

GENESIS 64™

Next Generation in Automation Software



A suite of 64-bit HMI/SCADA software solutions


Microsoft Partner
Gold Independent Software Vendor (ISV)


Microsoft Partner Network

2012 PARTNER OF THE YEAR
Sustainability
Winner



Visualize Your Enterprise™

The Next Generation in HMI/SCADA

Advanced 64-bit multi-core, multi-processor computing on 64-bit Microsoft operating systems is the new reality. ICONICS GENESIS64 suite is a native .NET application that delivers unparalleled HMI/SCADA performance with OPC and BACnet open-standard connectivity.

The GENESIS64 suite includes solutions that allow for connectivity from plant floor and building facilities to corporate business systems. Designed from the ground up to take advantage of 64-bit, OPC-UA, .NET managed code and SharePoint® technology, GENESIS64 allows plant operators and IT professionals to integrate real-time manufacturing and business information into a secure and common Web-enabled visualization dashboard.



Workbench Multi-Application Layout

Powerful Web-based Workbench Configuration

Workbench is the multi-functional, centralized desktop or web-based environment for all GENESIS64 product configurations and is the core of the GENESIS64 suite. All GENESIS64 and integrated third-party applications can be configured from the unified Workbench, allowing for faster development and cost savings in designing any application. Offered in WPF or Silverlight technology users can have the option to configure from anywhere or even operate an application from Workbench Classic (WPF) or PortalWorX-SL (Workbench Silverlight's Runtime).

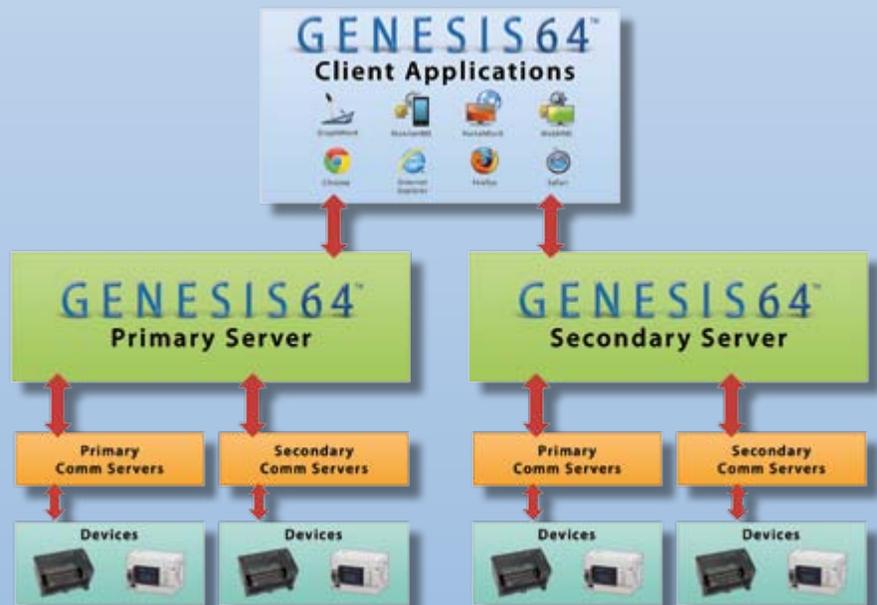
► Integrated Project Management

The Workbench provides complete and secure project management capability for your application. The Workbench project management features include:

- Pack-and-Go Deployment
- Versioning and Change Management
- Global Search, Organize, Find and Replace
- Project Statistics and Audit Trails

Mission Critical Redundancy

For applications that need to run around the clock and be fail-safe, GENESIS64 offers high availability redundancy for the best communication reliability. With automatic failure detection and store-and-forward technology, GENESIS64 users can be assured that mission critical real-time data, historical data and alarm information are always available for viewing and logging on demand, whenever needed. ICONICS redundancy solutions are simple to configure, install and deploy. Software redundancy covers all major aspects of data redundancy such as data access, alarms, historical data and security. In GENESIS64, OPC software redundancy provides full automatic switchover for OPC data access (DA), Alarms & Events (A&E), Historical Data Access (HDA) and Security.



Unsurpassed Visualization Using Windows Presentation Foundation (WPF) & Silverlight

GENESIS64 also takes advantage of state-of-the-art graphic hardware acceleration through DirectX10, powered by Microsoft Windows 7 and Windows Server 2008. GraphWorX™64, integrated with Windows Presentation Foundation and Silverlight, provides users with a dazzling 2D and 3D view of their operations in real time with live data. Imagine the ability to view how equipment is running, in real time, from any 3D angle and perspective. It's a whole new powerful approach and a first in HMI/SCADA visualization.

ISA-95 Compliant Asset Organization

AssetWorX™ is an additional architectural layer within GENESIS64 that enables the system to be engineered and operated based on an intelligent asset model configured to represent a customer's enterprise. The asset model can be created in a hierarchical model as defined by the ISA-95 standard. The advantages of using AssetWorX include greatly reduced engineering time, operator consistency and easy navigation through the AssetWorX Navigator tree.

Take Visualization and SCADA to New Levels

GraphWorX™64 provides the platform for visualization, taking maximum advantage of Windows Presentation Foundation (WPF) for rich 2D and 3D HMI and SCADA applications. Users can build scalable, XAML vector-based graphics that retain details when zoomed upon. GENESIS64 also takes advantage of contextual, task oriented Ribbon menus similar to Microsoft Office. Quickly browse through thousands of 2D and 3D smart symbols in the icon galleries which provide a rich preview of available actions. Users can create stunning vector objects with dynamic properties of rotation or animation as well as stylize color and effects with just a few simple clicks. GENESIS64 supports the ability to import 3D models created in 3D modeling software allowing for reuse of existing content.



3D Visualization in GraphWorX64



EarthWorX SmartPin Technology

Quickly View Assets with GEO-SCADA

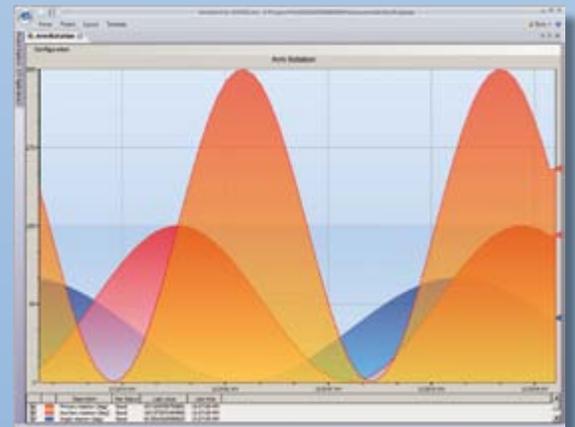
EarthWorX™, GENESIS64's geographical information SCADA technology, provides real-time visualization to widely dispersed assets such as water plants, building facilities, postal centers, factories, oil fields and many others. ICONICS' unique patent-pending SmartPin™ technology allows for an intuitive drill-down capability to quickly view alarm conditions and status for any location around the world. Within seconds, assets can be identified and located through GENESIS64's integration with Microsoft's Bing maps. Integrated with GraphWorX64 at the core, EarthWorX can be layered into existing HMI screens with little effort.

Object-oriented Distributed Alarm Management

AlarmWorX™64 is a powerful, distributed, enterprise-wide alarm and events management system capable of handling even the largest, most demanding applications. Included in GENESIS64, or as a stand-alone product, AlarmWorX64 offers the tools you need to deliver real-time and historical alarm information. AlarmWorX64 includes AlarmWorX64 OPC Server, AlarmWorX64 OPC Logger and a new 3D Alarm Viewer .NET Control. AlarmWorX64 is totally compatible with OPC A/E and OPC-UA/AE industry standards.

Real-time and Historical 3D Charts and Analysis

TrendWorX™64 is a plant-wide data collection, logging, charting, reporting and analysis solution. Included in the standard GENESIS64 suite of applications, it is designed to log data to any OLEDB database (e.g. Microsoft SQL Server 2008, Oracle, MySQL and others). TrendWorX64 offers the tools you need to trend and chart real-time and historical data from any relational database. TrendWorX64 is an OPC HDA-compliant application and provides open connectivity to any OPC DA and OPC UA data source, making it ideal for most OPC logging applications. This connectivity allows for easy plug and play with ICONICS servers and trend components and with other third-party trending solutions, as well.

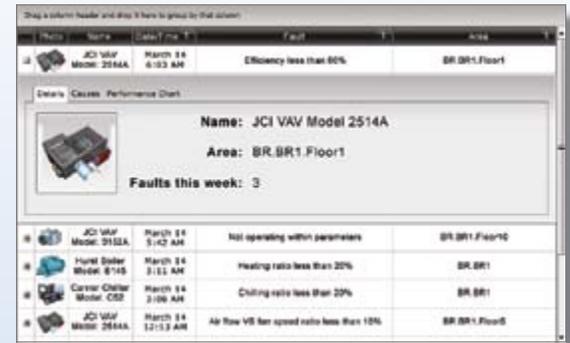


TrendWorX64 Real-time & Historical Trending

"ICONICS gives you a 360° view of your entire enterprise"

Fault Detection and Diagnostics

FDDWorX™ represents the inclusion of a predictive equipment diagnostic solution that uses an advanced Fault Detection and Diagnostics (FDD) Engine within GENESIS64 to allow users to analyze all available information to detect and predict faults in equipment. It incorporates algorithms that weigh the probability of faults and advises management, operators and maintenance personnel of actions to prevent equipment failures or excessive use of energy.



Unit	Name	Date/Time	Fault	Area
JCI VAV Model 2514A	March 14 6:13 AM	Efficiency less than 80%	BR BR1.Floor1	

Details Causes Performance Chart

Name: JCI VAV Model 2514A
Area: BR BR1.Floor1
Faults this week: 3

Unit	Name	Date/Time	Fault	Area
JCI VAV Model 2514A	March 14 5:42 AM	Not operating within parameters	BR BR1.Floor1	
Humidifier Model 8745	March 14 3:13 AM	Heating ratio less than 20%	BR BR1	
Control Chiller Model CCS	March 14 3:08 AM	Chilling ratio less than 20%	BR BR1	
JCI VAV Model 2514A	March 14 12:13 AM	Air Flow VS fan speed ratio less than 10%	BR BR1.Floor1	

FDDWorX Details View

Lighting up Windows 7

GENESIS64 is built from the ground up on 64-bit technology, allowing it to take advantage of the latest features offered in Microsoft Windows 7. With integrated multitouch support, operators can zoom in and out and flip through graphics with one and two finger gestures. Windows taskbar support allows GENESIS64 to provide more intuitive information to be displayed in Windows taskbar even when the application is minimized. Support for the Windows 7 Jump List feature allows GENESIS64 applications to be available from the Windows Start menu for quick access.

Powerful Real-Time Dashboards for all Roles

PortalWorX™-SL enables the design of user screens as framed dashboards, for ease of use and consistency. Dashboards can be designed for each role in the organization and contain any combination of application views. Powerful commanding provides intuitive, single click and drag and drop operation between applications windows.



PortalWorX-SL Display



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GridWorX Real-time Column Filtering

HMI Integrated Database Access and Control

GridWorX™ allows data grid and spreadsheet visualization of information with full read/write support to any database technology. Use the GridWorX Server to access databases (e.g. Microsoft SQL Server 2008, Oracle, MySQL and many others) and use tools to write database queries through the GridWorX Viewer. The GridWorX Viewer allows sorting, grouping and filtering with ease. Even combine real-time data with historical data in the same GridWorX Viewer.

Real-time Control Event Scheduling

ScheduleWorX™64 is a flexible Outlook-styled scheduling tool for realtime control and event management based on hourly, daily, monthly, seasonal and yearly calendars. Sequencing events through action sets can handle day-to-day control or non-recurring events such as Holidays. Scheduling is simple and easy with an intuitive interface that allows creation and reuse of events as well as grouped data into Value Sets for simple integration into multiple schedules.

Universal Connectivity with BACnet and OPC-UA

GENESIS64 is the first 64-bit Advanced Workstation (B-AWS) certified by the BACnet Testing Laboratories ensuring maximum integration with the BACnet protocol including BACnet Objects, Trends, Alarms and more. OPC Unified Architecture (OPC UA) is also at the core of GENESIS64. OPC UA is based on secure, robust and scalable Web services, taking advantage of Windows Communications Foundation (WCF). GENESIS64 is truly "OPC-To-The-Core™", exemplifying the next generation of standards-based communications.

GENESIS64™

Improve Your Productivity!

The largest cost of any automation project is in engineering the application. For an average project, this can be well over 60 percent of the total expenditure. Taking advantage of 64-bit computing can greatly reduce this effort and shorten the design time, resulting in enormous cost savings and improvement in the bottom line. As an award-winning Microsoft Gold Certified Partner, ICONICS is able to constantly deliver software solutions based on the latest Microsoft operating systems. GENESIS64 is certified on the latest 64-bit operating systems, including Windows 7 and Windows Server 2008. Key features of Windows 7 come to life within GENESIS64 and provide users with the greatest application performance, reliability and flexibility.



***“The Next
Generation in
Automation
Software...
Has Arrived!”***

Key Features

- Universal Connectivity – OPC-UA, BACnet, Databases, SNMP
- Intuitive 2D and 3D XAML, WPF & Silverlight Visualization
- Support for Asset and Data Tag Based Organization
- Object-oriented Distributed Alarm Management
- Customizable Frame or Canvas Based Visualization
- Silverlight Cross-browser, Cross-platform Visibility
- Hardware-accelerated 3D User Experience
- Native Touch Device Support through Windows 7 Multitouch
- Web-based Development & Configuration
- Compatible with Microsoft Windows 7 and Server 2008 R2
- International Language Support and Extensible API

Ideal for Many Industries

For over two decades, ICONICS industrial automation software solutions have met real customer needs in multiple industries, including:

- Automotive
- Oil, Gas & Petrochemical
- Building Automation
- Pipelines
- Chemical
- Postal & Airport
- Consumer Products
- Power & Energy
- Discrete Manufacturing
- Process Industries
- Entertainment
- Renewable Energy
- Food & Pharmaceutical
- Robotic Control
- Government
- Transportation
- Logistics
- Water & Wastewater
- Machine Builders & OEMs
- Wind Energy



Founded in 1986, ICONICS is an independent software developer of award-winning, real-time visualization, data historians, automation intelligence and suite of analytics software solutions. ICONICS products are installed in 70% of the Fortune 500 companies around the world, helping customers be more profitable, agile, efficient and sustainable.

ICONICS is a long time Microsoft Gold Certified Partner and Winner of the very prestigious Microsoft Partner of the Year Award, providing advanced software for many end users and technology suppliers. ICONICS has over 250,000 applications installed in multiple industries worldwide.

ICONICS cultivates an international culture of innovation, creativity and excellence in product design, development, technical support, sales and service. World headquarters are located in Foxborough, Massachusetts, USA.

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Winner



Further information:
www.iconics.com/genesis64



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