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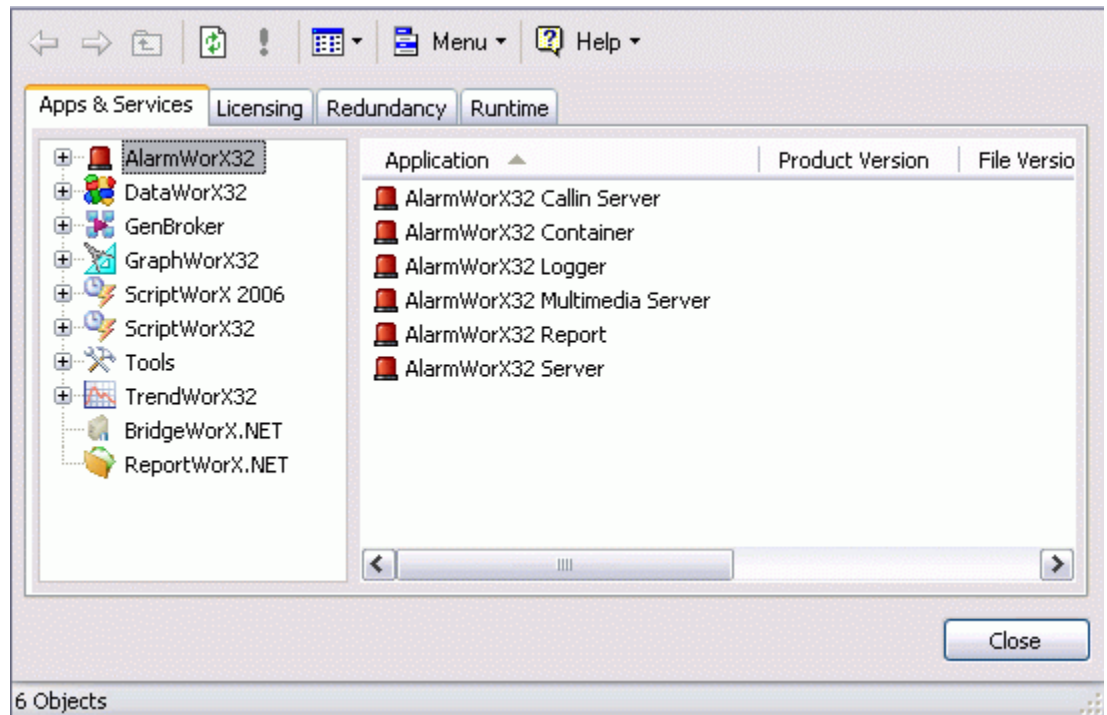
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Introduction

The **MonitorWorX Viewer**, shown in the figure below, is a tool that provides graphical monitoring and a centralized diagnostics area for many aspects of your GENESIS32 applications, including: applications and services, licensing, redundancy, and runtime.



MonitorWorX Viewer

Features of MonitorWorX

Features of MonitorWorX

Key features of MonitorWorX include:

- Look and feel of the GENESIS32 Unified Data Browser.
- Multi-tabbed browser interface.
- Resizable window.
- Movable split bar separating the tree control from the item viewer.
- Shows runtime information for active servers.
- Centralized diagnostics tool for GENESIS32 components.
- Starts and stops applications and services (serves as a replacement for the GenTray application).
- Provides licensing information and duplicate license detection (serves as a replacement for the License Monitor application).
- Displays the runtime status of redundant node pairs (support for redundancy in DataWorX32 Professional Edition). Also allows you to designate (in real-time) which node in a redundant node pair is the active node and which is the standby node.
- System tray provides visible "bubble" notifications.

MonitorWorX Statistics

MonitorWorX provides both runtime statistics for the different GENESIS32 servers shown in the table below, as well as

Note: The Version field in the Runtime Connections tab shows the version of the Toolkit used to build the application.

Statistics displayed for GENESIS32 servers during runtime in MonitorWorX.

Application	Runtime Connections Tab														
	Start Time	Current Time	Last Update Time	Server State	Version	Manufacturer	Group Count	Bandwidth	Demo Over Time	CU Total	CU Issued	Point Count	Points in Use	Gen Lic Bits	Days Remaining
Aw32 Logger															
Aw32 Server	X	X	X	X	X	X	X	X							
Aw32 MMX Server															
Dw32 Runtime	X	X	X	X	X	X	X	X							
DBOPC Server	X	X	X	X	X	X	X	X							
GenBroker															
GenEvent Server	X	X	X	X	X	X									
GAS Server															
Gw32 Runtime															
LAS Server															
License Server	X	X			X				X	X	X	X	X	X	X
Sw32 2006 Runtime															
Security Server	X	X		X	X		X		X						
SimOPC Server	X	X	X	X	X	X	X	X							
SNMP Runtime															
Tw32 Log32															
Tw32 HDA32															
Tw32 Persistent															
Tw32 Report															
UDM Runtime															
UTM Runtime															
VCRw32 Server	X	X	X	X	X	X	X	X							

The Apps and Services tab provides an inventory of the GENESIS32 applications and their version numbers, along with other vital statistics such as the state of the application, when it was started and how long it has been running.

Statistics displayed on MonitorWorX's Apps and Services tab.

Application	Apps and Services Tab															
	State	Vendor	Version	Start Time	Up Time	Event Log	Groups Event Log	Expressions Event Log	Recipes Event Log	ValueSets Event Log	Console Event Log	TcpUnWrapper Folders	Variables Folder	Thread Folders	Statistics Folder	DataSource Folders
Awx32 Logger	X	X	X	X	X										X	
Awx32 Server	X	X	X	X	X											
Awx32 MMX Server	X	X	X	X	X											
Dwx32 Runtime				X		X										
DBOPC Server	X	X	X	X	X	X										X
GenBroker	X	X	X	X	X	X						X				
GenEvent Server																
GAS Server	X	X	X	X	X	X										
Gwx32 Runtime																
LAS Server	X	X	X	X	X	X										
License Server																
Swx 2006 Runtime	X	X	X	X	X						X		X	X		
Security Server																
SimOPC Server	na	na	na	na	na	na										
SNMP Runtime																
Twx32 Log32	X	X	X	X	X										X	
Twx32 HDA32	X	X	X	X	X										X	
Twx32 Persistent	X	X	X	X	X										X	
Twx32 Report	X	X	X	X	X										X	
UDM Runtime	X	X	X	X	X		X	X	X	X					X	
UTM Runtime	X	X	X	X	X	X										
VCRwx32 Server																

Counters and Performance

When you run AlarmWorX, TrendWorX, or set a process point that gets data from an OPC Server, MonitorWorX will display a list of counters in the Runtime tab. Different running applications will show different set of counters.

As an example, the process point in GraphWorX is set as shown in the Properties dialog box below.

A process point is set to an OPC server in GraphWorX.

Property Inspector

Text PPT/DE

Data Source: ☐ Drag/Drop Data Source
 ICONICS.DatabaseOPCServer.3\Administrati Data Tags...
 Expression...

Point Type

☒ Update
☐ Data Entry
☐ Confirm ...
☐ Keypad

OPC Request Type: NATIVE
 Client Display Type: DOUBLE
 Format: xxxxx.xx
☐ Initial Value: 0

☐ Show Unit ☐ Thousands Separators
 Unit Position: Right ☐ Leading Zeros
 Unit Text: ...

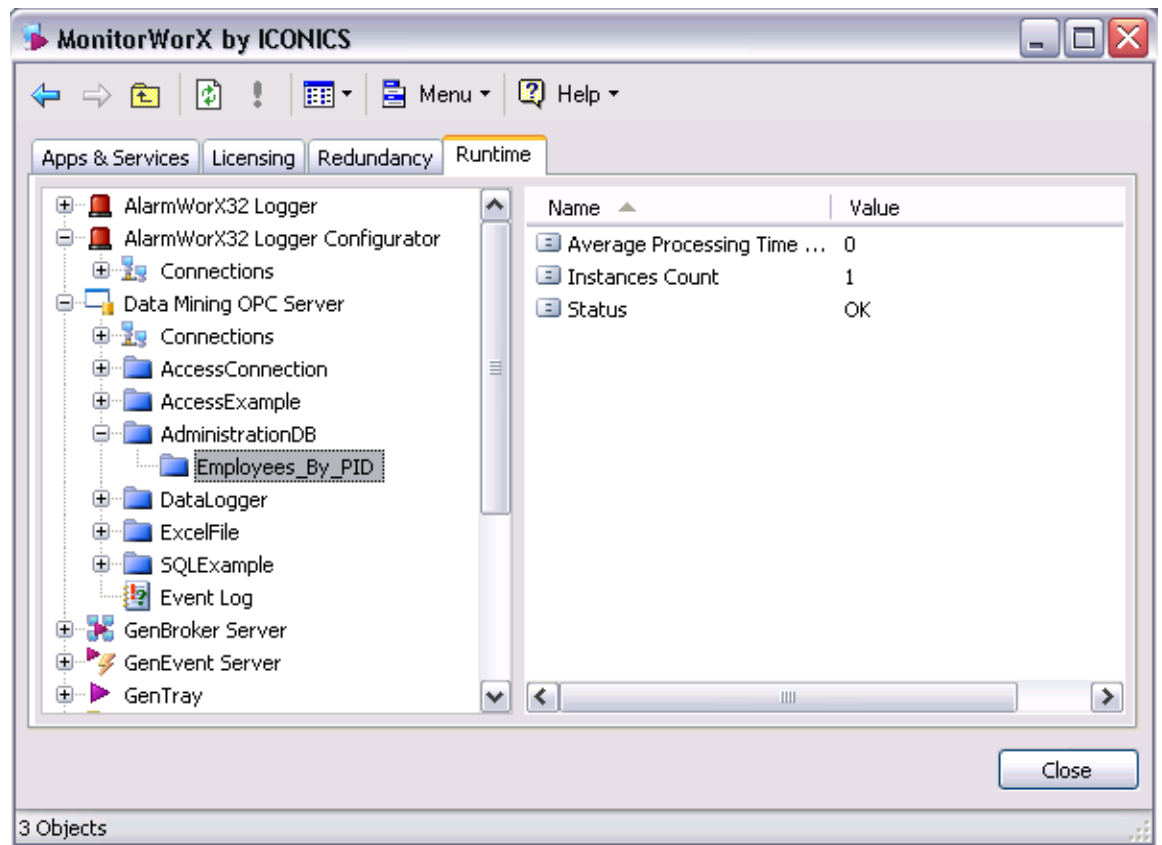
☐ Input Range
 Low: -2147483647 OPC ...
 High: 2147483647 OPC ... States...

Object Name: ...
 Description: ...
 Custom Data: ... Custom...
☐ Lang Alias: ...

OK Cancel Apply Help

When you put GraphWorX into runtime you will see the folder containing running counters in MonitorWorX as shown in the figure below. Different applications will display different counters, as detailed in the table that follows.

Running applications display a folder with real time counters in MonitorWorX.



AlarmWorX32 Server

- MaxClientQueue Maximum size of the client queue
- BufferSize Current operating buffer size.
- BufferOverflow Number of times the buffer size has been exceeded.
Implies some alarm messages where

dropped

AlarmWorX32 MMX Server

- INVOKEPASS Number of times agents successfully invoked since start of application
- INVOKEFAIL Number of times agents failed to invoke since start of application
- JOBDONEPASS Number of times that agents successfully completed since start of
application
- JOBDONEFAIL Number of times that agents failed to complete since start of application
- ACKREQPASS Number of times the ack request has successfully occurred since start of
application

- ACKREQFAIL Number of times that acknowledge request has failed since start of application
- AGENTCANCEL Number of times that agent cancel has occurred since the start of the application."

TcpUnWrapper Folder Items:

- Address
- Peer Address
- Peer Port
- Pending Request Count
- Pending Response Count
- Ping Count
- Poll Count
- Port
- Receive Buffer Alloc
- Receive Buffer Length
- Receive Buffer Peak
- Receives Processed
- Request Count
- Response Count
- Send Buffer Alloc
- Send Buffer Length
- Send Buffer Peak
- Sends Processed

DataSource Folder Items:

- Average Processing Time (ms)
- Instances Count
- Status

Statistics Folder Items

- AlarmWorX32 Logger
- Number of Items Logged
- Number of Snapshots Logged
- Number of Archive Tables Created
- Number of Archive Tables Failed

TrendWorX Log32

- Current Active configuration

- Current Active configuration ID
- Total count of logging groups
- Total count of database groups
- Total count of activated logging groups
- Total count of database groups in error
- Database Groups in error

TrendWorX Hda32

- Current Active configuration
- Current Active configuration ID
- Total count of client connections

TrendWorX Report

- Total enabled reports
- Total count of reports
- Total number of reports executed with errors
- Fastest report name
- Fastest report time in secs
- Slowest report name
- Slowest report time in secs

Persistent trend

- Total count of groups
- total count of activated groups

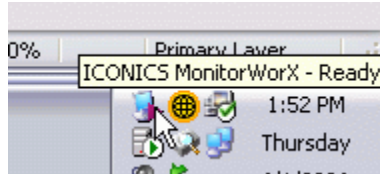
Threads Folder (Swx 2006)

- Designer SubFolder
- Console Event Log Folder
- Enabled
- Executed Scripts
- Priority
- Queue Count
- Queue Max Size
- Status

Variables Folder (Swx 2006)

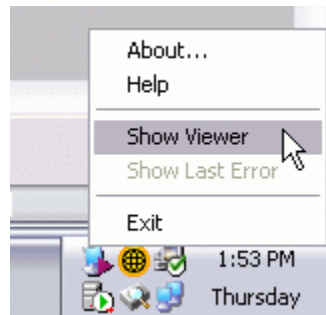
Starting MonitorWorX

launch MonitorWorX from the Windows **Start** menu, select **Programs > ICONICS Tools > MonitorWorX**. When MonitorWorX opens, an icon appears in the Windows tool tray, as shown in the figure below.



MonitorWorX Icon in Windows Tool Tray

To display the MonitorWorX user interface, right-click on the MonitorWorX icon in the Windows taskbar and select **Show Viewer** from the pop-up menu, as shown in the figure below.



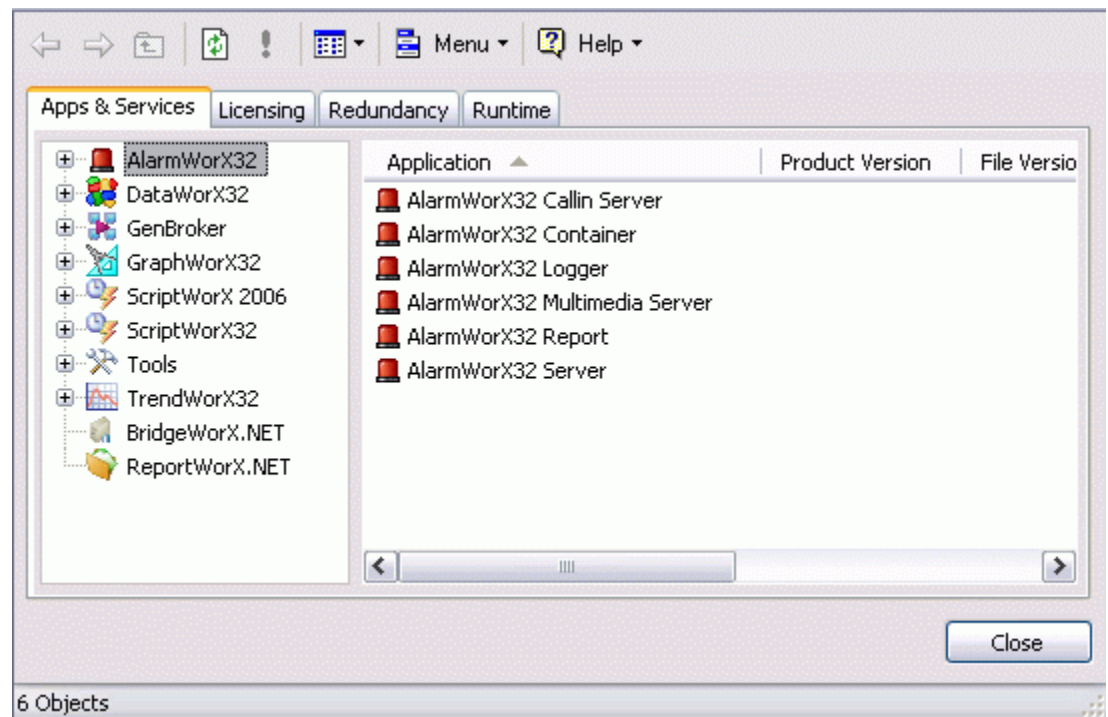
Displaying the MonitorWorX Viewer

See Also

MonitorWorX User Interface

MonitorWorX User Interface

MonitorWorX consists of a single, resizable window with two panes, as shown in the figure below, and contains the following tabs: application and services, licensing, redundancy, and runtime.



MonitorWorX Viewer

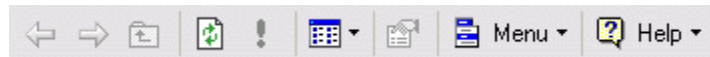
The MonitorWorX user interface contains the following main components: toolbar, tree control (left), and item browsers (right).

Toolbar

The Viewer toolbar, shown in the figure below, contains the following commands:

- **Back:** Moves the selection back to the previously selected item.
- **Next:** Moves the selection forward to the next item.
- **Up One Level:** Moves up one level in the view.
- **Refresh:** Reloads data from the selected servers.

- **Show Error Info:** Displays information (when available) about errors in the system.
- **View-List:** Displays items as a list.
- **Views-Details:** Displays items as a list with details.
- **Properties:** Displays the properties for the selected item.
- **Menu:** Provides several configuration options. For more information, please see the "Menu Options" section below.
- **Help:** Launches the online help for the Viewer and displays information about the application.



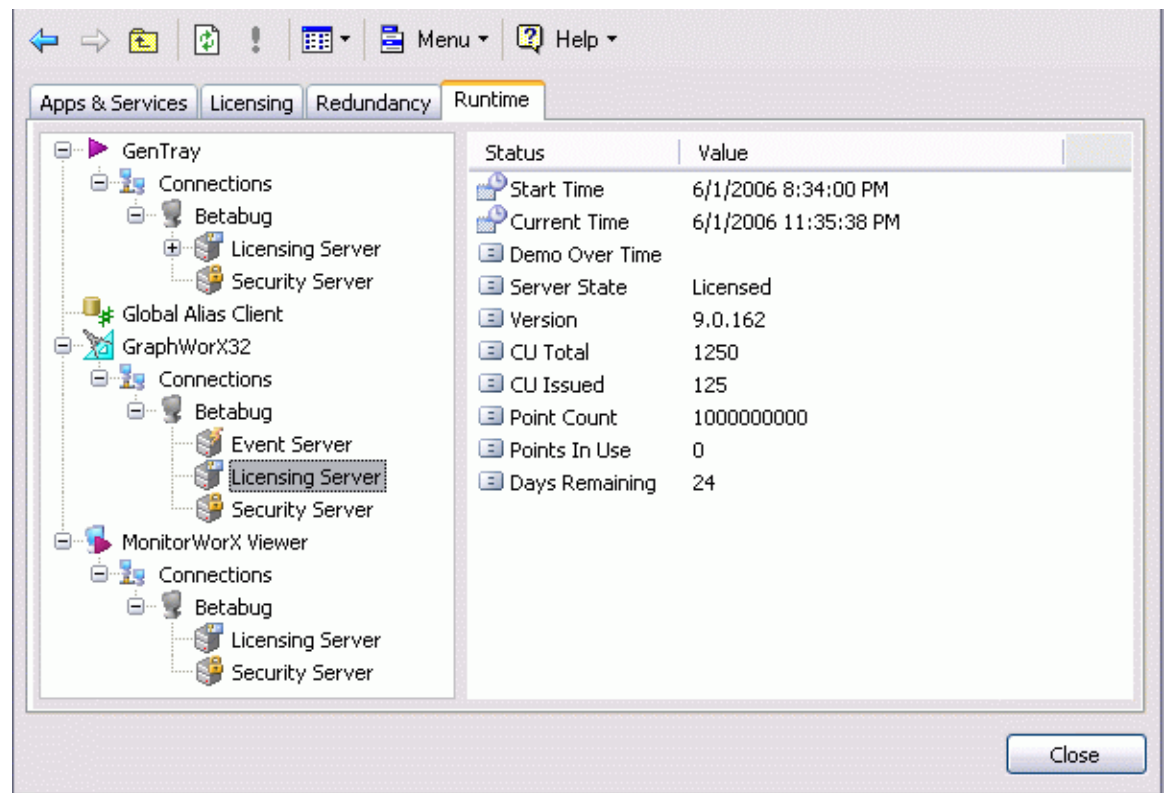
MonitorWorX Toolbar

See Also

Menu Options

Tree Control

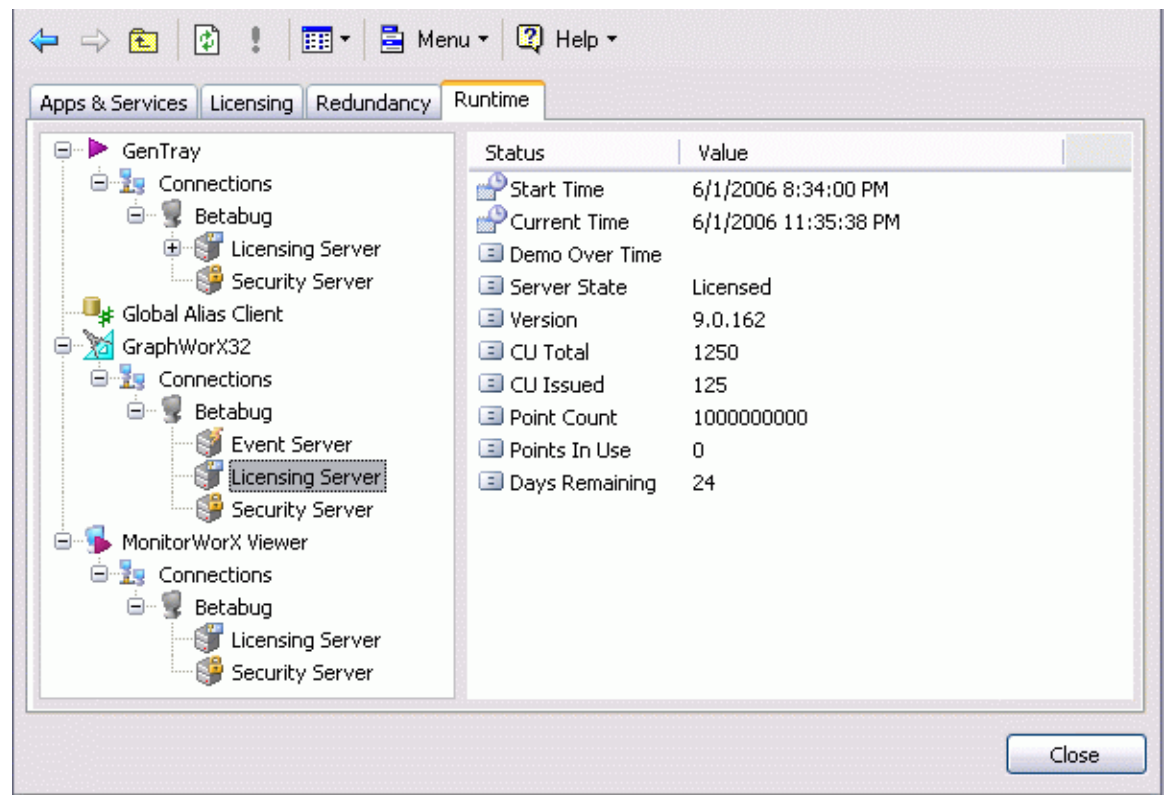
The left pane of the MonitorWorX Viewer interface presents a hierarchical tree control display of information, as shown in the figure below.



MonitorWorX Tree Control

Item Browser

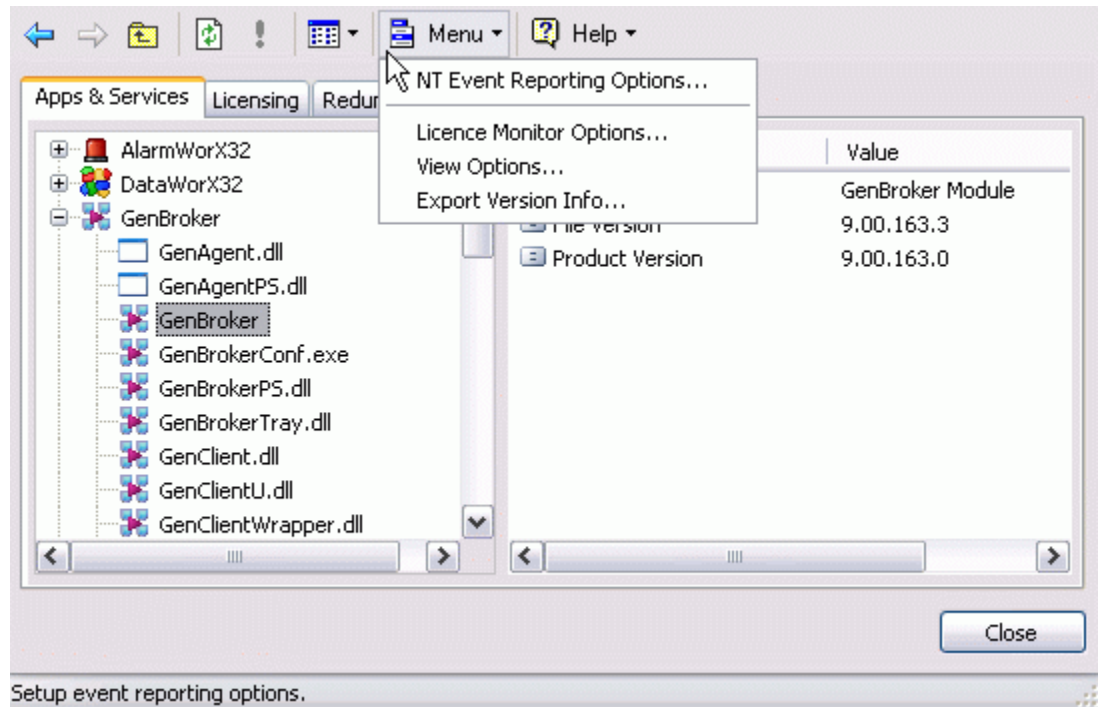
The right pane of the MonitorWorX Viewer interface displays the items (e.g. node names, server names, server status, etc.) for the currently selected item in the tree control, as shown in the figure below.



MonitorWorX Item Browser

Menu Options

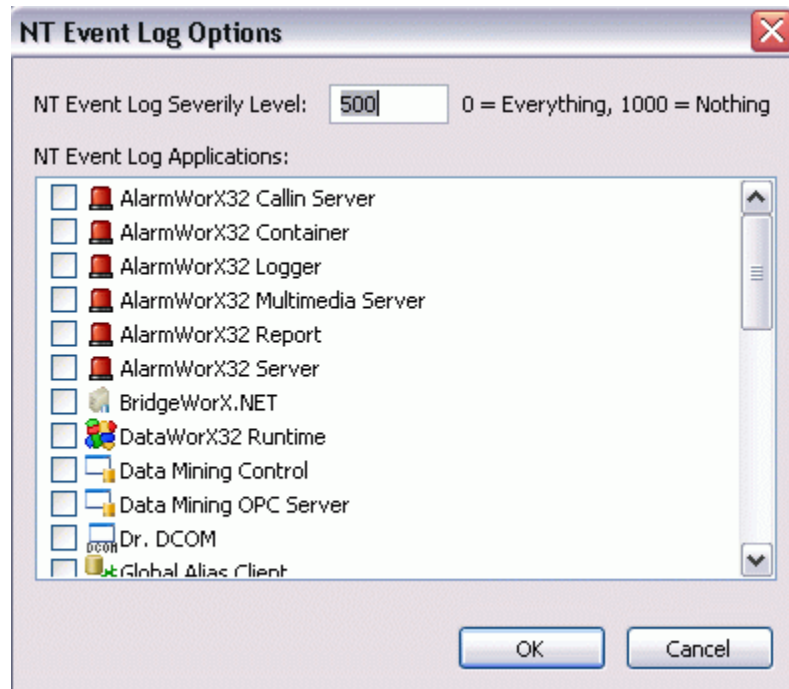
The **Menu** drop-down list on the MonitorWorX toolbar, shown in the figure below, provides the following options: NT Event Reporting Options, License Monitor Options, View Options tab, Export version info.



Menu Options in MonitorWorX Viewer Toolbar

NT Event Reporting Options

Selecting **NT Event Reporting Options** from the **Menu** drop-down list on the MonitorWorX toolbar opens the **NT Event Log Options** dialog box, as shown in the figure below. The GenEvent Server exposes all events sent to it via the OPC Alarm and Events (AE) interface. OPC AE clients, such as the AlarmWorX32 Viewer and Logger, can subscribe to the GenEvent Server to view and log these events. In the **NT Event Log Options** dialog box, shown in the figure below, you can configure settings for logging events to the NT Event Logger. The **NT Event Log Applications** list box allows you to select which ICONICS applications will be logged to the NT Event Logger. To select an application to be logged, simply check the box next to the application. It is also necessary to set the **NT Event Log Severity Level** if you are using Windows NT. The number you enter in this field is the minimum severity level required for an event to be logged to the NT Event Logger. For example, if the severity level is set to 500, only events with a severity level greater than 500 will be logged to the NT Event Logger.



NT Event Reporting Options

License Monitor Options

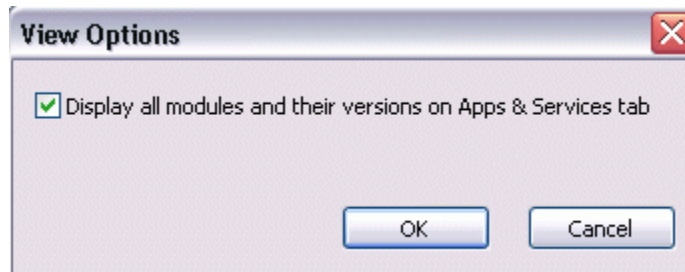
Selecting **License Monitor Options** from the **Menu** drop-down list on the MonitorWorX toolbar opens the **License Options** dialog box, as shown in the figure below. When the **Enable License Monitoring** check box is checked, the **License Monitor** tree control in the **Licensing** tab is displayed, showing the node name, site code, and site key information. For more information, please see the "Licensing Tab" section below.



License Monitor Options

View Options

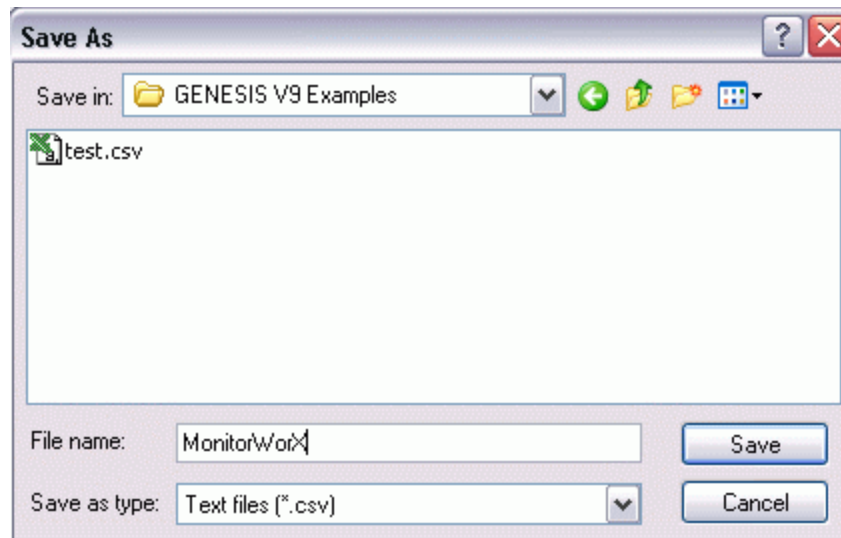
Selecting **View Options** from the **Menu** drop-down list on the MonitorWorX toolbar opens the **License View** dialog box, as shown in the figure below. When the check box is checked, all modules and their versions will be displayed in the **Apps & Services** tab in the MonitorWorX Viewer.



View Options

Exporting Version Information

Selecting **Export Version Info** from the **Menu** drop-down list on the MonitorWorX enables you to export file and product version information to a .csv file. Specify a file name and directory, and then click **Save**, as shown in the figure below. This enables technical support staff to know the exact versions of all applications that you are running.



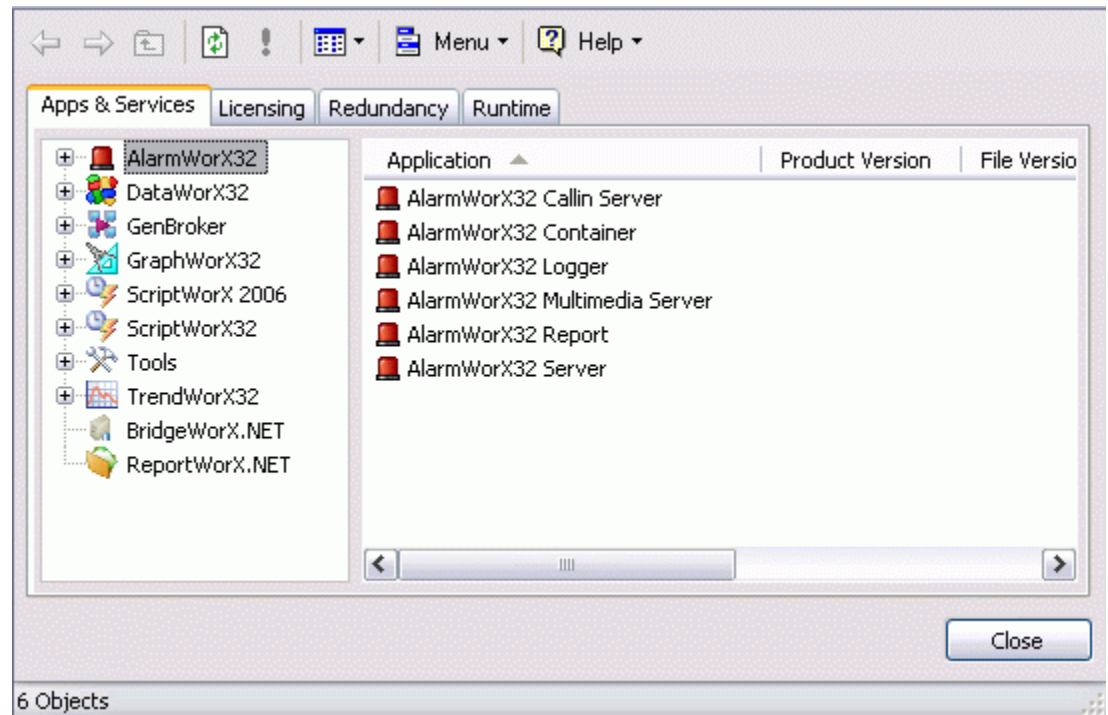
Exporting Version Information

Applications and Services Tab

The **Applications and Services** tab, shown in the figure below, includes many capabilities of the MonitorWorX application. The tree control provides a list of the ICONICS applications on the machine, as shown in the figure below. From

this list you can check to see whether a server or an application is running and browse its settings.

MonitorWorX provides a way to either manually or automatically start and/or stop ICONICS applications. In the MonitorWorX user interface, you can specify which applications to start and stop. You can also set up applications to auto start upon Windows startup, setting their timing and launching position parameters.



MonitorWorX: Applications and Services Tab

See Also

Starting Applications in MonitorWorX

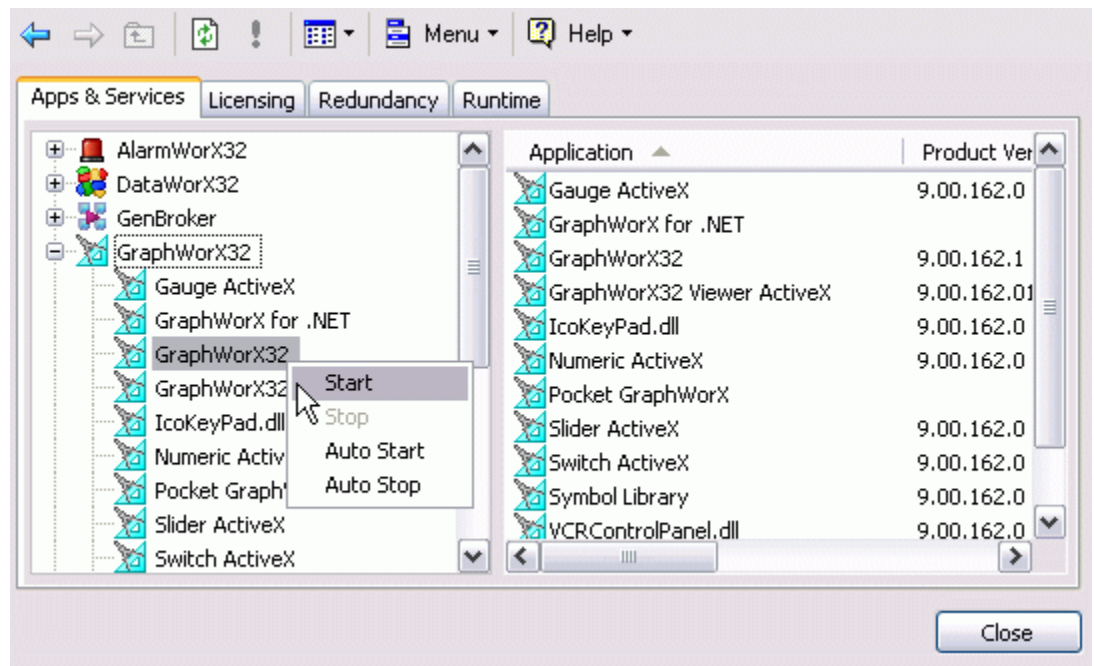
Stopping Applications in MonitorWorX

Auto Start and Auto Stop

Running Applications As NT Services

Starting Applications in MonitorWorX

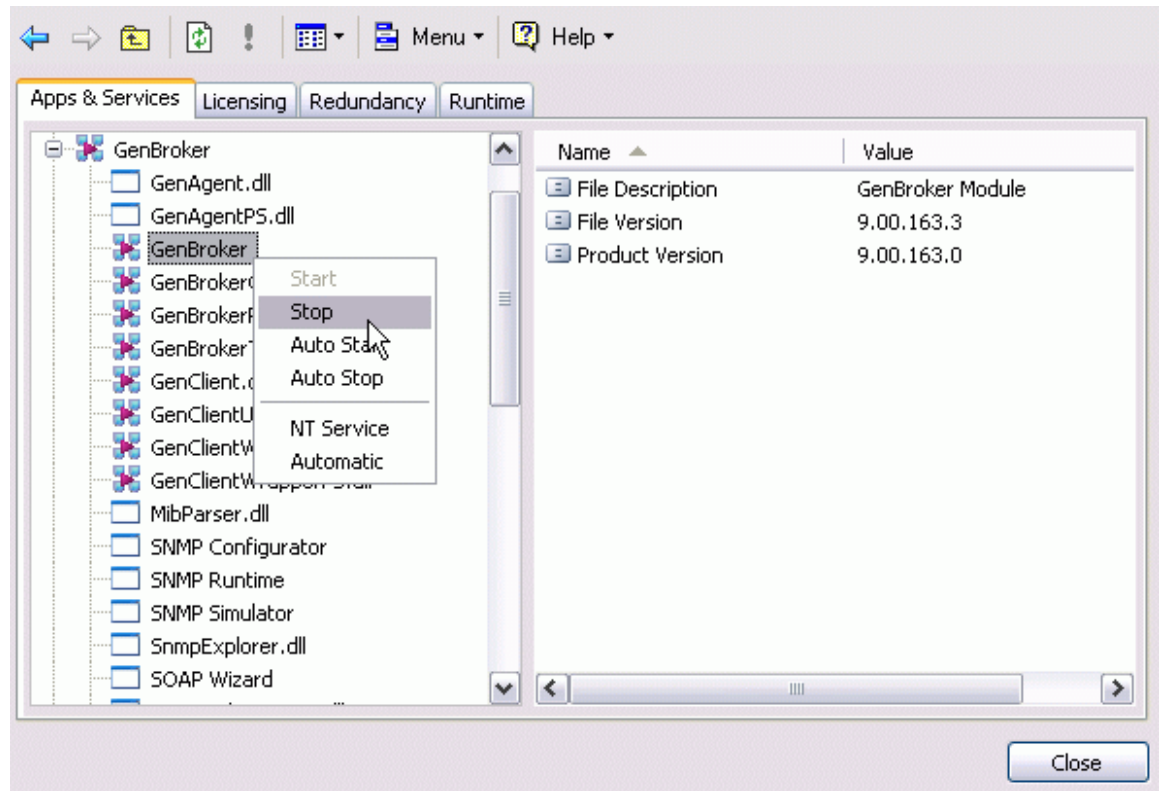
To launch an application from the MonitorWorX user interface, right-click the application in the **Applications and Services** tab and choose **Start** from the pop-up menu, as shown in the figure below.



Starting an Application in MonitorWorX

Stopping Applications in MonitorWorX

To shut down a running application from MonitorWorX, select the application and choose **Stop** from the pop-up menu, as shown in the figure below.

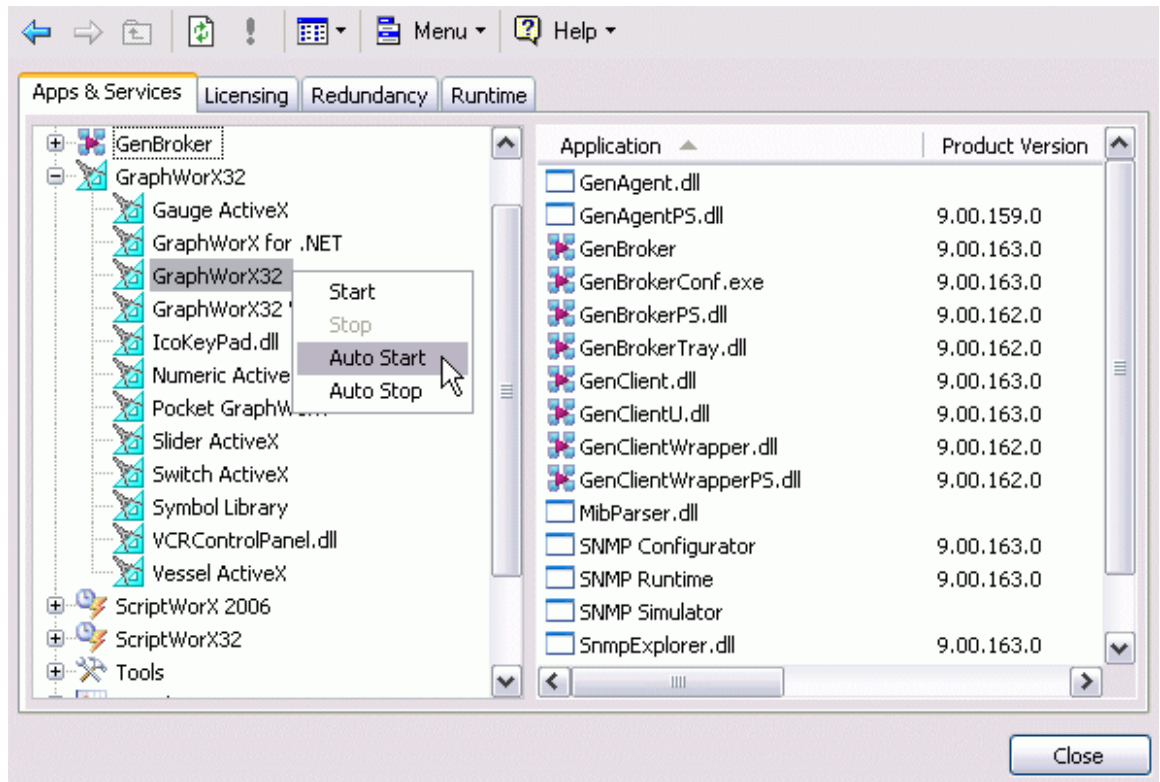


Stopping an Application in MonitorWorX

Auto Start and Auto Stop

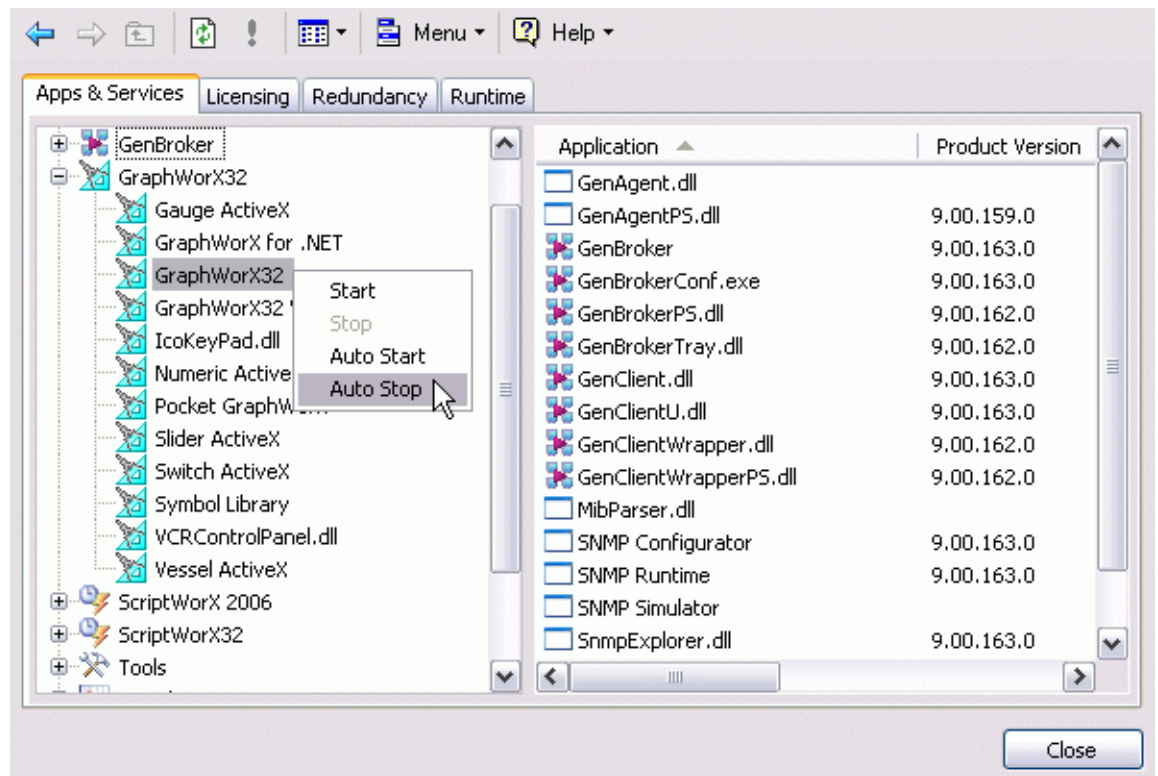
The **Auto Start** and **Auto Stop** options in MonitorWorX enable you to automatically open and shut down ICONICS system applications in an orderly fashion.

When **Auto Start** is selected for an application in the MonitorWorX user interface, as shown in the figure below, the application is automatically launched upon MonitorWorX startup.



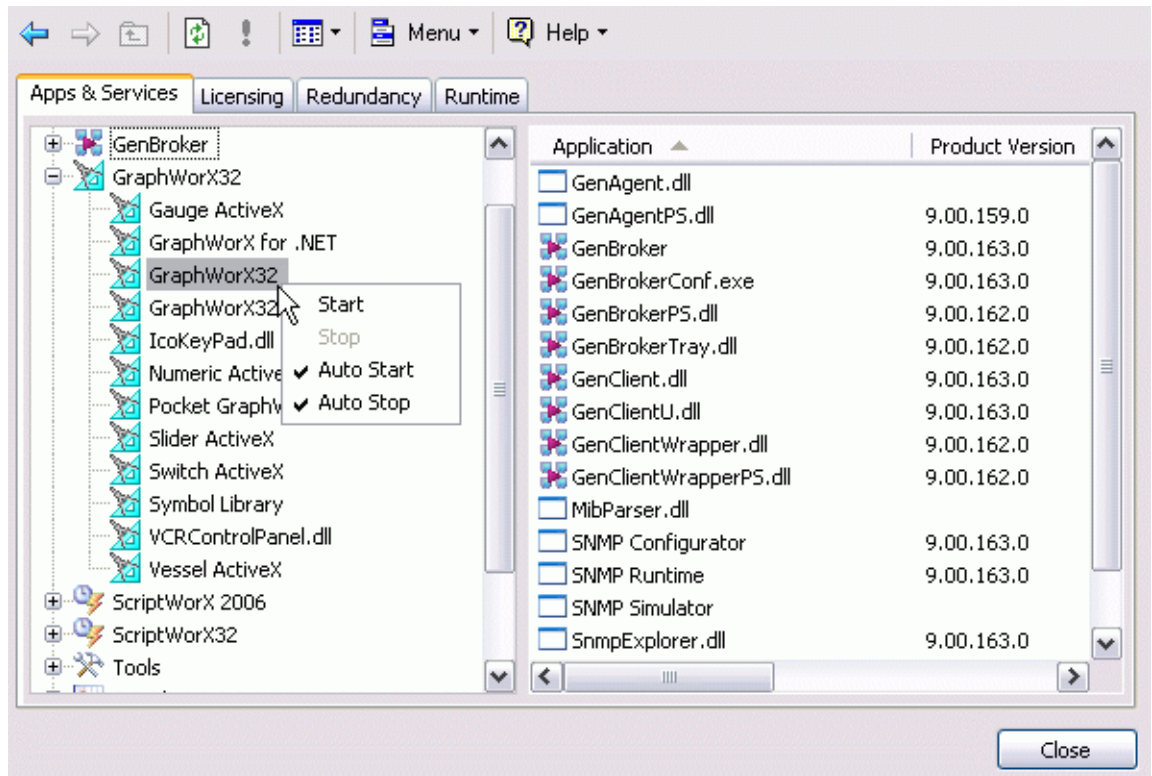
Auto Starting an Application in MonitorWorX

When **Auto Stop** is selected for an application in the MonitorWorX user interface, as shown in the figure below, the application is automatically closed upon MonitorWorX shutdown.



Auto Stopping an Application in MonitorWorX

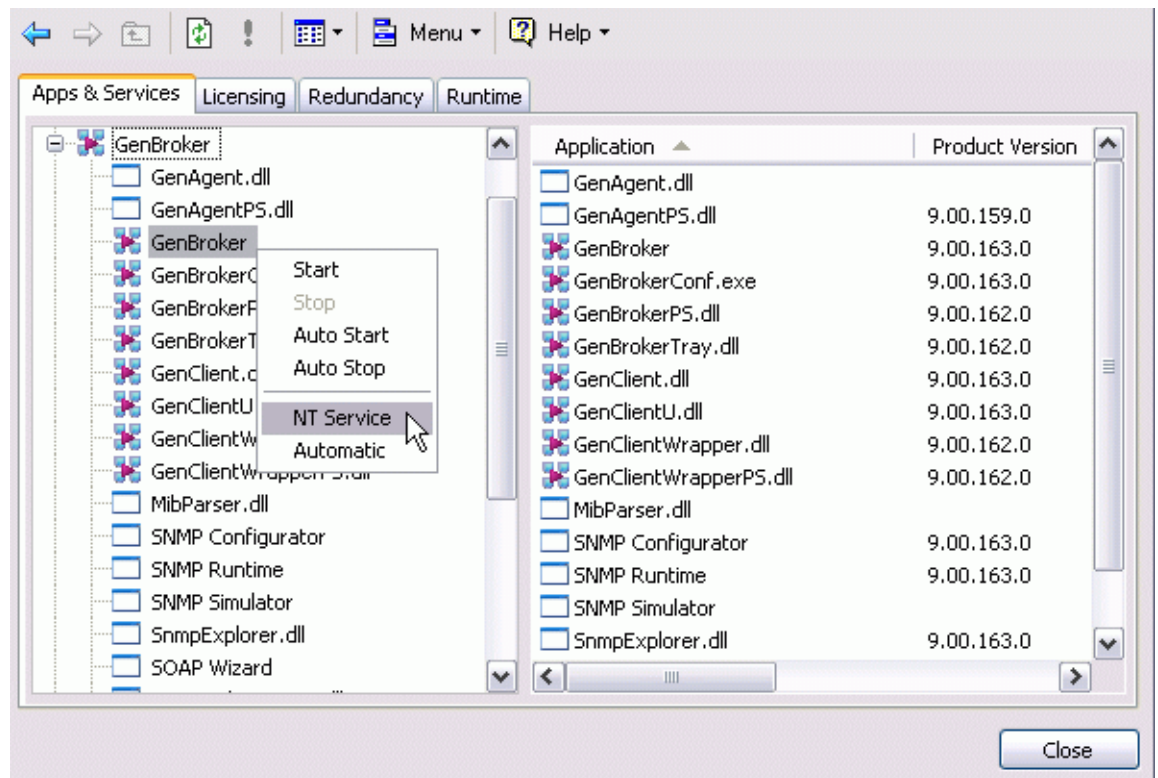
Once **Auto Start** or **Auto Stop** has been enabled for an application, a check mark appears next to each menu item, as shown in the figure below.



Auto Start/Stop Enabled for Application

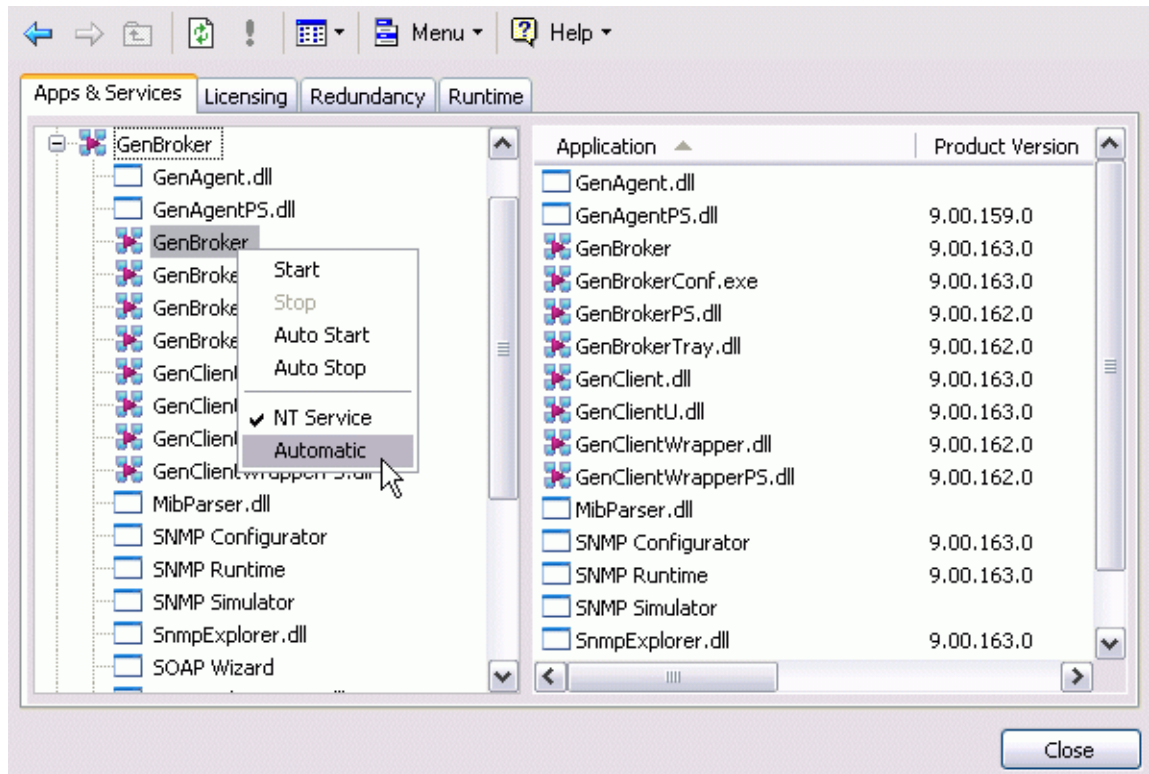
Running Applications As NT Services

MonitorWorX also enables you register and run some ICONICS applications as a Windows NT service. To convert an application that can be run as a service into an NT service, right-click the application and choose **NT Service** from the pop-up menu, as shown in the figure below.



Registering an NT Service

Once an application is converted to an NT service, it can optionally be configured to be an **Automatic** service so that it will automatically start every time the PC is rebooted, as shown in the figure below.

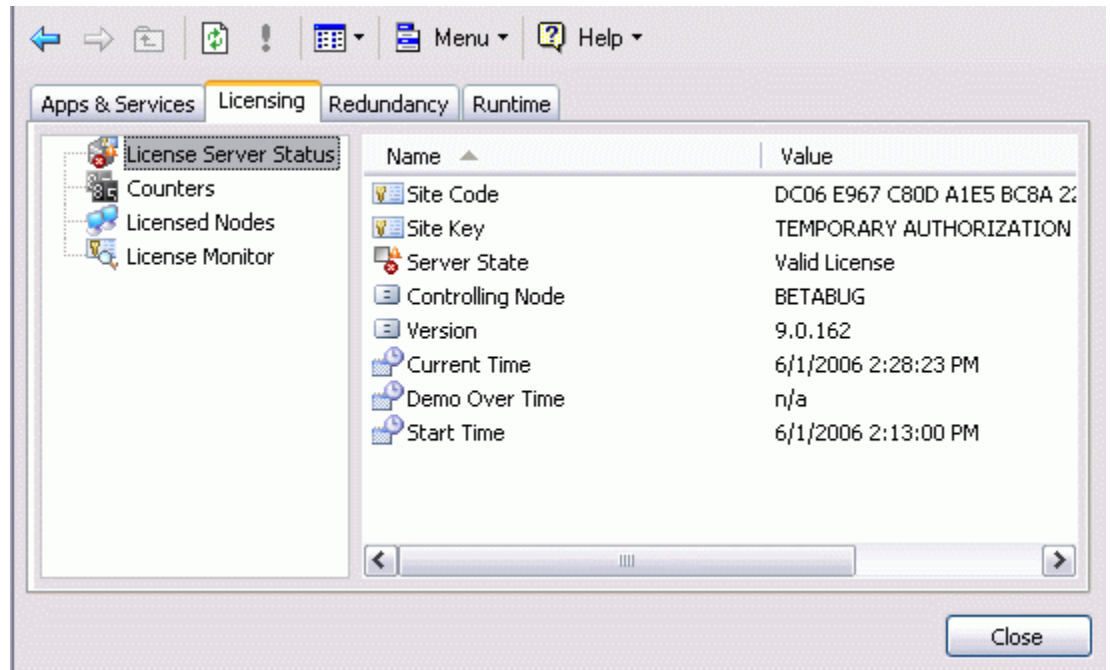


Registering an Automatic NT Service

Licensing Tab

The **Licensing** tab, shown in the figure below, displays the following information about ICONICS licenses in your system: license server status, counters, license nodes, license monitor.

Note: For more information about licensing, please refer to the ICONICS Software Licensing help documentation.



MonitorWorX: Licensing Tab

License Server Status

The **License Server Status** tree control in the **Licensing** tab, shown in the figure below, displays the **Site Key** and corresponding **Site Code** for the authorized ICONICS license. It also displays the **Start** time and the **Current** time of use and (when in demo mode) when the demo expires, as well as the version of ICONICS software that is currently using Client Units.

The **Server State** field indicates the type of license that is being used, such as a temporary license or a permanent license. The **Start Time** is the time the License Server began execution. The **Current Time** reflects the current local time of the License Server. The **Demo Over Time** field depends on the type of license as follows:

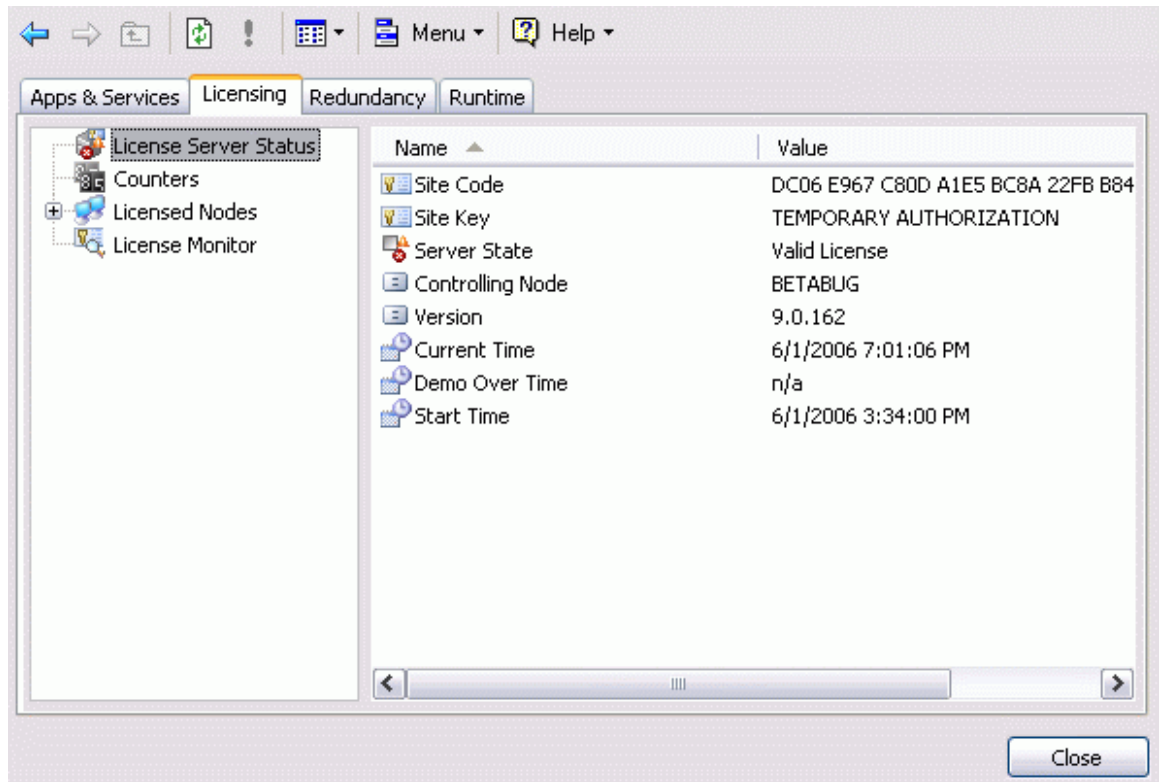
License

No license
Temporary license
Valid (permanent) license

Demo Over

Time and date that demo mode will end
Number of days remaining on a license
Field is blank

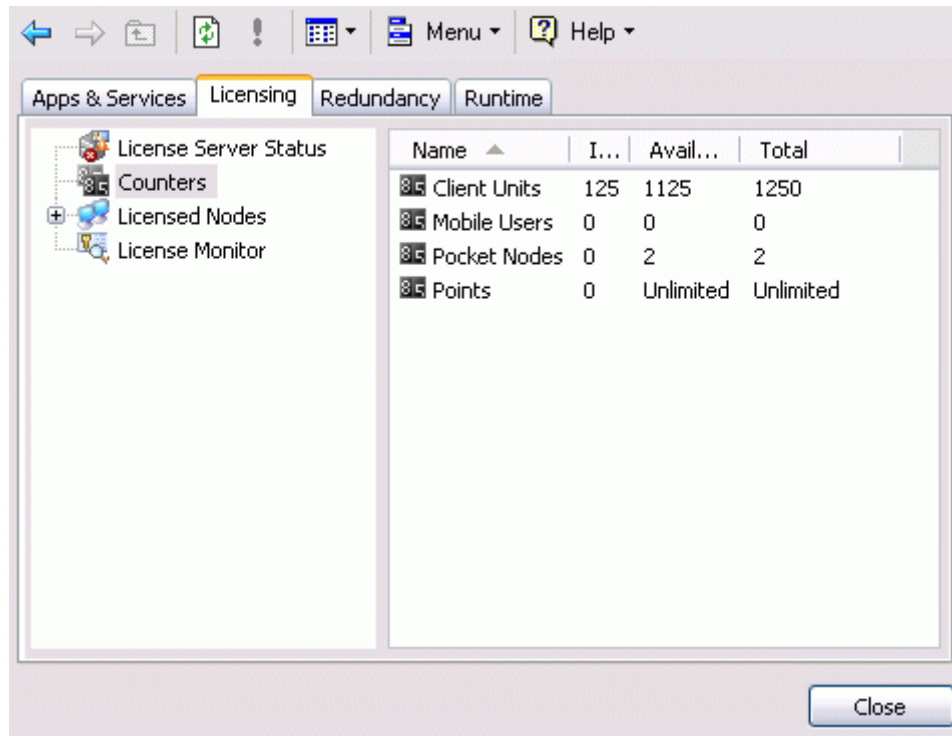
The **Controlling Node** field indicates which node is currently active. If the primary node fails, the backup node will become the active node and will be shown as the controlling node. If no primary or backup node is specified, the local computer will be used as the default node.



Licensing Tab: License Server Status

Counters

The **Counters** tree control in the **Licensing** tab, shown in the figure below, provides information about the Client Units and points used to run specific ICONICS applications. The **Client Units** field lists the number of Client Units that are currently being used in all ICONICS applications, the number of **Available** Client Units (which are not currently in use), and the **Total** number of Client Units, which is equal to the number of available Client Units plus the number of Client Units **In Use**. For example, if you have 700 total Client Units and 300 Clients Units are currently being used, then 400 Client Units are available. Similarly, the **Points** field provides information about the number of process points that are currently being used (in runtime mode) in all ICONICS applications.



Licensing Tab: Counters

Pocket Nodes and Mobile Users

The **Pocket Nodes** field lists available Client Units for Pocket GENESIS applications, and the **Mobile Users** field lists the Client Units for MobileHMI.

You must have a GENESIS32 License Server configured to run Pocket GENESIS with all options. If you do not authorize a license, you will only be able to use local simulated OPC data on the Pocket PC. If you will be doing any development on a workstation or desktop PC, you will need to have a separate authorized license for that computer also. Please see the Pocket GENESIS documentation for information about the number Client Units required for each Pocket GENESIS application (e.g. Pocket AlarmWorX, Pocket GraphWorX, etc.)

Note: If you have just installed CE ToolWorX (a limited version of GENESIS32) on your workstation PC, you should also have installed the ICONICS License Utility on your desktop PC. This is where you will activate your license for your desktop PC.

Users of Pocket GENESIS must purchase licenses for simultaneous connections between a desktop PC and Pocket PC devices. When a user purchases Pocket GENESIS and installs it on a desktop PC, two simultaneous Pocket PC connections will be available to that user from the desktop PC. If the user decides that more Pocket PC connections are needed, the user must purchase more Pocket PC connections in packages of five connections.

The GENESIS32 License Monitor detects how many Pocket PC devices are connected to the desktop PC. If the maximum number of connections has been made, no new connections will be allowed to the desktop PC. For example, during one connection a Pocket PC device can be running Pocket TrendWorX,

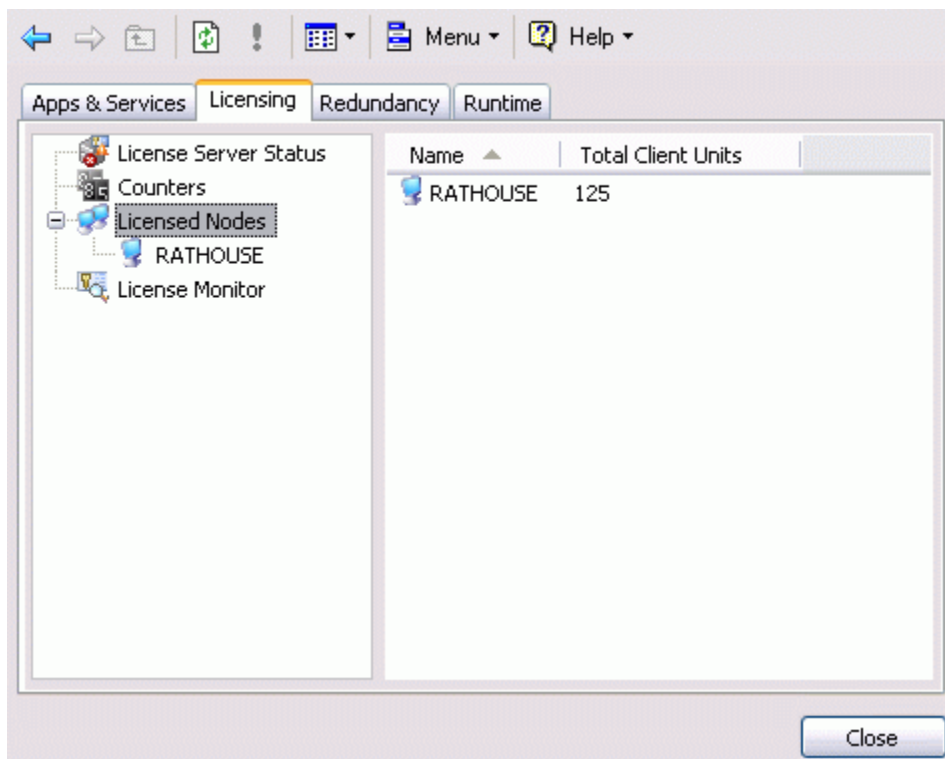
Pocket AlarmWorX, and Pocket GraphWorX simultaneously. If any of those applications are running, the connection is active.

For Pocket PC devices and other CE-based devices, the License Server runs on the desktop PC connected over Ethernet via GenBroker. Thus, if a user has a license that allows for two connections and has two Pocket PC devices connected at the same time, both Pocket PC devices can be running Pocket TrendWorX, Pocket AlarmWorX, and Pocket GraphWorX simultaneously. Then if another Pocket PC device tries to connect to the GenBroker server on the desktop PC where those two licenses are located, it will be denied.

Note: Please refer to the GenBroker help documentation for information about assigning a node or IP address to a remote License Server.

Licensed Nodes

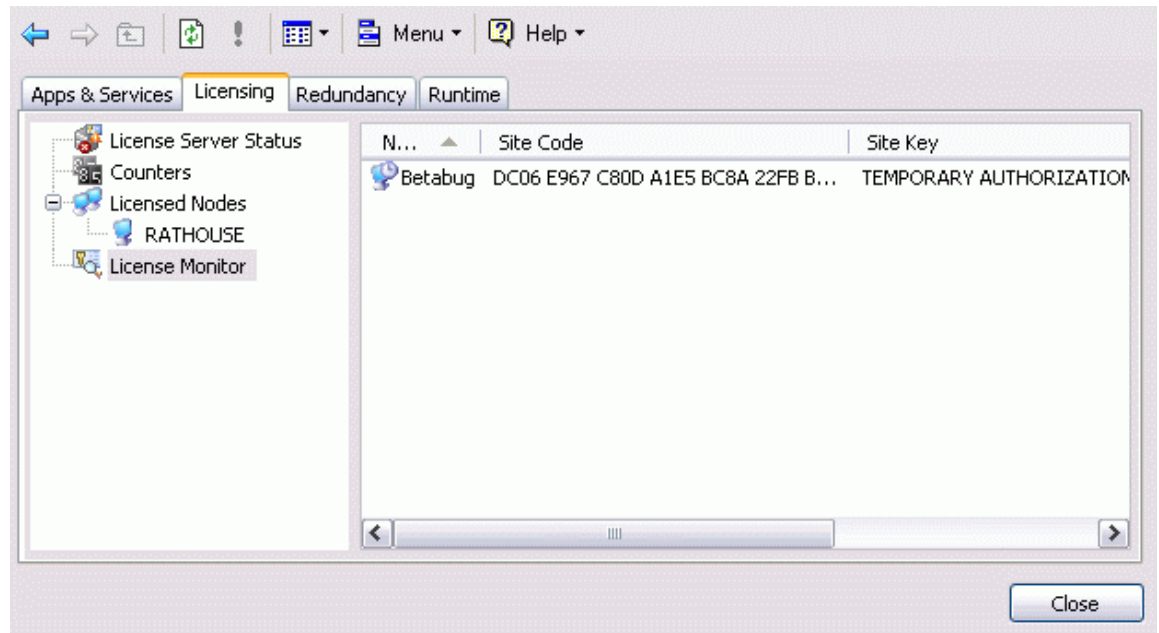
The **Licensed Nodes** tree control in the **Licensing** tab, shown in the figure below, lists information about the current activity of each licensed node. For each node that is using a client application, such as GraphWorX32, this field displays the **Node** name, the **Application** that the node is running, the number of **Client Units** per application that the node is using, and the **Total** number of Client Units currently being used by all nodes.



Licensing Tab: Licensed Nodes

License Monitor

The **License Monitor** tree control in the **Licensing** tab, shown in the figure below, displays the **Site Key** and corresponding **Site Code** for the authorized ICONICS license as well as the name of the licensed node.



Licensing Tab: License Monitor

Note: If you do not see the License Monitor in the **Licensing** tab, you must select **License Monitor Options** from the **Menu** drop-down list on the MonitorWorX toolbar to open the **License Options** dialog box, as shown in the figure below. When the **Enable License Monitoring** check box is checked, the **License Monitor** tree control in the **Licensing** tab is displayed, showing the node name, site code, and site key information. For more information, please see the "Licensing Tab" section below.



License Monitor Options

Redundancy Tab

The **Redundancy** tab in **MonitorWorX** is a client-side viewer that displays runtime status information about redundant node pairs (support for DataWorX32 Professional Edition), and allows you to designate which server is active or standby. Generally, the server on the primary node is the **active** server, while the secondary node runs the server in **standby** mode.

Once you have completed configuration of a redundant node pair in the GenBroker Configurator and created connections to OPC tags from the client side (e.g. using GraphWorX32) that connect to the OPC alarm server or data access server on the Primary node, you are ready to start runtime mode. To do this, select the **Runtime** menu in GraphWorX32. When runtime is started, you will be able to see data coming from the subscribed servers on the redundant node pair.

The ICONICS Alarm Server already has embedded redundancy, so it will automatically designate the active/standby status of the alarm server. Redundancy is not inherent in OPC Data Access servers, however, so you can manually specify which data server is active (assuming that both nodes are currently online) using MonitorWorX.

Note: For more information about MonitorWorX, please see the MonitorWorX help documentation.

The screenshot displays the MonitorWorX Redundancy Tab. On the left, a tree view shows the hierarchy of node pairs. The 'Node Pair (T45/T50)' is expanded, showing two nodes: T45 and T50. Under T45, there are four servers: 'ICONICS.AlarmServer.1 (Active)', 'ICONICS.TWXRLogger.1 (Active)', 'ICONICS.TWXSQSVr.1 (Active)', and 'ICONICS.AlarmServer_.1 (Active)'. Under T50, there are five servers: 'ICONICS.AlarmServer.1 (Standby)', 'ICONICS.TWXRLogger.1 (Standby)', 'ICONICS.TWXSQSVr.1 (Standby)', 'ICONICS.AlarmServer_.1 (Standby)', and 'ICONICS.Simulator.1 (Active)'. Below T50, another node pair 'Node Pair (T49/T21)' is partially visible. On the right, a table displays the status of the selected node pair.

Status	Value
Current Time	3/9/2006 11:59:49 AM
Elapsed Time	0:01:06:07 (d:h:m:s)
Manufacturer	ICONICS Redundant AlarmWorX32 S.
Redundant Mode	Active
Start Time	3/9/2006 10:53:42 AM
Version	9.00.156

MonitorWorX: Redundancy Tab

See Also

Redundancy Node Pairs

Active vs. Standby

Switching Between Active and Standby

Redundancy Node Pairs

The basic concept of redundancy is to have two identical configurations (e.g. alarm server configuration) running on two separate computers, or nodes. The **Primary** node is the computer that is normally running. If the Primary node breaks, becomes disconnected from the network, or loses power unexpectedly, the system automatically switches over to the **Secondary**, or backup, node. When the Primary node recovers, the system switches back over to the Primary node after the necessary synchronization has occurred.

The AlarmWorX32 AE Server and TrendWorX32 HDA Server provide redundancy when GenBroker communications is enabled and the node on which this server is located is included in the redundant node pair list in the GenBroker configuration (GBX file). An identical GBX configuration, centrally located if desired, is run on both the primary and secondary computers.

For DataWorX32 Professional, the **AlarmWorX32 AE Server** configuration should be identical on both the Primary and Secondary nodes. Ideally, a central configuration should be used, and subscription references should be to the Primary node. Likewise, the **TrendWorX32 HDA Server** configuration should be identical on both the Primary and Secondary nodes.

The **Redundancy** tab in the MonitorWorX viewer, shown in the figure below, allows you to manage the runtime status of each server in a redundant node pair from the client side.

The screenshot displays the 'Redundancy' tab in the MonitorWorX viewer. On the left, a tree view shows the hierarchy of node pairs. The selected node pair is 'Node Pair (T45/T50)'. Under this pair, there are two nodes: 'T45' and 'T50'. Each node contains a list of servers with their status indicated in parentheses. For T45, the servers are 'ICONICS.AlarmServer.1 (Active)', 'ICONICS.TWXRLogger.1 (Active)', 'ICONICS.TWXSQLSvr.1 (Active)', and 'ICONICS.AlarmServer_.1 (Active)'. For T50, the servers are 'ICONICS.AlarmServer.1 (Standby)', 'ICONICS.TWXRLogger.1 (Standby)', 'ICONICS.TWXSQLSvr.1 (Standby)', 'ICONICS.AlarmServer_.1 (Standby)', 'ICONICS.Simulator (Active)', and 'ICONICS.Simulator.1 (Active)'. Below the tree view, there is a 'Node Pair (T49/T21)' which is currently collapsed. On the right, a table shows the status of the selected node pair.

Status	Value
Current Time	3/9/2006 11:59:49 AM
Elapsed Time	0:01:06:07 (d:h:m:s)
Manufacturer	ICONICS Redundant AlarmWorX32 S.
Redundant Mode	Active
Start Time	3/9/2006 10:53:42 AM
Version	9.00.156

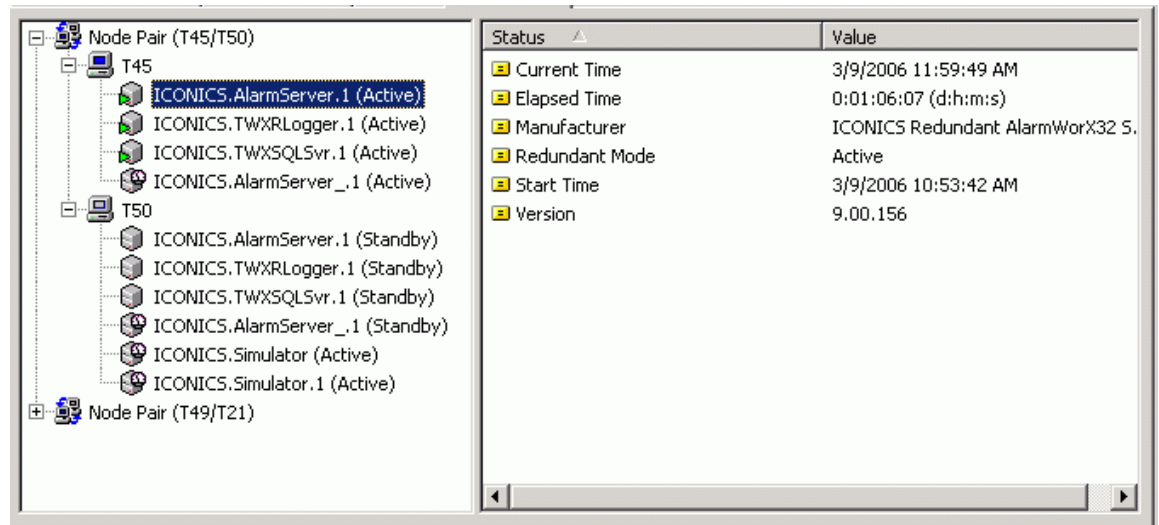
Redundancy Node Pairs

Active vs. Standby

The figure below shows a redundant node pair in MonitorWorX. Each node has several servers that are currently running, including the AlarmWorX32 AE Server, a Data Access server, and the TrendWorX32 HDA Server. Each server on each node is indicated as "active" or "standby." The right-hand pane shows

the runtime status of the currently selected server (e.g., current time, start time, elapsed time, version, etc.).

Generally, the primary node hosts the **active servers**, while the secondary node hosts the **standby servers**. The AlarmWorX32 AE Server already has embedded redundancy, so it will automatically designate the active/standby status of the alarm servers with respect to all client nodes. Redundancy is not inherent in OPC Data Access servers, however, so you can manually specify which one is active with respect to the local client (assuming that both nodes are currently online) using the **Redundancy** tab in MonitorWorX.

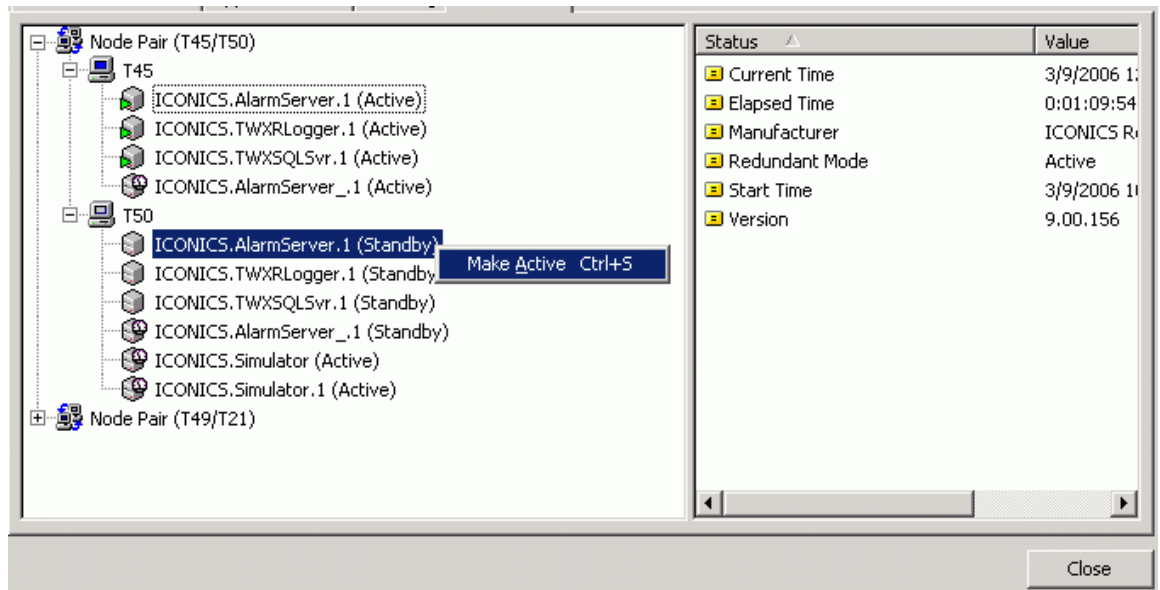


Active vs. Standby

Switching Between Active and Standby

To switch a "standby" server in a redundant node pair to "active," right-click the standby server and select **Make Active**, as shown in the figure below. This changes the status of the standby node to "active," and the currently active node is deactivated and therefore switches to "standby" mode. The active alarm server and trend server are also indicated by a green triangle icon, as shown in the figure below.

Note: When switching between active and standby servers, the amount of time to complete the switchover varies depending on the system size, server location, and configuration size.



Switching Server From 'Active' Mode to 'Standby' Mode

Runtime Tab

The **Runtime** tab in the MonitorWorX Viewer, shown in the figure below, shows the runtime status for active servers and nodes. The viewer monitors the status of all subscriptions to all servers. For example, if you have OPC tags (process points) configured in GraphWorX32, the status field in the right-hand pane displays the status of all subscriptions to OPC servers.

The screenshot shows the MonitorWorX application window with the 'Runtime' tab selected. The left pane displays a tree view of services and their connections. The right pane shows a table of runtime status information.

Tree View Structure:

- GenTray
 - Connections
 - Betabug
 - Licensing Server
 - Security Server
- Global Alias Client
- GraphWorX32
 - Connections
 - Betabug
 - Event Server
 - Licensing Server (highlighted)
 - Security Server
- MonitorWorX Viewer
 - Connections
 - Betabug
 - Licensing Server
 - Security Server

Runtime Status Table:

Status	Value
Start Time	6/1/2006 8:34:00 PM
Current Time	6/1/2006 11:35:38 PM
Demo Over Time	
Server State	Licensed
Version	9.0.162
CU Total	1250
CU Issued	125
Point Count	1000000000
Points In Use	0
Days Remaining	24

Close

MonitorWorX: Runtime Tab