

## **NI Volume License Manager Help**

June 2007, 370967C-01

NI Volume License Manager (NI VLM) helps you manage and administer your National Instruments licenses.

For more information about this help file, refer to the following topics:

[Using Help](#)

[Glossary](#)

[Important Information](#)

[Technical Support and Professional Services](#)

To comment on National Instruments documentation, refer to the [National Instruments Web site](#).

© 2003–2007 National Instruments Corporation. All rights reserved.

## Using Help

[Conventions](#)

[Navigating Help](#)

[Searching Help](#)

[Printing Help File Topics](#)

## Conventions

This help file uses the following formatting and typographical conventions:

» The » symbol leads you through nested menu items and dialog box options to a final action. The sequence **File»Page Setup»Options** directs you to pull down the **File** menu, select the **Page Setup** item, and select **Options** from the last dialog box.



This icon denotes a tip, which alerts you to advisory information.



This icon denotes a note, which alerts you to important information.



This icon denotes a caution, which advises you of precautions to take to avoid injury, data loss, or a system crash.

**bold** Bold text denotes items that you must select or click in the software, such as menu items and dialog box options. Bold text also denotes parameter names.

**dark red** Text in this color denotes a caution.

green Underlined text in this color denotes a link to a help topic, help file, or Web address.

*italic* Italic text denotes variables, emphasis, cross references, or an introduction to a key concept. Italic text also denotes text that is a placeholder for a word or value that you must supply.

monospace Text in this font denotes text or characters that you should enter from the keyboard, sections of code, programming examples, and syntax examples. This font is also used for the proper names of disk drives, paths, directories, programs, subprograms, subroutines, device names, functions, operations, variables, filenames, and extensions.

**monospace bold** Bold text in this font denotes the messages and responses that the computer automatically prints to the screen. This font also emphasizes lines of code that are different from the other examples.

*monospace italic* Italic text in this font denotes text that is a placeholder for a word or value that you must supply.

## Navigating Help

To navigate this help file, use the **Contents**, **Index**, and **Search** tabs to the left of this window or use the following toolbar buttons located above the tabs:

- **Hide**—Hides the navigation pane from view.
- **Locate**—Locates the currently displayed topic in the **Contents** tab, allowing you to view related topics.
- **Back**—Displays the previously viewed topic.
- **Forward**—Displays the topic you viewed before clicking the **Back** button.
- **Options**—Displays a list of commands and viewing options for the help file.

## Printing Help File Topics

Complete the following steps to print an entire book from the **Contents** tab:

1. Right-click the book.
2. Select **Print** from the shortcut menu to display the **Print Topics** dialog box.
3. Select the **Print the selected heading and all subtopics** option.



**Note** Select **Print the selected topic** if you want to print the single topic you have selected in the **Contents** tab.

4. Click the **OK** button.

## Printing PDF Documents

This help file may contain links to PDF documents. To print PDF documents, click the print button located on the Adobe Acrobat Viewer toolbar.

## Searching Help

Use the **Search** tab to the left of this window to locate content in this help file. If you want to search for words in a certain order, such as "related documentation," add quotation marks around the search words as shown in the example. Searching for terms on the **Search** tab allows you to quickly locate specific information and information in topics that are not included on the **Contents** tab.

### Wildcards

You also can search using asterisk (\*) or question mark (?) wildcards. Use the asterisk wildcard to return topics that contain a certain string. For example, a search for "prog\*" lists topics that contain the words "program," "programmatically," "progress," and so on.

Use the question mark wildcard as a substitute for a single character in a search term. For example, "?ext" lists topics that contain the words "next," "text," and so on.




**Note** Wildcard searching will not work on Simplified Chinese, Traditional Chinese, Japanese, and Korean systems.

### Nested Expressions

Use nested expressions to combine searches to further refine a search. You can use Boolean expressions and wildcards in a nested expression. For example, "example AND (program OR VI)" lists topics that contain "example program" or "example VI." You cannot nest expressions more than five levels.

### Boolean Expressions

Click the  button to add Boolean expressions to a search. The following Boolean operators are available:

- **AND** (default)—Returns topics that contain both search terms. You do not need to specify this operator unless you are using nested expressions.
- **OR**—Returns topics that contain either the first or second term.
- **NOT**—Returns topics that contain the first term without the second term.
- **NEAR**—Returns topics that contain both terms within eight words of each other.

### Search Options

Use the following checkboxes on the **Search** tab to customize a search:

- **Search previous results**—Narrows the results from a search that returned too many topics. You must remove the checkmark from this checkbox to search all topics.
- **Match similar words**—Broadens a search to return topics that contain words similar to the search terms. For example, a search for "program" lists topics that include the words "programs," "programming," and so on.
- **Search titles only**—Searches only in the titles of topics.

## What's New in NI VLM 2.1

Refer to this topic for the latest NI VLM features.

### Add and Edit Custom Fields

Use custom fields to customize the information you request from your clients. Refer to [Managing Custom Fields](#) for more information.

### Create a Usage Log

Use the usage log to create a report that contains usage data and other information that you can analyze using common tools such as spreadsheets. Refer to [Managing the Usage Log](#) for information on how to enable usage reporting.

### Export User and Computer Information

Back up user and computer names and related data easily with [Exporting and Importing User or Computer Data from XML](#).

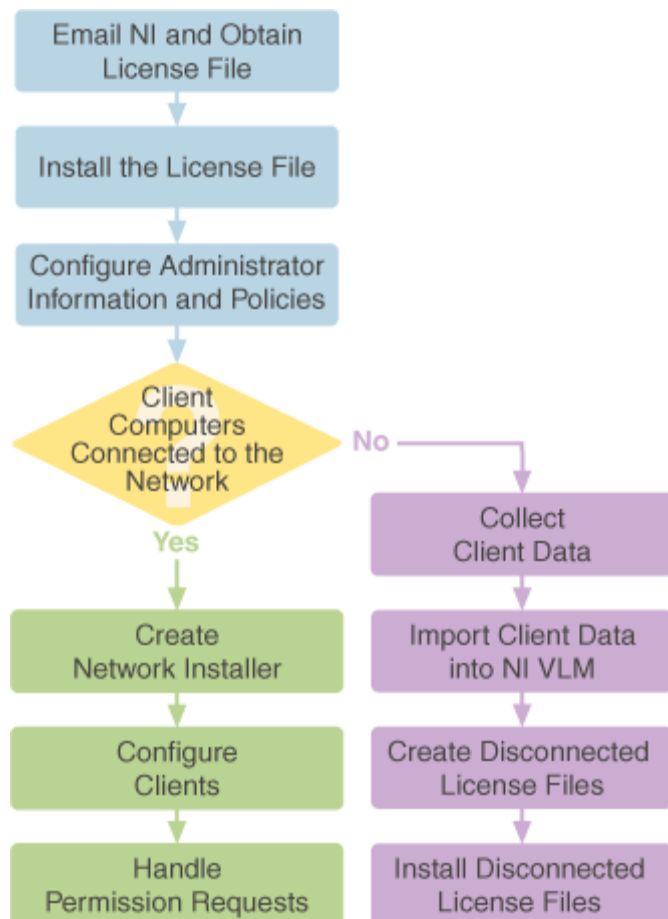
### Create Multiple Network Installers

Use the Create Network Installer wizard to create multiple network installers for a product in a single session. Refer to [Preparing Software for Network Installation](#) for more information on network installers.

### Create Multiple Disconnected Licenses

Create multiple disconnected licenses at once, instead of having to create them individually. Refer to [Creating Disconnected Licenses for Multiple Computers or Users](#) for more information.

## Getting Started with NI VLM



**Note** You must have Administrator privileges on the server in order to install and use NI VLM.



**Tip** Refer to [Getting Started with NI VLM](#) to view tutorials on many of these topics.



← **Previous Step**  
[Getting Started with NI VLM](#)

**Home**  
[Getting Started with NI VLM](#)

**Next Step** →  
[Install the License File](#)

## Email NI and Obtain a License File

You must acquire a volume license file before you can administer software licenses from a volume license server.

1. Find your computer ID and server name by selecting the **Options»Display Computer Information** menu item.
2. Send your computer ID and [license server](#) name, as well as any other information required by your agreement, to your local National Instruments agreements representative at [agreements@ni.com](mailto:agreements@ni.com) to obtain your volume license file.



**Note** You can manage the volume license file only from the computer from which the [computer ID](#) was generated. Using your computer ID as a key ensures that your volume license file cannot be copied and used by anyone else.

*National Instruments does not use this information for any other purpose than generating the license file.* You can find the National Instruments privacy policy regarding your personal information at [ni.com/license/privacy](http://ni.com/license/privacy).



← **Previous Step**  
[Email NI and Obtain a License File](#)

**Home**  
[Getting Started with NI VLM](#)

**Next Step** →  
[Configure Administrator Information and Policies](#)

## Install the License File

Once NI has sent you a volume license file, launch NI VLM and use one of the two following methods to install the new license file:

- Select the **Options»Install License File** menu item (or press **<F8>**) and select the license file to install.
- Drag and drop the license file anywhere onto NI VLM.

NI VLM updates to reflect the addition of the new license file.

## Reference

Refer to [Installing a License File](#) for more information on this topic.



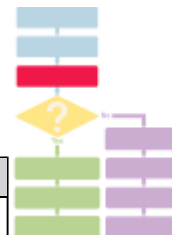
[← Previous Step](#)  
Install the License File

[Home](#)  
Getting Started with NI VLM

[Next step →](#)  
Manage Clients

## Configure Administrator Information and Policies

To configure administrator information and set server policies, launch NI VLM (**Start»All Programs»National Instruments»NI Volume License Manager**) and select the **Options»Preferences** menu item.



Setting	Description
<a href="#">Enable the Usage Log</a>	Enable or disable the usage log. The usage log contains usage information of NI VLM-controlled software, such as check-in and check-out events, along with relevant client information.
<a href="#">Configure NI VLM Ports</a>	Change the port on the server that hosts your National Instruments licenses.
<a href="#">Set Administrator Information</a>	Enter administrator information, including name, phone, email, and URL. This information is included in any installers you create with the <a href="#">Create Network Installer wizard</a> .
<a href="#">Set Overdraft Policies</a>	Enable the ability to add new licenses to your volume license agreement.
<a href="#">Enable Technical Support for End Users</a>	Set policies that affect how you interact with your agreement and your obligations to NI.
<a href="#">Configure Custom Fields</a>	Configure custom fields to store information about users and computers.

[← Previous Step](#)  
[Configure Administrator Information and Policies](#)

[Home](#)  
[Getting Started with NI VLM](#)

[Next Step →](#)  
[Configure the NI VLM Port](#)

## Enable the Usage Log

Complete the following steps to turn on the usage log:

1. Select the **Options»Preferences** menu item.
2. Select the **General** tab.
3. Select the **Enable Usage Log** checkbox.

### Reference

Refer to [Managing Usage Logs](#) for more information on this topic.



[← Previous Step](#)  
[Configure Administrator Information and Policies](#)

[Home](#)  
[Getting Started with NI VLM](#)

[Next Step →](#)  
[Set Administrator Information](#)

## Configure the NI VLM Port

Complete the following steps to change the port of the server that hosts your National Instruments licenses.

1. Select the **Options»Preferences** menu item.
2. Select the **General** tab.
3. Enter the port you want to use in the **License Server Port** option. The default port number is 27000. Ports range from 1-64000, inclusive.
4. Click **OK**.



**Note** Ensure that any firewalls allow communication on the NI VLM port you select open and that no other programs are using these ports. Also, ensure that the firewall allows communication on the NI VLM background process port. For more information, refer to [Changing the NI VLM Background Process Port](#).

## Reference

Refer to [Configuring NI VLM Ports](#) for more information on this topic.

[← Previous Step](#)  
[Configure Administrator Information and Policies](#)

[Home](#)  
[Getting Started with NI VLM](#)

[Next Step →](#)  
[Set Overdraft Policies](#)

## Set Administrator Information

Complete the following steps to set administrator information in NI VLM:

1. Select the **Options»Preferences** menu item.
2. Select the **Administrator** tab.
3. Complete the **Name, Phone, Email,** and **URL** fields.
4. Click **OK**.

This information is distributed to your clients through [network installers](#).

### Reference

Refer to [Preparing Software for Network Installation](#) for more information on this topic.



[← Previous Step](#)  
[Configure Administrator Information and Policies](#)

[Home](#)  
[Getting Started with NI VLM](#)

[Next Step →](#)  
[Enable Technical Support for End Users](#)

## Set Overdraft Policies

Complete the following steps to set overdraft policies:

1. Select the **Options»Preferences** menu item.
2. Select the **Policies** tab.
3. Check **Allow Overdraft** if you want to allow [overdraft](#). This setting applies to all products in your license file, except when specified.



**Note** This setting does not apply to products in your volume license agreement that use concurrent licenses.

4. Check **Enable Pay-As-You-Go** if you want to enable pay-as-you-go.

### Reference

Refer to [Setting Policies](#) for more information on this topic.



[← Previous Step](#)  
[Configure Administrator Information and Policies](#)

[Home](#)  
[Getting Started with NI VLM](#)

[Next Step →](#)  
[Set Custom Fields](#)

## Enable Technical Support for End Users

Complete the following steps to enable your users to contact National Instruments for technical support:

1. Select the **Options»Preferences** menu item.
2. Select the **Policies** tab.
3. Ensure that **Include Owner Information in Activity Compliance Log for Technical Support** is checked.
4. Click **OK**.



### Reference

Refer to [Setting Policies](#) for more information on this topic.



[← Previous Step](#)  
[Configure Administrator Information and Policies](#)

[Home](#)  
[Getting Started with NI VLM](#)

[Next Step →](#)  
[Configure Administrator Information and Policies](#)

## Set Custom Fields

Complete the following steps to configure custom fields for user information:

1. Select the **Options»Preferences** menu item.
2. Select the **Custom Fields** tab.
3. **Add, Delete,** or **Rename** fields as desired.
4. Highlight any field and click **Require** to select whether the field is required or optional.



**Note** All fields are optional when you add a computer or user from within NI VLM, regardless of this setting.

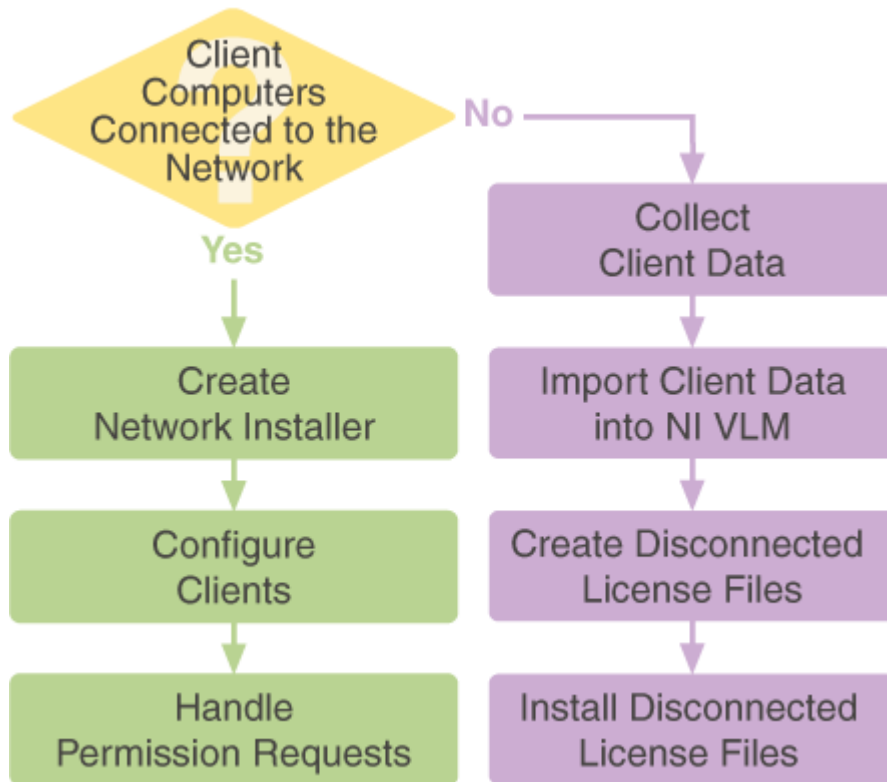
5. Click **OK** when you are finished.

## Reference

Refer to [Managing Custom Fields](#) and [Preparing Software for Network Installation](#) for more information on this topic.



## Manage Clients



[← Previous Step](#)  
[Manage Clients](#)[Home](#)  
[Getting Started with NI VLM](#)[Next Step →](#)  
[Configure Clients](#)

## Create Network Installer

Transform your standard NI software installers into installers suitable for installation by your end users. This operation modifies the installer to configure client computers to checkout licenses from your license server and includes the contact information you entered in the [Set Administrator Information](#) step. This installer can also optionally send a permission request containing the custom fields defined at the time of network installer creation back to the server when the client installs the software. This installer is referred to as a [network installer](#).



Use the Create Network Installer wizard (**Options»Create Network Installer**) to copy your National Instruments installer to a local or shared network drive and make the appropriate changes to the installer.

Distribute the modified installer within your organization either by using a shared network drive or copying this new product installer image to a CD, DVD, or USB drive. Because the use of this software is always governed by NI VLM, you can freely distribute the installer.

For more information about distributing your software (such as using Microsoft SMS), refer to [ni.com/info](http://ni.com/info) and enter info code rddviu.

### Reference

Refer to [Preparing Software for Network Installation](#) for more information on this topic.



**Tip** Refer to

to view a tutorial on this topic.

## Configure Clients

Follow these general instructions to configure client computers to point to the NI VLM server.



**Note** These instructions must be completed on client computers.



### NI Software Not Installed

When a client computer runs a network installer, the user must enter the information requested in the dialog following the installer. No additional client computer setup is necessary.

### NI Software Already Installed

If a client computer already has NI software installed, you can either have the user run the NI VLM client network installer (`vlmclient.exe`) to obtain and submit user information, point the client computer to the NI VLM server, and automatically ask for permissions, or you can manually configure the client computer to point to a network server. Manually configuring a client does not add any NI VLM administrator information to the client computer and does not send a permission request to the NI VLM server.

#### Automatically Configuring a Client Computer

Have your end users complete the following steps to automatically configure a client computer:

1. Navigate to the `DestinationParentDirectory\ProductName\NetworkInstaller` directory and open the `Client` directory. For example, if the destination parent directory name is `Installers`, the product name directory is `LabVIEW 8.0`, and the network installer directory is `Fourth Floor Engineering`, open `Installers\LabVIEW 8.0\Fourth Floor Engineering\Client\`.
2. Launch `vlmclient.exe`, located within the `Client` directory, to send a permission request to the volume license server.
3. Note the administrator information and enter any requested information.
4. Click **Finish**.

#### Manually Configuring a Client Computer

Have your end users complete the following steps to manually configure NI License Manager to connect to NI VLM:

1. Launch NI License Manager from the **Start»All Programs»National Instruments»NI License Manager** menu.
2. Select the **Options»Preferences** menu item.
3. Select the **Use Network License Servers** checkbox.
4. Enter the names of the network servers, separated by commas, on which your NI products should check for licenses. You can enter either a server name, the server's network name, or the server's IP address. You can also configure your products to look at a specific port on a network server. Enter the network server name followed by colon and the port number: `server[:port]`. For example:

```
server
server:27000
server.domain.com:28432
127.0.0.2
```

are all legal server names. When no port is specified, 27000 is implied. Ports range from 1-64000, inclusive.

5. Click **OK**.

## Reference

Refer to [Preparing Software for Network Installation](#) for more information on this topic.

Refer to *NI License Manager Help* for more information on connecting a client computer to NI VLM. You can access *NI License Manager Help* from NI License Manager's **Help»Contents** menu item.

[← Previous Step](#)  
[Configure Clients](#)

[Home](#)  
[Getting Started with NI VLM](#)

## Handle Permission Requests

The permission queue, located at the bottom of the NI VLM interface, displays a list of users and computers that have requested permission to check out selected licenses. If a client computer connected to the network runs a network installer and that network installer includes a permission request, a permission request appears in the [permission queue](#) if the NI VLM server is running.

You can choose to accept or reject a permission request. If the request is accepted, all of the computer and user information is imported into NI VLM, and the permission for the software product is granted. If you deny the request, no information is imported into NI VLM.



### Reference

Refer to [Handling Permission Requests](#) for more information on this topic.

[← Previous Step](#)  
[Manage Clients](#)[Home](#)  
[Getting Started with NI VLM](#)[Next step →](#)  
[Import Client Data into NI VLM](#)

## Collect Client Data

Complete the following steps to use NI VLM Import Utility to collect computer or user information that you can import into NI VLM. Use this procedure to collect information from computers not on a network.



**Note** These steps must be completed on client computers.

1. Run `nivlmImportUtility.exe` on the computer you want to add to NI VLM. You can find the utility in the `National Instruments\Volume License Manager\Import Utility\` directory. This utility creates an XML file that stores the end user or client computer information.



**Note** NI VLM Import Utility uses an XML file, `nivlmImportUtility.xml`, to determine the custom fields that are available, which fields end users must complete, and which are optional. `nivlmImportUtility.xml` updates whenever you change [custom fields](#).

If you copy NI VLM Import Utility to another location, such as a network drive, you must copy `nivlmImportUtility.xml` to the same location. If you modify the custom fields, you must copy the updated `nivlmImportUtility.xml` to where you use NI VLM Import Utility.

2. Click **Submit Information** and enter information about the user or computer.
3. Save the file in a common place, such as a network location, or instruct the clients to email the file to you.
4. Repeat these steps for each user or computer you want to add to NI VLM.

## Reference

Refer to [NI Volume License Manager Import Utility](#) for more information on this topic.

## Import Client Data into NI VLM

Complete the following steps to import client data into NI VLM:

1. From within NI VLM, select **Options»Import Users and Computers**.
2. Browse to the location of the files and select all the files with an XML extension that you want to import. You can select multiple files by holding the <Ctrl> key as you make your selections.
3. Click **Open**.



Once the client data has been imported, you can now assign permissions to clients and computers, based on your license agreement. For more information, refer to [Managing Users and Named-User Permissions](#) and [Managing Computers and Computer-Based Permissions](#).

### Reference

Refer to [NI Volume License Manager Import Utility Concepts](#) for more information on this topic.

## Create Disconnected License Files

You can create disconnected license files for client computers that are not regularly connected to your network.



**Note** If you need to create a number of disconnected license files at once, refer to [Creating Disconnected Licenses for Multiple Computers or Users](#).



If your license agreement contains [named-user](#) licenses, complete the following steps to create a disconnected license file:

1. Expand the **Computers** node.
2. Right-click on each computer to be disconnected and select **Properties**.
3. On the **Users** tab, check all end users who will use this computer once disconnected. Ensure that the **Users** tab lists all necessary end users. If you need to add users, refer to [Managing Users and Named-User Permissions](#).
4. Click **OK**.
5. Right-click on each computer to be disconnected and select **Disconnect**.
6. Select the expiration date for the disconnected license file and then click **OK**.
7. Select the filename and location to save the file and click **Save**.

If you are using [computer-based](#) licensing, complete the following steps to create a disconnected license:

1. Expand the **Computers** node.
2. Right-click on each computer to be disconnected and select **Properties**.
3. On the **Computer-Based Permissions** tab, select all software that this computer is licensed to use once disconnected.
4. Click **OK**.
5. Right-click on each computer to be disconnected and select **Disconnect**.
6. Select the expiration date for the disconnected license file and click **OK**.
7. Select the filename and location to save the file and click **Save**.

You now have a disconnected license file that a user can install on disconnected computers.

### Reference

Refer to [Creating Disconnected License Files](#) for more information on this topic.



[Previous Step](#)[Create Disconnected License Files](#)[Home](#)[Getting Started with NI VLM](#)

## Install Disconnected License Files

When installing a disconnected license file on a client computer, you have two options: installing disconnected licenses using NI VLM Import Utility or using NI License Manager.

Complete the following steps to install the disconnected license file using NI VLM Import Utility:

1. Save the disconnected license file in the same storage location as NI VLM Import Utility.
2. Launch NI VLM Import Utility on the target disconnected computer.
3. Click **Install License Files** to automatically copy and install the correct license files onto the client computer.

Complete the following steps to install a disconnected license file using NI License Manager:

1. Open NI License Manager by selecting **Start»All Programs»National Instruments»NI License Manager**.
2. Choose **Options»Install License File** from the menu.
3. Select the disconnected license file and click **OK**. You can also install the license file by dragging-and-dropping the file into the NI License Manager user interface.

## Reference

Refer to [Creating Disconnected License Files](#) for more information on this topic.



## What Do You Want to Do?

Select the topic you want to learn more about.

[NI VLM Environment](#)

[Understanding the NI Software License Agreement](#)

[Getting Started](#)

[Video Tutorials](#)

[Glossary](#)

### Common Tasks

[Installing a License File](#)

[Setting Policies](#)

[Preparing Software for Network Installation](#)

[Handling Permission Requests](#)

[Managing the License Server](#)

[Managing Permissions](#)

[Creating Disconnected License Files](#)

[Automatically Reconnecting Disconnected Computers](#)

[Creating Home License Files](#)

[Using NI Volume License Manager Import Utility](#)

[Importing User or Computer Data from XML](#)

[Managing Locally Installed NI Software](#)

[Renewing Expired Agreements](#)

## Handling Permission Requests



**Tip** Refer to

to view a tutorial on this topic.

When preparing software for installation using NI VLM's [Create Network Installer wizard](#), you can select whether to allow client computers or users to ask for permission automatically upon installation of the software.

### Enabling Automatic Permission Requests

Enable automatic permission requests when you create network installers using the Create Network Installer wizard. Select **Send end user information back to the server and allow client computers to request permissions for the following products**.

When an end user runs the modified product installer, the installer presents the end user with a dialog box that requests their user information and sends that information along with the permissions request to the selected server.

### Creating Automatic Permission Requests

If you want to create automatic permission requests yourself, you can create XML files that contain any custom fields you have configured as well as permission information. Follow these general steps to create a sample XML file you can use as a template:

1. Launch NI VLM.
2. [Install a license file](#), if necessary.
3. [Start the server](#).
4. Configure any [custom fields](#).
5. Create a [network installer](#).
6. Navigate to the `DestinationParentDirectory\ProductName\NetworkInstaller` directory and open the `Client` directory.
7. Launch `vlmclient.exe`, located within the `Client` directory, to create a permission request.

You can find the newly created XML file in the `National Instruments\Volume License Manager\Permission Queue` directory. Use this file as a template to create additional permission requests.

Save your permission request files with a unique name and place them in the `National Instruments\Volume License Manager\Permission Queue` directory. The permission request automatically appears in the NI VLM Permission Queue to either be automatically or manually processed.

### Handling Requests

You can select whether you want to process each request manually or let the server handle requests automatically.

To automatically process these requests in NI VLM, set the preference (**Options»Preferences**) to automatically import permission requests.

If you choose to have NI VLM process requests automatically, the user or computer is added to the Volume Licenses tree automatically if enough seats are available. If there are no permissions available or if there are any other problems with the request, it remains in the Permission Queue until you can process the request manually.

If you choose to process requests manually, the requests are placed in the Permission Queue, where you can accept or reject requests on an individual basis.

If you have enabled automatic request processing and NI VLM is running when a request comes in, it appears in the Permission Queue. You can then process the request manually or you can allow the request to process automatically after you exit NI VLM.



**Note** Press and hold the <Ctrl> or <Shift> keys to select multiple permission requests.

For more information on users and computers, refer to [Managing Permissions](#).

## Managing Custom Fields

Use custom fields to store as much information about computers and users as you need. These fields propagate wherever the fields can be seen or edited, including permissions, usage logs, and so on.

Custom fields affect users and computers equally. For example, if you create a new field named `Building`, that new field appears in the properties of both **Users** and **Computers**.



**Note** Five prepopulated fields—Full Name, Phone, Email, Cost Center and Department—are required by default. The information in three of those fields—Full Name, Phone, and Email—are recorded in the activity compliance log and are necessary for NI to provide better [technical support](#). Changing Cost Center and Department affects the data recorded in the [usage log](#). For example, if the Department field is deleted, that information will never be logged in the usage log. NI recommends that you do not change these fields.

## Adding Custom Fields

Complete the following steps to add custom fields for user information:

1. Select the **Options»Preferences** menu item.
2. Select the **Custom Fields** tab.
3. Click the **Add** button to add a custom field.
4. Enter the field name.
5. Click **Require** to select whether the custom field is required or optional.



**Note** All fields are optional when you add a computer or user from within NI VLM, regardless of this setting.

6. Click **OK** when you are finished adding custom fields.



**Note** Multiple fields with the same name are not allowed.

## Deleting Custom Fields

Complete the following steps to delete a custom field:

1. Select the **Options»Preferences** menu item.
2. Select the **Custom Fields** tab.
3. Highlight a field on the list and click **Remove**.



**Note** Deleting a field deletes all data recorded for that field.

## Renaming Custom Fields

Complete the following steps to rename a custom field:

1. Select the **Options»Preferences** menu item.
2. Select the **Custom Fields** tab.
3. Highlight a field on the list and click **Rename**.
4. Enter the new name.



**Note** All data associated with a renamed field is retained.

For more information on how NI VLM uses custom fields, refer to the following topics:

- [Using NI Volume License Manager Import Utility](#)
- [Preparing Software for Network Installation](#)
- [Importing User or Computer Data from XML](#)

## Managing the Usage Log



**Tip** Refer to

to view a tutorial on this topic.

The usage log contains usage information of NI VLM-controlled software, such as check-in and check-out events, along with relevant client information.



**Note** Only certain custom fields are logged. Refer to [Managing Custom Fields](#) for more information.

### Enabling Usage Log Reporting

Complete the following steps to turn on the Usage Log:

1. Select the **Options»Preferences** menu item.
2. Select the **General** tab.
3. Check the **Enable Usage Log** checkbox.



**Note** If your volume license agreement has expired, usage logging will be disabled.

### Viewing Usage Logs

Select the **Options»View Usage Log** menu item to view the usage log in your default text editor. You can also open the file, which is located at `Program Files\National Instruments\Volume License Manager\nivlm.log` in a spreadsheet program. For additional ways to view usage data, go to [ni.com/info](http://ni.com/info) and enter the info code `rdawvn`.

### Usage Log Format

The usage log is stored in tab-separated value (TSV) format. You can import this file into Microsoft Excel or other spreadsheets for analysis.

### Resetting the Usage Log

To reset the usage log, navigate to the NI VLM directory (**Program Files»National Instruments»Volume License Manager**) and rename the current usage log, `nivlm.log`. NI VLM creates a new usage log the next time it logs an event.

## Installing a License File

You must install a new license file on your system every new agreement period or pay-as-you-go renewal to keep your license file current and not expiring. (For more information on expiring licenses, refer to [Renewing Expired Agreements](#).)

### Installing the Volume License File

The first time NI sends you a volume license file, launch NI VLM and use one of the two following methods to install the new license file:

- Select the **Options»Install License File** menu item (or press **<F8>**) and select the license file to install.
- Drag and drop the license file anywhere onto NI VLM.

NI VLM updates to reflect the addition of the new license file.

### Migrating to New License Files

When you install a new license file, NI VLM may prompt you to migrate any existing permissions for an older version of a product to a newer version of a product.

If this is the first time to install a license file with named-user permissions onto a previously configured NI VLM with computer-based permissions, you are prompted to migrate your previous computer-based licenses to named-user licenses.

NI VLM automatically creates users with temporary user names from previous computer-based licensed computer names. For example, a previous computer-based license file with a computer named `computer1` will create a temporary user name of `*** computer1's user`. Previous computer owner information and permissions previously assigned to the computer are assigned to this temporary user.



**Note** If you choose not to assign permissions to a temporary user, the temporary user will not be created.

After migration completes, NI VLM prompts you to edit each newly assigned user to assign the correct user names and permissions.

## Setting Policies

The Policies tab affects how you interact with your agreement and your obligations to NI. Depending on your agreement with National Instruments, you can follow the agreement strictly and use only those licenses purchased or you can allow end users to use licenses as needed and either select pay-as-you-go or pay for the licenses at a later date.

### Activity Compliance Log

NI VLM records into an activity compliance log all instances of policy and permissions changes, including overdrafts. You send this activity compliance log to National Instruments at the end of your agreement period. National Instruments then uses the information in the activity compliance log to determine how much, if anything, is owed on the extra licenses and maintenance for the coming agreement period and returns to you a new license file based on whether you renewed the agreement.

The activity compliance log includes the following information:

- All the information in the **Add User** dialog for each user and the date when each user was added, removed, or changed
- All the information in the **Add Computer** dialog for each computer and the date when each computer was added, removed, or changed
- The date when permissions were added and removed from each user or computer
- The date when a computer was disconnected or a home license was created for a user
- The date when a computer that was disconnected is reconnected
- The contents of each volume license file that is used within NI VLM
- The overdraft percentage, if overdraft is enabled
- Whether pay-as-you-go is enabled
- Owner information, if you opted to include this information
- The date when NI VLM alerted the server administrator that the volume license file was going to expire

**Include Owner Information in Activity Compliance Log for Technical Support** records user's and computer owner's names, email addresses, and phone numbers. The end users then become qualified to receive technical support services included with your volume license agreement. After you have entered all your user names, save the activity compliance log (**Options»Save Activity Compliance Log**) and email it to National Instruments. Include in your email that you are sending the activity compliance log to submit the names of your users for technical support.



**Note** The Activity Compliance Log does not contain usage data. For information on usage, refer to [Managing the Usage Log](#).

### Overdraft

An [overdraft](#) is an agreement preference that enables you to allow more permissions than the agreement specifies. Refer to your license agreement for specific purchasing requirements and overdraft licenses options.

You can allow an overdraft of up to two times the number of licenses purchased with the agreement. The overdraft setting preference, along with the assignment of permissions beyond agreement limits, is noted in the activity compliance log that you send to National Instruments at the end of the agreement period. To set overdrafts, select the **Options»Preferences** menu item and select the **Policies** tab. Select the **Allow Overdraft** checkbox. This setting applies to all products in your license file, except those products that use concurrent licenses.

### Pay-As-You-Go

[Pay-as-you-go](#) reminds you to update your agreement every time a permission is set that takes advantage of overdraft. This preference is relevant only when you use the overdraft option. You should use this option when you want to purchase additional NI product licenses as you need them.

To enable pay-as-you-go, select the **Options»Preferences** menu item and select the **Policies** tab. Enable overdrafts and select the **Enable Pay-As-You-Go** checkbox. If you select pay-as-you-go, the license maintenance will be prorated to the end of your agreement. You do not need to select pay-as-you-go in order to enable overdrafts. If you do not select pay-as-you-go, you will be required to pay for additional licenses and maintenance at the end of your agreement period.

For more information on renewing agreements, refer to [Renewing Expired Agreements](#).

## Configuring NI VLM Ports

You can change two ports on the server that hosts your National Instruments licenses—the main NI VLM port and the NI VLM background process port. The main NI VLM port is the port clients use to communicate with NI VLM. The background port is used by background processes specific to NI VLM.

### Changing the Main NI VLM Port

Complete the following steps to change the main NI VLM port:

1. Select the **Options»Preferences** menu item.
2. Select the **General** tab.
3. In **License Server Port**, set the port you want to use.



#### Note

- If this port is not set to the default value of 27000, your end users must specify that port in their client's NI License Manager. The default port number is 27000. Ports range from 1-64000, inclusive. You can set this value automatically when you create end-user installers with the [Create Network Installer](#) wizard. If you change the port number after it has been set, each end user must update the port in their copy of NI License Manager.
- If your end users have installed NI software released prior to August 2005 and you want NI VLM to use ports other than the default, refer to the KnowledgeBase article [Can NI Volume License Manager or FLEXlm Run on a Configurable Port?](#) for more information.

4. Click **OK**.

### Changing the NI VLM Background Process Port

In addition to the port that hosts your National Instruments licenses, a background process specific to the NI VLM server runs on a randomly assigned port. You can determine which port the background process uses by examining the NI VLM debug log, which includes a line similar to `<timestamp> (lmgrd) nilm using TCP-port <port>`.

If you want to assign the `nilm` process to run on a specific port, you can edit the agreement license file you received from National Instruments. Change the `VENDOR nilm` line to include the port number you want to use. For example, if you wanted the `nilm` process to run on port 4000, modify the `VENDOR` line as follows: `VENDOR nilm PORT=4000` and save and close the agreement license file. Reinstall the modified license file and either restart the server or click **Apply Changes** in NI VLM.



**Note** This line is case sensitive. Make sure that `VENDOR` and `PORT` are all capital letters.

No changes are necessary for the client computer to work with the assigned `nilm` background process port.



**Note** Make sure that there are no other programs using the ports you choose and that any firewalls allow communication over the assigned ports.



## Managing the License Server

Use the License Server to manage volume licenses. The License Server consists of two processes, `lmgrd` and `nilm`. These processes run as a service and are managed by NI VLM.

To start an inactive server, click the **Start License Server** button on the NI VLM toolbar. To stop an active server, select the **Options»Stop License Server** menu item.

Using NI VLM, you can also:

- **View alerts**

Alerts notify you of the following events:

- The expiration of an agreement
- The addition of an overdrafted permission added in pay-as-you-go mode

Alerts occur only on the administrator's computer while NI VLM is running.

- **Record debug logs**

The debug log collects information on every license transaction that is not logged in the activity compliance log. You can use the information in the debug log to troubleshoot license check-out problems. You can find the debug log (`lmgrd.log`) in the `National Instruments\Shared\License Manager\Bin` directory. Restarting the license server clears the debug log.

For more information on agreement expiration and renewal, refer to [Renewing Expired Agreements](#).

### Moving to Another Server

Perform the following steps if you need to move NI VLM to another computer:



**Note** Do not remove NI VLM from the old server until after you complete these steps.

1. Install NI VLM software onto your new server.
2. Find your new server's computer ID and name by selecting the **Options»Display Computer Information** menu item.
3. Save the activity compliance log from your old server, following the directions in [Renewing Expired Agreements](#).
4. Send your new computer ID, new computer name, and the activity compliance log from the old server to your local National Instruments volume license agreements representative at [agreements@ni.com](mailto:agreements@ni.com). National Instruments uses your computer ID, computer name, and the activity compliance log to generate a new license file.
5. Once you receive your new license file from National Instruments, [install](#) it onto your new server.
6. Exit NI VLM and replace the activity compliance log and the configuration file containing permissions (`nivlm.cfg`) on the new server with copies of each from the old server. These files are located in the `National Instruments\Volume License Manager` directory.
7. Notify your end users of the change in server. They must then change the server name in the client-side NI License Manager using the following procedure:
  - a. Launch NI License Manager (**Start»All Programs»National Instruments»NI License Manager**).
  - b. Select the **Options»Preferences** menu item.
  - c. Change the name in the **Use Network License Servers** setting to the new server name.

## Preparing Software for Network Installation



**Tip** Refer to [Managing Custom Fields](#) to view a tutorial on this topic.

Installing National Instruments software directly from the software media does not properly configure an end user's computer to use licenses from a volume license server. Preparing your software for network installation modifies the installer to direct the application to your license server for license validation and, optionally, allows the server to automatically approve license requests. It also adds your contact information to the application. You can then distribute the modified installer within your organization.



**Note** Before you create any network installers, you may first add or edit the fields used to describe computer and user information. For more information, refer to [Managing Custom Fields](#).

### Creating a Network Installer

If you have not already entered your name and contact information in the Administration tab in the **Options»Properties** menu selection, the wizard prompts you for the information and inserts it into the software. This information is displayed to the end user during installation. If end users encounter any licensing errors, they can use this information to contact the appropriate person.

To start the wizard, select the **Options»Create Network Installer** menu item. The wizard guides you in copying the software on your National Instruments CD or DVD to disk and modifying its contents. After the wizard completes, you can copy the image to a CD, DVD, or USB drive for internal distribution or leave it on a network drive. Because the use of this software is always governed by NI VLM, you can distribute the installer freely.

The Create Network Installer wizard automatically sets the port that the client-side NI License Manager uses to request a license, based on the port configured in the NI VLM preferences. For more information about NI VLM ports, refer to [Configuring NI VLM Ports](#).



#### Notes

- In case of changes that may require you to recreate network installers, such as administrator information or custom fields, keep the physical media for your software source files handy.
- This operation optionally allows the server to automatically approve license requests. For information on automatic request approval, refer to [Handling Permission Requests](#).
- If your end users have installed NI software released prior to August 2005 and you want NI VLM to use ports other than the default, refer to the KnowledgeBase article [Can NI Volume License Manager Run on a Configurable Port?](#) on [ni.com](#) for more information.

### Creating Multiple Network Installers in a Single Session

You can use the Create Network Installer wizard to create, in a single session, a network installer for every license type of a product in your volume license agreement. For example, if your volume license agreement includes LabVIEW 8.0 computer-based and LabVIEW 8.0 named-user licenses, you must create two LabVIEW network installers, one for each license type. You can give each network installer a name that describes the group that will be using the software.

For example, if you create LabVIEW network installers for Fourth Floor Engineering and for the Applications Group that contain permissions for various National Instruments software products, the wizard creates a network installer directory structure similar to the following example.

```
LabVIEW 8.0
  \_SourceFiles
    \Fourth Floor Engineering
      \Client
        vlmclient.exe
        other files
      setup.exe
    \Applications Group
      \Client
        vlmclient.exe
        other files
      setup.exe
```

**Figure 1.** Network Installer Directory Structure

### Using Network Installers

To use the network installer, have end users open the product directory and launch the `setup.exe` located inside the directory that describes their group. Using the example in Figure 1, you would instruct end users in the Fourth Floor

Engineering group to install their software using LabVIEW 8.0\Fourth Floor Engineering\setup.exe. End users should not run any files located in the \_SourceFiles directory.

## Managing Permissions



**Tip** Refer to

to view a tutorial on this topic.

Use NI VLM to add or modify users, computers, and their permissions. You can also use NI VLM as a tool to record the use of NI software that does not have license management integrated into the product.

If you need to add many users or computers to NI VLM, you can add users automatically using the automatic permission request option in the Create Network Installer wizard. For more information about handling permission requests automatically, refer to [Preparing Software for Network Installation](#) and [Handling Permission Requests](#).

You can also use NI Volume License Manager Import Utility to collect data. Refer to [Using NI Volume License Manager Import Utility](#) for more information.

You can update your end user list with National Instruments at any time after changing owner properties by sending your activity compliance log to [agreements@ni.com](mailto:agreements@ni.com). Follow the instructions in [Renewing Expired Agreements](#) to obtain your activity compliance log.

## Managing Users and Named-User Permissions



**Tip** Refer to

to view a tutorial on this topic.

Permissions enable a user to check out licenses from the license server. Permission may not be available if you have already allocated the maximum number of permissions for a given license. For more information on granting permissions, refer to [Managing Permissions](#).

Users are displayed under the **Users** node in the NI VLM tree. When you select a user, the right pane displays the user's properties, including the username, other [custom fields](#), and permitted products.

Use NI VLM to perform the following functions:

- **Add New Users**—To add new users, complete the following steps.


### Automatically Adding New Users

Complete these steps to automatically add new users to NI VLM, point client computers to the NI VLM server, and automatically request permissions:

1. [Create a network installer](#) of the NI software the client wants to use or is already using. Ensure that you have selected to automatically send permission requests to NI VLM.
2. Run the network installer on the client computer and have the user fill out the required information. The installer sends a permission request to NI VLM.

### Manually Adding New Users

Complete these steps to manually add new users to NI VLM:

1. Click the **Add User** button .
2. Select the **Information** tab.
3. In the **Username** field, enter the Windows login username, without the host prefix. For example, if the user's domain and username is DOMAIN1\jsmith, enter jsmith. Also, NI VLM blocks `guest` and `administrator` usernames.



**Note** All fields except **Username** are optional when you manually add a user from within NI VLM, regardless of the Required or Optional settings in [Custom Fields](#).

4. Select the **Named-User Permissions** tab.
  5. Check the software packages the client is allowed to use.
  6. Click **OK**.
- **Create Users from Previously Entered Users or Computers**—To create a user from a previously entered user or computer, right-click the user or computer and choose **Copy to New User**.
  - **Modify or Grant Name-User Permissions for Existing Users**—To modify or grant named-user permissions for an existing user, expand Users, double-click on a user, select the **Named-User Permissions** tab, and set the appropriate permissions.
  - **Create a Home License File**—To create a home license file for a user, right-click the user and select **Create Home License**. For more information, refer to [Creating Home License Files](#). Home license files allow end users to work from home without decreasing the number of available permissions.
  - **Delete Users**—To delete a user, right-click on the user and select **Delete**.



**Note** Press and hold the <Ctrl> or <Shift> keys to select multiple items and then press the space bar to check or uncheck all selected items in the **Named-User Permissions** tab.

## Managing Computers and Computer-Based Permissions



**Tip** Refer to

to view a tutorial on this topic.

Permissions enable a computer to check out licenses from the license server. Permission may not be available if you have already allocated the maximum number of permissions for a given license. For more information, refer to [Managing Permissions](#).

Computers are displayed under the **Computers** node in the NI VLM tree. When you select a computer, the right pane displays the computer's properties, including computer name, computer ID (required for disconnected computers only), other [custom fields](#), and permitted products.

Use NI VLM to perform the following functions:

- **Add New Computers**—To add new computers, complete the following steps.


### Automatically Adding New Computers

Complete these steps to automatically add new client computers to NI VLM, point client computers to the NI VLM server, and automatically request permissions:

1. [Create a network installer](#) of the NI software the client wants to use or is already using. Ensure that you have selected to automatically send permission requests to NI VLM.
2. Run the network installer on the client computer and have the user fill out the required information. The installer sends a permission request to NI VLM.


### Manually Adding New Computers

Complete these steps to manually add new computers to NI VLM:

1. Click the **Add Computer** button .
2. Select the **Information** tab.
3. In the **Name** field, enter the computer's Windows name without the domain. For example, if the computer name and domain is DOMAIN1\Computer1, enter Computer1.



**Note** All **Owner** fields are optional when you add a computer from within NI VLM, regardless of the Required or Optional settings in [Custom Fields](#).

4. Select the **Computer-Based Permissions** tab.
  5. Select the software packages the computer is allowed to use.
  6. Select the **Users** tab.
  7. Select the users authorized to use this computer.
  8. Click **OK**.
- **Create a Computer from Previously Entered Computers or Users**—To create a computer from a previously entered computer or user, right-click the computer or user and select **Copy to New Computer**.
  - **Modify or Grant Computer-Based Permissions**—To modify or grant computer-based permissions for an existing computer, expand Computers, double-click on a computer, select the **Computer-Based Permissions** tab, and set the appropriate permissions.
  - **Create Disconnected License Files**—To create a disconnected license file for a computer, right-click on the computer and select **Disconnect**. For more information, refer to [Creating Disconnected License Files](#). Computers that have a disconnected license file are marked with the  icon.
  - **Delete Computers**—To delete a computer, right-click on the computer and select **Delete**.



**Note** Press and hold the <Ctrl> or <Shift> keys to select multiple items and then press the space bar to check or uncheck all selected items in the **Computer-Based Permissions** tab.

## Managing Locally Installed NI Software

If you have NI application software installed on the same computer as NI VLM and you want the application software to validate its license using NI VLM instead of using NI License Manager, complete the following steps:

1. Launch NI License Manager (**Start»All Programs»National Instruments»NI License Manager**).
2. Select the **Options»Preferences** menu item.
3. Check **Use Network License Servers**.
4. Enter localhost (or 127.0.0.1).
5. Click **OK** to exit the Preferences dialog box.
6. Relaunch your NI software.

## Creating Disconnected License Files



**Tip** Refer to [Using Temporary Network Licenses](#) to view tutorials on this topic.

Disconnected licenses are useful for end users working on computers unattached to the network, such as laptops, those behind certain firewalls or those without network cards. Without a disconnected license, end users of these computers are not able to use their NI software at all times.



**Note** If your computer will be disconnected from the network for less than 14 days, you do not need to create a disconnected license file. For more information, refer to [Using Temporary Network Licenses](#).

### Obtaining a Disconnected Computer ID

To create a disconnected license, you first must obtain the end user's computer ID. If you do not already have this information, have the end user perform the following steps to obtain the computer ID:

1. Install the National Instruments software they want to use onto their disconnected computer.
2. Launch National Instruments License Manager (**Start»All Programs»National Instruments»NI License Manager**) and click **Display Computer Information**.

The end user can contact you with the computer ID, which you will use to create a disconnected license file. The end user then installs the disconnected license by dragging and dropping the license file onto NI License Manager. You can also use [NI Volume License Manager Import Utility](#) to install disconnected licenses.

### Creating a Disconnected License File for Computer-Based Licenses

To create a disconnected license for a computer, first add a new computer and assign any appropriate permissions and users for that computer. For information on how to add a new computer, refer to [Managing Computers and Computer-Based Permissions](#).

If you are using computer-based licensing, complete the following steps to create a disconnected license:

1. Expand the **Computers** node.
2. Right-click on the computer that you want to disconnect, and select **Disconnect**.
3. Select the expiration date for the disconnected license and click **OK**.
4. Select a location to save the file and click **OK**.

You now have a disconnected license file that can be installed using NI License Manager on the disconnected computer.

### Creating a Disconnected License File for Named-User Licenses

If you have only named-user licenses and have not added a computer, you can create a computer from an existing user's configuration. Right-click on the user and select **Copy to New Computer**. Any common information is copied from the user to the computer. Permissions cannot be copied. You can then assign any computer-based permissions and create disconnected license files, as detailed below.

If your contract uses named-user licenses, complete the following steps to create a disconnected license file from NI VLM:

1. Right-click on each computer to be disconnected and select **Properties**.
2. On the **Users** tab, check all end users who will use this computer once disconnected. Ensure that the **Users** tab lists all necessary end users. If you need to add users, refer to [Managing Users and Named-User Permissions](#).
3. Click **OK**.
4. Right-click on the computer to be disconnected.
5. Select the expiration date for the disconnected license file and then click **OK**.
6. Choose the file name and location to save the file, and click **OK**.

### Creating Disconnected Licenses for Multiple Computers or Users

If you need to create disconnected license files for a number of computers or users, you can use NI VLM Import Utility to help gather the necessary computer information. For more information, refer to [Using NI Volume License Manager Import Utility](#).

Complete these steps to create disconnected licenses for multiple computers or users:

1. Expand the **Computers** node.
2. In the upper right-hand view, select the computers that you want to disconnect.



**Note** Press and hold the <Ctrl> or <Shift> keys to select multiple items.



3. Right-click on the highlighted computers and select **Disconnect**.
4. Select the expiration date for the disconnected license files and then click **OK**.
5. Select the location to save the files, and click **OK**.

## Reconnecting Disconnected Computers

To reconnect a disconnected computer, right-click on the computer name and select **Reconnect**.

You can also schedule a task to allow NI VLM to reconnect disconnected licenses automatically. For more information, refer to [Automatically Reconnecting Disconnected Computers](#).



**Note** You cannot delete or edit permissions of a computer while it is disconnected. You must first reconnect the computer.

## Reconnecting Multiple Disconnected Computers

Complete the following steps to reconnect multiple computers at once.

1. Within NI VLM, select **Computers** in the feature tree.
2. In the upper right-hand view, select the computers you want to reconnect.
3. Right-click on the highlighted computers and select **Reconnect**.

## Checking Disconnected Status

Complete these steps to check or update the status of any disconnected licenses:

1. From within NI VLM, select **Computers** in the feature tree.
2. Click **Disconnected** to sort computers by disconnected status.

The status of each computer can be one of the following:

- **Disconnected**—The computer is using a disconnected license file.
- **Needs update**—The computer is using a disconnected license file, but the permissions in that license file have since changed. You must create a new disconnected license file to update the client computer with these changes.
- **Expired**—The computer's disconnected license file has expired. You must create a new disconnected license file in order for the computer to continue using the software.

For more information on managing permissions for computers or users, refer to [Managing Permissions](#).

## Automatically Reconnecting Disconnected Computers

You can run NI VLM with a command-line switch to automatically reconnect all disconnected computers. Using this switch, NI VLM searches all disconnected computers and reconnects any that have expired.

You can run NI VLM manually with the auto-reconnect feature enabled by typing `nivlm /reconnect` at a command line prompt. You can also run it automatically using a scheduled task. Complete these general steps to schedule a task:

1. Launch the Windows Scheduled Tasks control panel application to add a scheduled task.
2. Browse to the NI VLM executable (`nivlm.exe`). You can find it in the `National Instruments\Volume License Manager\` directory.
3. Select when and how often you want the task to run. For example, you can set the task to run every night at midnight.
4. Ensure that you run the task as a user with Administrator privileges.
5. Open the task's Advanced Properties when finished or open the task from the Scheduled Tasks folder if you have already closed it. On the **Task** tab, add a space and `/reconnect` to the end of the path in the **Run** (Windows XP) or **Open** (Windows 2000) box.
6. Click **OK** to save your settings and close the task.



### Notes

- NI VLM must be closed initially for this operation to succeed. If NI VLM is already running when your task launches, no computers are reconnected.
- NI VLM runs silently when it runs with the auto-reconnect feature enabled. It will not launch the user interface or any dialog boxes.

For more information on disconnected licenses, refer to [Creating Disconnected License Files](#).

## Creating Home License Files



**Tip** Refer to

to view tutorials on this topic.

A home license is similar to a [disconnected license](#), but does not consume a license on the server and is intended for home use only, according to the terms of your license agreement with National Instruments.

To create a home license file for a user, first add a new user and assign any appropriate permissions for that user. For information on how to add a new user, refer to [Managing Users and Named-User Permissions](#).

If you have only computer-based licenses and have not added a user, you can create a user from an existing computer's configuration. Right-click on the computer and select **Copy to New User**. Any common information is copied from the computer to the user. Permissions cannot be copied. You can then assign any named-user permissions and create home license files.

The end user must provide the home computer's computer ID to the administrator in order to obtain a home license file. The end user must perform the following steps to obtain the home computer ID:

1. Install the National Instruments software they want to use onto their home computer.
2. Launch National Instruments License Manager (**Start»All Programs»National Instruments»NI License Manager**) and click **Display Computer Information**.

The end user can then contact the administrator with the computer ID, which the administrator uses to create a home license file. The end user then installs this home license by dragging and dropping the license file onto NI License Manager.

From within NI Volume License Manager, right-click on a user and choose **Create Home License**. Select from the list of computers shown any computers whose permissions are needed on the home computer. The home license file contains any assigned permissions for the user and for any selected computers. You can specify whether the license expires after a certain period of time or remains in effect indefinitely.

For more information on managing permissions for users, refer to [Managing Users and Named-User Permissions](#).

## Using Temporary Network Licenses

Temporary network licenses are created when a licensed software program launches. Temporary network licenses ensure software access in the event that the license server is unreachable from the client computer, because the network was down, the license server was stopped, or because the client computer was disconnected from the network. The client software must have previously been checked out successfully for the temporary license to be generated.

The temporary network license is valid for 14 days from the first time the license was used. During this time, your software runs but displays a warning message each time you launch the product.



**Note** Temporary network licenses are not created when the license server is running on the same computer as the client software, when you check out a concurrent license from a server, or when products are in evaluation mode.

## Using NI Volume License Manager Import Utility

Use NI Volume License Manager Import Utility (NI VLM Import Utility) as an alternative to network installers to collect user and computer information you can use with NI VLM. You can also use NI VLM Import Utility to install disconnected licenses generated by NI VLM on disconnected computers. You can find the utility (`nivlmImportUtility.exe`) in the `National Instruments\Volume License Manager\Import Utility` directory.

### Collecting Information

You can use NI VLM Import Utility to collect user and computer information, including computer IDs and any [custom fields](#) you created when setting NI VLM preferences.



**Note** NI VLM Import Utility uses an XML file, `nivlmImportUtility.xml`, to determine the custom fields that are available, which fields end users must complete, and which are optional. `nivlmImportUtility.xml` updates whenever you change [custom fields](#).

If you copy NI VLM Import Utility to another location, such as a network drive, you must copy `nivlmImportUtility.xml` to the same location. If you modify the custom fields, you must copy the updated `nivlmImportUtility.xml` to where you use NI VLM Import Utility.

Complete the following steps to collect computer or user information that you can import into NI VLM:

1. Run `nivlmImportUtility.exe` on the computer you want to add to NI VLM. You can find the utility and its associated XML file in the `National Instruments\Volume License Manager\Import Utility\` directory.
2. Click **Submit Information** and enter information about the user or computer. Required fields are marked with an asterisk (\*).
3. Save the file in a common place, such as a network location, or instruct the clients to email the files to you.
4. Repeat these steps for each user or computer you want to add to NI VLM.

NI VLM Import Utility stores each computer's information in an XML file with the same name as the computer and saves the file. You can save all the files in a common place, such as a network location or the storage device from which you run NI VLM Import Utility, or you can email the files to the NI VLM administrator.

### Importing Information

Once you have collected information from all necessary users and computers, you can add the information to NI VLM.

Complete the following steps to import client data into NI VLM:

1. From within NI VLM, select **Options»Import Users and Computers**.
2. Browse to the location of the file(s) created by NI VLM Import Utility and select all the files with an XML extension that you want to import. You can select multiple files by holding the <Ctrl> key as you make your selections.
3. Click **Open**.

### Generating and Installing Disconnected Licenses

Whether the computers were added using NI VLM Import Utility or added manually, you can now generate disconnected licenses for computers that do not have continuous network access. Follow the instructions in NI VLM to generate a [disconnected license](#).

Save the disconnected license file in the same storage location as NI VLM Import Utility, then launch NI VLM Import Utility on the target disconnected computer. Click the **Install License Files** button to copy and install the correct license files onto the target computer.

## Exporting and Importing User or Computer Data from XML

You can store user or computer data in and import data from an XML file, or export data to an XML file.

### Exporting Data to an XML File

To export user or computer information into an XML file, select the **Options»Export Users and Computers** menu item from within NI VLM.

### Importing Data from an XML File

To import user or computer information into NI VLM, select the **Options»Import Users and Computers** menu item from within NI VLM.

### Creating an XML File

You can find sample XML and schema files in the `Program Files\National Instruments\Volume License Manager` directory. The import file must conform to the XML schema file (`import2.xsd`) in the `Volume License Manager` directory. A sample XML file, `sample.xml`, is in the same directory.

The sample XML file, `sample.xml`, contains the default XML format. If you add, delete, or modify any [custom fields](#), this format will change. To create an accurate template, export a copy after you have configured any custom fields.

The root `<import>` element can have any number of `<user>` and `<computer>` elements. `<name>` of a user is the Windows login username, without the host prefix. For example, if the user's domain and login username is `DOMAIN1\jsmith`, enter `jsmith`. `<name>` of a computer represents the hostname or IP address of the computer that is being added. Enter the computer's Windows name without the domain. For example, if the computer name/domain name is `DOMAIN1\Computer1`, enter `Computer1`.

## Renewing Expired Agreements



**Tip** Refer to

to view a tutorial on this topic.

NI VLM records in an activity compliance log file all instances of policy and permissions changes, including overdrafts. To generate this log, use the **Options»Save Activity Compliance Log** menu item. You send this log to National Instruments when your current agreement is expiring or for other agreement changes. Typical reasons include:

1. My current agreement is expiring.
2. My end user list has changed.
3. I have added overdraft permissions under the pay-as-you-go option.
4. I plan to move NI VLM to another server.

Send your activity compliance log to [agreements@ni.com](mailto:agreements@ni.com). In your email, indicate your reason for sending the log. This information is encrypted to ensure that no one accidentally edits the activity compliance log and invalidates the usage information. National Instruments uses this information to help determine appropriate agreement fees for renewal and returns to you a new license file that reflects any changes in the quantity of licenses you own. When you receive the new agreement, install it following the directions in [Installing a License File](#).

NI VLM alerts you when your agreement is about to expire and for a certain time afterward. These alerts notify you of the following events:

- The expiration of an agreement, as follows:
  - 60 and 30 days before the agreement expires
  - Every time NI VLM launches in the seven-day period before an agreement expires
  - The day of agreement expiration
  - 15 and 30 days after the agreement expires
  - Every day during the 10 days preceding the 60th day of expiration
  - After 60 days past expiration, **your software stops working**. NI generates a new license file as soon as you return the activity compliance log.

At any time during the 60 days before the agreement expires or after the agreement expires, you can send your activity compliance log to your local National Instruments agreements representative to renew your software agreement.

- Any time you add an overdrafted user in pay-as-you-go mode

## **NI VLM Environment**

Click the following links to learn about the NI VLM environment.

[Volume Licenses Tree](#)

[Toolbar Buttons](#)

[Permission Queue](#)













[Options Menu](#)

[Preferences](#)






## Volume Licenses Tree

The left pane contains the Volume Licenses tree, which displays all licenses in your agreement. It also displays the users and computers using licenses. The right pane contains context-sensitive details of the item you have selected in the tree. The following table provides a description of each type of item that could appear.

Icon	Tree Item	Description	Right Pane Contents
	Volume Licenses	Top-level tree item	Main help.
	<i>productName</i> (icon may vary)	Specifies a product included in your volume license agreement	If Web help is enabled, relevant web information is displayed.
	<i>featureName</i>	Specifies named-user features within the product you are licensed to use	Specific information about the product including: <ul style="list-style-type: none"> <li>• associated software</li> <li>• associated software version</li> <li>• product name</li> <li>• agreement ID</li> <li>• agreement company</li> <li>• agreement expiration</li> <li>• license file expiration</li> <li>• total permissions granted</li> <li>• allocated permissions</li> <li>• licenses in use</li> </ul> You can double-click on a feature to assign and remove permissions for that feature, if applicable.
	<i>featureName</i>	Specifies computer-based features within the product you are licensed to use	Same as above.
	<i>featureName</i>	Specifies expired named-user features	Same as above.
	<i>featureName</i>	Specifies expired computer-based features	Same as above.
	message	Informational message	Extended description of the message.
	Users	The set of users managed by NI VLM	Displays a list of users managed by NI VLM. Click the <b>Add User</b> button to add a user. For more information, refer to <a href="#">Managing Users and Named-User Permissions</a> .
	<i>userName</i>	Specific user under Users.	Displays each user, user information, and permissions granted. Right-click on a user to access its properties and create home licenses.
	Computers	The set of computers managed by NI VLM	Displays a list of computers managed by NI VLM. Click the <b>Add Computer</b> button to add a computer. For information, refer to <a href="#">Managing Computers and Computer-Based Permissions</a> .
	<i>computerName</i>	Specific computers under Computers	Displays each computer, owner information, permissions granted, and disconnected licenses. Right-click on a computer to access its properties and create disconnected licenses.
	<i>computerName</i>	Disconnected computers under Computers	Indicates the computer is using a disconnected license. Right-click on the computer name to reconnect the computer to NI VLM.



## Toolbar Buttons

The toolbar buttons perform the functions shown in the following table:

Icon	Name	Description
	<b>Apply Changes/Start License Server</b>	Synchronizes the license server with any changes that have been made to any users, computers, or preferences. <b>Apply Changes</b> appears when the license server is running and there are changes that need to be synchronized to the server. You must synchronize all changes to the server before they take effect. <b>Start License Server</b> appears when the server is stopped. Click <b>Start License Server</b> to start the server and apply any changes made while the license server was stopped. For more information, refer to <a href="#">Managing the License Server</a> .
	<b>Add User</b>	Adds a user to NI VLM's list of users to manage. For more information, refer to <a href="#">Managing Users and Named-User Permissions</a> .
	<b>Add Computer</b>	Adds a computer to NI VLM's list of computers to manage. For more information, refer to <a href="#">Managing Computers and Computer-Based Permissions</a> .

## Permission Queue

The permission queue, located at the bottom of the NI VLM interface, displays a list of users and computers that have requested permission to check out selected licenses. The permission queue toolbar buttons perform the functions shown in the following table:

Icon	Name	Description
	<b>Accept</b>	Grants selected permission requests.
	<b>Reject</b>	Denies selected permission requests.


Select a request and click the appropriate button. Press and hold the <Ctrl> or <Shift> keys to select multiple items and then press the space bar to check or uncheck all selected items.



**Note** Automatic requests are not processed by NI VLM while it is open. Requests are stored in the Permission Queue and you can either approve or deny requests while using NI VLM or allow the requests to process automatically once you exit NI VLM. For more information, refer to [Handling Permission Requests](#).

## Options Menu

The **Options** menu contains the following items:

Option	Description
<b>Start/Stop License Server</b>	Starts and stops the license server. A running license server is required to support your volume licenses.
<b>Display Computer Information</b>	Displays the computer name and computer ID of the server.
<b>Install License File</b>	Installs a new license on the system and refreshes NI VLM to reflect the change. You must use this method to install any new license file.
<b>Preferences</b>	Helps you configure various options and policies. For more information, refer to <a href="#">Preferences</a> .
<b>Create Network Installer</b>	A wizard that helps you transform a standard NI software installer into an installer suited for installation by your end users. For information, refer to <a href="#">Preparing Software for Network Installation</a> . For information on automatic request approval, refer to <a href="#">Requesting Permissions Automatically</a> .
<b>View Usage Log</b>	Displays a usage log that contains usage information of NI VLM-controlled software, such as check in and check out events, along with relevant client information. For more information, refer to <a href="#">Managing Usage Reports</a> .
<b>Export Users and Computers</b>	Exports an XML-based file that contains user and computer information.
<b>Import Users and Computers</b>	Imports an XML-based file that contains user or computer information. You can find a sample of the XML code in <a href="#">Importing User or Computer Data from XML</a> . You can customize the XML by copying the sample into a text editor.
<b>Save Activity Compliance Log</b>	The activity compliance log keeps a record of all administrator activity. You can obtain your activity compliance log by selecting this menu item. For more information, refer to <a href="#">Renewing Expired Agreements</a> .
<b>Refresh</b>	Refreshes the NI VLM interface to accurately reflect license and server states.   <b>Note</b> This command does not apply changes. If you make changes to the NI VLM configuration, click the <b>Apply Changes/Start License Server</b> button in the <a href="#">toolbar</a> so that the changes take effect.
<b>Exit</b>	Exits NI VLM.


## Preferences

The **Preferences** menu option lets you configure various options and policies. Access NI VLM preferences from the **Options»Preferences** menu item.



**Tip** Refer to

to view a tutorial on this topic.

Preference	Description										
<b>General</b>	Sets Web help and start-up preferences. You can set the following options:										
	<table border="1"> <tr> <td><b>Show Web Help</b></td> <td>Shows or hides product Web-based information from <a href="#">ni.com</a>.</td> </tr> <tr> <td><b>Start License Server on System Start</b></td> <td>Check this box to start the license server each time you restart your computer.</td> </tr> <tr> <td><b>Automatically Handle Permission Requests</b></td> <td>Specifies whether to automatically handle permission requests from client computers. For more information, refer to <a href="#">Handling Permission Requests</a>.</td> </tr> <tr> <td><b>License Server Port</b></td> <td>Changes the license server port. You can configure NI VLM to use a specific port on a network server. The default port number is 27000. Ports range from 1-64000, inclusive. Refer to <a href="#">Configuring NI VLM Ports</a> for more information.</td> </tr> <tr> <td><b>Enable Usage Log</b></td> <td>Enables or disables usage logging. For more information, refer to <a href="#">Managing Usage Reports</a></td> </tr> </table>	<b>Show Web Help</b>	Shows or hides product Web-based information from <a href="#">ni.com</a> .	<b>Start License Server on System Start</b>	Check this box to start the license server each time you restart your computer.	<b>Automatically Handle Permission Requests</b>	Specifies whether to automatically handle permission requests from client computers. For more information, refer to <a href="#">Handling Permission Requests</a> .	<b>License Server Port</b>	Changes the license server port. You can configure NI VLM to use a specific port on a network server. The default port number is 27000. Ports range from 1-64000, inclusive. Refer to <a href="#">Configuring NI VLM Ports</a> for more information.	<b>Enable Usage Log</b>	Enables or disables usage logging. For more information, refer to <a href="#">Managing Usage Reports</a>
	<b>Show Web Help</b>	Shows or hides product Web-based information from <a href="#">ni.com</a> .									
	<b>Start License Server on System Start</b>	Check this box to start the license server each time you restart your computer.									
	<b>Automatically Handle Permission Requests</b>	Specifies whether to automatically handle permission requests from client computers. For more information, refer to <a href="#">Handling Permission Requests</a> .									
<b>License Server Port</b>	Changes the license server port. You can configure NI VLM to use a specific port on a network server. The default port number is 27000. Ports range from 1-64000, inclusive. Refer to <a href="#">Configuring NI VLM Ports</a> for more information.										
<b>Enable Usage Log</b>	Enables or disables usage logging. For more information, refer to <a href="#">Managing Usage Reports</a>										
<b>Administrator</b>	Sets and displays the name, phone number, email address, and Web address (URL) of the administrator.										
<b>Policies</b>	Lets you configure licensing policies. You can select the following options:										
	<table border="1"> <tr> <td><b>Allow Overdraft</b></td> <td>Enables and sets your overdraft limit. You can set anywhere from 0-100% more licenses for overdraft. This setting applies to all products in your license file, except when specified.</td> </tr> <tr> <td><b>Enable Pay-As-You-Go</b></td> <td>Check this box if you want to be reminded when you have granted a new overdraft license, so that you can update your agreement with National Instruments.</td> </tr> <tr> <td><b>Include Owner Information in Activity Compliance Log for Technical Support</b></td> <td>Sends owner information with the activity compliance log for support purposes.</td> </tr> </table>	<b>Allow Overdraft</b>	Enables and sets your overdraft limit. You can set anywhere from 0-100% more licenses for overdraft. This setting applies to all products in your license file, except when specified.	<b>Enable Pay-As-You-Go</b>	Check this box if you want to be reminded when you have granted a new overdraft license, so that you can update your agreement with National Instruments.	<b>Include Owner Information in Activity Compliance Log for Technical Support</b>	Sends owner information with the activity compliance log for support purposes.				
	<b>Allow Overdraft</b>	Enables and sets your overdraft limit. You can set anywhere from 0-100% more licenses for overdraft. This setting applies to all products in your license file, except when specified.									
	<b>Enable Pay-As-You-Go</b>	Check this box if you want to be reminded when you have granted a new overdraft license, so that you can update your agreement with National Instruments.									
<b>Include Owner Information in Activity Compliance Log for Technical Support</b>	Sends owner information with the activity compliance log for support purposes.										
 <b>Note</b> Policy preferences apply to all products in your agreement, except when specified.											
For more information on policies, refer to <a href="#">Setting Policies</a> .											
<b>Custom Fields</b>	Adds custom fields. For more information, refer to <a href="#">Managing Custom Fields</a> .										
	<table border="1"> <tr> <td><b>Add</b></td> <td>Adds a custom field to the list.</td> </tr> <tr> <td><b>Delete</b></td> <td>Deletes a custom field from the list.</td> </tr> <tr> <td><b>Rename</b></td> <td>Renames a custom field on the list.</td> </tr> <tr> <td><b>Required</b></td> <td>Toggles <b>Require</b> to make a custom field either <b>Required</b> or <b>Optional</b>.</td> </tr> </table>	<b>Add</b>	Adds a custom field to the list.	<b>Delete</b>	Deletes a custom field from the list.	<b>Rename</b>	Renames a custom field on the list.	<b>Required</b>	Toggles <b>Require</b> to make a custom field either <b>Required</b> or <b>Optional</b> .		
	<b>Add</b>	Adds a custom field to the list.									
	<b>Delete</b>	Deletes a custom field from the list.									
	<b>Rename</b>	Renames a custom field on the list.									
<b>Required</b>	Toggles <b>Require</b> to make a custom field either <b>Required</b> or <b>Optional</b> .										

## Glossary

A C D E H L N O P R S U

### A

- activity compliance log keeps a record of all administrator activity. To obtain your activity compliance log, select the **Options»Save Activity Compliance Log** menu item. Send this log to National Instruments when your current agreement is expiring, when your end user list has changed, when you have added overdraft permissions under the pay-as-you-go option, or when you plan to move NI VLM to another computer. National Instruments then uses this information to help determine appropriate agreement fees for renewal.
- agreement ID a unique identifier of your agreement with National Instruments. You can find your agreement ID in your Volume License Agreement.

### C

- computer-based license a license for a single computer that allows multiple users and a single home installation
- computer ID a 16-character value that uniquely identifies your computer. National Instruments uses your server's computer ID in the process of creating your volume license agreement license file to ensure it cannot be served from any other computer. You can find your server's computer ID by selecting the **Options»Display Computer Information** menu item from NI VLM. NI VLM needs the computer IDs to create disconnected and home license files. End users can find their computer ID by clicking the **Display Computer Information** button in the National Instruments License Manager utility, which they can find in the **Start»All Programs»National Instruments** menu on their own computers.
- computer name either the name of your server or the name of a user's computer. You send your server computer name, along with your computer ID and your agreement ID to NI to obtain your license file. You add your end users' computer names to NI VLM to grant computer-based software access.
- computer/computer node a client computer using National Instruments products
- custom fields customizable fields used in NI VLM that you can use to collect various types of information from your clients and computers

### D

- disconnected license lets a client computer use a product and consume a license while not attached to the network. You can generate disconnected licenses for client computers not on the network.

### E

- end user a person using NI software licensed through a volume license agreement

### H

- home license similar to a disconnected license, but it does not consume a license on the server and is intended for home use only, according to the terms of your license agreement with National Instruments. You can generate home licenses for your users.

### L

- license gives users the legal right to use National Instruments products under the terms of a license agreement. Through NI VLM, you can assign permissions to use this license on different users or computers, depending on whether the particular license is named-user or computer-based, respectively.
- license file a file that contains licenses, or electronic permissions, for all products in your specific agreement. You acquire a license file by sending email to [agreements@ni.com](mailto:agreements@ni.com). The license file expires when your agreement expires. A license file also is a file you can generate for an end user that contains the permissions needed for a computer using a disconnected or home license.
- license server a computer that issues licenses for National Instruments products on a given network. These

licenses require the license server to be active in order to use the corresponding product.

## N

- named-user license a license for a single person, limited to three installations per license, where each license is used only on one computer at a time. This license also allows a home license.
- network installer a standard NI software installer transformed into an installer suited for installation by your end users. Use the **Create Network Installer** wizard (**Options»Create Network Installer**) to copy your National Instrument application's installer to a local or shared network drive and make the appropriate changes to the installer. This operation modifies the installer to direct the application to your license server for the checkout of agreement licenses. It also adds administrator contact information to the application. You can then distribute the modified installer within your organization.
- NI Volume License Manager (NI VLM) a utility you can use to manage various tasks associated with centralized license management

## O

- overdraft an agreement preference that enables you to assign more permissions than the agreement allows. Refer to your license agreement for specific purchasing requirements and overdraft license options.
- You can allow an overdraft of up to two times the number of licenses purchased with the agreement. The overdraft setting preference, along with the assignment of permissions beyond agreement limits, is noted in the activity compliance log that you send to National Instruments at the end of the agreement period. To set overdrafts, select the **Options»Preferences** menu item and select the **Policies** tab. Select the **Allow Overdraft** checkbox and choose your level of overdraft.

## P

- pay-as-you-go an agreement preference that reminds you to update your agreement every time a permission is set that takes advantage of overdraft. This preference is relevant only when you use the overdraft option. You should use this option when you want to purchase additional NI product licenses as you need them. To enable pay-as-you-go, select the **Options»Preferences** menu item and select the **Policies** tab. Turn on the overdraft option and select the **Enable Pay-As-You-Go** checkbox. If you do not select pay-as-you-go, you will be required to pay for any additionally used licenses at the end of your agreement period.
- permissions enable a user or computer to check out licenses from the license server. Permissions are not assignable if you have already allocated the maximum number of permissions for a given license. You can grant permissions manually or automatically. For more information, refer to [Automatically Handling Permission Requests](#).
- port virtual data connections used by NI VLM to communicate with client computers. For more information, refer to [Configuring NI VLM Ports](#).

## R

- reconnect connecting a computer to NI VLM that previously used a disconnected license. You can reconnect computers manually or automatically. For more information, refer to [Automatically Reconnecting Disconnected Computers](#).

## S

- start server starts the NI VLM license server

## U

- usage log stores usage information of NI VLM-controlled software, such as check in and check out events, along with relevant client information
- user name the Windows login name of a person licensed to use National Instruments products. You add user names to NI VLM to grant software access.
- user/user node a client user using National Instruments products

## **Important Information**

[Warranty](#)

[Copyright](#)

[Trademarks](#)

[Patents](#)

[Warning Regarding Use of NI Products](#)



## Warranty

The media on which you receive National Instruments software are warranted not to fail to execute programming instructions, due to defects in materials and workmanship, for a period of 90 days from date of shipment, as evidenced by receipts or other documentation. National Instruments will, at its option, repair or replace software media that do not execute programming instructions if National Instruments receives notice of such defects during the warranty period. National Instruments does not warrant that the operation of the software shall be uninterrupted or error free.

A Return Material Authorization (RMA) number must be obtained from the factory and clearly marked on the outside of the package before any equipment will be accepted for warranty work. National Instruments will pay the shipping costs of returning to the owner parts which are covered by warranty.

National Instruments believes that the information in this document is accurate. The document has been carefully reviewed for technical accuracy. In the event that technical or typographical errors exist, National Instruments reserves the right to make changes to subsequent editions of this document without prior notice to holders of this edition. The reader should consult National Instruments if errors are suspected. In no event shall National Instruments be liable for any damages arising out of or related to this document or the information contained in it.

EXCEPT AS SPECIFIED HEREIN, NATIONAL INSTRUMENTS MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AND SPECIFICALLY DISCLAIMS ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. CUSTOMER'S RIGHT TO RECOVER DAMAGES CAUSED BY FAULT OR NEGLIGENCE ON THE PART OF NATIONAL INSTRUMENTS SHALL BE LIMITED TO THE AMOUNT THERETOFORE PAID BY THE CUSTOMER. NATIONAL INSTRUMENTS WILL NOT BE LIABLE FOR DAMAGES RESULTING FROM LOSS OF DATA, PROFITS, USE OF PRODUCTS, OR INCIDENTAL OR CONSEQUENTIAL DAMAGES, EVEN IF ADVISED OF THE POSSIBILITY THEREOF. This limitation of the liability of National Instruments will apply regardless of the form of action, whether in contract or tort, including negligence. Any action against National Instruments must be brought within one year after the cause of action accrues. National Instruments shall not be liable for any delay in performance due to causes beyond its reasonable control. The warranty provided herein does not cover damages, defects, malfunctions, or service failures caused by owner's failure to follow the National Instruments installation, operation, or maintenance instructions; owner's modification of the product; owner's abuse, misuse, or negligent acts; and power failure or surges, fire, flood, accident, actions of third parties, or other events outside reasonable control.

## Copyright

Under the copyright laws, this publication may not be reproduced or transmitted in any form, electronic or mechanical, including photocopying, recording, storing in an information retrieval system, or translating, in whole or in part, without the prior written consent of National Instruments Corporation.

National Instruments respects the intellectual property of others, and we ask our users to do the same. NI software is protected by copyright and other intellectual property laws. Where NI software may be used to reproduce software or other materials belonging to others, you may use NI software only to reproduce materials that you may reproduce in accordance with the terms of any applicable license or other legal restriction.

## Trademarks

National Instruments, NI, [ni.com](http://ni.com), and LabVIEW are trademarks of National Instruments Corporation. Refer to the *Terms of Use* section on [ni.com/legal](http://ni.com/legal) for more information about [National Instruments trademarks](#).

FireWire® is the registered trademark of Apple Computer, Inc.

Handle Graphics®, MATLAB®, Real-Time Workshop®, Simulink®, Stateflow®, and xPC TargetBox® are registered trademarks, and TargetBox™ and Target Language Compiler™ are trademarks of The MathWorks, Inc.

Tektronix® and Tek are registered trademarks of Tektronix, Inc.

Other product and company names mentioned herein are trademarks or trade names of their respective companies.

Members of the National Instruments Alliance Partner Program are business entities independent from National Instruments and have no agency, partnership, or joint-venture relationship with National Instruments.

## Patents

For patents covering National Instruments products, refer to the appropriate location: **Help»Patents** in your software, the `patents.txt` file on your CD, or [ni.com/patents](http://ni.com/patents).

## Software Licensing Information Privacy



**Note** For the latest version of this policy, refer to the [Software Licensing Information Privacy](#) Web site.

Any information you provide to generate a software license will only be used to manage the software to ensure compliance with the applicable license. Otherwise, it will not be shared with any other third parties nor will it be entered into NI's marketing and customer database. If you are within the European Union (the "EU") you should note that the EU has deemed the United States to have inadequate data protection laws. However, providing this information is required for your use of the licensed software. Accordingly, by providing this information, you are consenting to its transfer outside of the EU for the limited purpose set forth above.

If you choose to register your software or submit NI Volume License Manager activity compliance logs with user information, your information will be protected according to the [National Instruments Privacy Policy](#).

## **WARNING REGARDING USE OF NATIONAL INSTRUMENTS PRODUCTS**

(1) NATIONAL INSTRUMENTS PRODUCTS ARE NOT DESIGNED WITH COMPONENTS AND TESTING FOR A LEVEL OF RELIABILITY SUITABLE FOR USE IN OR IN CONNECTION WITH SURGICAL IMPLANTS OR AS CRITICAL COMPONENTS IN ANY LIFE SUPPORT SYSTEMS WHOSE FAILURE TO PERFORM CAN REASONABLY BE EXPECTED TO CAUSE SIGNIFICANT INJURY TO A HUMAN.

(2) IN ANY APPLICATION, INCLUDING THE ABOVE, RELIABILITY OF OPERATION OF THE SOFTWARE PRODUCTS CAN BE IMPAIRED BY ADVERSE FACTORS, INCLUDING BUT NOT LIMITED TO FLUCTUATIONS IN ELECTRICAL POWER SUPPLY, COMPUTER HARDWARE MALFUNCTIONS, COMPUTER OPERATING SYSTEM SOFTWARE FITNESS, FITNESS OF COMPILERS AND DEVELOPMENT SOFTWARE USED TO DEVELOP AN APPLICATION, INSTALLATION ERRORS, SOFTWARE AND HARDWARE COMPATIBILITY PROBLEMS, MALFUNCTIONS OR FAILURES OF ELECTRONIC MONITORING OR CONTROL DEVICES, TRANSIENT FAILURES OF ELECTRONIC SYSTEMS (HARDWARE AND/OR SOFTWARE), UNANTICIPATED USES OR MISUSES, OR ERRORS ON THE PART OF THE USER OR APPLICATIONS DESIGNER (ADVERSE FACTORS SUCH AS THESE ARE HEREAFTER COLLECTIVELY TERMED "SYSTEM FAILURES"). ANY APPLICATION WHERE A SYSTEM FAILURE WOULD CREATE A RISK OF HARM TO PROPERTY OR PERSONS (INCLUDING THE RISK OF BODILY INJURY AND DEATH) SHOULD NOT BE RELIANT SOLELY UPON ONE FORM OF ELECTRONIC SYSTEM DUE TO THE RISK OF SYSTEM FAILURE. TO AVOID DAMAGE, INJURY, OR DEATH, THE USER OR APPLICATION DESIGNER MUST TAKE REASONABLY PRUDENT STEPS TO PROTECT AGAINST SYSTEM FAILURES, INCLUDING BUT NOT LIMITED TO BACK-UP OR SHUT DOWN MECHANISMS. BECAUSE EACH END-USER SYSTEM IS CUSTOMIZED AND DIFFERS FROM NATIONAL INSTRUMENTS' TESTING PLATFORMS AND BECAUSE A USER OR APPLICATION DESIGNER MAY USE NATIONAL INSTRUMENTS PRODUCTS IN COMBINATION WITH OTHER PRODUCTS IN A MANNER NOT EVALUATED OR CONTEMPLATED BY NATIONAL INSTRUMENTS, THE USER OR APPLICATION DESIGNER IS ULTIMATELY RESPONSIBLE FOR VERIFYING AND VALIDATING THE SUITABILITY OF NATIONAL INSTRUMENTS PRODUCTS WHENEVER NATIONAL INSTRUMENTS PRODUCTS ARE INCORPORATED IN A SYSTEM OR APPLICATION, INCLUDING, WITHOUT LIMITATION, THE APPROPRIATE DESIGN, PROCESS AND SAFETY LEVEL OF SUCH SYSTEM OR APPLICATION.

## Technical Support and Professional Services

Visit the following sections of the National Instruments Web site at [ni.com](http://ni.com) for technical support and professional services:

- [Support](#)—Online technical support resources at [ni.com/support](http://ni.com/support) include the following:
  - **Self-Help Resources**—For answers and solutions, visit the award-winning National Instruments Web site for software drivers and updates, a searchable [KnowledgeBase](#), [product manuals](#), step-by-step troubleshooting wizards, thousands of example programs, tutorials, application notes, instrument drivers, and so on.
  - **Free Technical Support**—All registered users receive free Basic Service, which includes access to hundreds of Applications Engineers worldwide in the [NI Discussion Forums](#) at [ni.com/forums](http://ni.com/forums). National Instruments Applications Engineers make sure every question receives an answer.  
  
For information about other [technical support options](#) in your area, visit [ni.com/services](http://ni.com/services) or [contact](#) your local office at [ni.com/contact](http://ni.com/contact).
- [Training and Certification](#)—Visit [ni.com/training](http://ni.com/training) for self-paced training, eLearning virtual classrooms, interactive CDs, and Certification program information. You also can register for instructor-led, hands-on courses at locations around the world.
- [System Integration](#)—If you have time constraints, limited in-house technical resources, or other project challenges, National Instruments Alliance Partner members can help. To learn more, call your local NI office or visit [ni.com/alliance](http://ni.com/alliance).

If you searched [ni.com](http://ni.com) and could not find the answers you need, contact your [local office](#) or NI corporate headquarters. You also can visit the [Worldwide Offices](#) section of [ni.com/niglobal](http://ni.com/niglobal) to access the branch office Web sites, which provide up-to-date contact information, support phone numbers, email addresses, and current events.