Floating Seat License Manager

INSTALLATION GUIDE

Innovyze®

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1.1 OVERVIEW

Innovyze® Inc.'s software products have always had a network installation (server/client) function available at no additional charge. Our historical network installation allowed a user to install the software on more computers than the number of licenses purchased via the server/client installation process as long as no more than the number of purchased licenses were operating concurrently. It was up to the user to self-monitor concurrent license usage and no method (hardware or software) was in place to enforce the concurrent usage agreement.

In today's networked computer environment, it is often more efficient to have a software solution to monitor the usage, to ensure compliance with license usage restrictions, and to optimize the number of licenses purchased. This functionality is now available in the Innovyze® Inc. License Manager. The Innovyze® Inc. License Manager is built on the Microsoft WinSock and XML technology and as long as your network has a WinSock port open, it will function properly.

The intent of the Innovyze® Inc. License Manager is to allow a user (consulting firm, water agency, sewer agency, or other user) to install our software on any number of computers that can "see" the license domain server and to be able to access any of the licensed software with full assurance that the Software License Agreement is not being violated. This allows a user to maximize the use of the installed software based on project needs and without regard to physical location. Software users can be in different offices, different counties or even in different states and still have access to purchased software licenses.

Once a license is "checked out", the Innovyze® Inc. License Manager will check each computer every 15 minutes to ensure that the checked out license is still valid. Once a license is "checked in" it is immediately available for use by anyone else on the network with the software installed. If there is a server or communication failure such that license validity cannot be checked, the "Run" function of our software will be disabled. The software remains active and the user will not lose any data.

1.2 PRE-INSTALLATION CHECKS

The following is a list of recommendations for taking full advantage of Floating Seat License Manager.

Minimum System Requirement:

1.   Operation System: Microsoft Windows7/8/8.1/10 and Windows Server 2008 R2/ 2012 R2
2.   CPU Speed: 2.2 GHz minimum or higher; Hyper-threading (HHT) or Multi-core recommended
3.   Processor: Intel Pentium 4, Intel Core Duo, or Xeon Processors; SSE2 (or greater)
4.   Memory/RAM: 2 GB or higher
5.   Screen Resolution: 1024 x 768 recommended or higher at Normal size (96dpi)

6.   Disk Space: 500 MB of free space to accommodate a full setup installation and additional disk space - keep as much free disk space available as possible. Its virtual memory system needs additional free disk space when working on large projects

7.   Video/Graphics Adapter: 64 MB RAM minimum, 256 MB RAM or higher recommended. NVIDIA, ATI and INTEL chipsets supported

8.   Networking Hardware: Simple TCP/IP, Network Card or Microsoft Loopback Adapter is required for the License Manager

Prerequisites:
- .Net Framework 3.5
- Microsoft Visual C++ 2010 Redistributable - x86 v10.0.40219.x

Port Requirement:

- Any firewall rules should allow for incoming TCP traffic to the Floating Licence Server on Port 5367

**Online Activation Requirement:**

- Internet Access and Proxy Authentication: License Activation and Virtual OS Registration go through your network connection to communicate with the Innovyze web server (app1.innovyze.com:80)

1.3 INSTALLING FLOATING SEAT LICENSE MANAGER

SERVER INSTALLATION

To install the Innovyze® Inc. Floating Seat License Manager, perform the following procedure:
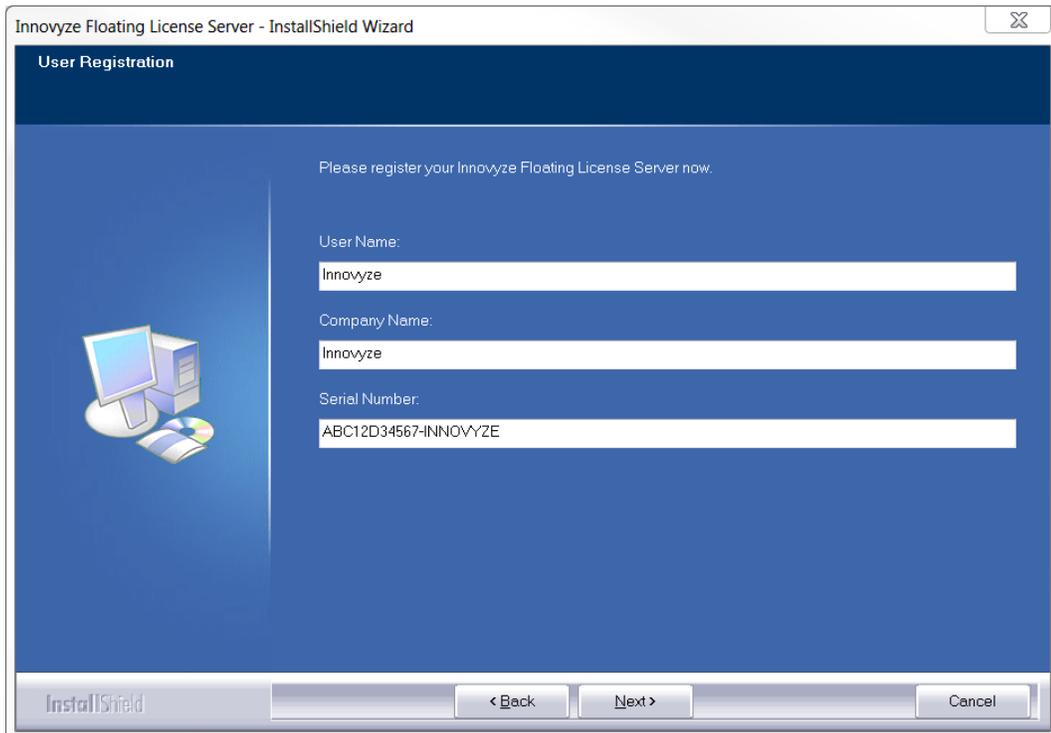
1. The first task is to install the Innovyze Floating License Server. This is provided via a software download from the Innovyze Website. The Innovyze Floating License Server can be installed on real server hardware or a Virtual Machine. (Note that after installation and authorization the Innovyze Floating License Server will be tied to a particular Server and not easily moved, so you will need to choose your computer carefully before installing and authorizing the software)

2. Download and install the Innovyze Floating License Server software on the machine you have chosen to host the floating License service. The machine can be a physical device or a virtual machine (VM).

3. Depending on other software that has already been installed on your chosen machine, you may be prompted to install the Microsoft Visual C++ 2010 Redistribution code. If this is required you will be notified. Press the OK button and the relevant software will be installed automatically.
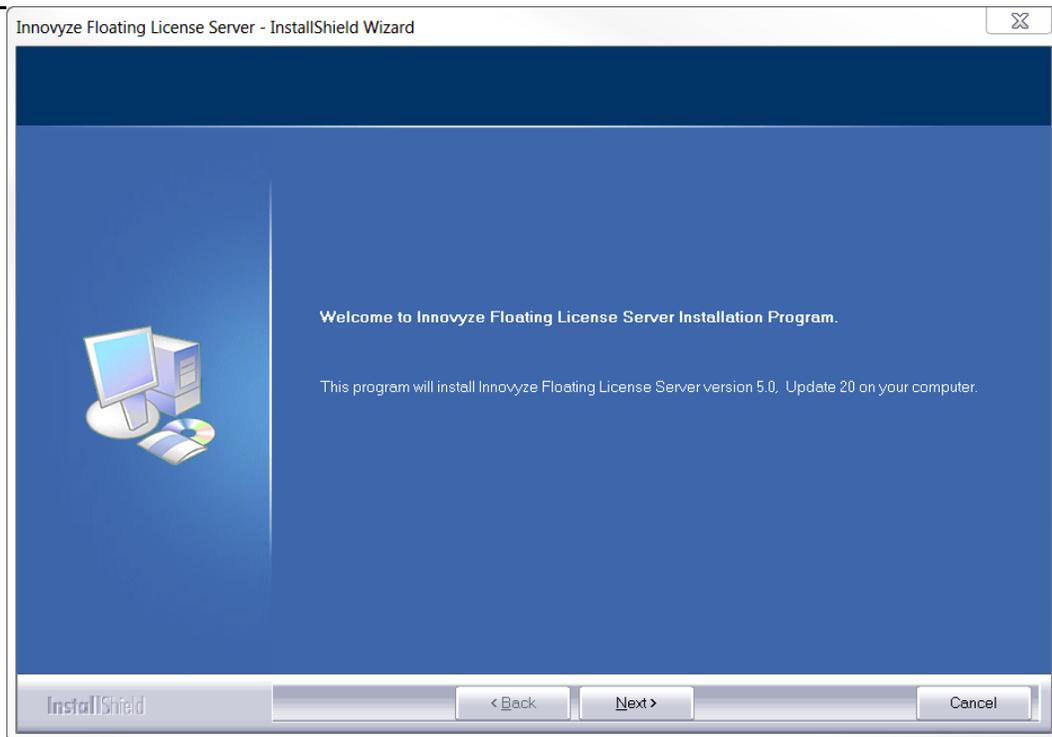
4. With that done, installation of the Innovyze Floating License Server will continue. You will first be required to enter the CD-KEY associated with your Innovyze Floating License Server. This will have been provided to you in the form of a string of 20 alpha-numeric characters. The four pairs of five characters are separated by a dash. It is important you take care to distinguish between characters like 0 and O and 1 and I. Press the Next> button. Your CD-Key will be validated and you'll be taken to the next screen.
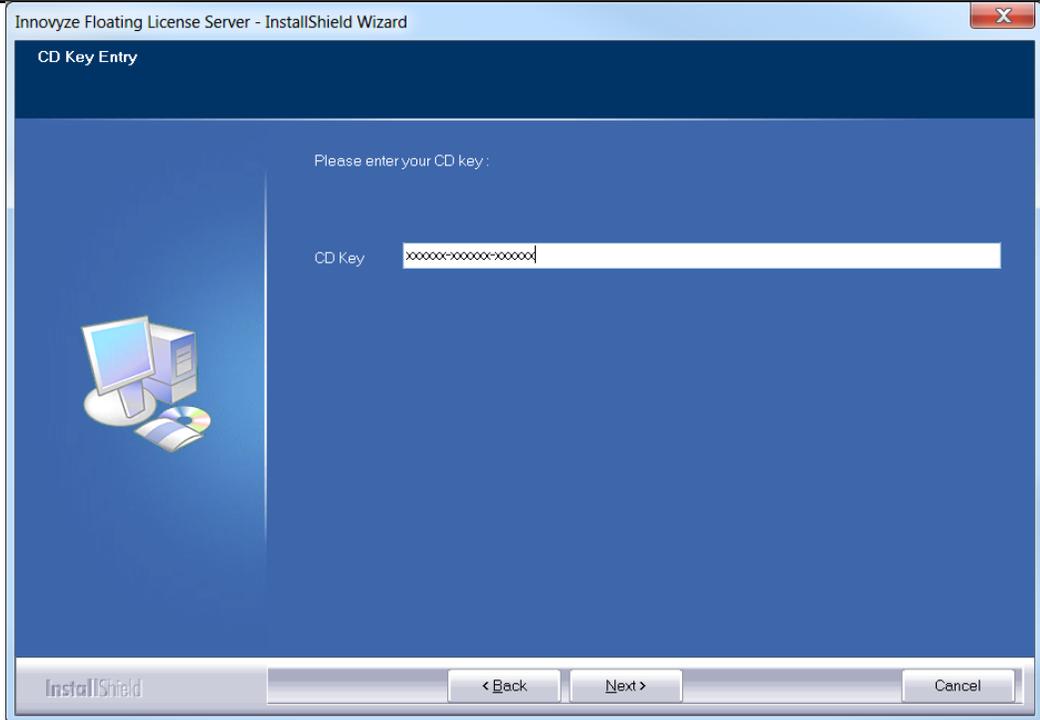
**5.** Here you will need to enter your user name, your company name and a unique Serial Number. The Serial Number will have been provided to you along with the CD-KEY you have already entered. The Serial Number is 18 characters long; the first 11 characters are separated from the last 7 characters by a dash. Enter your unique Serial Number in the space provided, taking care to distinguish between characters like 0 and O and 1 and I.

6. Once installation is complete, you'll be prompted to re-start your Server prior to running the Innovyze Floating License Server for the first time. You MUST REBOOT YOUR SYSTEM immediately following the installation program. Failure to do so will prevent certain clients from being able to access the system. Press the **OK** button to acknowledge the message and the **Finish** button on the next screen to close the installer
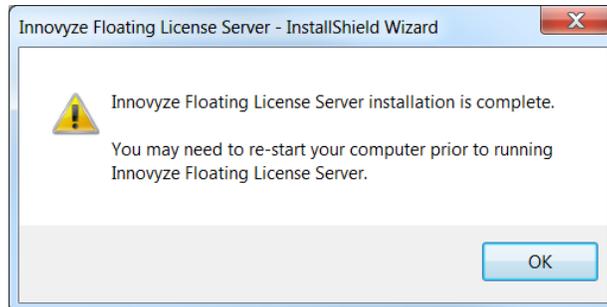
7. After reboot, from the START menu, navigate to PROGRAMS and then go to INNOVYZE® INC. FLOATING LICENSE SERVER and launch FLOATING LICENSE SERVER MANAGER.
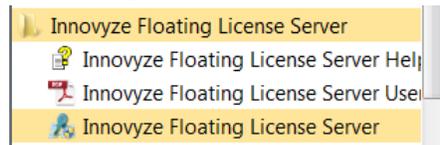
8. The *ABOUT* dialog box should appear as shown below. Your Serial Number, CD Key and Hardware Identification Key appear in the *ABOUT* dialog box. The first time the application is run you'll see a screen confirming the details entered during the installation process. Check them all carefully, especially the CD-Key and the unique Serial Number. If they are wrong, uninstall the Innovyze Floating License Server and start the installation process again.
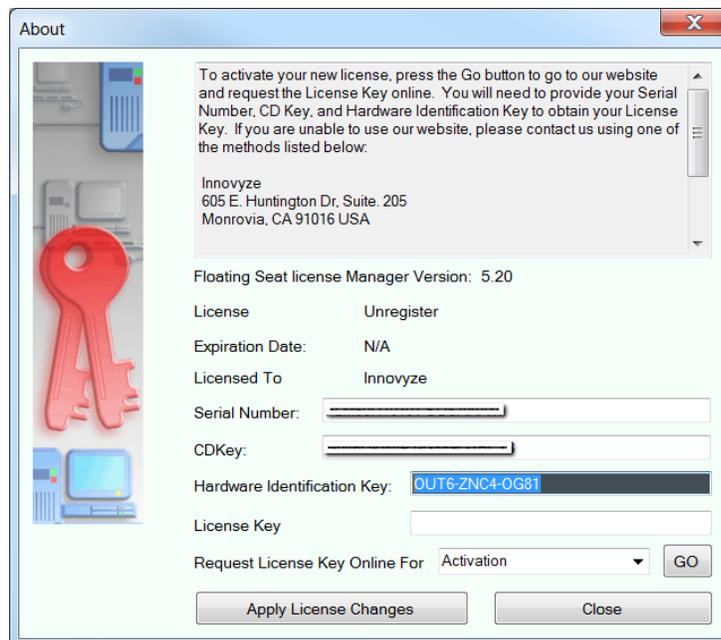
9. In the Request License Key On-Line For: select ACTIVATION in the dropdown menu and click on the GO button to activate your Internet browser and open Innovyze® Inc."s Request License Online webpage. You'll be taken to a dedicated webpage where you can request your License Key Code.

    • The authorization process is all conducted using standard HTTP on Port 80. Our Servers will verify your Hardware Identification Key and combine its data with the CD-Key and Serial Number you were originally sent (this information is automatically included in your message when sending your Hardware Identification Key to Innovyze). The data you provide will be used to create a unique License Key code for your Server. The code itself will contain a total of 15 digits in 3 groups of 5 digits, each group being separated by a dash. This string of characters will be shown on the next screen you see. The License Key code will also be e-mailed back to you. You should keep your confirmation e-mail safe, just in case you need to refer to the License Key code at a future point in time.

10. Please verify the Serial Number and the CD Key and then fill in the email address and telephone number.

11. Finally, click on the *SUBMIT* button to send your request for obtaining your license key. A confirmation message of your request should then be shown.

12. The license key will be generated and emailed to you and/or you will be directed to a web page containing the license key. After you have received the License Key, open the licensing *ABOUT* dialog box (see Step 6 above) and copy the License into the *License Key* field.

13. Finally, click on the *APPLY LICENSE CHANGES* button to complete the activation process. Your Innovyze Floating License Server is now active.

14. Once installation is complete you need to make sure the Innovyze License Manager Service has started correctly on the host. The install process should set it to start automatically whenever the server is rebooted. A manual start is sometimes needed after the initial install if the server wasn't rebooted as part of finishing the install process.

15. If the Floating License Manager fails to start once it's fully installed, activated and registered you will have to alter the default account used to start the Windows Service. Change the Log-On setting from the default Local System account to your Local/Domain administrator account.

Installing/Activating the Floating License Server on a Virtual Environment

If you will be running your Floating License Manager on a Virtual OS there will be one extra step to the authentication process. This second step is an additional security measure and is always required when the Floating License Manager is to be executed within a Virtual OS. This final step can only be completed online and the Server must

remain connected to the Internet throughout the procedure.

1. If you've chosen to install the Floating License Manager on a virtual machine your network security protocols may prevent automatic web-registration of the Virtual OS. That being the case, you'll see an error message reporting that the registration process was unable to retrieve the License information or that Proxy Authentication is required.

    "Unable to retrieve License information. Register your License before performing this operation"

    "Error Exception Register VOS: The remote server returned an error: (407) Proxy Authentication Required."

2. If you receive either of these messages click the OK button from the warning message box to enable the Manual Registration Code option. A new dialog will appear, select the Manual Registration Code radio button and click the button on the right to manually submit your Virtual OS registration request online.
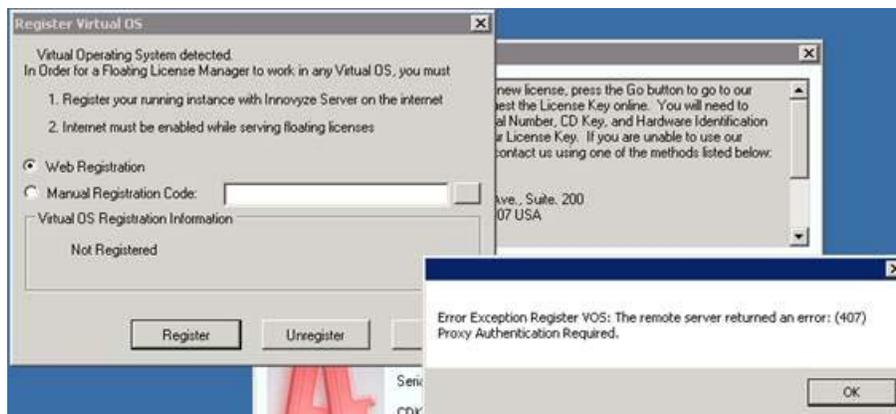

3. Once you receive the registration code, click the Register button to apply it.

4. The reason for this process is that our Virtual OS Registration (any web browser) goes through the following cycle when it communicates with the Innovyze web server:
    a. Obtain an IP address from the IP name of the site (the site URL without the leading 'http://'). This lookup (conversion of IP name to IP address) is provided by domain name servers (DNSs).
    b. Open an IP socket connection to that IP address.
    c. Write an HTTP data stream through that socket.
    d. Receive an HTTP data stream back from the Web server in response. This data stream contains status codes whose values are determined by the HTTP protocol. Parse this data stream for status codes and other useful information.
    e. This error occurs in the final step above when the client receives an HTTP status code that it recognizes as '407'.

5. Error '407 Proxy authentication required' indicates that the client must now authenticate itself with the proxy. This error is normal in networks where authorization is enabled (most networks) and can occur once per SIP (Session Initiation Protocol) request and is generated by the network.

6. If none of your license servers have direct access to the internet, please follow the additional registration steps below for your VM activation.

   a. Copy the hyperlink from the server's web browser and use the copied link to submit it online from a computer that has Internet connection.

   b. Once you receive the registration code, click the Register button to apply it.

Note: In order to use our FLM software for a virtual environment, the server must always be the internet otherwise the FLM service will not work. The server must ping to the Innovyze web server every day to renew their virtual environment.

ADDING INNOVYZE® INC. PRODUCT(S)

1. You may now enter license information for the Innovyze® Inc. product(s). Click on the *NEW* button to clear the *Floating License Information* area. Fill in the serial number, the CD key and license key if you already have received it.

2. If you do not have the license key, please click on the *GO* button to activate your internet browser and open Innovyze® Inc.'s *Request License Online* webpage.

3. After you have received the license key, click on *APPLY* button of the *Innovyze® Inc. Floating Seat License Manager* dialog box to activate the product. Repeat the above two steps to add additional Innovyze® Inc. products.
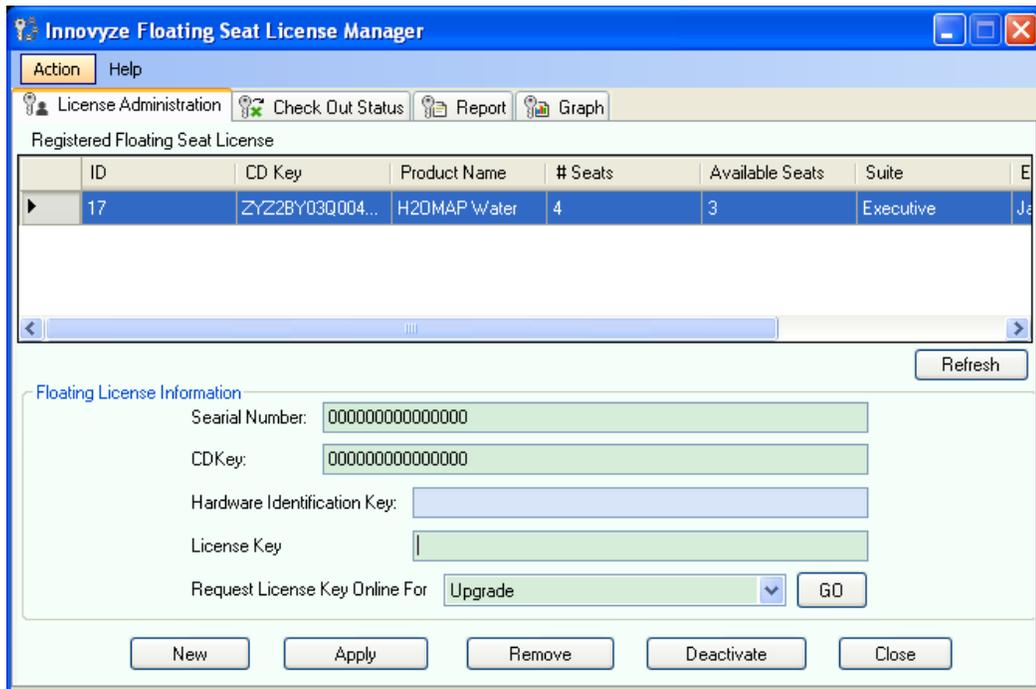
4. Finally, install the Innovyze® Inc. product(s) using the provided CD on your client computer. After the installation is completed, the users can now check out licenses as explained in the section below.

1.2 CONNECTING TO THE SERVER

SETTING UP LICENSE SERVER FOR CLIENT ACCESS

The default port for Innovyze® Inc.'s Floating License Server is 5367. Please ensure that the port is open for both the server and client if there are firewalls or other similar security measures installed. See your firewall documentation for details on how to do this for your specific setup.

Changing the port:

On the server:
- Go to your Control Panel in Windows and double click on Administrative Tools.

From there, double click on the Services shortcut.
- Find the Innovyze® Inc. License Server in the list. Right-click and select Stop from the menu.

- Open the file *HnLicSvrConf.ini* in your Floating License Server install directory. Change the specified port number.
- Return to your Service dialog. Right-click on Innovyze® Inc. License Server and select Restart.

On the client:
- Go to the Innovyze® Inc. Shared directory under the Common Files folder.
- Open *HnLicConfig.ini*. If one does not exist, you may create it. See *Advanced Configuration* below for more information on the *HnLicConfig.ini*.
- Either change the port specified under the [General] header or the [Your Server Name] header. If [Your Server Name] does not exist, you may create it. Changing the port under the [General] tab may cause the client machine not to work with other Floating License Servers.
- Query the License Server. Your port should now be changed.

ADVANCED CONFIGURATION

Individual client users may configure their port, time out and retry interval settings by editing the file *HnLicConfig.ini*. This file is located in the Innovyze® Inc. Shared directory under the Common Files folder on their machine. If the file is missing, the default settings are assumed.

To create the *HnLicConfig.ini* file:
- Navigate to the Innovyze® Inc. Shared directory. Browse to Program Files. Select Common Files. Then select Innovyze® Inc. Shared.
- Right-click in the directory and select New from the menu. This will open a child menu. Select Text document from that directory.
- Rename the newly created text document *HnLicConfig.ini*. Do not add *.txt*
- Create the General and Server Specific settings as needed. These are described in the following sections.

General Settings:

The General section applies to connections to any license server that does not have a section of its own.

The General section begins with the line that just contains "[General]". This is the General section header. All settings under this header before the next bracketed header apply to the General section.

The Floating License Client accepts three key settings: *PORT*, *timeout* and *retryinterval*.

PORT - specifies which port to use. It must match the port specified by any Floating License Server that does not have a specific section. Because of this, it is recommended that this be left as the default and any server requiring a different port have its own section.

Timeout - specifies the time in milliseconds that the client will try to contact the server before assuming that it is unreachable.

Retryinterval - specifies the time in milliseconds between each attempt to contact the server during the time out period.

Sample General Section:
[General]
PORT=5367
timeout=10000
retryinterval=200

Server Specific Settings:

The settings described in the General section can be customized for each server. Simply create another section like General but change its header to the server name. When connecting to that License Server, the client will use the server specific settings over the general settings.

Sample Server Specific Section:
[ServerName]
PORT=5488
timeout=5000
retryinterval=250

1.3 FLOATING SEAT LICENSE MANAGER CAPABILITIES

ADMINISTRATOR OPTIONS

The *Innovyze® Inc. Floating Seat License Manager* dialog box as shown below consists of the *License Administration* tab and the *Check Out Status* tab.

- The *License Administration* tab allows you to register a floating license on the server and provides the option of viewing floating licenses that have been installed on the server.
- The *Check Out Status* tab shows the License Administrator how many licenses are being used at any time.

LICENSE ADMINISTRATION TAB

The License Administrator has the option of installing, renewing, or upgrading all of the licenses purchased. The products that have been installed are listed in the Registered Floating Seat License section.

- CD Key: Stores information regarding size of license and annual maintenance due date
- Product Name: The name of the registered product on server.
- Number of Seats: The number of users that can check out the license at one time.
- Number of Links: The number of links available to the user.
- Available Seats: The number of seats that have not been checked out to a user.
- Suite: Yes/No
- Expiration: The last day the license will be valid.
- Refresh: Update the Available Seats portion of the dialog box.
- New: Install a new license.
- Apply: Apply the upgrade or renewal to the current license.
- Remove: Remove the license from list. Unlike Deactivation, the license may be re-applied at a later date.
- Deactivate: Launches the Deactivation dialog. From this dialog you may create a Deactivation Key required for transferring floating licenses to another server or fixed licenses to another computer.
- Close: Close the dialog box
- Request License Key On-line for Activate, Renew or Upgrade your license as described below.
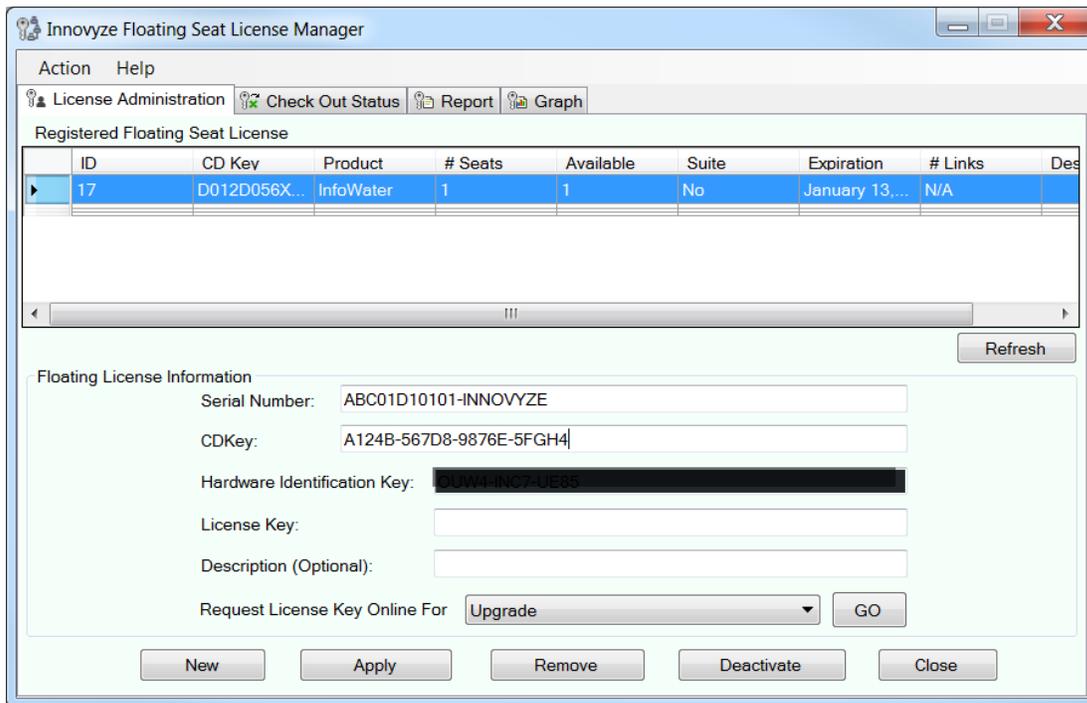
To Activate, Renew or Upgrade a floating seat license, click the *GO* button to open an Internet browser which will display a form that you may fill in with the appropriate contact information and required license information. When you click on the *SUBMIT* button an e-mail will be sent to Innovyze® Inc. and Innovyze® Inc. will then e-mail the License Key required to unlock the software.

FLOATING SEAT DEACTIVATION

On occasion (e.g. license transfers) you may be asked to deactivate a license that is no longer in use. This will generate a Deactivation Key which you will need to supply to Innovyze® Inc. in order to receive the appropriate technical support. Click on the Deactivate button at the bottom of the Floating Seat License Manager to get to the Deactivation dialog. Once you are sure that you want to deactivate the license, click on the Deactivate License button. You will be prompted one last time before your license is deactivated on the current machine.

- Deactivating CD Key: Displays the CD Key associated with the license to be deactivated.
- Deactivating Serial #: Displays the Serial Number associated with the license to be deactivated.
- Deactivate License: Press this button to deactivate the currently selected license. You will not be able to deactivate the license if it is currently checked out.
- Close: Select this button to close this dialog box

Once you have deactivated your license, you will see the screen below. Please make note of this deactivation key. It is suggested that you both save your deactivation key to a file using the generator provided and submit it to Innovyze® Inc. online. Please contact us if you do not have access to the internet.

- Deactivating CD Key: Displays the CD Key associated with the license to be deactivated.
- Deactivating Serial #: Displays the Serial Number associated with the license to be deactivated.
- Deactivation Key: Displays the Deactivation Key for this license. A valid Deactivation Key is required for the deactivation verification.

- Save the Key Above To the Following File: Displays the text (.txt) file name and folder that will be created with the deactivation information and key. Click the "..." to browse to a location.
- Save Key to File: Writes the Deactivation Key, CD Key, Serial Number and current time to the file specified above.
- Submit the Key Online: Sends your deactivation key to the Innovyze® Inc. contact page.
- Close: To close this dialog box

CHECK OUT STATUS TAB

This dialog box below shows the License Administrator tab which contains the licenses that have been checked out and their associated details.

- Product Name: Displays the registered product on server.
- Number of Links: Shows the number of links available to the user.
- Who: Displays the computer network name, login name, and session name (if applicable) of the user who has checked out license.
- Check Out Time: Displays the date and the time that license was checked out
- Check Out Method: Displays the check out method as either Per Session or Per Day (including the check-out number of days).
- Refresh: Updates the dialog box with the software that is currently checked out.
- Close: Close this dialog box.
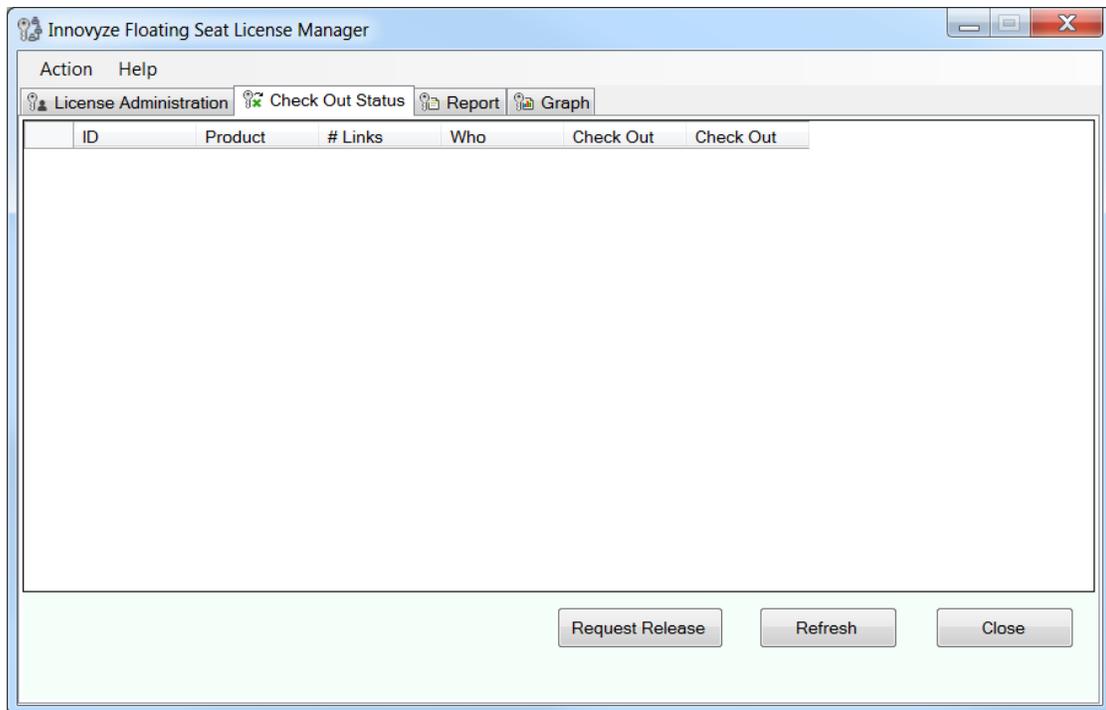
REPORT TAB

The Report Tab dialog box displays a log of the managers' activity. The Report tab shows latest 10,000 records for every check out/in action. Each record includes following information:

- Date Time - Date and time of the license operation
- CD Key - CD Key of the license involved
- Check Out Time - Time of check out
- Action - Indicates the action of the license operation.
- Who - Computer name that initiated the license action.
- Results - Displays the results of the license action.
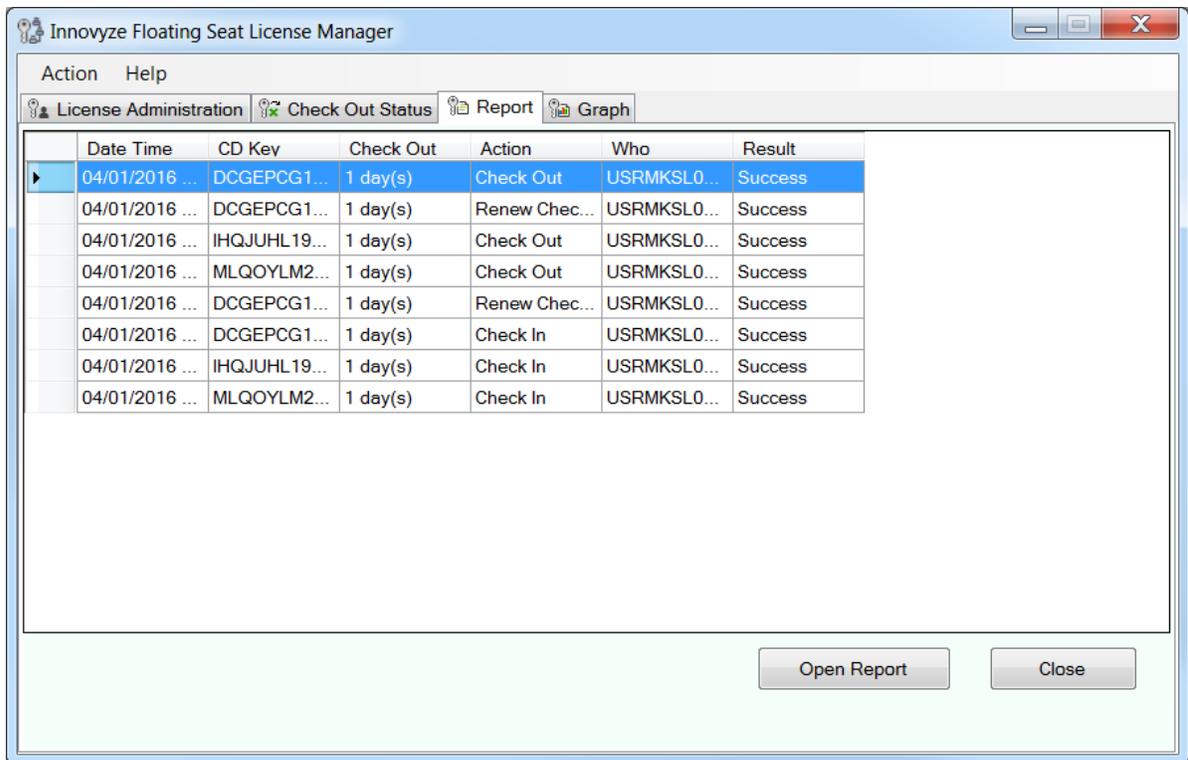
GRAPH TAB

The Graph tab shows the statistics based on the Report records and represent the results in chart format.

There are two kinds of statistics:

1. Maximum Number for Concurrent Session Check Out by Days - This graph shows each day's maximum of concurrent check out number for "Per Session Check Out" for selected CD key

2. Total Number for Unique Session Check Out Users By Days - This graph shows how many users perform "Per Session" checking out, checking in for each day of the selected CD key.
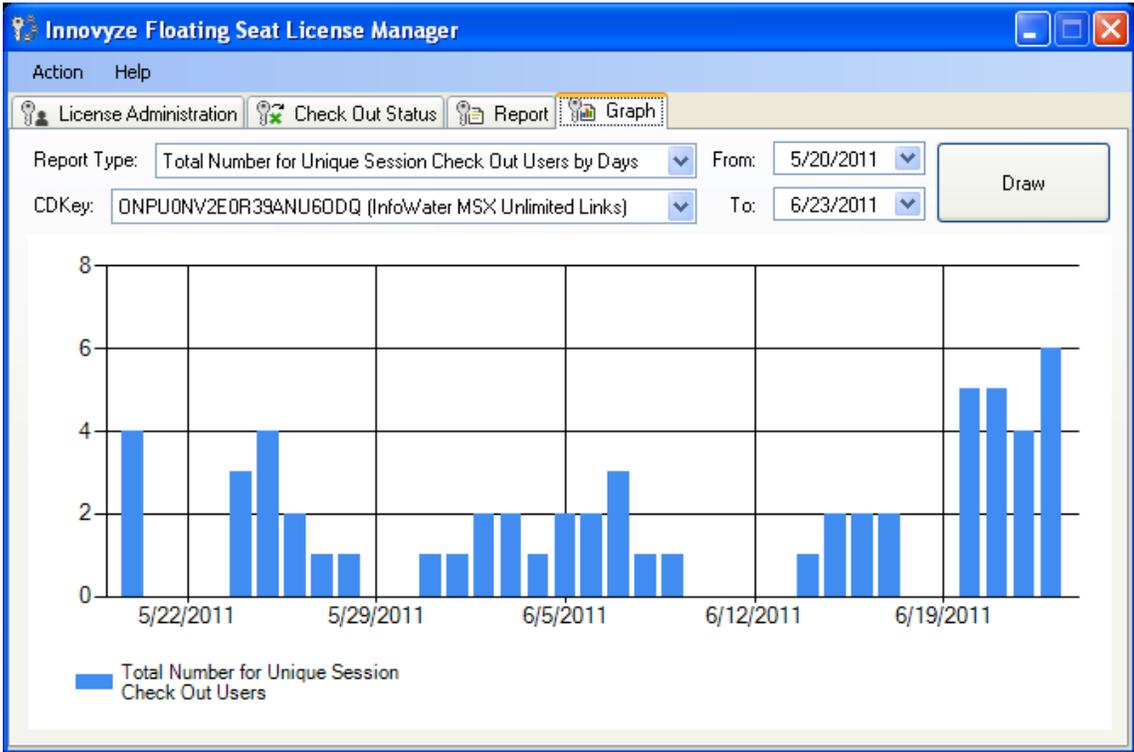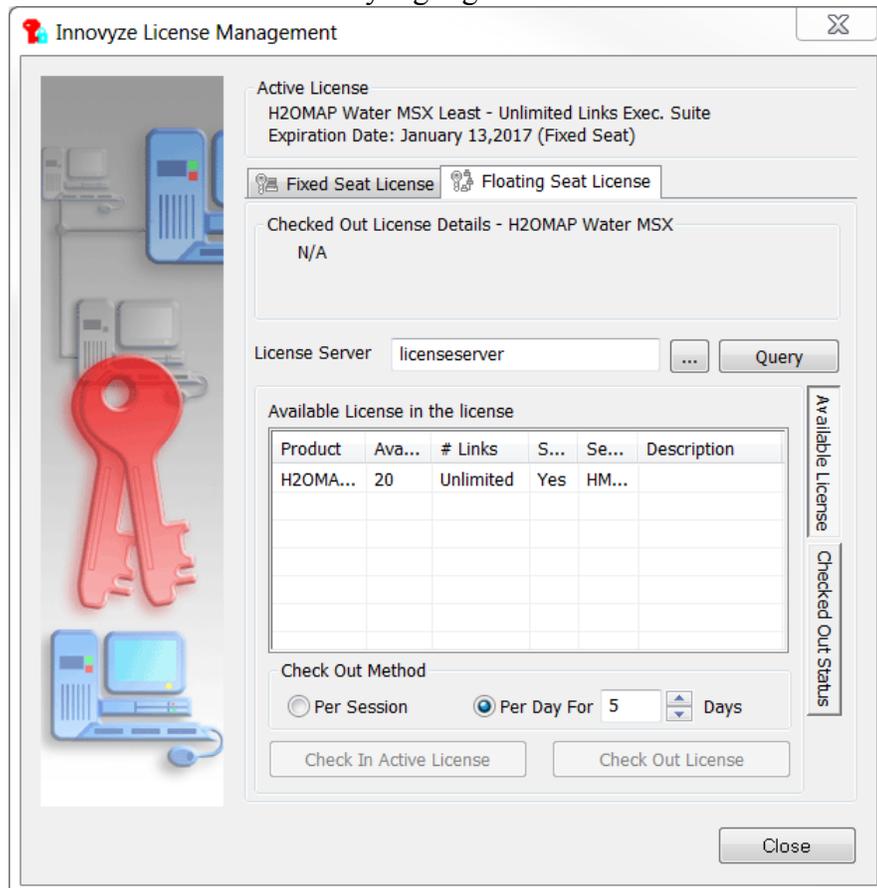
FLOATING SEAT LICENSE - CLIENT

The floating seat license uses licenses pre-installed on the license server. Users have the capability of checking-in and checking-out a floating seat license from the server up to the maximum number of concurrent users permitted by the license.

The *Available License* sub tab of the *Floating Seat License* tab of the *Innovyze® Inc. License Management* dialog box shown below lists the floating seat licenses that are available to be checked out by the client. A floating seat license is available two different ways, either Per Session or Per Day.

- License Server: The server where the software files are located. This may be the network name for a Windows network or it may be an IP address for all networks.
- Browse: The browse button allows the user to browse for the appropriate server on a Windows network.
- Query: Allows the user to view the licenses available at the current time.
- Product: Registered product on the server.
- Available Seats: Number of seats still able to be checked out.
- Number of Links: Number of links available to the user.
- Suite: Select Yes or No
- Check In Active License: Checks in a checked out Per Day floating seat license.
- Check Out License: Checks out the currently highlighted license.

The actual floating seat licenses must be installed on the server by the Administrator.

CHECKING OUT A LICENSE

To check out a product license, type the name of the server where the software is stored into the License Server field of the *Floating Seat License* tab. Press the *QUERY* button to view how many software licenses of each product are available. Highlight the software of your choice and select the Check Out Method (Per Session or Per Day).

Per Session - The Floating Seat License Manager will automatically check-out the license upon opening the application and check-in the license upon termination of the application.

Per Day - The Floating Seat License Manager will check out the license for a specific number of days. The maximum number of days the license can be checked-out is 14. If your check-out time expires, when you click the *RUN* button of the *Run Manager* dialog box, you will be informed that the license has expired and you will have to return to the License Manager to check it out again for a specific number of days or on a per session basis. Through this option you can check the license out to a laptop and use it in the field (or reserve it for exclusive use on one computer) as long as it is returned to the license manager before the expiration date.
Select the *CHECK OUT LICENSE* button to have access to the software that you have chosen and to remove it from the pool of available licenses.

CHECKED OUT STATUS - CLIENT

The *Floating Seat License* tab of the *Innovyze® Inc. License Manager* dialog box has a second sub tab to the right called the *Checked Out Status* tab. A normal user may see what users have licenses for a selected project already checked out from the queried server.

- Product Name: Displays the name of the checked out product license.
- # Links: Displays the maximum number of links supported by the checked out license.
- Suite: Displays Yes or No.
- Who: Displays the computer network name, login name, and session name (if applicable) of the user who has checked out the specified license
- Check Out Time: Displays the time that the license was checked out
- Check Out Method: Displays either the number of days the license was checked out or a Per Session notice.
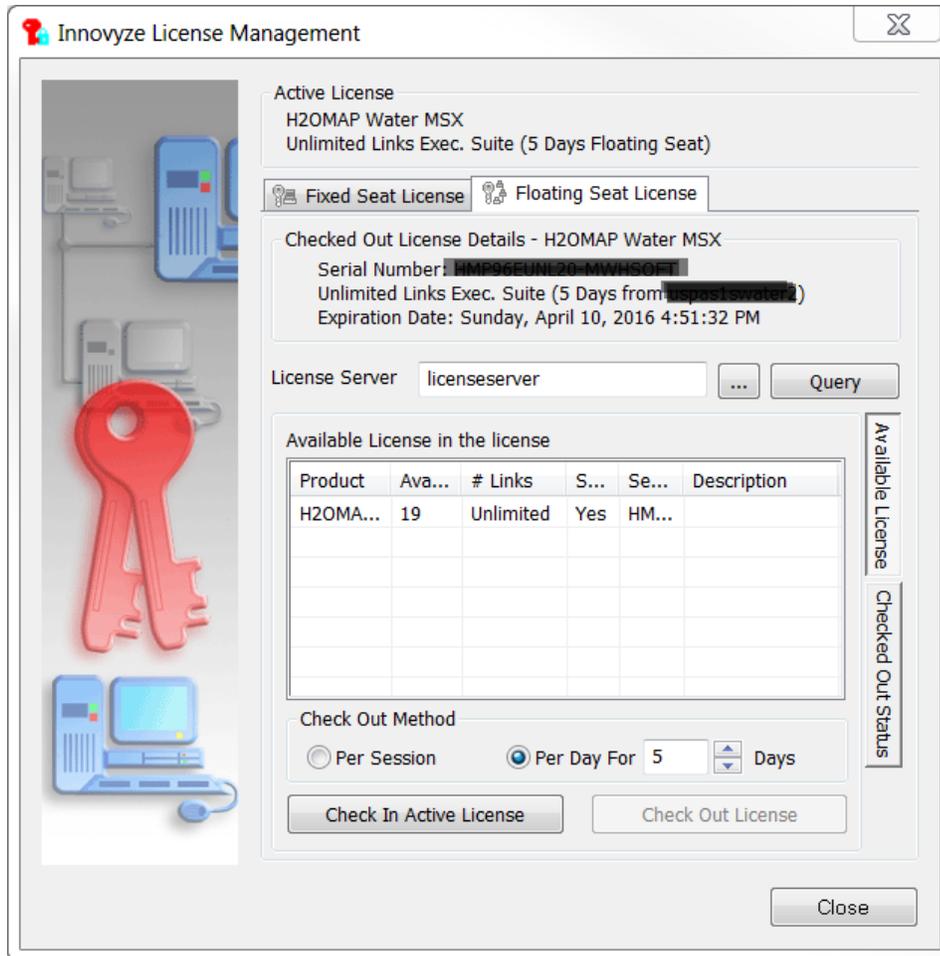
TROUBLE SHOOTING

Frequently Asked Questions

I checked out a floating license for certain number of days, and then I uninstalled my software. Is there a way to recover that floating license?

- To recover the license, the user needs to reinstall the software, check out the same license again from the server and check it back in.

What if I am unable to recover a floating seat license after a client checked it out for 14 days?

- If the client installation is lost. The user needs to contact Innovyze® Inc., Inc to recover the license.

I am getting "Permission denied" or "ActiveX can't create object" or the client side does not respond when I click *QUERY*.

Check to see that the port is correctly configured and available:

- Make sure the port specified in *HnLicConf.ini* on the server and *HnLicConfig.ini* on the client is the same. By default they are both set to 5367. If the port was recently changed, make sure that the Innovyze License Service has been stopped and restarted since the change.
- If there are firewalls or similar security features in use, make sure they are allowing traffic through the specified port. See your firewall documentation for more information.

Check to see that the service is running on the License Server's server:

- Go to the Windows Control Panel, select Administrative Tools and double click on the Services shortcut.
- Look for the Innovyze License Service. Make sure that the Status is set to "Started" and the "Log On As" account is either an Administrator account or Local System.
- If you do not see the Innovyze License Service, try rebooting.
- If you need to change the "Log On As" account, right-click on the Innovyze License Service and select "Properties" in the menu.
- Select the Log On tab from the Properties dialog. Either select the radio button next to Local System account or select This Account and input the username and password of an account in the Administrator Group. Click OK.

Check for software compatibility:

- Older versions of our software may not support the floating license. If you are installing from an older CD, contact Innovyze® Inc., Inc. for a new installation link.

If you are still having connection problems:

- Download Filemon from *http://www.sysinternals.com*, it is a freeware program that allows the user to capture file access events.
- Run filemon.exe from the server
- Go to File, select Capture Event
- From the client computer, reproduce the connection problem.
- From the server computer, go to File and select Capture Event again to stop the capture.
- Search for "ACCESS DENIED" or try to spot a problem related to *HnLicServer.exe*

1.4 USING FLOATING SEAT LICENSE MANAGER ON-LINE DOCUMENTATION

The Floating Seat License Manager documentation is provided in an on-line help format. The on-line documentation delivers extensive information about modeling and data management within the Innovyze® Inc. Floating Seat License Manager. The documentation includes several topics, each including descriptions, illustrations, and diagrams describing the features of the Innovyze® Inc. Floating Seat License Manager. The on-line help offers the ability to rapidly search for a desired topic or to move

between related topics in a fast, efficient manner. An extensive index is available allowing you to search on any number of words, phrases, or commands.

NAVIGATING HELP

Use either the Innovyze® Inc. Floating Seat License Manager's Help Contents or the Index function to navigate to the desired topic. Choose the *HELP TOPIC* button in the upper left-hand corner of the Help window to access the Help Contents and Index. Embedded in the text of each topic are numerous *jumps* to other related topics. These are identified as *hyperlinks*, underlined blue text. Simply touch the desired jump text with the mouse to immediately move to the related topic.

PRINTING HELP TOPICS

You may print any Floating Seat License Manager Help topics that you desire. To do so, right-click on the page that you would like to print and a menu will appear. Select „Print" from this menu. It is not recommended that you print the entire suite of Help topics. Instead, print only those topics that are of interest to you or only those that are of importance to your work.

1.5 TECHNICAL SUPPORT

We are committed to quality software and superior customer support. If you need assistance beyond the On-line Help, please contact us at:

> Technical Support Line: (626) 568-6868 or (626) 568-6869
> Fax: (626) 568-6870
> E-Mail: Innovyze@Innovyze.com : support@Innovyze.com
> Internet: http://www.Innovyze.com/

For international support, please contact your local Innovyze® Inc. Certified Representative.

We will occasionally create interim updates that contain fixes and/or new features. These interim updates will be available as patches on our Internet Web site (under *Support*) with complete instructions for applying them to the software. To get to our home page, just point your Web browser to the internet address listed above.

NOTE: *Please do not forget to renew your Annual Maintenance Agreement (subscription program) to take full advantage of future enhancements, updates, upgrades, and technical support.*