

Wonderware® ArchestrA License Manager Guide

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Invensys Systems, Inc.



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Welcome

This guide describes using the ArchestrA License Manager to install and maintain licenses and license servers for your Wonderware® applications.

You can view this document online or you can print it, in part or whole, by using the print feature in Adobe Acrobat Reader.

This guide assumes you know how to use Microsoft Windows, including navigating menus, moving from application to application, and moving objects on the screen. If you need help with these tasks, see the Microsoft online help.

In some areas, you can also right-click to open a menu. The items listed on this menu change, depending on where you are in the product. All items listed on this menu are available as items on the main menus.

Documentation Conventions

This documentation uses the following conventions:

Convention	Used for
Initial Capitals	Paths and filenames.
Bold	Menus, commands, dialog box names, and dialog box options.
Monospace	Code samples and display text.

Technical Support

Wonderware Technical Support offers a variety of support options to answer any questions on Wonderware products and their implementation.

Before you contact technical support, refer to the relevant section(s) in this guide for a possible solution to any problem you have with the ArchestrA License Manager. If you need to contact technical support for help, have the following information ready:

- The type and version of the operating system you are using. For example, Microsoft Windows XP, SP1.
- Details of how to recreate the problem.
- The exact wording of the error messages you saw.
- Any relevant output listing from the Log Viewer or any other diagnostic applications.
- Details of what you did to solve the problem(s) and your results.
- If known, the Wonderware Technical Support case number assigned to your problem, if this is an ongoing problem.

Chapter 1

Using the ArcestrA License Manager

This guide describes the ArcestrA License Manager and how to use it to install, maintain, and delete licenses and license servers on local and remote computers. The guide also describes how to use the ArcestrA License Manager with hardware keys.

About Licensing

Licenses for Wonderware products are maintained in license files or on a license server. The license file contains one or more license components, which are lines of information that specify licensing for an individual product.

Each license component is assigned a unique part number and contains information such as the:

- product name
- serial number
- type and duration of license
- number of seats
- and other information.

The overall licensing infrastructure is based on FLEXnet Publisher v11.3 from Macrovision®.

ArcestrA License Server is a system service configured for automatic startup and running in a TCP/IP network. It consists of two executables:

- lmgrd.exe, the Macrovision license server manager
- aaLicServer.exe, the Wonderware vendor daemon

The license server can be accessed by client applications for license information. When the license server starts, it loads the served license files. Client computers running licensed applications can access the served licenses on the license server using the license server search paths entered in ArcestrA License Manager.

License servers have the advantage of establishing a single location for maintaining Wonderware licenses rather than installing multiple local licenses across your network.

You can switch from one license type to another just by installing a different type of license without having to install a different version of the application.

Types of Licenses

There are two kinds of licenses, unserved and served.

- Unserved licenses, also known as local licenses, are installed on the same computer as the applications using them. Unserved licenses do not run on a license server. Unserved license files usually have the file names wwsuite.lic or ArcestrA.lic.
- Served licenses are only installed on computers with an installed ArcestrA license server. License servers can reside on local or remote computers. Served licenses files usually have the file name ArcestrAServer.lic.

There are three types of served license:

- Named device licenses, also known as host-based licenses, which are associated with specific computers.
- Named user licenses, also known as user-based licenses, which are associated with specific users.
- Concurrent licenses, which can be used with any devices or users.

Information about the license type appears in the license name and license components when you view it in the ArcestrA License Manager.

Products may have a demonstration period, which allows you to run the specified application for a defined period when the license is not available. Licenses may also define a grace period, which is entered when a license is unavailable. The grace period is a limited time period tracked by the application. The application determines what happens during the grace period.

Acquiring Licenses

When a Wonderware application starts, it looks for an unserved license on the same computer in the background. If no license is found locally, the application searches all license servers specified in ArcestrA License Manager for the computer.

When a license file is found, the application checks that this version is licensed for use. If more than one license is found, the order in which licenses are acquired by applications is:

- Unserved licenses
- Named device licenses
- Named user licenses
- Concurrent licenses

If the application is not supported by the license or if the required license is not found, the software component defaults to either a demonstration mode or an absent license mode.

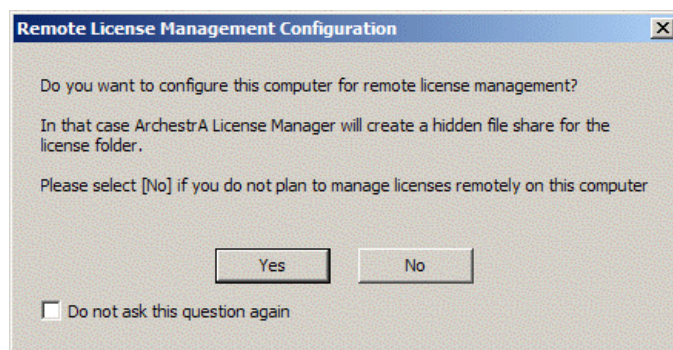
Starting the ArcestrA License Manager

The ArcestrA License Manager is included on the Wonderware CDs. It is a common component installed by all products requiring a license.

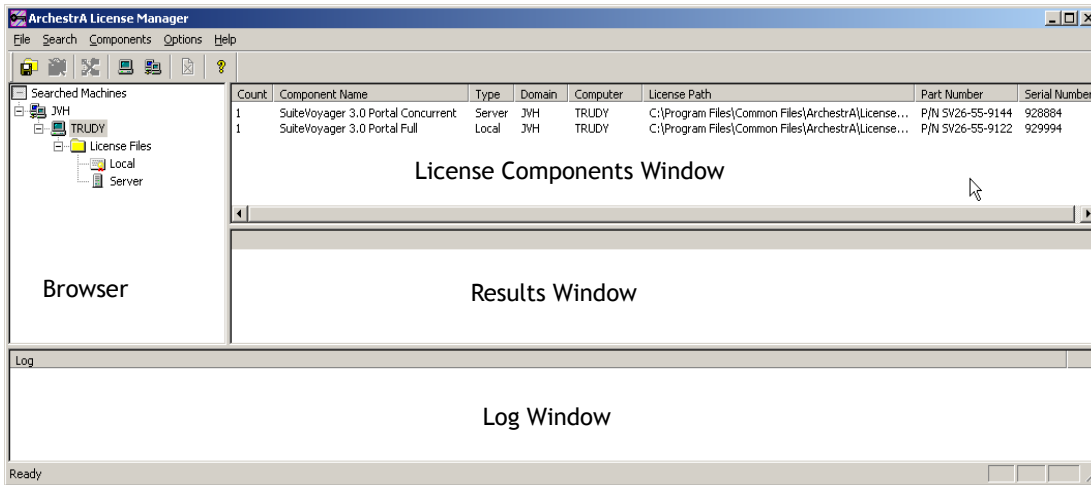
When you configure the computer for remote license management, ArcestrA License Manager creates a hidden share named Wonderware\$ for the \Program Files\Common Files\ArcestrA\License directory. This share is used to share the information in the license folder.

To start the ArcestrA License Manager

- 1 On the **Start** menu on the Windows Taskbar, point to **Programs, Wonderware**, then to **Common**, and then click **ArcestrA License Manager**. The first time you start ArcestrA License Manager, the Remote Management Configuration Screen appears.



- 2 Click **Yes** to configure the computer for remote license management or click **No** if you are not going to use this computer for remote license management. The ArcestrA License Manager main window appears.



Toolbar

The main toolbar appears beneath the menu bar. Use the tools on the main toolbar to execute commonly used menu commands.

**This
button...**

Does this...



Installs a license file.



Deletes a license file.



Clears the browser of searched computers.



Searches a computer for license files.



Searches the network for computers with license files.



Deletes the selected license component.



Opens the online help.

Browser

The browser appears at the left side of the ArcestrA License Manager. Navigate in the browser as with any typical Windows-based browsing application.

When the program starts, the browser shows the local machine, the license files, and the license servers, if found.

Note License installation and configuration should only be done by a network administrator. You can only view licenses that are located in folders for which you have administrative rights.

License Components Window

The **License Components** window lists the license components for all license files found on the computers that currently appear in the browser. The **License Components** window has eight columns.

Column	Description
Count	List of the license components found.
Component Name	Name of the license component.
Type	Type of the license component.
Domain	Network domain of the license server or file.
Computer	Name of the computer on which the license server or file resides.
License path	Path to the license server or file.
Part Number	Part number for the license component.
Serial Number	Unique serial number for this license.

If you select a license component in the **License Components** window, all of the feature lines for that license component appear in the **Results** window.

Results Window

The **Results** window shows the feature lines for the license component selected in the **License Components** window. This area also shows any error messages.

Log Window

The **Log** window tracks the activity in the ArcestrA License Manager. All additions, deletions, component moves, and other actions appear in this window.

Status Bar

The status bar shows you information about selectable user operations.

Installing License Files on Local Computers

Use the ArcestrA License Manager to select the license you want to install from the source location, which can be on a local or remote computer.

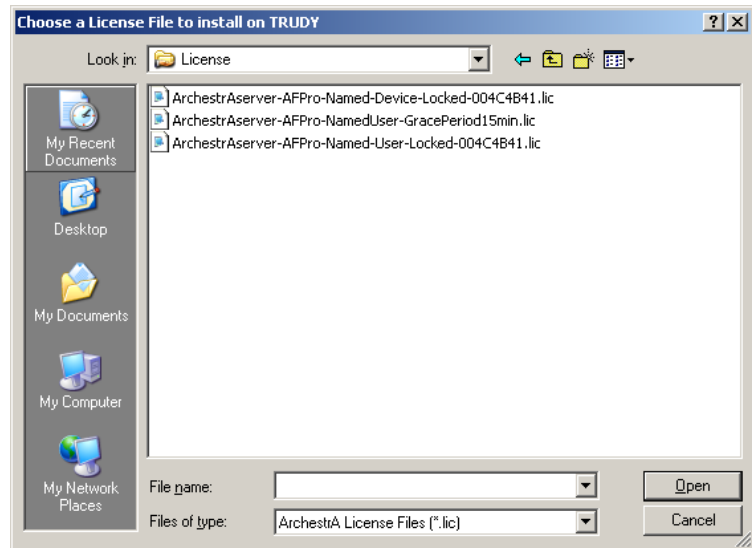
- If a license file does not already exist on the local computer, one is created that is identical to the license file from the source location.
- If a license file already exists, you can either overwrite or append the new license file's component and feature line information to the existing license file. The license file in the source location is not deleted at the end of the install.

Do not modify the license files or install them manually by copying into the default license folder.

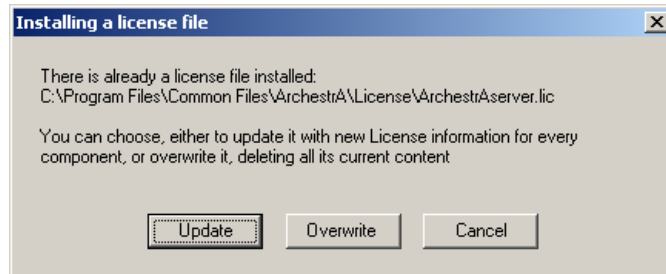
Note After adding the license file, the source license file retains its license components.

To install a license file on a local computer

- 1 On the **File** menu, click **Install License File**. The **Choose a License File to Install** dialog box appears.



- 2 Locate and select the license file (.LIC) you want to install and click **Open**. If a license file exists, the **Installing a License File** dialog box appears.



- 3 To append the new license file's information to the existing license, click **Update**. To overwrite the license file, click **Overwrite**.

The results of the installation appear in the **Results** window.

Installing License Files on Remote Computers

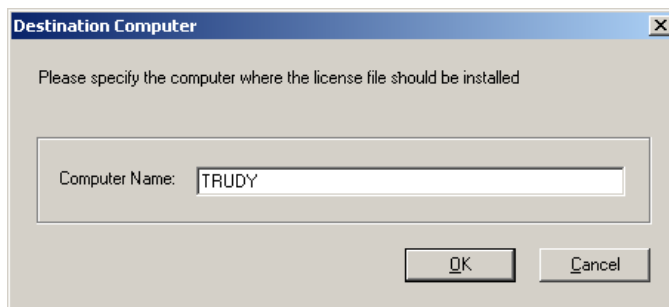
You can use the ArcestrA License Manager to install a license from a local or remote computer to a remote computer.

- If a license file does not already exist on the destination computer, one is created that is identical to the license file from the source location.
- If a license file already exists, you can either overwrite or append the new license file's component and feature line information to the existing license file. The license file in the source location is not deleted at the end of the install.

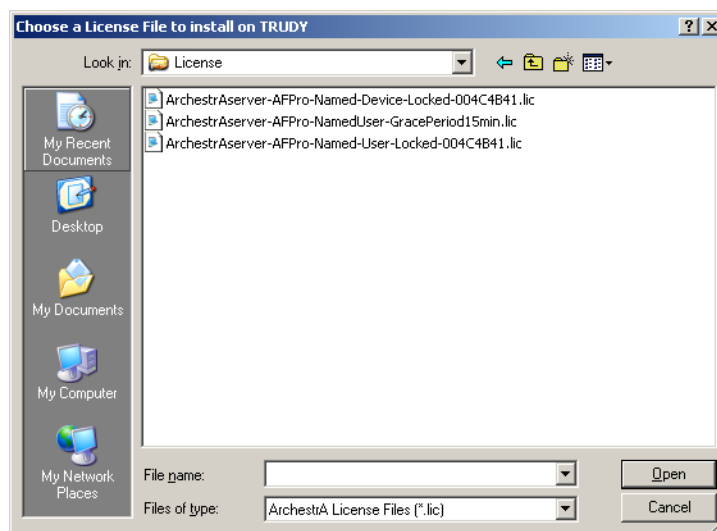
Do not modify the license files or install them manually by copying into the default license folder.

To install a license file on a remote computer

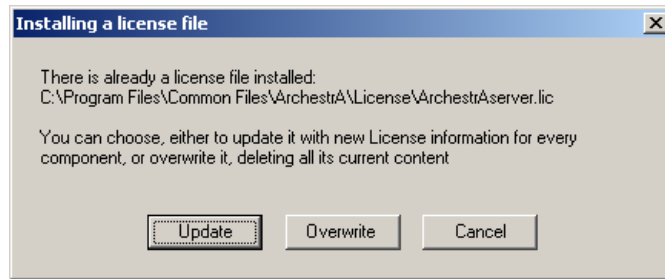
- 1 On the **File** menu, click **Install License File Remotely**. The **Destination Computer** dialog box appears.



- 2 Enter the name of the destination computer where you want to install the license and then click **OK**. The **Choose a License File to Install** dialog box appears.



- 3 Locate and select the license file (.LIC) you want to install and then click **Open**. If a license file exists, the **Installing a License File** dialog box appears.



- 4 To append the new license file's information to the existing license, click **Update**. To overwrite the license file, click **Overwrite**.

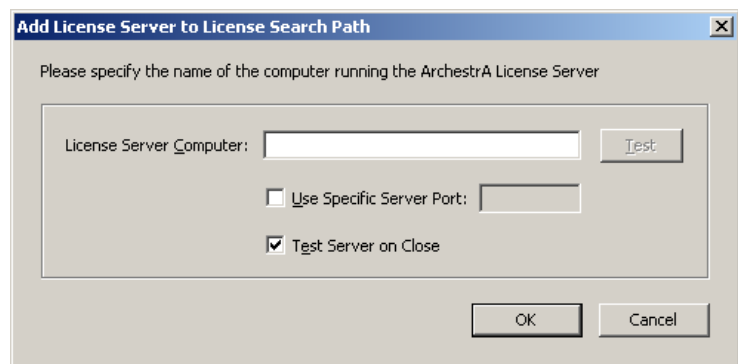
The results of the installation appear in the **Results** window.

Adding License Servers to the License Search Path on a Local Computer

Some newer versions of Wonderware products require you to use a license server for license information. The advantage to using a license server is that they consolidate license information on one computer, making license management easier.

To add a license server to the license search path on a local computer

- 1 On the **File** menu, click **Add License Server**. The **Add License Server to License Search Path** dialog box appears.



- 2 In the **License Server Computer** box, enter the name of the computer where the license server is installed. To test the computer, click **Test** after entering the name.
- 3 If needed, check the **Use Specific Server Port** box and enter a server port to use a specific port on the server.

The license server uses a default TCP/IP port range 27000-27009. These ports are opened in the Windows Firewall when the software is installed. Use a custom port only if you have configured your license server to run on a specific non-standard port.

For information on changing port assignments, click Start and point to Programs/Wonderware/ArcestrA License Server/Macrovision FLEXnet Licensing End User Guide.

- 4 Select **Test Server** to test the server after adding it.
- 5 Click **OK**. The license server information appears in the License Components and browser windows.
- 6 To append the new license file's information to the existing license, click **Update**. To overwrite the license file, click **Overwrite**.

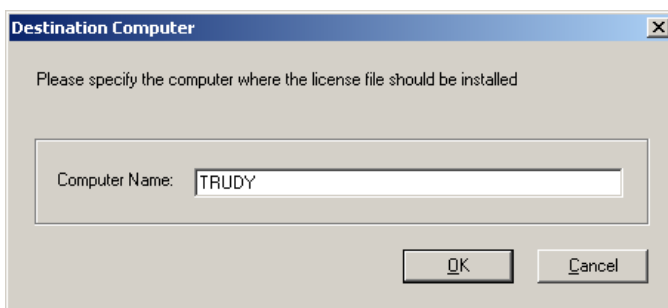
The results of the installation appear in the **Results** window.

Adding License Servers to the License Search Path on a Remote Computer

As with individual license files, you can use ArcestrA License Manager to set up a license server on a remote computer.

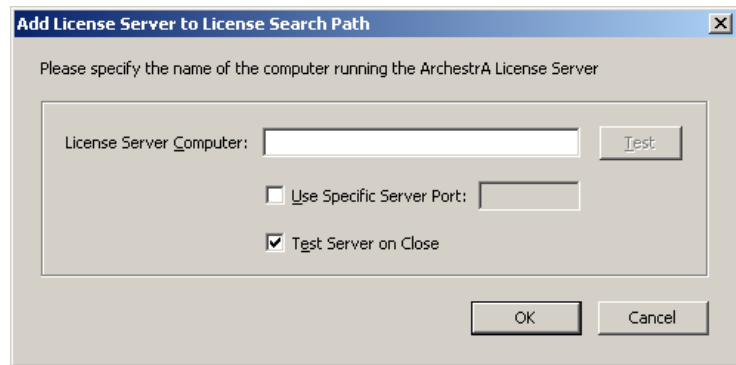
To add a license server on a remote computer

- 1 On the **File** menu, click **Add License Server Remotely**. The **Destination Computer** dialog box appears.



- 2 Enter the name of the destination computer where you want to add the license server to the license search path.

- 3 Click **OK**. The **Add License Server to License Search Path** dialog box appears.



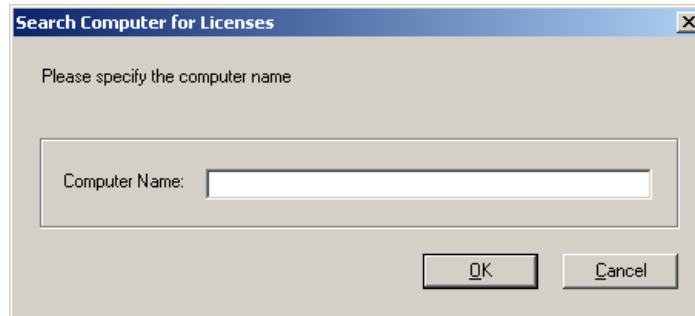
- 4 In the **License Server Computer** box, enter the name of the computer where the license server is installed. To test the computer, click **Test** after entering the name.
- 5 If needed, check the **Use Specific Server Port** box and enter a server port to use a specific port on the server.
The license server uses a default TCP/IP port range 27000-27009. These ports are opened in the Windows Firewall when the software is installed. Use a custom port only if you have configured your license server to run on a specific non-standard port.
For information on changing port assignments, click **Start** and point to **Programs/Wonderware/Arcestra License Server/Macrovision FLEXnet Licensing End User Guide**.
- 6 Select **Test Server** to test the server after adding it.
- 7 Click **OK**. The license server information appears in the License Components and browser windows.
The results of the installation appear in the **Results** window.

Searching by Name

If you know that a license file exists on a particular computer, you can search by name for that computer to see if it is available.

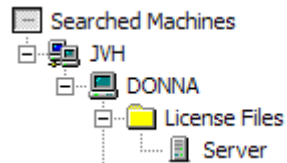
To connect to a computer by name

- 1 On the **Search** menu, click **Computer**. The **Search Computer for License File** dialog box appears.



- 2 In the **Computer Name** box, type the name of the computer on which you want to search for a license file.
- 3 Click **OK**.

If a license file is found on the computer, the computer is now listed in the browser.

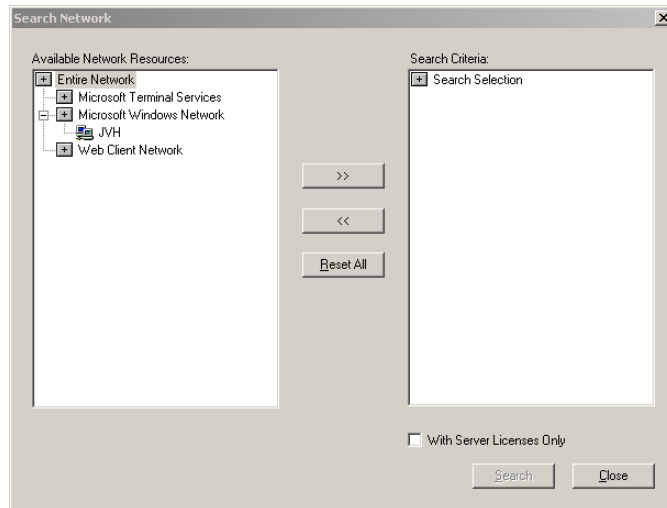


Searching the Entire Network

If you don't know which computers have license files, you can search the entire network and build a list that appears in the browser.

To search the network for computers with license files

- 1 On the **Search** menu, click **Network**. The **Search Network** dialog box appears.



- 2 In the **Available Network Resources** window, select the name of the domain for which you want to search for computers having license files.
- 3 Click the **Move to the Right** button to show all of the computers on that domain in the **Search Criteria** window. The computers in the **Search Criteria** list are computers that are searched for license files.
To exclude a computer from the search, select the computer in the **Search Criteria** window and click the **Move to the Left** button.
To clear the **Search Criteria** window, click **Reset All**.
Click **With Server Licenses Only** to search for server licenses only.
- 4 To start searching for computers that have license files, click **Search**.

A message appears at the bottom of the dialog box that indicates the status of the search, for example: 2 out of 147 searched. When the search is complete, all computers with license files installed are listed in the browser of the ArchestrA License Manager.

Browsing License Information

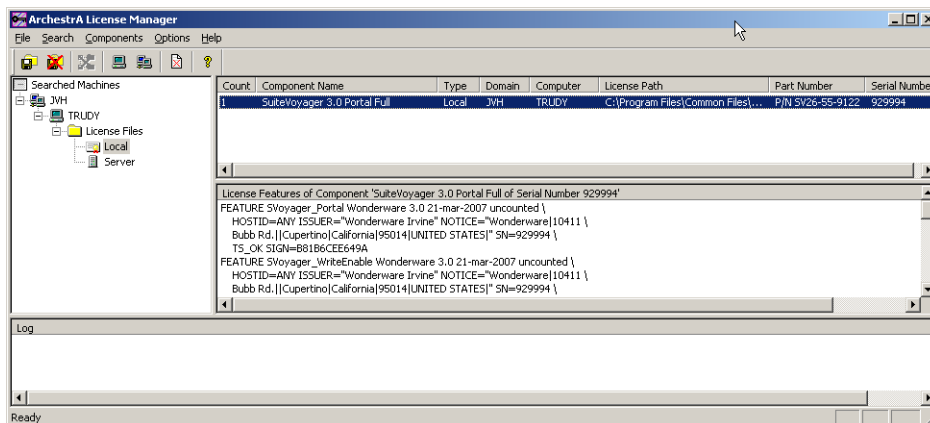
You can browse licensing information for any computer that appears in the ArcestrA License Manager browser.

Note To view or manage license files, you must have administrative rights for the folder(s) in which the license files reside. For example, to install a license file in a folder on a network computer, your network user account must have administrative rights for that folder.

To browse license information

- 1 In the **License Components** window, locate the name of the computer in the **Location** column.

For more information about the columns in the **License Components** window, see License Components Window on page 11.



- 2 Select the license component.
The summarized feature lines for that license component appear in the **Results** window.
- 3 Repeat the above steps for any additional license component from the same location.

Managing License Servers

ArchestrA License Manager lets you perform a variety of basic license server management tasks from a popup menu in the browser window. For more advanced tasks, you need to use Macrovision LMTOOLS. LMTOOLS is only installed on the license server computer.

LMTOOLS is documented and supported by Macrovision. To find the product documentation, click Start and point to Programs/Wonderware/ArchestrA License Server/Macrovision FLEXnet Licensing End User Guide. Additional product information is available at the Macrovision web site, <http://www.macrovision.com>.

To manage license servers

- 1 In the Browser window, expand **License Files**.
- 2 Right-click **Server**.
- 3 Select one of the following tasks from the popup menu:
 - **Start License Server**. If this menu item is disabled, then the license server is already running.
 - **Stop License Server**. If this menu item is disabled, then the license server is already stopped.
 - **Test License Server**. Tests availability of the license server and displays license features available on that server.
 - **Manage License Server**. Starts the Macrovision LMTOOLS utility for advanced license server management tasks.
 - **Edit Server Options File**. Starts a text editor to edit the license server options file (for configuring access to named device and named user licenses).
 - **Re-Read License File**. Starts the Macrovision lmreread utility to force rereading the license file by the license server.
 - **Delete**. Deletes the selected license file.
 - **Properties**. Displays the current properties of the served license file including any associated hardware key information.

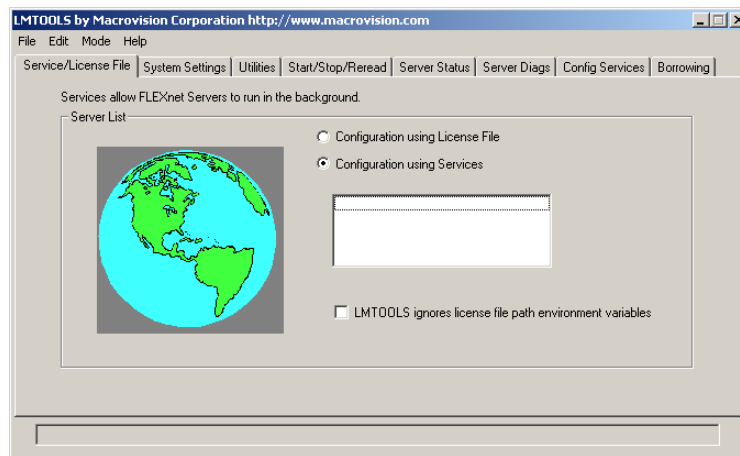
To change server order

The order in which the server paths appear in the browser window determines the order in which license servers are searched.

- 1 In the Browser window, expand **License Servers**.
- 2 Right-click a server in the list and click **Move Up** or **Move Down** to move the server up or down in the list.

To perform advanced license server management tasks

- ◆ On the **File** menu, click **Manage License Server**. The **LMTTOOLS** dialog box appears.



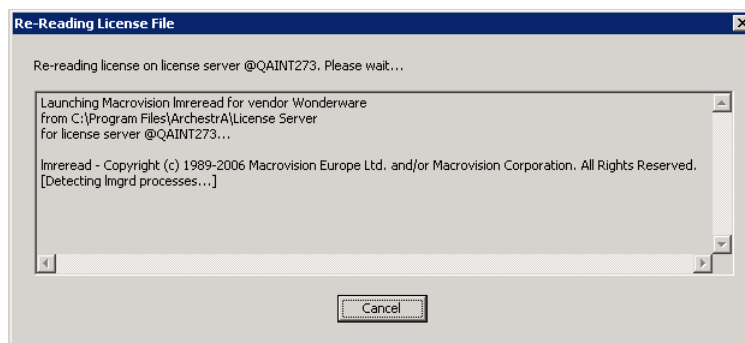
Note Depending on which mode you select on the main window, the tab settings may change.

Rereading License Files

You occasionally might need to reread a license file to reset the data in the ArcestrA License Manager. For example, if you add a license file, you must reread it to propagate the changes to the license server.

To reread a license file

- 1 On the **File** menu, click **Re-read License File**. The **Re-reading License File** dialog box appears.



- 2 The ArcestrA License Manager rereads the license file and updates the license information.

Using Named Device and Named User Licenses

Named device licenses have a `HOST_BASED` keyword. They let you specify the computer(s) or IP address(es) that can use a license. Named user licenses have a `USER_BASED` keyword and are similar to named device licenses, except that they are assigned to specific users rather than specific computers or IP addresses.

Device and user information for both types of licenses is stored in the license server options file, `Wonderware.opt`. For detailed information on this file, click Start and point to `Programs/Wonderware/ArchestrA License Server/Macrovision FLEXnet Licensing End User Guide`.

You can change the devices or users associated with a named device or named user license by repeating the named user setup procedure and entering new user names.

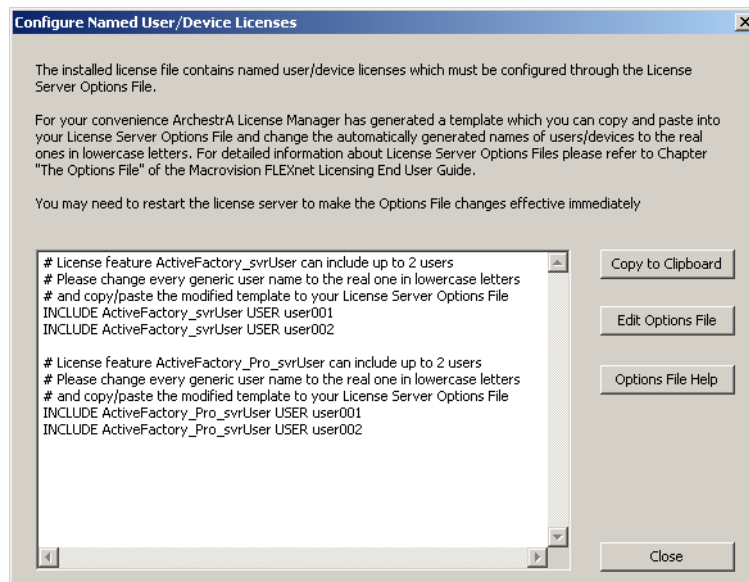
When you specify host names in the options file, you can use the NETBIOS names of the computers or the static IP addresses.

The ArchestrA licensing infrastructure overrides the NETBIOS name of the computer running the licensed application with the NETBIOS name of the computer used as a terminal session client.

For example, if a user logs into computer `Host1` and starts a remote desktop session to computer `Host2`, a licensed application started in the remote session is shown being run by `Host1` rather than `Host 2`. However, if you use static IP addresses instead of NETBIOS names in the options file, the IP address always identifies the actual computer where the licensed application is running.

To set up a named device or named user license

- 1 When you add a named device or named user license, the **Configure Named User/Device Licenses** dialog box appears.



- 2 Click **Copy to Clipboard** to copy the template for the commands to the Windows Clipboard.
- 3 Click **Edit Options File**. The Wonderware.opt file is opened for editing in the Windows Notepad.
- 4 Paste the command template in the Wonderware.opt file and modify the INCLUDE statements for each of the named device or named user license component. Device names and user names must all be lowercase. Do not precede user names with domains.

Note To use a named device license in a TSE session, the name of the Terminal Server client must be specified in the options file.

- 5 Save the Wonderware.opt file and exit Notepad.
- 6 Click **Close**.
- 7 Restart the license server to propagate the information in the license.

Using Hardware Keys with ArcestrA License Manager

The ArcestrA License Manager supports hardware keys, called dongles. All dongles issued by Wonderware have a unique serial number. The license file you receive with the dongle is permanently associated with, or locked, to this serial number. The serial number for the hardware key is matched to the license file with an authentication algorithm.

Licenses must be set up for the specific dongles on your system and a license file must be located on the same computer as the associated dongle.

Note If a dongle is removed from a computer, the Wonderware application that is using the dongle may stop entirely, start a grace period, or go into demo mode, depending on the application and the licensing. When you replace the dongle, you may need to restart the application as well as stop and restart the license server.

Deleting License Server Paths

You can delete license server path information from the ArcestrA License Manager. You can also use this procedure to delete an unserved license.

Note This procedure only deletes the license server path information from ArcestrA License Manager.

To delete a license server path or unserved license

- 1 In the ArcestrA License Manager browser, select the license server or the license file.
- 2 On the **File** menu, click **Delete**.
- 3 Confirm the deletion.

To delete all license server paths or unserved licenses at once

- 1 In the ArcestrA License Manager browser, select the License Servers or the License Files folder.
- 2 On the **File** menu, click **Delete**.
- 3 Confirm the deletion.

Deleting License Components

You can delete a single license component.

To delete a license component

- 1 In the ArcestrA License Manager browser, select the license component.
- 2 On the **Components** menu, click **Delete**.
- 3 Confirm the deletion.

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