

**Hundreds of New Features, Several New Products Including:  
New ScheduleWorX32, DataWorX32 Redundancy, DataWorX32 OPC Tunneling,  
MonitorWorX32, SAP Connector, SNMP Data Mining and OPC UA Connectivity**

## Summary

GENESIS32™ V9 centers on easy and reliable integration of information from the most popular communication infrastructures. With Version 9 it is easy to connect to the core sources of information affecting manufacturing, including: IT infrastructures monitored by SNMP, plant floor infrastructure communicating over OPC, and enterprise infrastructures, such as SAP and Oracle, through real-time, intelligent data mining. The GENESIS32 HMI/SCADA software suite incorporates these infrastructures to provide the most flexible connectivity for machine builders, automotive, pharmaceutical, oil and gas, water, energy and utilities and many other applications. Several new products have been introduced, including new DataWorX™32 Redundancy, OPC Tunneling, MonitorWorX™32 and ScheduleWorX™32. This all-new version also incorporates powerful data-mining and integration technology that enables visualization and reporting of real-time or enterprise data sources, including Microsoft SQL Server, SAP, Oracle, plant historians, SNMP, and OPC data.



## Main Features & Benefits

- ✓ DataWorX32 Standard Edition - OPC Tunneling for third-party OPC products
- ✓ DataWorX32 Professional Edition - Complete Redundancy OPC DA, OPC AE and OPC HDA
- ✓ ScheduleWorX32 for facilities management and building controls systems
- ✓ AlarmWorX™32 Multimedia with IP telephony, marquees & Live Communication Server
- ✓ New ScriptWorX™2006 now runs as an NT service and supports global OPC variables
- ✓ New MonitorWorX32 provides centralized system tray monitoring and diagnostics
- ✓ Native SNMP network management and integrated analysis software
- ✓ New Unified Data Manager for centralized configuration of recipes and schedules
- ✓ OPC UA (Unified Architecture) data connectivity
- ✓ New GUI look and feel for all GENESIS32 applications and configurators
- ✓ SAP BAPI connectivity and OPC Data Access (DA) 3.0 and OPC XML 1.0 compliance
- ✓ Support for larger graphic files and increased GraphWorX™32 performance
- ✓ New open data-mining technology connects to Microsoft SQL Server, Oracle, Microsoft Access, ODBC, OLEDB, SAP, and virtually any other database source

# GENESIS32 Native SNMP Network Data Mining

Today's factory automation systems must integrate information from different infrastructures reliably and in real-time. To assist with integration, GENESIS32 Version 9 enables users to integrate OPC, SNMP (Simple Network Management Protocol), and databases with real-time data mining. ICONICS' new native SNMP network management and analysis capability was specifically developed for the industrial controls marketplace to seamlessly integrate monitoring and analysis of a wide variety of managed and unmanaged Ethernet devices into all ICONICS products.

SNMP connectivity is the standard by which IT systems and infrastructures work. Ethernet routers, switches, hubs, and network printers all use SNMP to report their performance. Linking this with your production data is valuable when reporting KPI, OEE, and downtime.

## Possible SNMP Applications

Modern systems connect to PLC, DCS, sensors, actuators, building control management systems, power systems, fire and safety systems with Ethernet-based network devices. Now you can easily monitor and analyze the Ethernet-based network from within GENESIS32 V9. This removes the need to employ third-party SNMP monitoring software. Important processes that employ multiple devices connected over Ethernet are just as dependent on the network devices themselves as on the individual controllers and sensors. GENESIS32 V9 enables monitoring and action of network device failure from any GENESIS32 client, including WebHMI™ and Pocket GENESIS™.

## Real-Time IT Network Analysis

Raw SNMP network data can be difficult to interpret. The GENESIS32 SNMP data browser discovers and connects to data from network devices and continually performs calculations and presents useful information, such as bandwidth utilization and network error rate statistics. Additionally, it is now possible to integrate real-time OPC information together with SNMP information to create combined visualization and alarm-management displays that easily summarize the health of network devices and network infrastructure with process control status.

## Power Supply Management

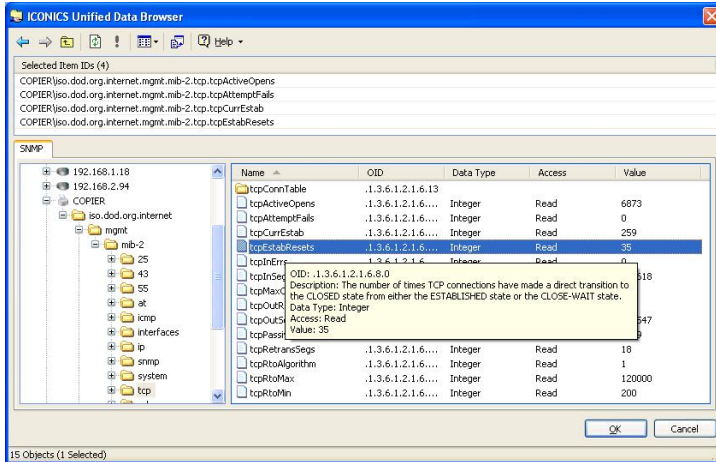
Uninterruptible power supplies have become necessary to ensure maximum uptime and protect powered network equipment from power surges. Most UPS's have embedded microprocessors and are capable of reporting their status and operating mode information via SNMP. With GENESIS32 V9, operators can integrate UPS status into GraphWorX32 displays, data log, or alarm on the information.

## Support for Unmanaged Device Monitoring

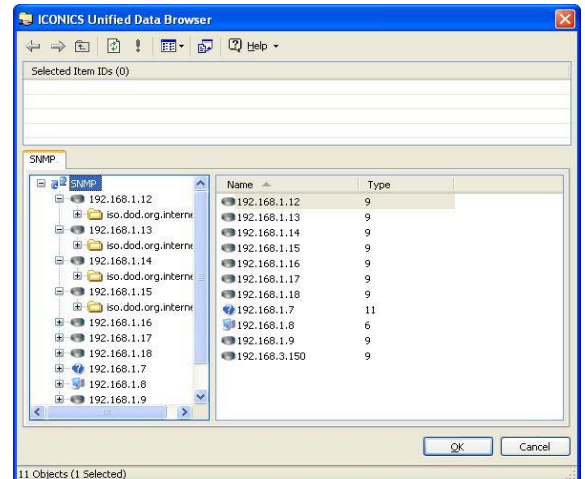
Not all Ethernet network devices employ SNMP device management. To help monitor any system from within GENESIS32, both managed and unmanaged network devices are auto-discovered. The GENESIS32 SNMP data browser automatically generates OPC tags that represent "heartbeat" and response time for each device on a network.



## SNMP Key Features



### Auto-Discovery of Managed Network Devices with Device Browse Tree



### Unified Data Browser Auto-Discovery of SNMP Devices

## Automatically Scans for MIB Files

There are literally thousands of SNMP-manageable devices available. GENESIS32 users can easily incorporate management information from any SNMP-manageable device. GENESIS32 SNMP incorporates a browse capability for easy connectivity to network device MIB addresses. Using a powerful auto-discovery capability, SNMP devices will automatically be recognized and will present the device parameters for connection to GENESIS32 visualization, alarming, trend historian and other functions.

## Auto-Discovery

The new GENESIS32 SNMP data browser feature includes a new time-saving auto-discovery feature. Simply by opening the SNMP Configurator, the SNMP auto-discover capability is immediately started. This powerful tool will search through your Ethernet network for SNMP-manageable network devices. Once the SNMP Configurator has discovered all the manageable devices, they are automatically added to the Auto Discover Browse Tree Control for connectivity.

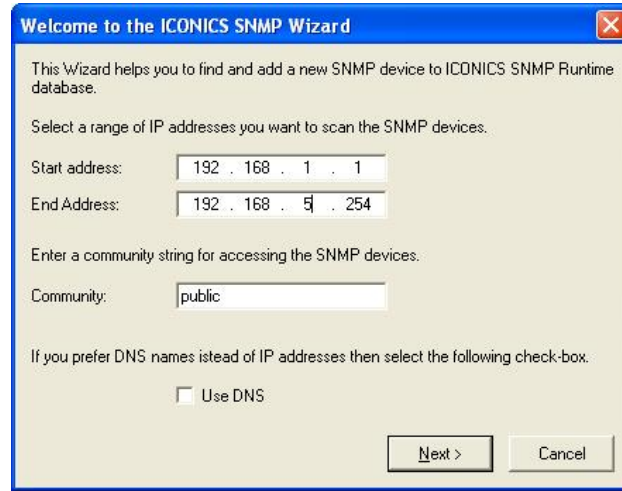
## Unmanaged Device Support

GENESIS32 offers an OSI Layer 1 device "heartbeat" feature for any Ethernet network device. Device response and reply latency tags are created for all network devices by the GENESIS32 SNMP Service, and are made available to GENESIS32 client applications for visualization alarming and trend logging. This allows monitoring of all devices on a control network, from sensors, actuators and computer ports through hubs, routers, and switches that manage network traffic.



## SNMP Traps Support

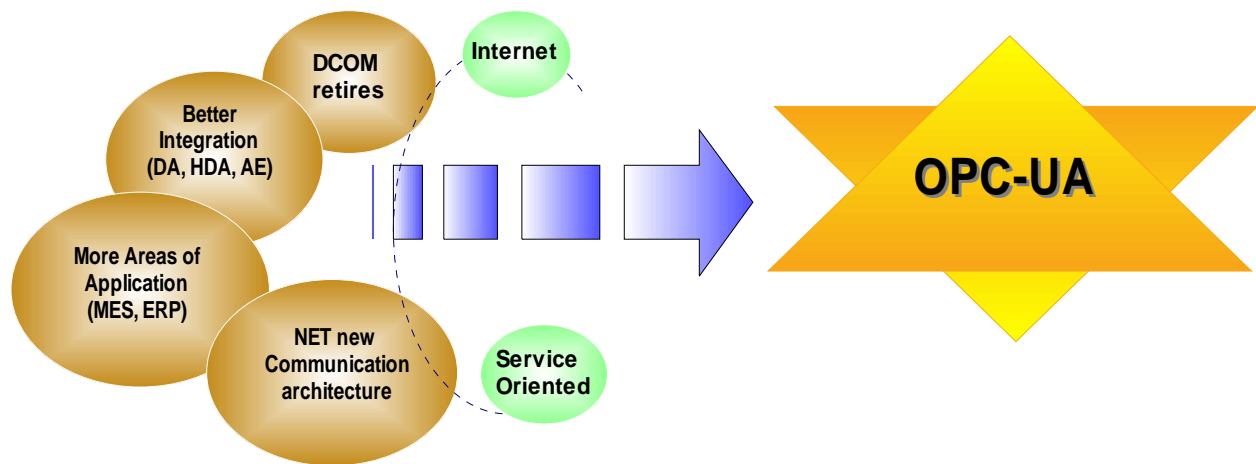
Some SNMP-manageable devices can be configured to send unsolicited data to network-management software systems. By configuring an SNMP device to send data without being "polled," such as when a critical system tag goes into an unfavorable state, you can reduce the need for "polling" the network device. GENESIS32 V9 supports receiving SNMP Trap data.



## Native OPC UA (Unified Architecture) Connectivity

**OPC Connectivity** is the widely accepted standard that more companies are using to communicate. According to ARC Advisory group, OPC usage is expected to grow to more than 60 percent for HMI/SCADA systems over the next five years.

OPC Foundation has provided OPC UA wrappers, which provide connectivity for Data Access clients and servers across LANs and WANs in an IT firewall-friendly way using Web services. ICONICS has integrated and tested GENESIS32 V9 for OPC UA compliance.



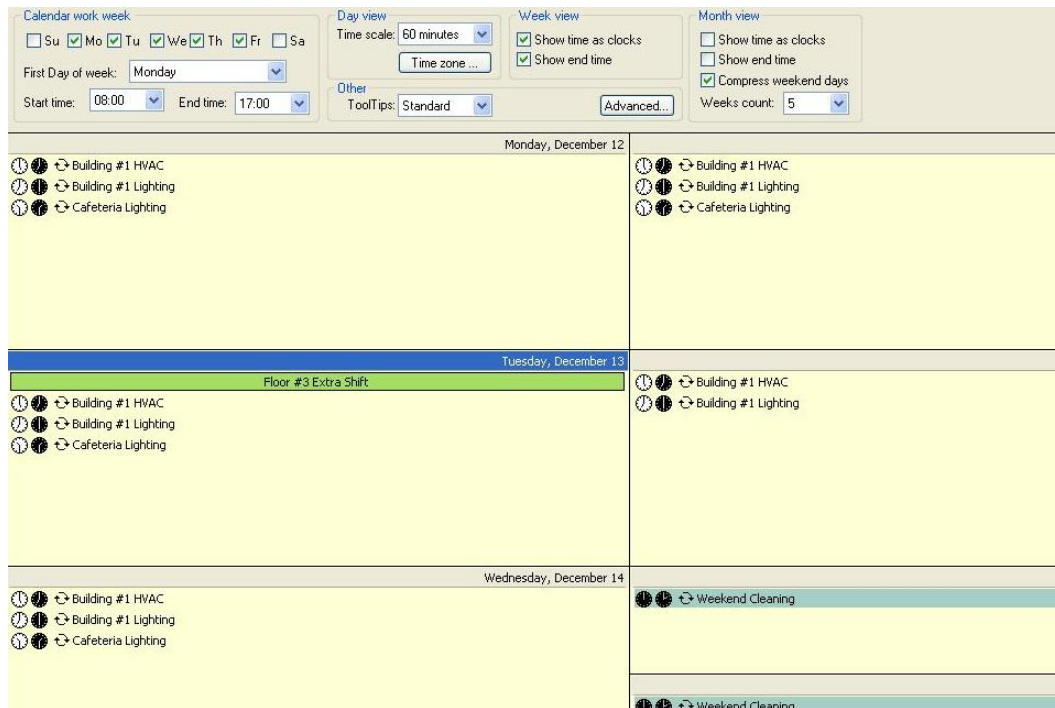
OPC Foundation Unified Architecture Integration with Web Services



# Introducing ScheduleWorX32

ScheduleWorX<sup>TM</sup>32 is a new best-in-class product that performs time-of-day and resource scheduling for facility and building controls, as well as manufacturing operations that require scheduled recipe management. ScheduleWorX32 is designed for a wide variety of operations, and performs scheduled events across all ICONICS products. Scheduled operations can be configured to occur once or be repeated in intervals of seconds, minutes, hours, days, weeks, and months on a 24 x 7 x 365 yearly schedule with a simple point-and-click interface.

Event triggers may be scheduled periodically or based on an OPC expression, an alarm, a database value, a file system or an entry in the NT event log. Schedules are compatible with Microsoft Outlook for easy organization. Users can also set up libraries of frequently used schedules, groups of OPC tags, as well as personal schedules.



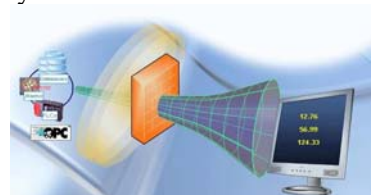
ScheduleWorX32's Weekly Outlook-Compliant Interface

## New DataWorX32 V9 Adds Redundancy and OPC Tunneling

DataWorX32 will now be offered in two license versions: DataWorX32 Standard Edition with OPC Tunneling and DataWorX32 Professional for redundancy mission critical applications.

DataWorX32 V9 contains many significant new product capabilities and enhancements, including:

- New full featured redundancy with support for OPC Data, OPC Alarms and OPC HDA Historian
- New OPC Tunneling supports any third-party OPC server to OPC client communications
- New MonitorWorX shows performance and provides centralized diagnostic utility
- Integration with new Unified Data Manager
- OPC groups and user-selectable Data Bridging and Patented Data Aggregation
- New alarm and data historian Store and Forward technology
- New scheduled data transfers



## DataWorX32 Standard Edition

The new OPC Tunneling feature that comes as a standard part of DataWorX32 V9 connects a remote OPC server to a local client in a robust and secure manner, allowing for one server to be redirected to more than one location. The powerful graphical user interface allows for easy configuration and a centralized place to manage all remote connections. The underlying technology behind OPC Tunneling is the patented ICONICS GenBroker™ communication, which provides high-performance and robust communication, replacing Microsoft DCOM communications. OPC Tunneling is completely OPC-compliant and is IT firewall-friendly, supporting communications over LANs, WANs and the Internet with extensive built-in security.

It is simple to install and deploy OPC Tunneling technology to virtually any application requiring remote and secure OPC communications with DataWorX32 V9.

DataWorX32 V9 OPC Tunneling fully supports open OPC industry standards such as:

- OPC Data Access (DA 3.0)
- OPC Alarm and Events (AE 1.1)
- OPC Historical Data Access (HDA 1.2)
- OPC Unified Architecture (UA)

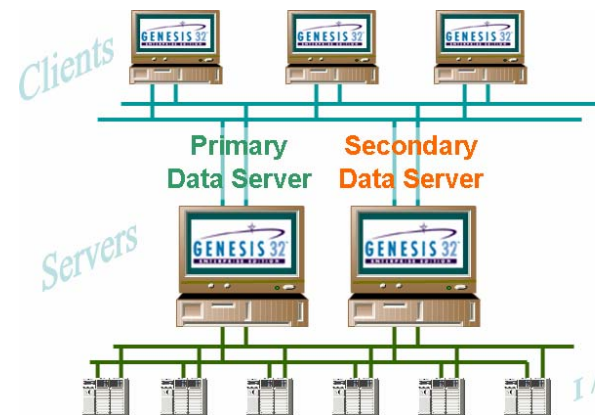
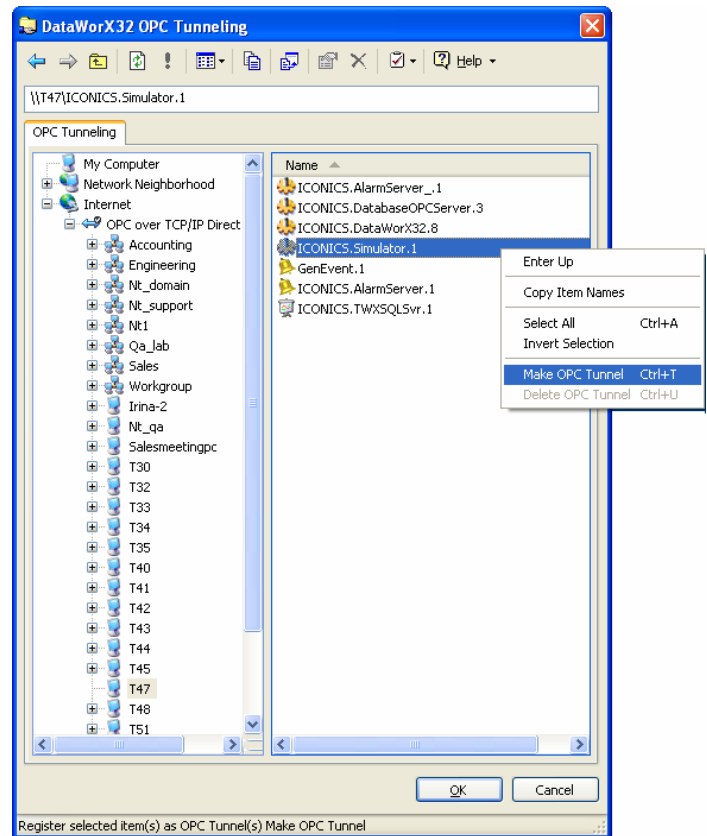
Other significant features of DataWorX32 OPC Tunneling include:

- Auto-discovery of remote OPC DA, AE and HDA servers
- Extremely simple to set up and configure
- Supports OPC browser interfaces over LANs, WANs and the Internet
- Provides a robust, secure alternative to standard Microsoft DCOM communications
- Integrated secure communications
- IT-friendly communications through firewalls and Network Address Translators (NAT)
- Supports TCP/IP and XML communication protocols

## DataWorX32 Professional with Redundancy

New DataWorX32 full-featured redundancy provides high availability similar to features found in large Distributed Control Systems. DataWorX32 Redundancy is the only product to support the three most important OPC standards, increasing the reliability and availability of OPC data by allowing multiple OPC servers to be configured into redundant pairs. These redundant OPC server pairs seamlessly appear as a single OPC server to any OPC client application. This feature can be added to an existing OPC server/client application, without any reconfiguration of those applications, keeping your processes going without any down time.

Taking maximum advantage of the popularity of the OPC Data



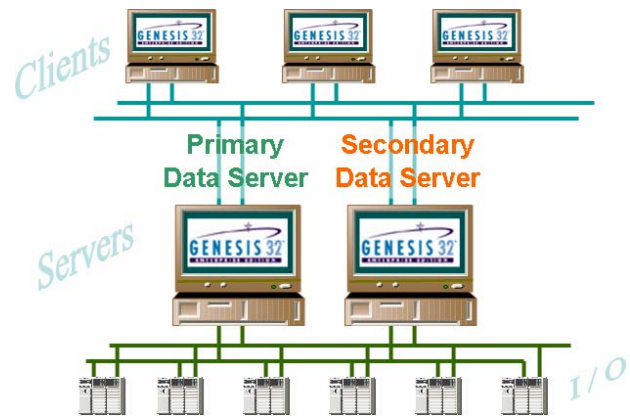
Access, OPC Alarm and Events and OPC Historical Data Access standards, a DataWorX32-enabled system uses multiple connections to a device or system to increase the reliability of data collection. By using built-in, patented aggregation, redundant data paths transparently map and appear as if a single OPC server connection. DataWorX32 can be seamlessly be integrated into any existing OPC application with any changes to the client and without loss of data.

DataWorX32 V9 Redundancy key features include:

- Seamless and transparent addition to OPC applications
- Extremely easy to set up; no programming or application changes required
- Upon failure of a primary OPC server, DataWorX32 automatically switches to the secondary server
- Supports multiple OPC Data Access (DA) server pairs; supports 1.0 through 3.0 specifications
- Supports multiple OPC Alarm and Event (AE) server pairs
- Supports multiple OPC Historical Data Access (HDA) server pairs
- Add redundant data collection to any OPC Data Access application
- Automatic as well as manual fallback capability when primary server becomes available
- Built-in MonitorWorX32 support with system tray diagnostics
- Configure OPC tags for visualization of key redundant monitor items
- Built-in audit trail and diagnostics with event logging, tracking every redundant event to disk
- Drop-in design makes implementing redundancy a snap
- Available fail-over modes: hot, warm, and cold
- Configurable server polling intervals
- Integrate with multimedia alarming product to provide e-mail, SMS, and Instant Messenger notifications

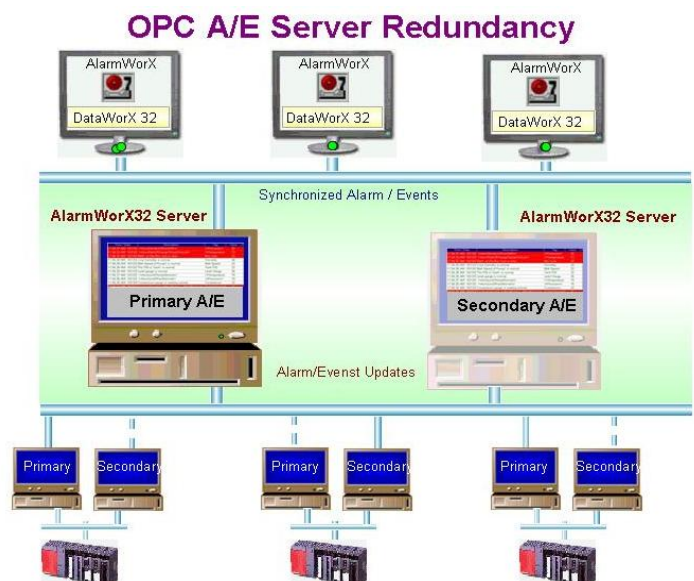
## OPC Data Redundancy

DataWorX32 V9 supports OPC DA (Data Access) Redundancy. DataWorX32 is a powerful data-optimization tool, as well as an easy-to-configure redundancy solution for any OPC-based application. The patented OPC data-aggregation technology found in DataWorX32 will lower network traffic by aggregating server-to-client requests, leading to a reduction in CPU load and an increase in performance. DataWorX32 is a component of the GENESIS32 product family, and it serves as a project-level data system for GENESIS32 applications.



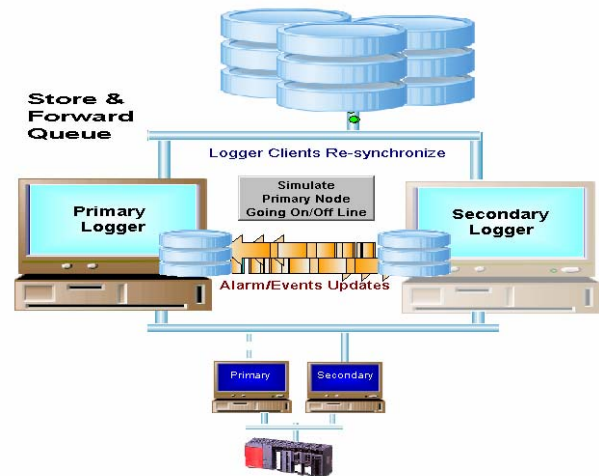
## OPC AE Alarm Redundancy

DataWorX32 V9 supports OPC Alarm and Events server redundancy and alarm logger redundancy. Providing both real-time OPC Alarm Server redundancy as well as synchronization of alarm historical log files was a design goal. Alarm acknowledgements are automatically synchronized, guaranteeing that all operator actions are accounted for when switching from primary to secondary alarm servers and vice versa. Integrated Store and Forward technology provides the core capability when synchronizing alarm history between primary and secondary alarm log files.



## OPC HDA Redundancy

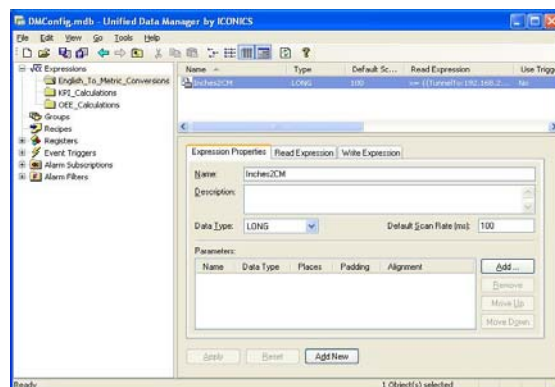
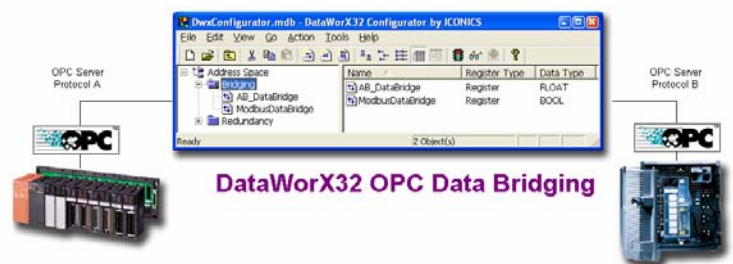
DataWorX32 V9 supports OPC Historical Data Access (OPC HDA) redundancy, providing several configurations for guaranteeing synchronization of critical historical time-stamped data. Integrated Store and Forward technology provides the core capability when synchronizing historical data between primary and secondary log files. DataWorX32 supports Microsoft SQL 2000 and SQL 2005 data stores for highly available trend historian redundancy.



## OPC Universal Data Bridging

DataWorX32 provides simple and reliable means for connecting real-time OPC DA data between OPC servers and applications using OPC.

DataWorX32 supports the use of OPC groups and registers, which are used to form collections of OPC items that will be moved between OPC servers at a specified rate. Using multiple groups, DataWorX32 allows you to control how fast data are transferred from one OPC server to another. By using DataWorX32 groups with different update rates, you can tailor your data transfers to fit the needs of the application. While one item may need to be sent at high speed, other items in the application may need slower update rates. The benefit is reduced network traffic and increased overall communications reliability.



## Unified Data Manager

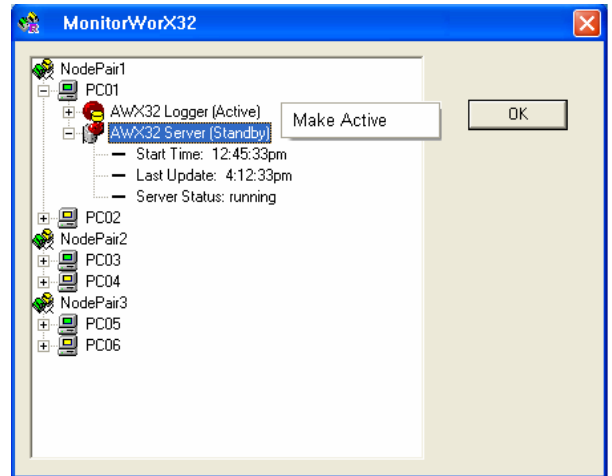
GENESIS32 V9 has a new integrated Unified Data Manager, which allows for the centralized management of commonly used Expressions, Schedules, Alarm Subscriptions, Alarm Filters, Recipes, Tag Groups, Event Triggers and Registers across GENESIS32 products as well as other ICONICS products. From an easy-to-use interface users can create libraries of reusable expressions, recipes and other functions. The Unified Data manager (UDM) provides time-saving, on-the-fly selections and modifications of commonly used functions, saving integration and applications development time. Within the Unified Data Manager user now have the ability to handle recipe management via a recipe tree and grid control. Recipes can also be Exported and Imported in CSV or XML file format. Another new recipe feature for V9 is a new pick action inside GraphWorX and a recipe button.



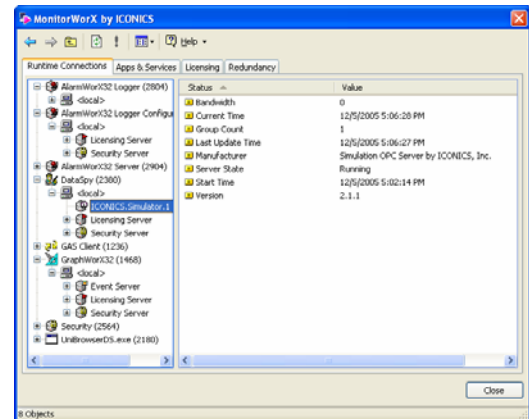
# MonitorWorX32

New system-wide monitoring function provides a common user interface to all ICONICS System Services, License Monitoring, WebHMI User Utilization and GENESIS32 Applications Launch and start-up capabilities. With MonitorWorX32 users can quickly get application version information on local and remote nodes as well as get valuable real-time DataWorX32 redundancy statistics. MonitorWorX32 can reside on the Windows system tray and provides a GUI for analyzing ICONICS GENESIS32 NT services. Information is provided via an easy-to-use GUI:

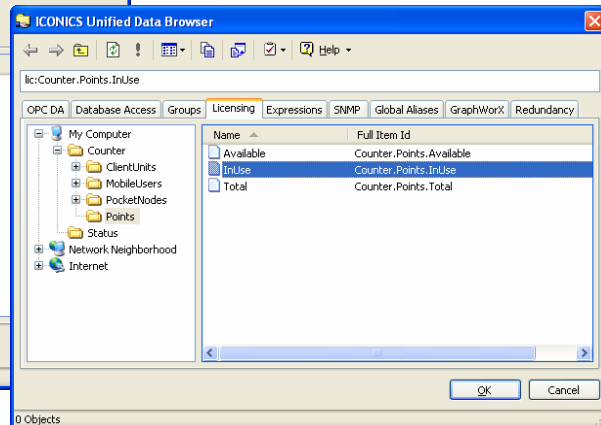
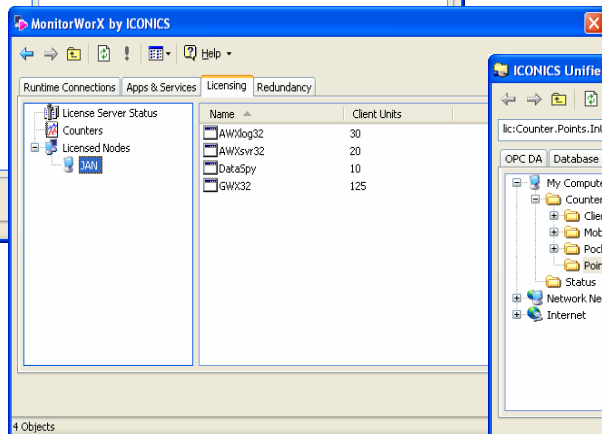
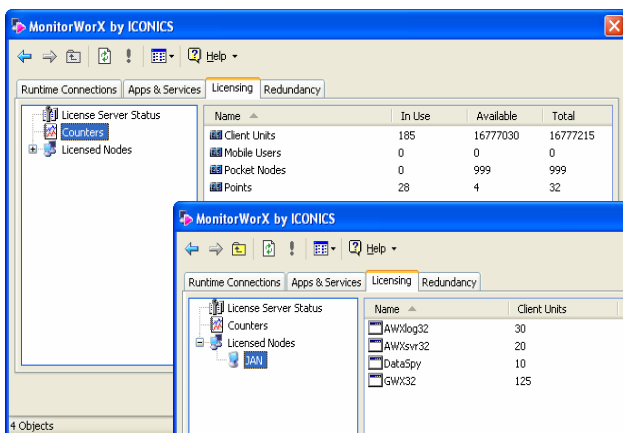
- Start and stop applications and services
- Applications total running time
- Applications version information
- View ICONICS apps from remote nodes
- DataWorX32 Redundancy statistics
- View WebHMI users and license information
- Ghost Image Duplicate License Detection
- System tray provides visual balloons interface



**Redundancy Status Monitoring**



**Runtime Connection Monitoring**

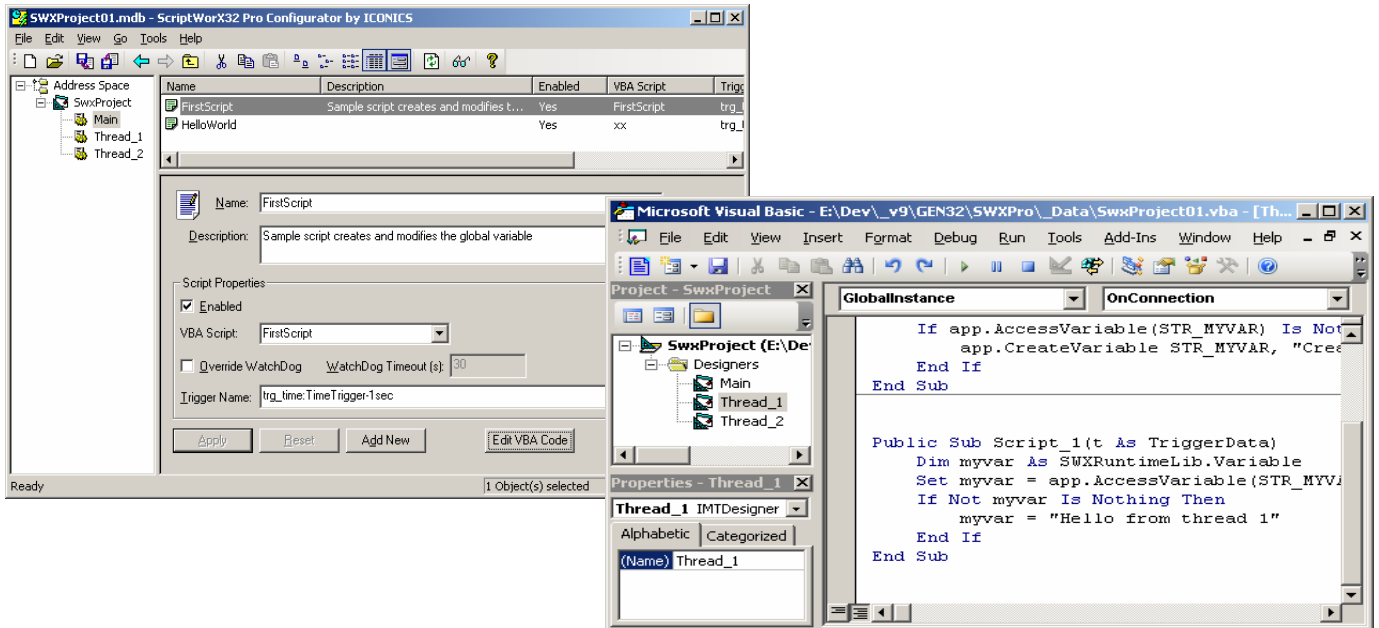


**License Monitoring**



## New ScriptWorX2006 Runs As an NT Service

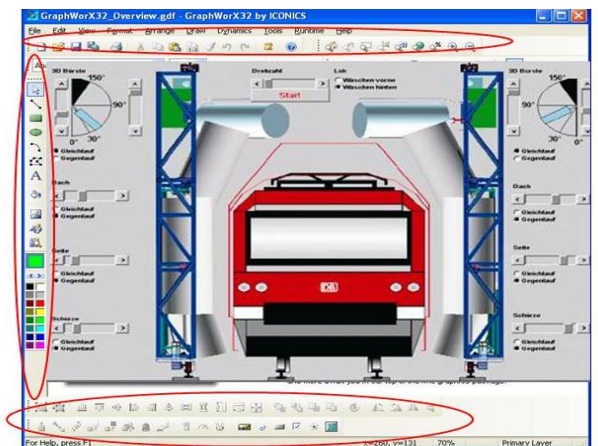
The robust, stand-alone ScriptWorX2006 application now runs as an NT service. ScriptWorX2006 allows the creation and management of Visual Basic for Applications (VBA) scripts. ScriptWorX2006's unique multi-tasking, multi-processor environment allows multiple scripts to run concurrently. User-defined VBA scripts can perform OPC read-and-write operations to any OPC server, which interfaces to factory floor devices, such as PLCs and other OPC-compliant servers. ScriptWorX2006 simultaneously performs calculations, manages databases, and executes any operation available in the VBA language to access reports or perform recipe operations. ScriptWorX2006 also offers project-level scripting as part of GENESIS32.



ScriptWorX2006 V9 is closely integrated with the new MonitorWorX and TraceWorX™32 functions. ScriptWorX2006 also takes advantage of the new Unified Data Manager with its extensive centralized support for scheduling. VBA 6.4 scripts can be scheduled and configured for execution once or repeated daily, weekly, or monthly, and perform reliably on a 24 x 7 x 365 yearly schedule with a simple point-and-click interface. Scripts can be triggered based on OPC DA or AE events as well as file events.

## Improved GraphWorX32 V9 GUI

GraphWorX™32 V9 has many new features and has been greatly optimized for maximum overall performance, allowing graphic displays with object counts greater than 65,000 objects. With this optimization users can build very large rich displays with many layers and take greater advantage of the clutter and declutter capabilities. GraphWorX32 V9 has also taken on a new Windows XP look and feel with toolbars, icons and dialog boxes built to conform to the latest Windows operating systems.



Icons with New look and Feel



# New AlarmWorX Multimedia Agents

## Skype, Hardware Marquees, and Windows Communicator

AlarmWorX™32 Multimedia (MMX) is a distributed, enterprise-wide alarm notification system that delivers real-time alarm information to you wherever you may be. Choose from e-mail, pager, fax, voice, text-to-speech, phone, software and Ethernet hardware marquees and more.

In addition to several key features, including TAPI support for the Phone Agent, AlarmWorX32 Multimedia now comes with three new agents that are highlighted below.

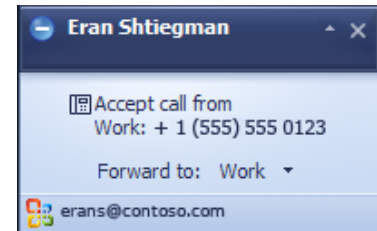
### Hardware Marquee Multimedia Agent

The functionality in the Marquee Agent has been split into two agents for ease of configuration. AlarmWorX32 Multimedia V9 offers one agent for configuring and managing software desktop marquees and another agent for hardware external marquees.



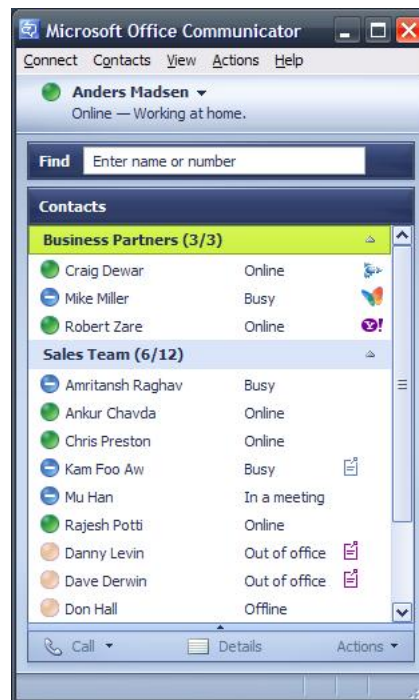
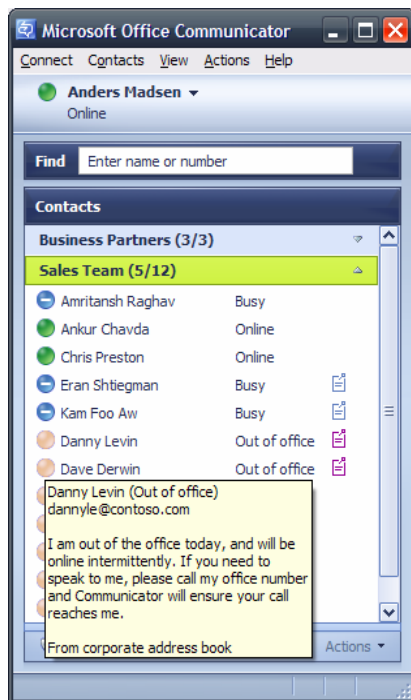
### Skype Multimedia Agent

Skype is an Internet telephony company that offers telephone calling over the Internet. Using the new ICONICS AlarmWorX32 Multimedia Skype agent, voice alarm messages can be delivered to any Skype account. Do you have a Skype account? If not, you can sign up for a free account at [www.skype.com](http://www.skype.com).



### Microsoft Live Communication Server Agent

This new agent can post notification dialogs about alarm conditions that float on top of the desktop, allowing instant notification no matter what the operator is doing. The dialogs displayed follow the Microsoft Outlook notification dialog.



## Operating Systems Supported

GENESIS32 fully supports all the Microsoft Windows 32-bit operating systems, including:

- Windows XP
- Windows XP SP2
- Windows 2000 Server
- Windows 2000 Workstation
- Windows Server 2003
- Windows Server 2003 SP1

## System Requirements

GENESIS32 requires the following hardware and software components: System requirements may vary based on application size, system performance requirements, and loading factors.

Minimum Hardware and Operating System Requirements:

- 600 MHz or higher processor
- 256 MB RAM or more if running with OPC servers
- At least 600 MB of available hard disk space
- CD ROM drive
- SVGA monitor (256 colors or better)
- Windows NT 4.0, Windows 2000, Windows XP Professional, or Windows Server 2003
- A mouse or other compatible pointing device

**ICONICS has been providing award-winning industrial automation and business visualization software for over 20 years, and has successfully deployed more than 200,000 solutions worldwide. For more information, please contact ICONICS at (508) 543-8600 or [info@iconics.com](mailto:info@iconics.com), or visit the ICONICS Web site at [www.iconics.com](http://www.iconics.com).**

ICONICS, Inc.,  
100 Foxborough Blvd., Foxborough, MA 02035  
Telephone: 508-543-8600 Fax: 508-543-1503  
E-mail [info@iconics.com](mailto:info@iconics.com) [www.iconics.com](http://www.iconics.com)

