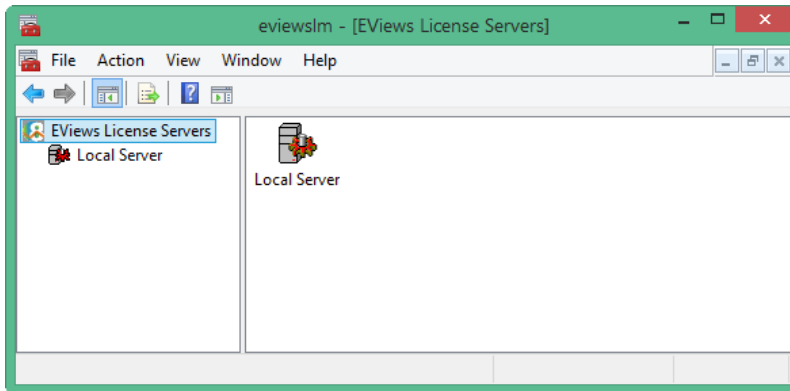
In the left pane of the console is a Windows tree control. The root node of the tree, labeled "EViews License Servers," represents the collection of license servers that the console is currently configured to manage. In most cases there will be only one server node. The server node labeled "Local Server" represents the license server hosted on the local machine.

You may add additional license servers at any time by selecting the EViews License Servers node in the left-hand pane and then choosing the menu item **Add New Server** from the **Action** menu. You may also remove any existing license servers by clicking on the specific server node and selecting **Remove Server** from the **Action** menu. To adjust the address and port information of an existing server, use the **Edit Server** menu item.

Note that the console will remember the changes made to the list of license servers and will reopen with the same servers listed as when you last closed the console.

Starting the License Server

In order for applications to connect to the license server, the Windows service hosting the license server must be running. The icons in the left-hand pane of the management console display the current state of each license server that has been added to its server list:

- a server icon with a red cog indicates that the service can be monitored by the license management console and is not currently running.

- a server icon with a green cog indicates that the service can be monitored by the license management console and is currently running.

- a server icon without a cog indicates that the license management console is unable to determine the state of the service. This could either indicate that the service does not exist, or that the service cannot be monitored from the current machine and/or user account due to Windows security settings.

The first time you run the management console, the license server will be displayed with a red cog to indicate that the service is not yet running (additionally, there will be no child nodes under the server node, as shown above). To start the service, click on the node in the tree on the left-hand side representing the server and choose **Start** from the **Action** or right-mouse menus.

If you specified an administrative password during installation, you will be prompted to enter login information. Please enter your password.

If all is successful, the console window should change to show that the service is running on the server:
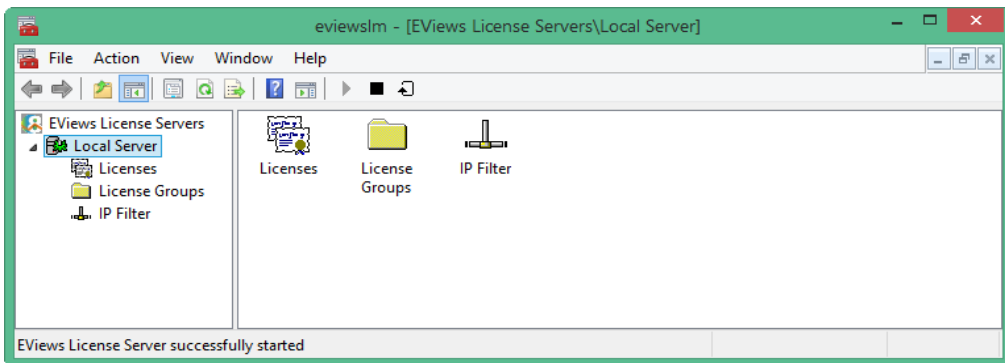
Note that the red cog has now changed to green to indicate that the service is running. The server node now has a set of child nodes for **Licenses**, **License Groups** and **IP Filter** (note the " > " sign for the node indicating the presence of child nodes). These child nodes are also represented by icons in the right-hand pane.

If the license server appears without a cog, or the **Start** submenu item is not available, then the service may not exist or you may not have permission to start and stop the service. In this case, you should investigate further using the Windows Services applet (which may be launched from **Start/Control Panel/Administrative Tools/Services**). Please consult Chapter 3. "Troubleshooting," beginning on page 49 if you are unable to start the EViews License Server.

Adding a License Pack

At this point the EViews License Server is running, but it has no licenses to serve. We must provide licenses by installing one or more license packs.

License packs are obtained from IHS Global Inc. The serial number(s) you have been provided identify your specific license pack(s) (and the number of licenses they contain). The process of assigning the license pack to a license server and locking it to the license server host machine is called *registration*. Remember, license packs are locked to one specific host

computer and must be registered on one and only one machine. Consequently, you may register a permanent license pack only once without contacting IHS Global Inc. for assistance (see "Temporary Installation of License Packs" on page 42 for exceptions to this restriction).

Registering a license pack is a simple procedure that typically involves entering a serial number and company name into a dialog and clicking one button. In this case, the management console automatically contacts IHS Global Inc. via the web and completes the registration process without further user input. In unusual cases where the management console is unable to contact IHS Global Inc. via the web, an alternative manual registration method is provided.

To add a license from within the license management console, click on the **Licenses** child node in the left pane (or the **Licenses** icon in the right pane) under the server designated to receive the license pack. Then select **Add License** from the **Action** or right-button menus.

The **Add License Pack** dialog will appear. Enter the 24 character EViews serial number of the license pack to be registered, and the name (company name) you would like to associate with in license. Note that a field labeled **Machine ID** is automatically filled in using information retrieved from the license server. You may also enter one or more email addresses that IHS Global Inc. should use to contact you if we detect that your license server may not be refreshing this license pack correctly.

If the machine running the management console is connected to the internet, you may complete the registration process by selecting **Automatic** and clicking on the **Register now** button. The management console will contact IHS Global Inc. using your internet connection, and if all the information you have provided is valid, the license pack will be registered with the license server. Information associated with the license pack will be saved in a new license file located in the license server's license files directory and the console will report:

```
New machine registration successful.
Currently 1 machine is registered to SN# "SerialNumber".
```

where "SerialNumber" is the first eight (8) characters of the serial number for the license pack.

If the machine running the license management console is unable to connect to IHS Global Inc. (perhaps due to firewall or proxy server settings), you may instead register your license pack manually. Manual registration requires that you obtain a *registration key* from IHS Global Inc. The registration key is a 36 character (6 groups of 6 characters) alphanumeric key that must be entered into the edit fields at the bottom of the **Add License** dialog.

One method of obtaining a registration key is via a web browser. Click on the button labeled **Go to www.eviews.com/register** to navigate to the IHS Global Inc. registration web site address using a web browser. When the browser opens, click on one of the registration server links to select a server. The server will open with a form similar to the dialog above, prompting you to enter your name, serial number and machine ID. The information for each field may be copy-and-pasted between the dialog and the registration web page. Once you have filled out the fields on the web page, click on **Submit the form** to submit the information. If the provided information is valid, the web server will display a page with the 36 character registration key along with the message:

```
Your copy of EViews has been registered successfully.
This machine has not previously been registered. A new
registration has been created. This EViews serial number has now
been used to register 1 machine(s).
```

Return to the license management console dialog, make sure that the **Manual** registration radio button is selected, then copy-and-paste the registration key from the web page into the dialog. Click on **Register Now** to complete the process.

You may also obtain a registration key by emailing, faxing or phoning IHS Global Inc. Simply give us your serial number, name, and machine ID, and we will provide you with a 36 character registration key that you should enter into the registration dialog.

After you have added the license pack, it will appear in the license management console as a child node under the **Licenses** child node. The license pack will be labeled using the first eight (8) characters of the license pack serial number:

Clicking on the **Licenses** node in the left-hand pane shows, in the right-hand pane, all of the license packs that are installed on the server.

Here we see that we have installed a single concurrent use license pack (11J00001) on our license server (Local Server). The license pack type is identified by the **Type** label "Conc" and the **Allowed** column on the right indicates the maximum number of concurrent users that are associated with the license pack, in this case, 10. The remaining columns in this display provide status information about the use of the license pack: the number of currently used licenses (**Current**), as well as the total counts of accepted and rejected license requests (**Accepted** and **Rejected**), and the number of times a client has had to automatically reconnect after losing a network connection to the license server (**Reconnect**).

In contrast, a laboratory license pack (11Z00001) is identified with the **Type** label "Lab." Additionally, we see that only the **Accepted** and **Rejected** fields are relevant since there are no concurrent use restrictions associated with the lab license, and since the license server does not maintain active connections to copies of EViews running under this type of license.

You may repeat the installation process to add license packs. By default, concurrent use licenses added to a server will be allocated to license groups based on the version number of EViews. For example, all concurrent use licenses for version 11 of EViews will be added to a license group called "EViews11." Concurrent use EViews clients will request a license from the entire group rather than a specific license pack. See the section "Configuring License Groups" on page 38 for details on how to modify this behavior.

Removing a License Pack

A license pack may be removed from a license server by selecting the node representing the license pack within the management console, then choosing **Remove License** from the **Action** menu or the right mouse button menu. You will be asked to confirm that you wish to remove the license.

You may also delete a license manually by deleting the associated text file from your "License Files" directory and restarting the license server.

Configuring IP Address Filtering

Each time a client machine connects to the license server, the server validates the IP address of the client to ensure that only authorized users are allowed to connect to the server. In some cases you may need to adjust the IP address filtering of the server to ensure that all client machines that will run EViews will be able to connect to the server.

By default, the license server is configured to allow incoming connections from all private IP addresses, but to block connections from all public IP addresses. (For a full list of private IP address ranges see "Configuring IP Address Filtering," beginning on page 16). If your site uses only private IP addresses for client machines, you do not need to modify the default settings unless you intend to restrict access to a only a limited set of machines at your site.

If there are client machines at your site which are configured with public IP addresses, you will need to add these IP addresses to the list of addresses allowed by the license server. From within the management console, expand the **IP Filter** node, select the **Allow** node, then choose **Edit List** from either the **Action** menu or the right mouse button menu. A dialog will open asking you to enter the list of IP addresses from which the server should accept incoming connections.

IP addresses may be entered individually, or as a range of consecutive IP addresses using CIDR notation (*e.g.,* "173.14.10.10/24") or subnet mask notation (*e.g.,* "173.14.10.10/255.255.255.0").

When you have finished editing the list of allowed IP address ranges, click on **OK** to submit the revised list to the server. For further discussion of IP address filtering, see "Configuring IP Address Filtering," on page 16 and "Configuring the License Server Initialization File," on page 36.

Edit Allow List

Enter the IP addresses from which the license server should accept incoming connections.

Address ranges may be specified using CIDR notation: eg. 173.14.10.10/24, or using a subnet mask: eg. 173.14.10.10/255.255.255.0

Common examples include:

- a block of 256 consecutive IP addresses (also known as a class C network) may be specified using any IP address within the block followed by '/24' or '/255.255.255.0'.

- a block of 65536 consecutive IP addresses (also known as a class B network), may be specified using any IP address within the block followed by '/16' or '/255.255.0.0'.

10.0.0.0/8, 172.16.0.0/12, 192.168.0.0/16, 169.254.0.0/16, 127.0.0.0/8

OK   Cancel

Similarly, you may configure a list of IP address ranges from which license requests will not be accepted. Simply select the **Except** node, and choose **Edit List** from either the **Action** menu or the right mouse button menu. Enter the list of IP addresses individually, or as a range of consecutive IP addresses using CIDR notation.

Installing the EViews Application

Now that the license server is running and serving up licenses, the EViews application itself may be installed. There are three basic methods for installing the application software:

- the software may be installed directly on each machine that is going to run EViews.

- the software can be installed on a central file server system which can be accessed over a network by machines that are going to run EViews.

- the software may be installed on a *master* machine and then cloned to other machines.

The first and third methods provide the fastest access to the EViews application files and do not require availability of a central file server. The second method offers easy deployment to new clients and makes it to easy apply patches and updates since there is only a single, centralized copy of the software.

All three methods are supported by concurrent use licensing, and you need not restrict yourself to one approach; the configurations may be combined to meet the needs of your site. Only the first and third methods are available for laboratory licensing.

Running the Installer

You may install EViews 11 by running the installation program downloaded to your computer's hard drive. Click on the "EViews11Installer.exe" or "EViews11Installer(64-bit).exe" executable program file. You will be prompted to read and accept the License Agreement, and to designate a directory into which to install the EViews application software. By default, EViews will install into "\Program Files\EViews 11" on the *local machine*. If you wish to change the install directory, click on **Browse** and navigate to the desired directory. You may install the software to a directory located on a file server from any machine that can write to the server.

After clicking on **Next**, you will be asked to enter a name and a serial number from any of your license packs. You must enter a valid license pack number (with "J", "K", "U", or "Z" as its third character); entering a standalone or seat based licensing serial number will cause the installer to skip important installation steps related to license server configuration. Note that the license pack number that you provide will only be used in the installation step and does not affect which licenses this copy of EViews will be able to use.

Click on **Next** to continue.

If you entered a laboratory license serial number, you will be prompted for your laboratory license cloning key. Enter the 36-character alphanumeric string and click on **Next** to continue.

If you have entered a valid serial number for server based licensing, the License Management dialog will be displayed, prompting you for information on the license server.
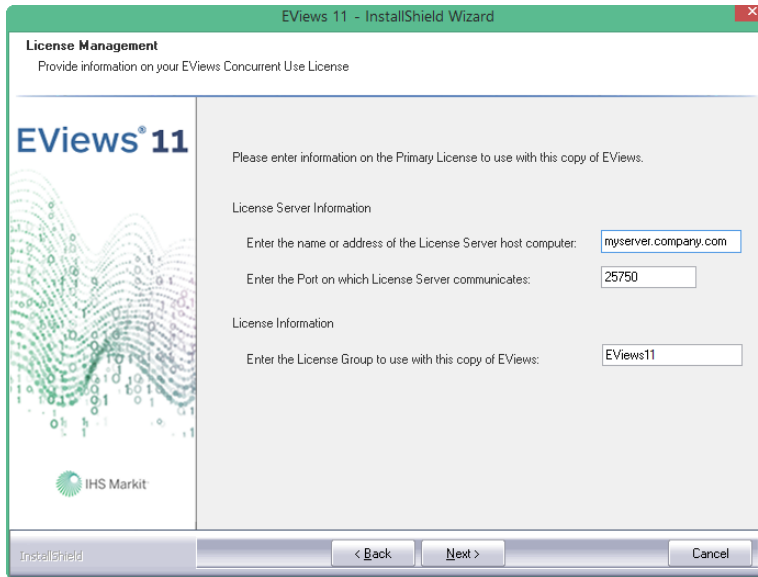
You should enter the name or address of the machine on which the license server was installed into the first field. The server identity may be provided in any form that will identify the server machine to all clients using this installation of EViews. The information may be in the form of an IP address such as 192.168.1.200, a DNS name such as "myserver.mycompany.com" or the local area network name of the host machine. You should use the name "localhost" to refer to the local machine for copies of EViews installed on the license server host machine.

The license server port and license group name edit fields will be filled in automatically with the default values. You should leave these fields unchanged unless you earlier specified a different port during the installation of the license server software or you would like to use a custom license group (see "Configuring License Groups" on page 38).

When you click on **Next**, you will be offered the option of providing a second set of license management information to be used if EViews is unable to obtain a license using the first set. Unless you have a second license server running on a second host machine, or have multiple license groups configured within a single license server, you should click on **No**. You may add an additional server or otherwise modify your server information or at any time by selecting **Help/EViews Registration...** and filling out the resulting dialog.

Note that the information from the license management dialogs is saved in a file "lisource.txt" located in the directory chosen for the EViews program files. This file is a simple text file which may be edited outside of the installer.

(See "Configuring License Sources for EViews Clients" on page 40 for details on modifying the license management information).

When you finish providing license information you will be asked to select from a list of EViews program components to install. Make your selections and click on **Next**. Lastly, you will be asked about setting up a **Start Menu** folder containing shortcuts for running EViews. Clicking on **Next** starts the actual installation. A series of status messages should appear indicating progress of the installation. When installation is complete, click on **Finish** to exit.

You may install the EViews application software on as many machines or file server systems as required. You may use the same serial number each time you install the program.

Batch Installation

Note that all input provided during the installation process may be saved into a setup file which can be used to perform subsequent installs silently without interactive input. To record installation settings to a file for later use, you should run the EViews installer from the command line using the "-r" option:

```
EViews11Installer.exe -r -f1c:\mydir\setup.iss
```

where "c:\mydir" is the directory into which you wish to save the input file. Note that there is no space between the "-f1" and the directory. Once you have completed the installation, you can perform a batch installation on additional machines by running the EViews installer using the "-s" option with the previously recorded file:

```
EViews11Installer.exe -s -f1c:\mydir\setup.iss
```

Note that the file "setup.iss" is a simple text file which may be modified using a text editor if minor changes to the installation options are required.

Cloning

The EViews client software may be installed on a *master* machine as described in the previous sections, and then cloned to other machines using standard imaging software.

For concurrent use clients, there are only a few issues to consider. Simply clone the EViews client to the client machine. It is important that you copy both the EViews program files and the "lisource.txt" file; if a fully specified "lisource.txt" file is not part of the cloning distribution, you will need to configure the license server information for each client machine.

Cloning laboratory copies of EViews proceeds in the same fashion, but there is an additional complication. Once a copy of EViews has contacted an EViews license server and obtained a valid laboratory license, it is locked to the specific machine and may no longer be cloned. Thus, a laboratory licensed copy of EViews that has been successfully launched may not be cloned without undertaking additional steps as described below.

You may unlock a previously locked copy of EViews by running the executable from the command line using the "/unlock" option:

```
eviews11.exe /unlock
```

prepares the master machine copy of EViews for cloning.

Conversely, you may lock any laboratory copy of EViews from the command line using the "/lock" option:

```
eviews11.exe /lock
```

Launching and Monitoring EViews

If the above steps have been completed successfully, you should now be able to launch EViews. You may use the start menu shortcut, or simply navigate to the EViews program files directory and double click on the main EViews program file "EViews11.exe." When launched, a concurrent licensed copy of EViews will always request a license from the license server specified during configuration. If a license is granted, EViews will open and be ready for use. Under laboratory licensing, EViews will, when launched, occasionally request a license update from the license server. Licenses that are more than 30 days old must be updated prior to using the program. In this case, a request for a license update will be made automatically when EViews is launched.

Since concurrent use licensing requires an active connection to the license manager, the licence management console provides tools for examining the status of connections to your client machines. Start the management console, expand the licenses node, then click on the first license in the license group you are using; information about associated connections to client machines will be displayed in the right pane of the management console. (Note that status information is not available for laboratory license packs since active connections to client machines are not required for that form of licensing.)
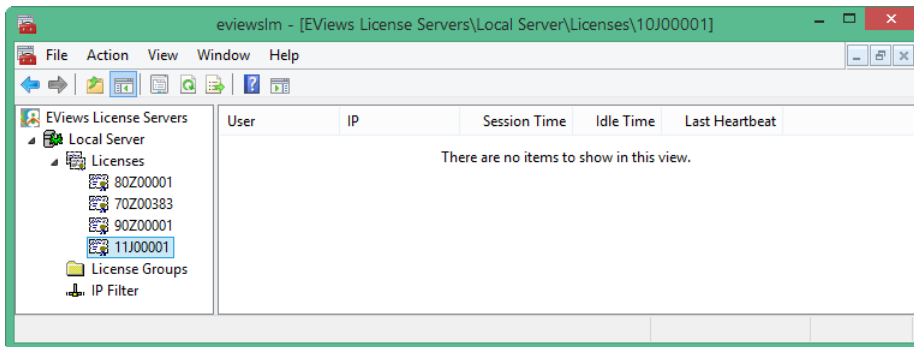
The name and IP addresses of users are listed in the first two columns of the view and can be used to distinguish between the copies of EViews that are currently in use. The next three columns provide the following additional information:

- the session time, which is the total time that the copy of EViews has been running,

- the idle time, which is the time elapsed since the copy of EViews finished processing the last command issued by the user

- the last heartbeat, which is the time since the license server last received a message from the copy of EViews.

You can refresh the information at any time by choosing **Refresh** from the **Action** menu or from the right mouse button menu of the license node.

Under the default configuration, the license server does not limit the maximum session time or idle time of users in any way, however limits can be set if desired. See the advanced configuration section for details. The license server will automatically reclaim a license, however, if an instance of EViews is no longer sending heartbeat messages. In this case the server assumes that the copy of EViews is no longer running and so will make the license available to other users.

A license can also be revoked at any time by the Administrator. Simply right click on the user and choose **Revoke License**. The user will be forced to shut down and the license will be reclaimed by the server so that it is available for other users. Note, however, that revoking a license does not stop the user from requesting a new license from the server by launching a new copy of EViews.

At this point, you may like to examine the log files that are created by the license server. By default the log files are located in a subdirectory called "Log Files" located off the license server program files directory. The log files are simple text files that can be viewed in any text editor. Each line of the log file records an event processed by the license server, such as when a license is granted or released. A new log file is created each day, with a filename formed using the current date.

The log files provide a historical record of the use of EViews that complements any current usage information available within the license management console. The log files may be useful in troubleshooting problems that occurred in the past.

Frequently Asked Questions

1. How many copies of the EViews License Server do I need to run?

Only one copy of the license server will be required provided that all clients or lab machines running the EViews application software can connect to that server over the

network. Note that a single installation of the license server software can support licenses for multiple versions of EViews.

2. **Does the EViews License Server require a machine designated solely for its own use?**

   No. The EViews License Server requires few resources so it can generally be run on a machine that is also running other software.

3. **What operating systems can the license server be installed on?**

   The license server can be run on a machine running Windows 2003 or later.

4. **Can I install the EViews License Server on the same machine on which I am running EViews (for example on a Citrix server)?**

   Yes. EViews License Server can be run on the same machine that is running EViews.

5. **Does the EViews License Management System place a heavy load on the network?**

   No. Very little network traffic is generated by the licensing system.

6. **Can I run two copies of EViews License Server on the same machine?**

   No. Only one copy of the license server can be run at a time on a machine.

7. **Can I administer an EViews License Server from a remote machine?**

   Yes. The EViews License Management Console can be used to monitor a license server and perform basic management tasks from a remote machine. Some configuration tasks may require logging in to the server machine using Windows Remote Desktop.

8. **Does EViews use FLEXNet™/FLEXlm™ licensing?**

   No. EViews license management is a proprietary system designed by IHS Global Inc. There are, however, broad similarities between all licensing systems, so if you have used other systems in the past, EViews licensing will probably seem familiar.

9. **Can I install the EViews application software on a file server?**

   Yes, but only if you are using concurrent licensing. In this case, you may install the EViews application software on either a file server or on individual machines. Licensing will be unaffected.

   Laboratory licensed copies of EViews must be installed or cloned on the individual laboratory machines.

10. **Will EViews run more slowly when using a concurrent use or laboratory license?**

    No. The amount of extra work required to maintain a concurrent use license, or to renew a laboratory license is trivial.

11. **How many concurrent use licenses do I need?**

    There is no simple answer. The number of concurrent use licenses required depends on how many people will be using EViews at your site, how frequently each person uses EViews, and how inconvenient it is for a user to wait if no EViews licenses are available.

12. **Can I restart the machine running EViews License Server without disrupting anyone currently using EViews?**

    You can restart the machine running EViews License Manager provided that the machine is shut down for no more than a few minutes. Delays longer than this will cause all concurrent use copies of EViews currently in use to shut down. Users will be prompted to save their work before exiting. Laboratory copies of EViews will generally be unaffected unless they require immediate refreshing of their 30-day licenses.

13. **Can I keep using EViews if I lose network access?**

    Not if you are working with a concurrent use copy. If you lose network access to the license server, your concurrent use copy will be required to shut down a few minutes later. You will be given a chance to save your work.

    Lab licensed copies of EViews do not require continuous connection to the license server, but will need to contact the server at least once every 30 days to refresh their licenses.

14. **How many concurrent use licenses are used if I run multiple copies of EViews on one machine?**

    Each EViews session will use one license, regardless of the machine it is running on. Thus opening two EViews windows on the same machine requires two licenses.

15. **If my machine crashes while running EViews, will that copy of EViews continue to use a concurrent license?**

    No. In most cases the concurrent license will be reclaimed immediately by the server. In all cases it will take no more than a few minutes before the license can be reused.

16. **If my machine hibernates while running EViews, will I be able to use EViews after I restart the machine?**

    A machine will lose a concurrent use license a few minutes after it hibernates. When the machine resumes, the copy of EViews will shut down. The user will be prompted to save their work before exiting. EViews may be restarted, in which case a new license will be requested. Machines with lab licensed copies of EViews will be able to use EViews after restarting, provided that the lab license does not need to be refreshed.

17. **Can I launch a concurrent use copy of EViews on my laptop while it is connected to my office network and then continue to use EViews after disconnecting the laptop from the network?**

    No. A copy of EViews using a server based concurrent use license must maintain access to the license server while it is running. EViews will be forced to shut down a few minutes after being disconnected from the network.

18. **Can I reserve a concurrent use license so it is only available to me?**

    No. You should obtain an individual use license for this purpose.

19. **Can I restrict which users have access to licenses issued by the EViews License Server?**

    You may limit access to an EViews License Server by specifying a list of allowed IP address ranges. You can also configure custom license groups and only provide the license group names to a restricted set of users. See "Configuring IP Address Filtering" on page 16.

20. **Can I divide EViews concurrent use users into more than one category and give different priorities to each category?**

    Yes, but more than one concurrent use license pack will be required and you will need to configure custom license groups on the license server. See "Configuring License Groups" on page 38.

21. **Does EViews License Server have to be manually restarted after rebooting the machine on which it is installed?**

    No. The license server will start automatically as a background service whenever the machine hosting the server is rebooted. The administrator may change this behavior if desired.

22. **What can I do with two ten concurrent use licenses that I can't do with one twenty concurrent use license?**

    Two ten concurrent use licenses may be installed on two different license servers, or they may be placed in two different license groups on a single server. The support for multiple configurations provides some flexibility in supporting two groups of users split across different networks or two different categories of users within one network.

23. **Is there anything I can do with a twenty concurrent use license that I can't do with two ten concurrent use licenses?**

    No. When two concurrent licenses are combined together in a license group they are equivalent to a single larger license.

24. How can I provide access to EViews for off site users?

Off site users will generally need to connect over a VPN to request concurrent use licenses directly from the license server. A limited number of public IP addresses can also be configured from which the license server will allow license requests. Application servers such as Citrix Presentation Server provide an additional method for off site use.

25. Can a user reserve the next license that becomes available?

No. The license server does not maintain a queue for clients waiting for a license.

26. Can the administrator revoke a concurrent use license?

Yes, the administrator can revoke a concurrent use license at any time using the license management console. The corresponding copy of EViews will be forced to shut down immediately, although the user will always be prompted to save their work. Note, however, that revoking a license does not stop the user from restarting EViews to request a new license.

27. Will the license server ever automatically revoke a concurrent use license?

By default, the license server will never revoke a concurrent use license from a copy of EViews that appears to executing correctly. If desired, a server can be configured to revoke licenses from copies of EViews if they have been running for too long or have been idle for too long.

28. Can a user find out how much longer it will be until a concurrent use license is available?

No. A license will only become available when another user shuts down their copy of EViews. It is impossible to tell when this will occur.

29. Can I perform a test installation of the license server?

Yes. Those with concurrent use licenses should have been provided with a test license pack that may be used to test the installation of the license server. The test license pack has the letter "U" as the third character and can be installed on up to five computers. The test license pack contains licenses for three (3) concurrent users and will expire 30 days from the time of the first test installation.

Those with laboratory licenses have been provided with a license pack that allow for more than one installation of the laboratory license. You may use the additional installation to set up a test server.

30. What happens if the machine hosting EViews License Server breaks down?

Fortunately, the EViews License Management System has been designed so that you can have a replacement license server up and running in a matter of minutes. See "Planning for Disaster Recovery" on page 47 for a discussion.

31. Can I tell who is currently using EViews?

You may monitor concurrent usage of EViews. The license management console will list the user name and IP address for all concurrent use copies of EViews to which licenses have been issued. Since laboratory copies do not maintain a current connection to the license manager, it is not possible to monitor current usage.

32. Can I tell who used EViews yesterday?

Yes. A log file is written by the license server which records the user name and IP address for each request for a license, and whether that request was granted or denied.

Chapter 2. Advanced Topics

This chapter describes advanced license management topics. Among the topics considered are selecting and setting up a host for the EViews License Server, choosing advanced server and client configuration settings, temporary installation of license packs, recovering from a server failure, and planning for disaster recovery:

- "Advanced Installation" on page 29.
- "Advanced Configuration" on page 34.
- "Temporary Installation of License Packs" on page 42.
- "Recovering from License Server Failure" on page 44.
- "Planning for Disaster Recovery" on page 47.

Consideration of this material is not required for setting up your network, but the discussion should prove useful should you need to customize the EViews License Management System for specific needs.

We recommend that you glance at the topics in this chapter to see the range of issues addressed. More importantly, once you get your concurrent use or laboratory network up and running, we recommend that you consider, at least briefly, the material in "Recovering from License Server Failure" on page 44 and "Planning for Disaster Recovery," beginning on page 47.

Advanced Installation

Planning an EViews License Management system involves making a number of choices:

- a machine must be selected to host the EViews License Server service.
- a user account must be chosen from which to execute the service.
- a TCP/IP port must be selected on which the service will listen for incoming network connections.
- the IP addresses of client machines should be considered and the IP address filtering of the license server planned accordingly.
- Any firewalls or other routing restrictions on the network should be adjusted to ensure that there are no barriers to communication between the machines which will be running EViews and any machines hosting an EViews License Server.
- Any firewalls or other routing restrictions on the network should be adjusted to ensure that the EViews License Server service will be able to contact the IHS Global

Inc. web registration servers (register1.eviews.com, register2.eviews.com) on a standard outgoing http connection (port 80).

The following sections discuss these issues in detail.

Selecting a Host Machine

The following points should be considered when selecting a machine to host the EViews License Server software:

- the machine must be running a Windows 2003 or later operating system, but need not be running a Windows Server operating system.

- the hardware requirements for a machine to host the EViews License Server service are fairly minimal. While the service is executing, it will generally consume only a few megabytes of memory. The CPU load placed on a modern machine should less than a couple of percent of CPU time. Disk space required for installation is under two megabytes.

- the machine that the service is installed upon should typically be kept running continuously since the license server must be running at all times that a concurrent license user might wish to run EViews and at the periodic times when a laboratory machine requests a license update.

- the machine selected for hosting the license server should be a machine that is restarted relatively infrequently since restarting the machine may disrupt users currently using EViews under a concurrent use license.

- the license server software may be installed on a machine which also performs other tasks including other server tasks such as file serving, web serving or even application serving, provided that these other tasks do not place such a heavy load on the machine that the license server is starved of resources.

- the machine should be chosen so that permissions can be restricted as necessary for the local network environment. Any user who can stop the license server service can clearly disrupt other users of EViews. In cases where some users are not trusted, it is important that access to the service itself and various files used by the service can be controlled by the administrator.

- The machine must have access over the internet to the IHS Global Inc. web registration servers (register1.eviews.com and register2.eviews.com) so it can periodically refresh any installed licenses.

Choosing a User Account

The license server executes as a Windows service. Because a Windows service is run as a background process independent of any user currently logged on to the machine, the service is generally run in some form of system account rather than a regular user account.

By default, the license server service will be installed to log on using the "Local System" account. The "Local System" account is a predefined local account that is commonly used for running Windows Services.

While the EViews License Server service should function correctly using the "Local System" account, this account provides broader permissions than those necessary for the service to operate correctly. To improve security, it may be desirable to run the service under an alternative account that provides a more limited, minimal set of permissions.

The EViews License Server must have permissions:

- to be launched as a service. This requires that the "Log on as a service" right has been granted to the account that is used to run the service.

- to bind to a single TCP/IP port and listen for incoming connections on the port.

- to read the main initialization file "eviewslm.ini" located in the same directory as the executable hosting the service "eviewslm.exe."

- to read the license group configuration file "ligroups.ini" and any license files "license*.txt" from the configured license file directory.

- to report events to the Windows Event log.

- to write to the configured log file directory.

- to write to the license file directory whenever a new license is to be added or an existing license is to be updated.

- to connect to the IHS Global Inc. web registration servers (register1.eviews.com, register2.eviews.com) over the internet.

On Windows 2003 Server machines a built-in account is available called the "Local Service" account. This account is more restrictive than the "Local System" account. The EViews License Server service may be run under this more restrictive account. Note that for either the "Local System" or the "Local Service" account, the license and log file directories should be located on the local machine rather than on a separate file server machine since the service may be unable to access network resources from these accounts. Also note that on some newer operating systems (Windows Vista and newer) it may be necessary to manually adjust folder permissions even on a local drive to ensure that the "Local Service" account has write permission to the license and log file directories.

Choosing a TCP/IP Port for Incoming Connections

The EViews license server communicates with clients using TCP/IP networking. To connect to another machine using TCP/IP, a client must specify the IP address of the remote machine and the port number that they wish to connect to on the remote machine.

For the EViews License Server service to receive incoming connections it must be assigned a TCP/IP port on the server machine. This port number must be known to the client software for it to successfully connect to the license server. The EViews License server uses a single port to receive connections from both the EViews application software and the EViews License Management Console. The service binds to the port during startup of the service and remains listening for incoming connections until the service is shut down.

The EViews License Server service must be allocated a port that is not already in use on the server machine. By default, the EViews License Server will be configured to use port 25750. This port number has been chosen so that it is unlikely that there will be any other programs already using the port.

The availability of ports on a machine can be verified by using the Windows command line tool "netstat" to display the TCP/IP ports currently in use on the machine. Use "netstat -a" from the Windows command prompt to obtain a list of the active connections and listening ports. A typical section of output from "netstat" might look something like this:

```
Proto        Local Address      Foreign Address     State
TCP          MYSERVER:http      MYSERVER:0          LISTENING
TCP          MYSERVER:1026      MYSERVER:0          LISTENING
TCP          MYSERVER:1026      localhost:1044      ESTABLISHED
TCP          MYSERVER:1026      localhost:1138      ESTABLISHED
TCP          MYSERVER:1044      localhost:1026      ESTABLISHED
```

The port number or port name is listed as the part of each address field that comes after the colon (*e.g.*, "1026", "1044"). You should avoid choosing any port for the EViews license server that already appears in the local address field of a line, particularly if the state is specified as "LISTENING."

If the EViews License Server is configured to use a port that is already in use, the service will be unable to bind to the port during startup and will terminate. An error message will be written to the Windows Event Log in this case.

Considering Client IP Addresses

There are three reasons why it is worth considering the IP addresses used by machines that will connect to the license server:

- client IP addresses may be used to restrict access to the license server so that only a limited set of users at the site may request licenses from the license server.

- knowledge of client IP addresses may be required when adjusting firewalls to allow network connections between machines running the EViews application software and the EViews License Server.

- the EViews License Server will generally only accept connections coming from machines whose IP addresses are within the standard private network IP address ranges. Some exceptions may be made to this rule but they require explicit configuration of the license server.

EViews License Server may be configured to restrict connections by providing a list of IP address ranges that should be allowed by the server as well as a set of IP address ranges which should be excluded from within the allowed ranges. See "Configuring IP Address Filtering," on page 16 for details.

By default the EViews License Server allows incoming connections from the following IP address ranges:

```
10.0.0.0 - 10.255.255.255
172.16.0.0 - 172.31.255.255
192.168.0.0 - 192.168.255.255
169.254.0.0 - 169.254.255.255
127.0.0.0 - 127.255.255.255
```

By default, the license server restricts incoming connections to these private address ranges because the EViews license agreement does not allow a site to provide use of EViews by individuals not affiliated with the site. It is expected that some sort of authentication mechanism such as a VPN will be used to support off site connections to the EViews License Server in such a way that the off site IP addresses will be translated to addresses within the private address ranges used within the local area network of the site.

To provide some flexibility to this rule, incoming connections from a limited number of public IP addresses may be supported by explicitly specifying the external IP address ranges in the list of allowed IP ranges configured on the server.

A maximum of 1024 IP addresses plus an additional Class B network of addresses may be added to this list. A Class B network is a range of 65,536 adjacent IP addresses where the first two portions of the IP address are the same. For example the IP addresses 176.183.57.168 and 176.183.149.240 belong to the same Class B network.

License Manager will automatically assign a Class B network on the basis of your specified list of IP addresses (using the Class B network range containing the most commonly listed IP numbers). Thus if you wish to allow the following IP addresses:

```
173.100.153.120
173.100.189.200
187.92.149.169
173.100.42.1/16
92.96.100.23
```

License Manager will automatically assign the Class B network using the range of addresses beginning with 173.100, since there are the most IP addresses in that range. The remaining addresses, 187.92.149.169 and 92.96.100.23, will be added to the list of individual IP numbers (leaving you with 1022 out of 1024 remaining).

Please contact the IHS Global Inc. office if this restriction prevents usage of EViews at your site that should be covered are under the terms of the site license agreement. We will be happy to work with you to ensure that the terms of your site license agreement can be met.

Network Routing and Firewalls

The EViews License Management system requires that each client that will run EViews using a server based license is able to connect to the license server over the network. This means that the server must be visible to the client in some form and that any firewalls on the server, on the client, or anywhere in between, must be configured to allow network traffic between the two machines.

The EViews License Server service uses a single TCP/IP port for all incoming traffic. It is essential that the service is allowed to listen for incoming connections on this port. The port number is configured during the installation process, but is set to port 25750 by default.

During installation, if Windows Firewall is found on the server machine, the EViews License Manager installer will automatically try to add an exception to the Windows Firewall configuration to allow the EViews License Server service program ("eviewslm.exe") to receive incoming connections from any computer. You may modify these settings to only allow machines from a limited range of IP addresses to connect to the license server, or to use the port number of the server rather than the license server program as the exception to the firewall.

Please consult the documentation for Windows Firewall, or the documentation of any other firewall used on your network, to ensure that network traffic between the client and server machines is not blocked.

Advanced Configuration

The previous two sections cover installation of the EViews License Management system. In this section, we discuss additional configuration settings. You may wish to adjust these settings from their default values to better meet the needs of your site.

Adjusting Windows Service Parameters

The EViews License Server software executes as a Windows Service. Each Windows Service has a set of options that affect how the service is handled by Windows.

The Services applet in Windows Control Panel can be used to administer all Windows Services installed on a machine. To start the applet, click on **Start/Settings/Control Panel** to

open the control panel window. Double click on **Administrative Tools** to open the **Administrative Tools** folder. Double click on the **Services** shortcut to launch the Services applet.

The Services applet opens with a window displaying the name of all services installed on the machine. If the license server has been successfully installed, an icon with the name "EViews License Manager" should appear in the list. Additional columns in the window contain a description of each service, the current status of the service, how the service is started, and the account used to run the service.

A service can be started, stopped or restarted from within the window by clicking on the icon representing the service and choosing the desired action from the **Action** menu or the right mouse button menu.

Additional options for a service can be configured by selecting **Properties** from the right mouse button menu. The property page is a dialog with four tabs:

- The first tab allows you to start and stop the service and to configure the service startup type. By default, the EViews License Server service is configured to start automatically each time the operating system is launched. You should leave this setting unchanged unless you wish to control manually when the service is started.

- The second tab contains the log on information used by the operating system when starting the process. By default, the license server is configured to use the "Local System" account. You may wish to change the service to use a more restrictive account. Please see "Choosing a User Account" on page 30 for discussion.

- The third tab page, labeled **Recovery**, allows you to configure a series of actions that should be taken if the license server service fails. The EViews License Server service is designed to run continuously and recover from problems without ever failing, but you may configure actions such as restarting the service or running a program to alert an administrator if a failure does occur.
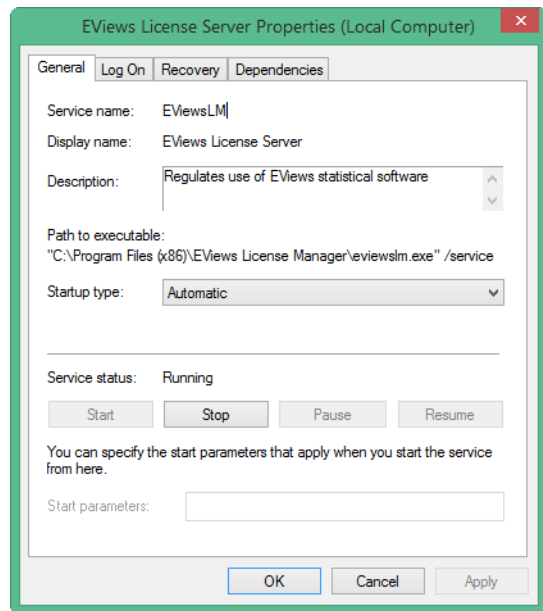
- The fourth tab lists service dependencies. There should be no need to modify the dependency settings.

Configuring the License Server Initialization File

The license server initialization options are stored in a file "eviewslm.ini" located in the same directory as the license server executable file "eviewslm.exe." All options supported within the file have default settings, so if no file is found in the directory, or if the file in the directory does not contain an option, the license server will continue to run using default options.

The initialization file is only read during service startup. If the file is modified, the service must be restarted before the new options will be used. Note that concurrent use users of EViews will not be disrupted if the service is stopped and started again within a short period of time.

The server initialization file follows the standard Windows ini file format, and can be edited by hand using any text editor. The following is an example of an "eviewslm.ini" file:

```
[Network]
port=25750
allow = 192.168.1.1/16, 127.0.0.1/8
except = 192.168.1.215
proxy = 192.168.1.216:8080
email = name1@mail.com;name2@mail.com

[Directories]
license = "c:\evlm\License Files"
log = "c:\evlm\Log Files"

[Timeouts]
session = 86400
idle = 3600

[Passwords]
admin=cfbd7f8924831a792e78d67fda19f36c74274d45
```

The file is divided into sections, where each section begins with a line containing the name of the section within square brackets. Each section may contain one or more items where each item consists of a key followed by an equals sign followed by a value.

The **Network** section contains the items **port**, **allow**, **except, proxy,** and **email**. The **port** item specifies the TCP/IP port on which the license server should listen for incoming connections. You may change this to a new value provided that you also change the EViews

License Management Console and the EViews application software to connect to the port. Please "Choosing a TCP/IP Port for Incoming Connections" on page 31 for guidance on selecting a port.

The **allow** and **except** items provide a basic filtering of incoming connections based on IP address. The default setting is to allow connections from all IP address ranges reserved for private use, as well as the loopback and APIPA address ranges. Addresses outside these ranges will be rejected by default. You can override these settings by providing your own list of IP address ranges from which connections should be allowed, and an except list containing any addresses that should be excluded from the allowed ranges. Note, however, that the EViews License Server software will only allow a limited number of addresses to be specified that are outside the private IP address ranges. See "Considering Client IP Addresses" on page 32 for further guidance.

The optional **proxy** item specifies the name of a proxy server that the license server should use when attempting to refresh its licenses via HTTP. The license server will periodically attempt to contact the IHS Global Inc. registration servers located at: register1.eviews.com and register2.eviews.com. You may specify a server name and optionally a port number (e.g. proxy:8080) that the proxy server is listening on. The **email** item is a list of email addresses that may be used by IHS Global Inc. to contact you if we detect that your license server does not appear to be automatically refreshing its licenses. More than one email address may be specified (delimited by a semi-colon).

The **Directories** section of the initialization file allows custom directory locations to be specified for license pack files and log files used by the server. By default license pack files will be stored in a "License Files" subdirectory of the license server program files directory, and log files will be written to a "Log Files" subdirectory. You may shift one or both of these to different locations by specifying "license" and "log" items in the directories section. Note that the license server will create the final directory in a path if the specified directory does not already exist, but will error if directories higher up the path do not already exist. When selecting a directory, please make sure the directory permissions allow access from the account which is being used to run the service. In particular, note that the local system account may be unable to access files stored on a remote machine.

The **Timeouts** section of the initialization file may be used to specify timeout criteria for the license server to automatically revoke concurrent use licenses. The session item specifies the maximum time in seconds that a copy of EViews can be run continuously without shutting down. The idle item sets the maximum time in seconds that a copy of EViews will continue to run after the application has completed all tasks and has received no further input from the user. The default timeout values are infinite, meaning that the server will only revoke a license when explicitly requested by an administrator.

When either of the timeout values is exceeded, the license server will send a message to the concurrent use client requesting that it shut down immediately and it will reclaim the

license for use by others. Note that when a license is revoked, the EViews application software will still provide an opportunity for the user to save their work before quitting. Note also that since the user may immediately restart EViews after their license has been revoked, the timeout feature is more appropriate for minimizing accidental holding of licenses rather than for limit deliberate use.

The final section of the initialization file is the **Passwords** section. This section contains an **admin** item which stores a block of data which the license server may use to verify the administrative password. Note that the value is *not the plain text password* and cannot be changed to a new value using a text editor. Instead, the initialization file can only be modified by running the license server executable file "eviewslm.exe" from the command line. For example, the command line:

```
eviewslm /password admin mypassword
```

could be used to change the administrative password required by the license server to "mypassword."

If no **admin** item is provided there is no administrative password so that all users who can connect to the license server to request a license may also connect to the license server using the license management console. Note also that since the administrative password is stored in the initialization file, it may easily be removed by anyone who can modify the file. Consequently, it is important that operating system security settings regulating access to the initialization file prevent the file from being modified by any users who should not be given administrative access to the license server.

Configuring License Groups

License groups provide a means of allocating requests for concurrent use licenses across the set of license packs managed by a single license server. Whenever EViews requests a concurrent use license from the license server, it passes the name of a license group with the request. The license server examines all license packs in the requested license group, stopping as soon as it finds a license pack which is not already at its maximum number of concurrent users.

By default, license packs installed on a license server are placed in groups based on the name and version number of the application authorized by the license. The license group used for version 11 of EViews is "EViews11." When requesting a license, the EViews 11 application software uses the license group name "EViews11" by default. This means that without custom configuration of license groups, a copy of EViews 11 will obtain any license for EViews 11 which is available on the server. This means that a license server with two license packs, each of which contains 10 licenses, will permit the same usage as a license server with a single license pack which contains 20 licenses.

This behavior can be modified by configuring custom license groups. License groups are configured by providing a custom file with the name "ligroups.ini" located in the license files directory of the license server. This file is only read during startup of the service. Modifications to the file will not be used until the service is restarted.

The "ligroups.ini" file follows the standard Windows ini file format. A typical example might contain the following text:

```
[mygroup1]
serials=11u00051, 11u00052

[mygroup2]
serials=11u00053
```

Each section of the ini file represents a license group to be used by the license server. The section name, listed in square brackets at the start of the section, is the name of the group. Each group must have a **serials** item. This item should contain a comma separated list of the first 8 characters of the license pack serial numbers for packs that should be included in the license group. The order of the serial numbers in the list determines the order in which license packs are checked when processing a request for a license. In this example, there are two license groups, "mygroup1" and "mygroup2." MYGROUP1 uses the license packs associated with the serial numbers 11U00051 and 11U00052, while MYGROUP2 uses the 11U00053 pack.

A license pack may appear in more than one license group, in which case both license groups may grant requests using the license pack. A license pack whose serial number does not appear in any group will be placed in a default group for the license ("EViews11" for licenses for running EViews version 11).

License groups allow multiple licenses to be combined so that they function as a single larger license. Licenses groups may also be used to categorize users so that heavy use by one category of users does not prevent use by members of the other group. For example, a university might want to ensure that there are licenses available for faculty use no matter how many students are currently using EViews. This configuration may be accomplished by creating two license groups, and limiting the use of one license pack to faculty members:

```
[faculty]
serials=11u00051, 11u00052

[students]
serials=11u00052
```

Requests for licenses from faculty are handled by first trying the license pack with serial number 11u00051 which is only used by other faculty members. If all licenses in this license pack are in use, the request will spill over to the license pack with serial number 11u00052,

which is used by both faculty and students. If a student requests a license, the server will only try the license pack with serial number 11U00052.

Note that this system requires that copies of EViews launched by faculty and students are configured to use different license groups when requesting a license from the server. The next section provides details on configuring license sources.

Configuring License Sources for EViews Clients

Concurrent use licensed copies of EViews will only run if they can obtain and validate a license across the network. When launched, EViews attempts to fetch a concurrent license from one or more license groups contained in its license source list. Laboratory licensed copies of EViews must renew their licenses at least every 30 days.

The EViews installer will create an explicit license source when it is configuring EViews for concurrent or laboratory use. It does this by prompting for license server and group information during the install and then saving the information in the file "lisources.txt" located in the EViews program files directory.

The license source file is a simple text file which may be viewed and edited using any text editor. The following is an example of the contents of a typical license source file:

```
# EViews license source configuration file.
# each license server should be listed on a line below
# using the format 'server_address[:port][/license_group_name]'

myserver1:25750/EViews11
myserver2:25750/EViews11
```

The lines beginning with "#" are comment lines. The two lines below the comments each specify a license source. Each license source contains the name or address of the machine hosting the license server, the port on which the license server is configured to listen for incoming connections, and the name of the license group from which to request a concurrent use license. The license group specification will be ignored when laboratory licensed copies of EViews renew their licenses. Note that while only two license sources may be configured from within the graphical interface provided by the EViews installer and application software; more than two sources can be configured by editing the license source text file.

A license source file must be located in the directory containing the EViews executable file. This means that users running a single copy of EViews installed on a network file server will all share the same license source file and will request licenses in the same way.

There are a number of ways that different license source lists can be provided when each user does not have their own installation of EViews. If users are to be divided into a small number of categories, one possibility is to create multiple installations of EViews in different

directories. Each installation can then be adjusted to contain the appropriate license source list.

An alternative is to place a license source list for each user in current user section of the Windows registry. EViews checks for a license source list in the registry location "HKEY_CURRENT_USER\Software\IHS EViews\EViews\11.00.000." The license source must be stored in a string value named "lisource." The format of the data should be similar to that in the text file except that semicolons should be used to separate license sources rather than line breaks. For example, the string required for the same license sources listed in the file above would be:

```
myserver1:25750/EViews11; myserver2:25750/EViews11
```

If a license source list is found in the registry, any license source file in the program files directory will be ignored. A registry entry can therefore be used to override a license source list for a small number of users while all other users use the license source list file stored in the program files directory.

Note that if a license source list is not found, EViews will assume that individual machine licensing is being used.

EViews does provide tools for making simple changes to your license management information. Simply select **Help/EViews Registration...** from the main EViews menu, fill out the dialog to make changes to the primary and secondary license server information.

Clicking on **OK** will instruct EViews to obtain a license, first trying the primary, and then secondary license servers. If a license is obtained, EViews will save the updated information in the "lisource.txt" file.

Temporary Installation of License Packs

Recall that a license pack is a collection of concurrent use or laboratory licenses purchased from IHS Global Inc., and that each license pack is associated with a single serial number. To use the licenses in a license pack, you must first assign and lock the license pack to a license server as described in "Adding a License Pack" on page 12. Once a license pack has been installed on a license server host machine, it cannot be moved to another machine without contacting IHS Global Inc. for assistance.

Server machines do, however, fail. To allow for timely recovery from license server failure, an important exception to the license pack locking restriction permits *temporary* installation of a previously registered pack on a replacement server. Thus, in the event of a server failure, you may perform a temporary install of your license packs on a new host machine (without contacting IHS Global Inc.), allowing you to restore normal operation of your concurrent use or laboratory network. ("Planning for Disaster Recovery" on page 47 offers a detailed description of this use of temporary license packs to recover from a server failure.)

Temporary installation of a license pack is a quick and easy procedure. As you know, the first time you install a given license pack on a license server, the pack is registered and locked to the specific host computer. To perform a temporary install, simply add a previously registered license pack to a new license host. Note that adding a locked license pack to a *new* license server host will perform a temporary installation, granting a set of concurrent or laboratory licenses lasting for seven (7) days. The temporary installation procedure may be repeated up to four (4) times without contacting IHS Global Inc. (You should feel free to contact our office if you need additional temporary installations.)

The basics of using the license management console to install a license pack are outlined in detail in "Adding a License Pack" on page 12. From within the license management console, click on the **Licenses** child node in the left pane (or the **License** icon in the right pane) under the server designated to receive the license pack. Then select **Add License** from the **Action** menu to display the **Add License Pack** dialog.

If you use **Automatic** registration to install the license pack, you should see a message noting a successful license pack registration:

```
This serial number has already been installed on another machine.
You have successfully registered a backup installation.
There are now X backup installations remaining.
```

where "X" indicates the number of temporary installs still available.

If you use the web page to obtain a license key, you should see a page showing the successful temporary installation:

```
You have been given a temporary license.
This serial number has already been used to register %%INSTALLS%%
    machine(s). You will need to contact our office to remove the
    serial number from an existing machine before you can register a
```

```
new machine. We have issued a temporary license that you may use
until then. The license will expire in 7 days. You have
%%BACKUPSLEFT%% temporary licenses remaining.
```

where "%%INSTALLS%%" is the number of total installations performed, and "%%BACK-UPSLEFT%%" is the number of remaining temporary installations available.

Note that the successful temporary installation messages differ substantively from the corresponding messages provided for permanent installation ().

If you obtain a license key from IHS Global Inc. by phone or by email, you should ask us to verify the temporary license status and the number of remaining installations.

Recovering from License Server Failure

License server failure is likely the most serious problem that you will encounter. Failure of a license server means that individual client computers and file servers may be unable to launch EViews since they cannot obtain or renew license keys. Furthermore, all actively running concurrent use copies of EViews will be unable to communicate with the failed license server and will be shut down (prompting users to save their work before exiting).

Fortunately, recovering from a license server failure is a relatively straightforward task, with four basic steps: 1) repair or replace the server machine; 2) ensure that the license server software is installed and running; 3) install permanent or temporary license packs *(if necessary)*; 4) reconfigure license sources for client and file server machines *(if necessary)*. These simple steps should be sufficient to reenable your concurrent use server.

Once you are up and running you should: 5) contact IHS Global Inc. to assist you in the permanent installation of the license pack on the server host *(if necessary)*.

It is worth noting that steps 2 and 4 may be undertaken using a backup server in advance of the server failure. Steps 3 and 5, the installation of license packs, may only be performed after the failure. (See for additional discussion.)

1. Repair or replace the server machine.

We begin our discussion by assuming that step 1 has been completed so that you now have a functioning server machine that is connected to your network. The server host may be an entirely new machine, or it may be the original machine after various repairs (say, replacing the ethernet card, the entire operating system, or perhaps a hard drive).

2. Ensure that the license server software is installed and running.

If you are working with the original computer, you should verify that the license server software is still installed () and if

it is, ensure that the service is running ("Can the service be started and stopped?," beginning on page 50).

If the license server is not installed, or if you are working with a replacement server, you should install the software and start the service ("Installing the Software" on page 6 and "Starting the License Server" on page 10).

3. Install permanent or temporary license packs (if necessary).

If you are working with the original computer, you should first determine whether your previously installed licenses are still available. ("Are licenses available on the license server?" on page 52). If the previously installed licenses are present, your server should now be fully functional, and your recovery should be complete.

Alternately, if the licenses are not available on the original computer, you must add your license packs to the server (see "Adding a License Pack" on page 12). In almost all cases, adding the packs will install temporary license packs to the server. The temporary concurrent or laboratory licenses will be valid for seven (7) days.

Similarly, if you are setting up a new server machine, you must temporarily install of your license packs to the new server. The temporary concurrent licenses or laboratory will be valid for seven (7) days.

See "Temporary Installation of License Packs" on page 42 for additional discussion.

4. Reconfigure license sources for client and file server machines *(if necessary).*

If the network identifier of the server host machine has changed following repair or replacement, you may need to reconfigure the license sources for your client and file server machines to use the server.

Suppose, for example, that you recover from a server failure by swapping in a preconfigured backup server. If the network identity (the IP number or network name used to identify the machine to EViews clients and file servers) are the for both machines, or if you previously configured EViews to use the alternate server then you need not change any configuration settings. Launching EViews should open EViews without problem.

On the other hand, if your backup has a different, previously unknown network identity, you must configure client copies of EViews to use the new server. There are a few methods of reconfiguring the license sources (all require write permission on the file server or client).

First, launching EViews will display an error message "Unable to connect to license server" and will then bring up the **EViews License Server Configuration** dialog.

The **Primary license server** section should already be filled out with the information for the original server machine. Here, our original (failed) server was MYSERVER1.

You may change the information in the primary **Server name/address** field to match the identity of the new server, or you may, as we have done here, add the new server information (for MYSERVER2) under the **Secondary license server** section of the dialog.

Note that we have copied the **Server port** and **License group** information from the primary server. This assumes that the license server is configured identically on the two machines.

Clicking on **OK** will instruct concurrent use copies of EViews to obtain a license, first trying the primary, and then secondary license servers. If a license is obtained successfully, EViews will save the information in the "lisource.txt" file located in the directory chosen for the EViews program files.

Second, you may add the secondary server by editing the "lisource.txt" file, located in the directory chosen for the EViews program files, or you may modify the Windows registry. (See "Configuring License Sources for EViews Clients" on page 40.)

Once you have added the appropriate information to "lisource.txt" or the registry, concurrent use licensed copies of EViews will, on startup, attempt to obtain a license from the specified sources. If successful, EViews will open and be ready for use. Laboratory copies of EViews may attempt to contact the new server to refresh existing licenses

Note that editing the "lisource.txt" file or the Windows registry are currently the only ways of configuring EViews to use more than two license server sources.

5. Contact IHS Global Inc. to assist you in the permanent installation of license packs on the server host *(if necessary)*.

This step is only necessary if you obtained temporary licenses in step 3 and the new or repaired server host machine will remain in use after the temporary license period. You have been provided with multiple temporary installations, each lasting for seven (7) days, so you should have ample of time for us to help you move your installations to the working server host.

Planning for Disaster Recovery

One more the most important aspects of setting up your concurrent use network is planning for the possibility of failure. Fortunately, the EViews License Management System has been designed with features that aid in business continuity planning and IT disaster recovery. With just a bit of foresight and planning, you can reduce your downtime in the event of failure to a bare minimum, and have a functional system up and running in a matter of minutes.

Before outlining strategies for disaster recovery, recall that there are three basic parts of the EViews License Management System:

1. one or more license server host machines on which you install and run the server software, along with permanent license packs which are installed and registered on one and only one server host.

2. one or more machines on which you install the console management software.

3. individual client machines or a file server on which the EViews program software is installed and configured to use the license servers and installed license packs.

Previously, we analyzed in detail the steps to take when recovering from the most serious failure—failure of the license server host machine ("Recovering from License Server Failure" on page 44). It is worth noting that most of the steps taken in recovering from a server failure may be performed prior to the actual failure. Planning for a disaster by setting up a backup server and preconfiguring clients can save considerable time and effort in case of server disaster.

The remainder of this discussion describes strategies for setting up each part of your EViews License Management System to minimize the downtime in the event of disaster.

License Server

You may install and run the EViews License Server software on as many host machines as desired ("Installing the Software" on page 6 and "Starting the License Server" on page 10). At this point, these hosts will be operational, but will have no licenses to serve.

If your disaster recovery plan features the use of one or more backup servers, we recommend that you install, start, and test the license server on each of your backup machines. You may wish to use install a test or temporary license pack to test the full functioning of a server.

Then, in the event of a server failure, a backup server may simply brought online or swapped for the original. License packs must then be installed on the backup. Once license packs (permanent or temporary) are successfully installed, the EViews client machines should be able to obtain licenses, provided they have been properly been configured to use the backup server. (See "Recovering from License Server Failure" on page 44 for details.)

License Management Console

You may install and run the EViews License Management Console software on as many machines as you wish. You should install and configure the license management console on any backup machines that will be used to manage your network in the event of disaster (see "Installing the Software" on page 6).

The license management console should be started and configured to manage both primary and backup license servers, if the latter use different local area network names or IP addresses. You may instruct the console to manage additional license servers at any time by selecting the EViews License Servers node in the left-hand pane of the management console and then choosing the menu item **Add New Server** from the **Action** menu. (See "Starting the License Management Console" on page 10 for additional discussion.)

Client Machines and File Servers

The EViews program software files may be installed on backup machines if desired ("Installing the EViews Application" on page 17).

Once installed and configured, the EViews software may be backed up from client and file server machines like any other software. If your disaster recovery plan features the use of one or more backup client machines or file servers, we recommend that you install and configure the application on each of these machines.

If your business recovery plan employs a backup license server that uses a different local area network name or IP address, we recommend that you configure each copy of the EViews application to use two sets of license management information; one for the primary server, and one for the backup server (see "Recovering from License Server Failure" on page 44 for details.) The backup server information should be provided even if the server is not initially online. Under normal operation, EViews will obtain its license information from the primary server. Only in the event that the primary server is unable to provide a license will EViews look to the secondary server.

In the event of a server failure, the backup server may immediately then be brought online or swapped for the original, and the client and file server machines will be able to obtain licenses without additional intervention.

Chapter 3. Troubleshooting

The following section contains tips for troubleshooting the EViews License Management System.

We first note that there are three places where relevant information may be available when problems occur in the system:

- an error message may be given inside the EViews License Management Console or within the EViews application software.
- the license server may report an event to the Windows Event log.
- the license server may write information relating to the problem into its own log files.

The first step in troubleshooting should always be to consider carefully all information available from these three sources. Note that since the license server runs as a background process, it can not report error messages to the desktop, so it is extremely important to check the various log files since all license server status information will be written to these files.

To examine the Windows Event log, open Windows Control Panel, double click on the Administrative tools folder, then double click on the Event Viewer icon to launch the Event Viewer applet. Any events reported by the license server will be listed in the "Application" log. You may also like to check the "System" log for messages issued by the Windows Service Control Manager. To check the license server log files, go to the Log Files directory ("c:\program files\eviews license manager\log files" by default) and open the log file for the day on which the problems occurred.

If the source of the problem is still not apparent, you should work through the following steps to narrow down the source of the problem:

1. "Is the License Server service installed?" on page 50.
2. "Can the service be started and stopped?" on page 50.
3. "Is the service listening for incoming connections?" on page 51.
4. "Will the service accept incoming connections from the local machine?" on page 51.
5. "Can the management console be run from the local machine?" on page 52.
6. "Are licenses available on the license server?" on page 52.
7. "Can EViews obtain a license when run from the local machine?" on page 53.
8. "Can EViews obtain a license when run from a remote machine?" on page 53.

The remainder of this section will describe each of these steps in detail.

1. Is the License Server service installed?

You can use the Windows Services applet to verify that the license server service has been successfully installed on the host machine. From the desktop of the host machine, open the Services applet, which is located within the Administrative Tools folder in Windows Control Panel. The applet will list all services currently registered on the machine. Check that a service named "EViews License Server" is included in the list.

If the service does not appear in the list, you should re-run the EViews License Manager installer and make sure that the EViews License Server component is selected during installation. After installation is complete, check that the main application file "eviewslm.exe" has been copied to the selected program files directory. If the service is still not displayed in the Services applet, open a command prompt and navigate to the directory containing the eviewslm executable file. Make sure that you are running from an account with administrative privileges, then issue the following command from the command prompt:

```
> eviewslm.exe /install
```

The service should either install successfully or report an error. If an error is reported saying that the service already exists, you should remove the existing service by issuing the command:

```
> eviewslm.exe /remove
```

and then try installing again ("Installing the Software" on page 6). If the service does not install and you cannot understand why from the error messages provided please contact IHS Global Inc. for assistance.

2. Can the service be started and stopped?

If the service is listed in the services applet, you should determine whether the service can be started and stopped successfully. If the service is not already running, you should try starting the service by clicking on the EViews License Server item, then selecting the **Start** command from the **Action** menu or the right mouse button menu. A status dialog should come up to indicate progress as the service starts. If the service fails to start an error will be reported by the Services applet. If the error message contains a service specific error code, please check the Application log using Windows Event Viewer to see a text version of the error reported by the license server.

Note that you can also start the service from the command prompt. Navigate to the directory containing the eviewslm executable file and issue the command:

```
> eviewslm.exe /start
```

The service should start successfully or report an error message.

If the service is functioning properly it should be possible to stop the service and restart it again without generating any errors. You can stop the service from within the Services applet or from the command line by using the command:

```
> eviewslm.exe /stop
```

3. Is the service listening for incoming connections?

If the services is running, you can check whether the license server service is listening for incoming connections by using the Windows netstat command line tool. Issue the command "netstat -a" from the command prompt to obtain a list of all ports currently in use on the local machine. The output should contain a line showing that the license server is listening on the TCP/IP port configured during installation ("Installing the Software" on page 6). For example, if the service has been installed on port 25750 on a machine called "myserver," the output should include a line like this:

```
Proto        Local Address     Foreign Address    State
TCP          MYSERVER:25750    MYSERVER:0         LISTENING
```

You can add the flag "-b" to the netstat command to include, in the output, the executable file name of the process that opened each port. This file name should be "eviewslm.exe" for the port used by the EViews License Server.

4. Will the service accept incoming connections from the local machine?

If the license server appears to be listening, you should try connecting to the server using software running on the machine that is hosting the license server. Running software from the local machine minimizes the amount of networking software and hardware involved in making the connection.

One way to test whether a connection is possible is to use the telnet program from the command line to form a connection to the service port. There is no user interface provided for a telnet connection, but error messages from the telnet program can be used to determine whether it is possible to connect to the port at all. Simply open a command window and issue the command:

```
> telnet localhost 25750
```

where you should replace the port number "25750" with the port you are using. If you are unable to connect to the port you will receive a message like this:

```
Connecting to localhost...Could not open connection to the host, on
    port 25750: Connect failed.
```

If the telnet program does not report an error, then you have successfully connected to the port. You will be disconnected from the license server as soon as you type a few characters. Note that there is nothing useful that you can do using a telnet connection except to test whether a connection is possible.

If you are unable to connect to the server even though the netstat tool reports that the license server is listening on the port, there is most likely a security setting or network configuration problem on the local machine that is preventing the connection. Please check the network settings on the local machine.

5. Can the management console be run from the local machine?

You can run the license management console using the shortcut in the Windows start menu or by double clicking on the file "eviewslm.msc." If you receive an error message saying "Snap-in failed to initialize" or "Snap-in Creation Failed" then the management console software is either missing or has not been registered correctly.

First check that the file "evlmsnap.dll" is present in the license manager program files directory. If it is not, you should re-run the license manager installer, making sure that the management console component is selected during the install ("Installing the Software" on page 6).

Next, try registering the console using the Windows command tool "regsvr32." Open a command prompt and navigate to the directory containing the dll, then issue the command:

```
> regsvr32 evlmsnap.dll
```

Note that registering the console may require administrative privileges.

Try launching the console again. If the console runs successfully, please verify that you can connect to the license server on the local machine from within the console.

6. Are licenses available on the license server?

If the management console can connect to the license server, you should expand the licenses node to check that licenses are available on the server. If no licenses are listed but license files are available in the license files directory, please restart the service and check for warning messages in the Windows Event log. The license server will report a warning for each license file that is rejected during startup.

If there are no license pack files in the license files directory, then you should add a new license pack to the server. See "Adding a License Pack" on page 12 for details.

If one or more concurrent use license packs are available on the server, you should expand the license groups node to make sure that you have correctly specified the license group name that should be used to request a license.

You should also examine the IP filtering options to make sure that they include the address ranges of the computers from which you will be running EViews.

7. Can EViews obtain a license when run from the local machine?

At this point you should try to launch a copy of EViews on the machine hosting the license server. If the EViews client is not already available for use on the server machine, you may need to install it. Make sure that the EViews client license configuration settings are set to use the port and license group name that you have verified during the steps above. You may use "localhost" as the server address to connect to the local machine.

If EViews fails to obtain a license, please examine the text of any error message carefully. You should also check the server log files to see whether there is any acknowledgement by the server that it received the connection and whether any reason is given in the log for why a license was not granted.

8. Can EViews obtain a license when run from a remote machine?

If EViews is able to obtain a license when run on the machine hosting the license server, you should run EViews another machine on the network using the same license server settings. Make sure that any machine you test has an IP address within the ranges from which connections are allowed by the license server (see "Configuring IP Address Filtering," on page 16).

If EViews reports that it is unable to connect to the license server when run from any machine other than the host, there is most likely a firewall setting that is preventing the license server from accepting incoming connections. Please check any firewall software you are running on the license server host machine to make sure that the license server application "eviewslm.exe" is allowed to accept connections on the specified port. If you are using Windows firewall, the installer will already have tried to register the EViews License Server as an exception during installation, but you should check the settings using the Windows Firewall applet in Control Panel to make sure that the exception is enabled.

If EViews is able to obtain a license when run from some machines, but fails to obtain a license when run from others, there may be firewall or routing issues that are blocking connections between the client machines and the license server host machine. You should check that the client machines are able to connect to the license server host machine over the network at all, for example by sharing a folder from the license server host machine and checking that you can access the folder from the client machines. You may also use the telnet command tool as discussed above to test whether a connection can be made from the client to the incoming port of the license server.

If there is no evidence that you can connect to the license server host machine from the client machine, then the problem is very likely related to network configuration and it is unlikely that IHS Global Inc. can offer any assistance.

If there is evidence that the client machine can successfully connect to the license server, and you have examined any error messages, the Windows Event log, and the license server

log files, but still can not determine the source of the problem, you should contact the IHS Global Inc. office for assistance.

Index