

MonitorWorX™ Quick Start

An ICONICS White Paper

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1 About This Document

1.1 Scope of the Document

It is the intent of this document to illustrate the benefits of using MonitorWorX.

1.2 Revision History

Version 1.0 – Jan Burian, March 31, 2008 (initial release)

2 Introduction

2.1 Overview

MonitorWorX™ is a new tool introduced in GENESIS32™ V9. Its main purpose is to collect the runtime information from other modules and expose it, either via a GUI or as process points. When MonitorWorX is running a little icon appears in the system tray area as shown on Figure 1.



Figure 1: MonitorWorX has an icon on the system tray

The user may double-click the icon to bring up the MonitorWorX GUI. It displays various runtime information organized in four tabs.

3 MonitorWorX™ GUI

3.1 Apps & Services Tab

Apps & Services tab displays some of the ICONICS applications installed on the local computer. The applications are organized in groups. Some of the applications have context menu. This is an equivalent of the menu provided by GenTray. In the right pane it is possible to enable or disable if writing events to the NT Event log for selected application. The same functionality has been provided by the list of checkboxes on the Events tab of the License Monitor utility.

MonitorWorX unifies the functionality of GenTray and MonitorWorX and provides offers their functions on one place in a convenient way, as shown on Figure 2.

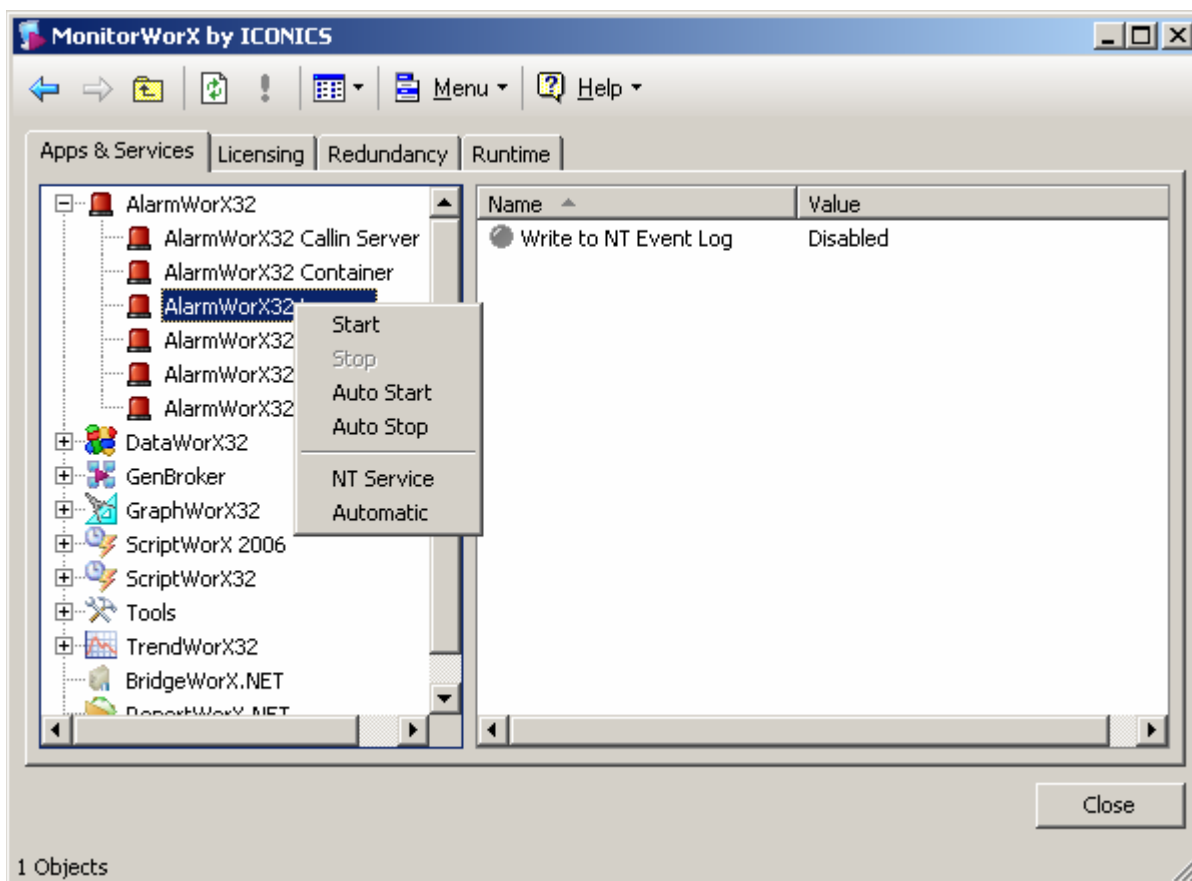


Figure 2: MonitorWorX offers some functionality of GenTray and License Monitor

The Apps & Services tab may be switched to advanced view (select Menu - View Options). Then it displays all important Genesis32 modules and their versions. The list of modules, including version numbers may be exported to a CSV file and used for troubleshooting (select Menu - Export Version Info).

3.2 Licensing Tab

The Licensing tab replaces the functionality of the License tab in the License Monitor utility. It displays the License server status, license counters and application consuming Client and Point Units (see Figure 3). Most of the license information displayed on the Licensing tab is also exposed as process points available to all ICONICS client applications.

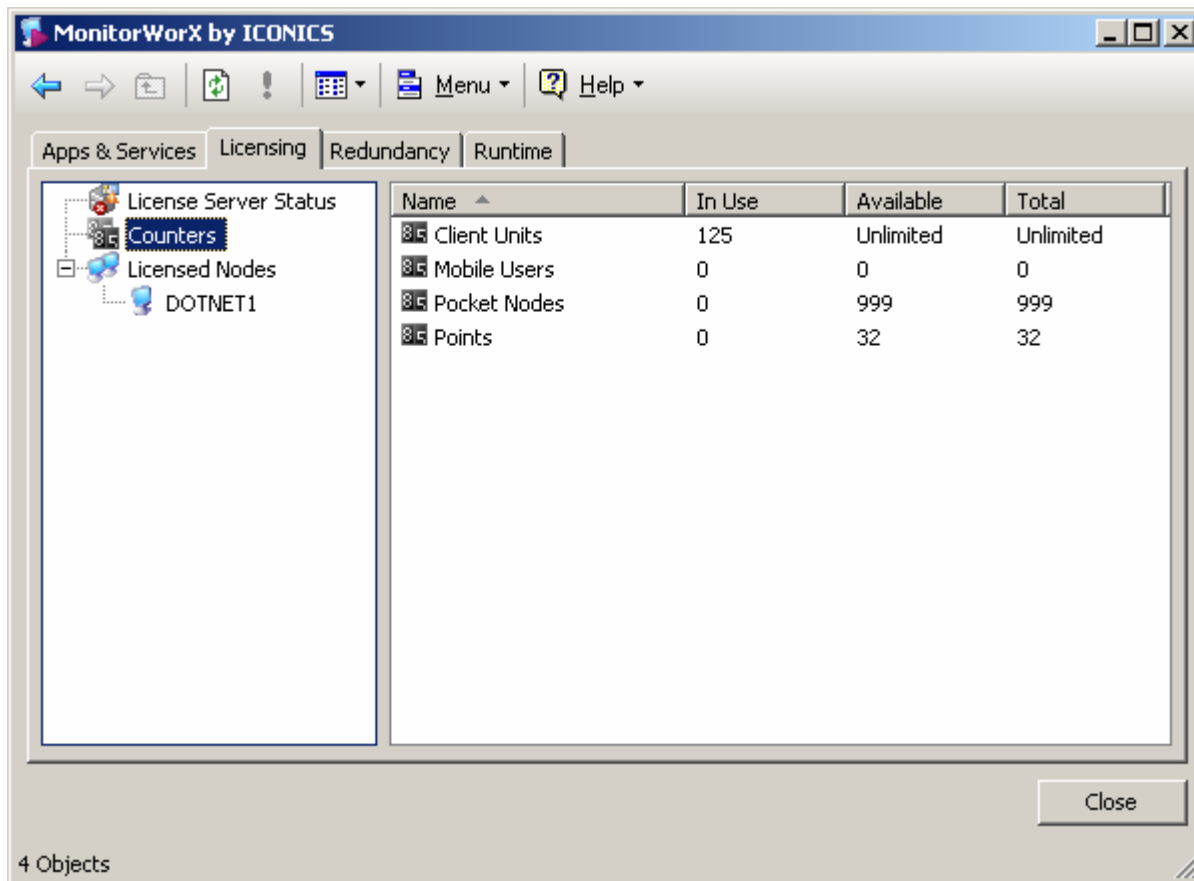


Figure 3: Licensing tab replaces the License Monitor utility

3.3 Redundancy Tab

When redundancy is enabled on the system, the node pairs defined in the GenBroker Configuration will appear on the Redundancy tab. Redundant servers in use and their state will appear under the node pairs (see Figure 4). The displayed information is also exposed as process points and available to ICONICS client applications.

MonitorWorX is actually the module that keeps the information what redundant servers are active and makes this information available for all ICONICS client application on the local computer keeping the client application synchronized.

3.4 Runtime Tab

The Runtime tab displays running ICONICS applications, the servers (both OPC and administrative servers) the applications are connected to and the statuses of those servers. Optionally, some applications may use MonitorWorX to expose their internal values etc. This is useful for applications that do not have their own GUI and need to display some values to the users, such as ScriptWorX Runtime.

The information about the connections is pushed into MonitorWorX by GenClient module, so every application that is using GenClient to communicate with the servers displays its connections here.

The status information about the servers being used is also available as process points.

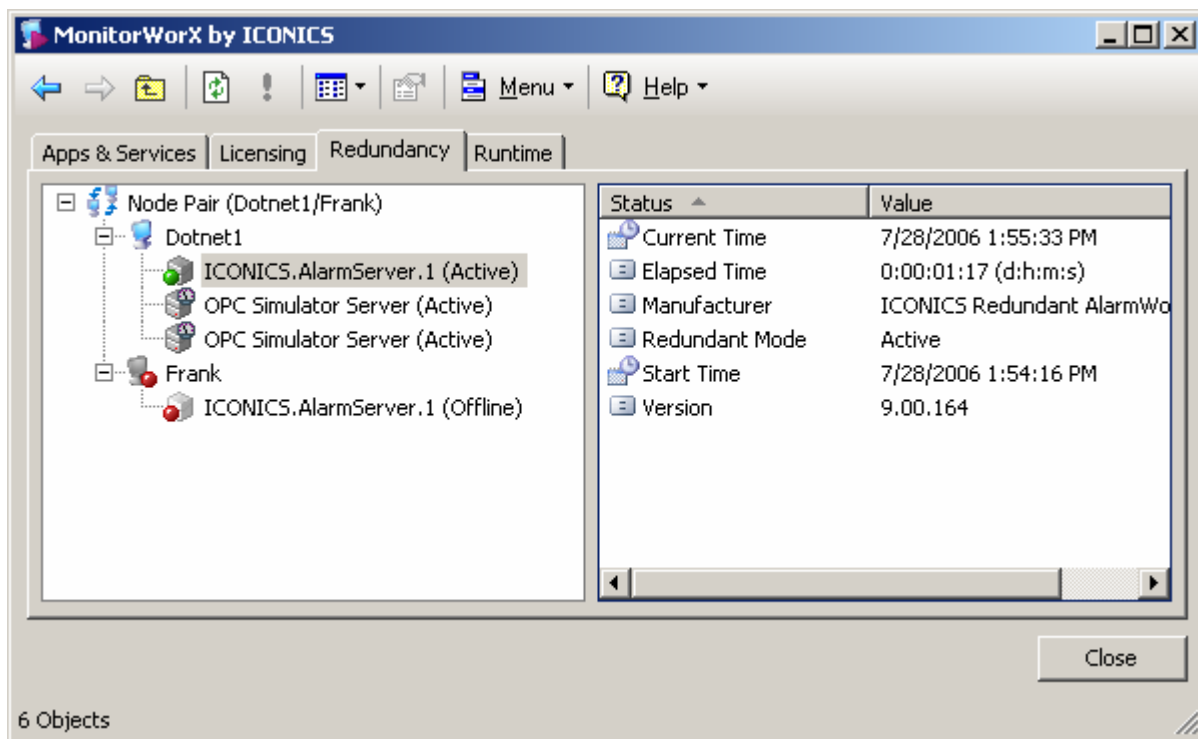


Figure 4: Pair of redundant nodes, redundant servers and their states

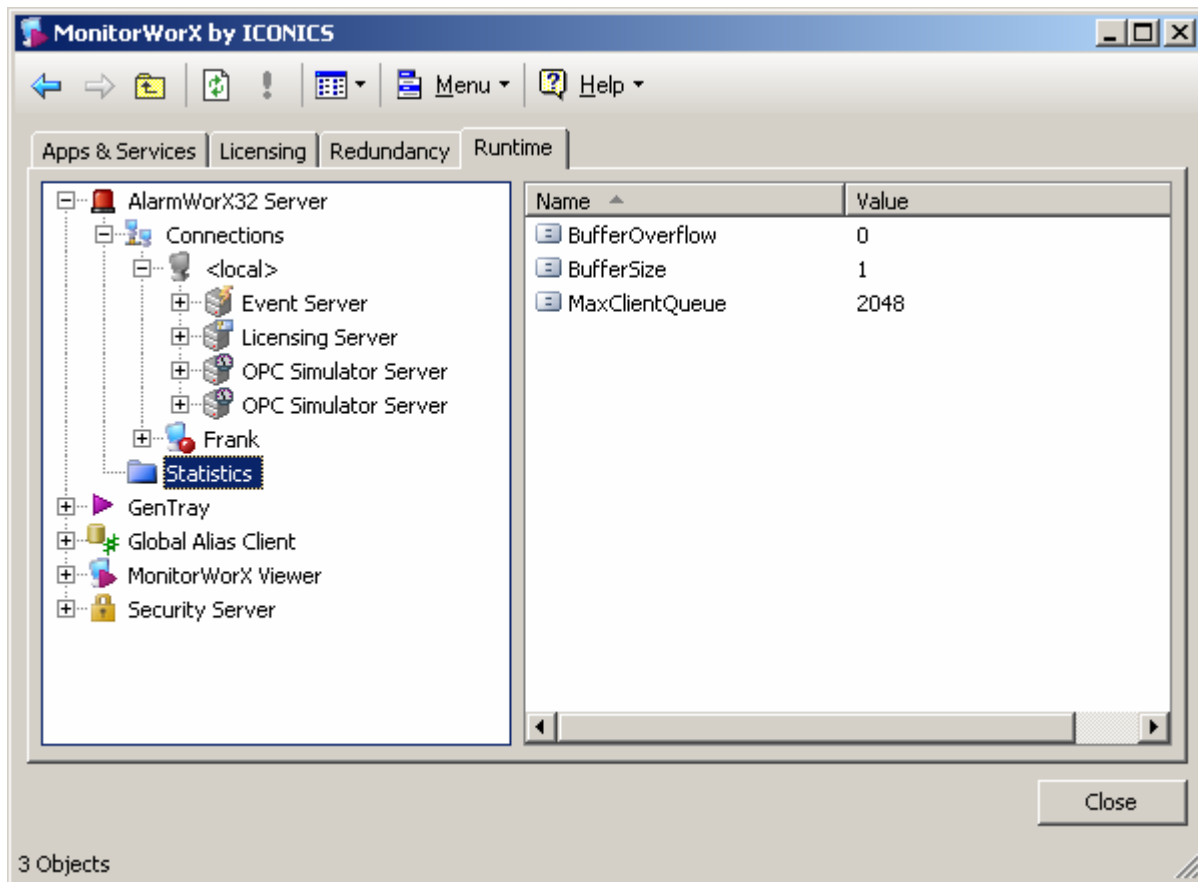


Figure 5: MonitorWorX displays the runtime connections to the servers, and application specific variables, such as internal statistics of AlarmWorX32 Server.

4 Data Exposed by MonitorWorX™

As mentioned above, MonitorWorX exposes different kinds of its internal values to ICONICS client application. This is done using the GenBroker Plugin technology - in fact MonitorWorX implements two plugins.

4.1 License Plugin

The License plugin exposes the data displayed in the Licensing tab. It can be browsed using the 'Licensing' tab in the Unified Data Browser.

The License plugin tag names begin with **lic:** and they represent the state of the Licensing server (GenRegistrar) and of the licence counters.

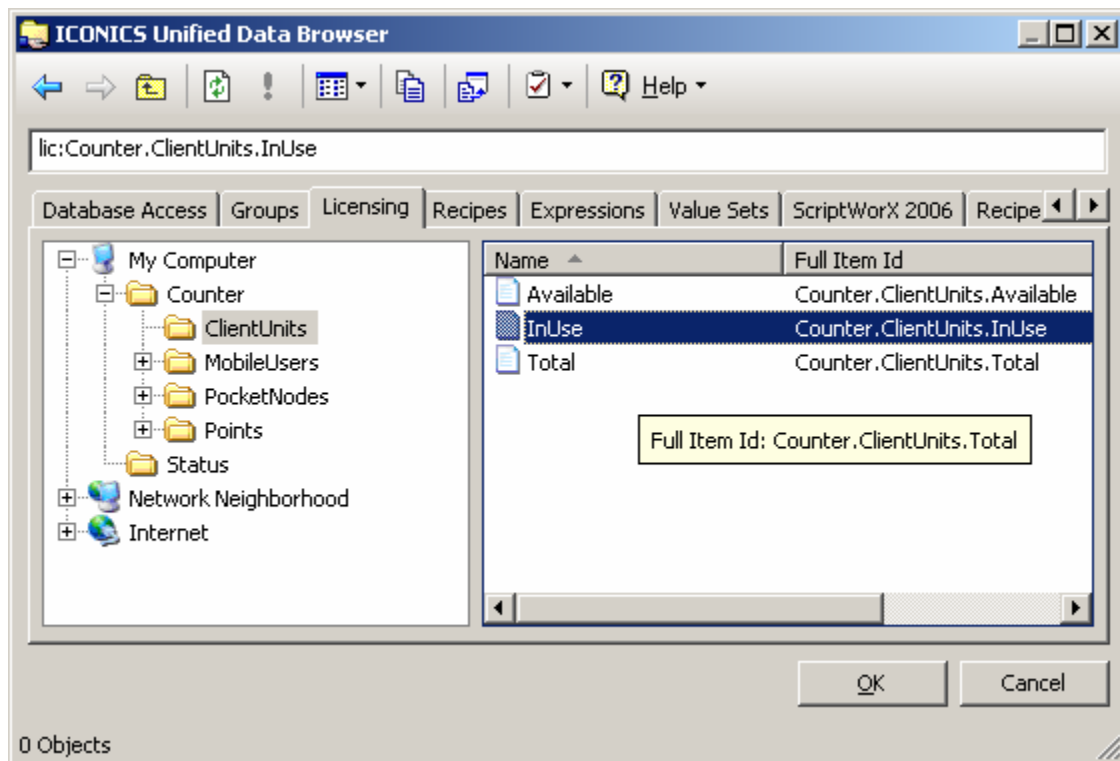


Figure 6: Browsing the Licensing plugin. The point lic:Counter.ClientUnits.InUse represents the count of CUs currently used by the client applications

4.2 Redundancy Plugin

The Redundancy plugin can be browsed with the 'Redundancy' tab of the Unified Data Browser. Its points tag names begin with **rdcy:**. The points exposed by the Redundancy plugin represent two areas:

- Status information of servers the clients on the local nodes are connected to. It is available for **all** servers, not only those running on redundant nodes. In the MonitorWorX GUI this information is available in the Runtime tab. The points names contain 'RuntimeStatus', e.g.:
rdcy:ICONICS.DatabaseOPCServer.3\RuntimeStatus.Vendor
- Status information of redundant servers. This is only available for servers running on redundant nodes (defined in GenBroker Configuration). Every server running on a redundant node has available a boolean point 'Online' (e.g. rdcy:ICONICS.Simulator.1\Online). Besides, AlarmWorX32 and TrendWorX32 redundant server have available structure RedundancyStatus.

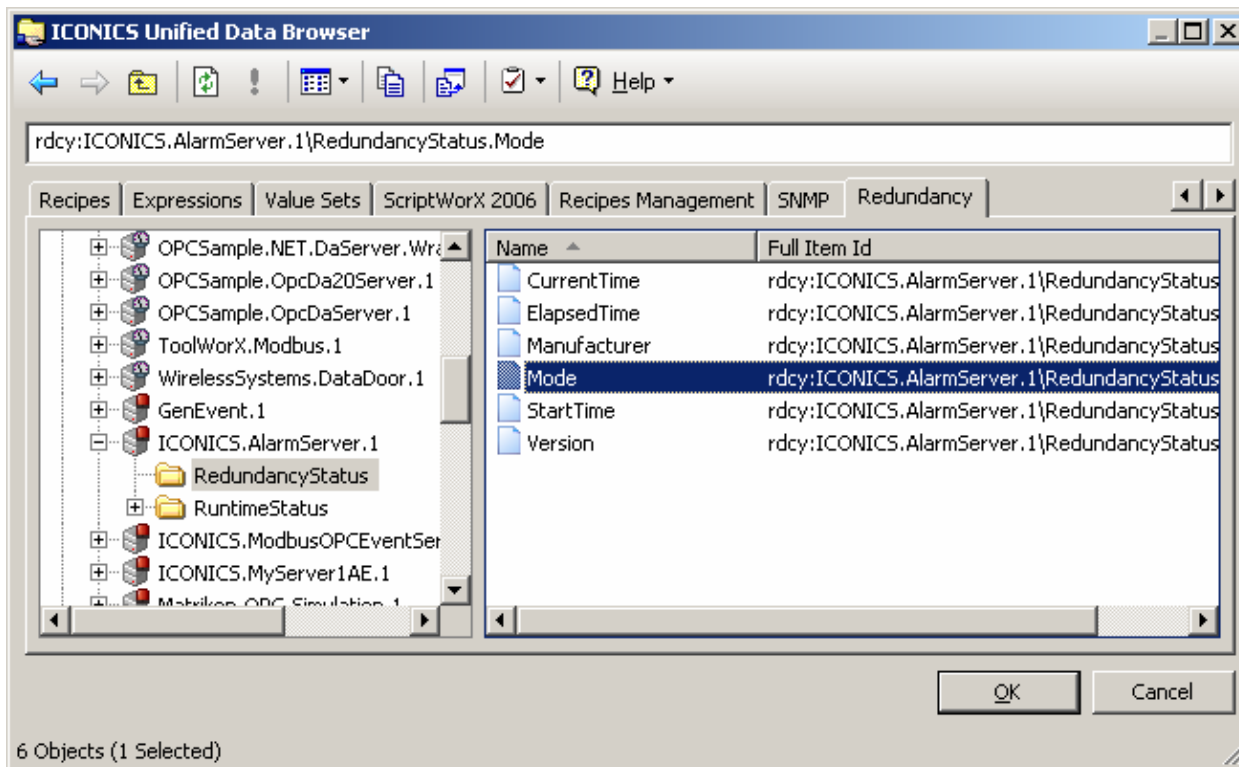


Figure 7: ICONICS.AlarmServer has available both RuntimeStatus and RedundancyStatus structures

5 Summary

MonitorWorX collects information about runtime connections, server statuses and redundancy statuses. It gets it from the ICONICS client applications running on the same node, as well as from the servers these applications are connected to. It also retrieves information from ICONICS Licensing server.

The collected information can then be displayed in a GUI and exposed to client application as process points using the GenBroker Plugin technology.

Moreover, MonitorWorX is an alternative to License Monitor and GenTray utilities. It can also read and export version information from ICONICS modules.

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ICONICS is a leading provider of award-winning enterprise manufacturing intelligence and automation software solutions.

ICONICS' solutions deliver real-time visibility into all enterprise operations and systems, helping companies to be more profitable, more agile, and more efficient. As a Microsoft Gold Certified Partner, ICONICS designs its solutions from the ground up to take maximum advantage of Microsoft .NET and SharePoint Portal Server technology, offering an unprecedented level of performance and ease of use.

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