

# GENESIS 64™

Next Generation in Automation Software



**Microsoft**  
**GOLD CERTIFIED**  
*Partner*



*Visualize Your Enterprise™*

# GENESIS64™

The largest cost of any automation project is in engineering the application. For an average project, this can be well over 60% of the total expenditure. Taking advantage of 64-bit computing can greatly reduce this effort, resulting in enormous savings and helping your bottom line. The GENESIS64™ software suite from ICONICS, designed and certified for Microsoft Windows® Vista™ and Windows Server 2008, takes advantage of true 64-bit technology from AMD and Intel, allowing for faster development of your automation solution.



GENESIS64 is people-ready and allows plant level workers and IT professionals to integrate real-time manufacturing and business information into a common, OPC-UA-compliant, Web-enabled visualization dashboard. Collaboration of plant information has never been easier. The “Next Generation for Automation” has arrived. GENESIS64 is truly “64-bit-to-the-Core™”.

## Designed for Use in Many Industries

For more than 20 years, ICONICS has developed leading-edge software tools for automation, manufacturing, building control and information management customers. ICONICS has shipped over 225,000 products that are installed in over 20,000 plants worldwide for the following primary markets:



- Automotive
- Oil/Gas & Petrochemicals
- Pharmaceuticals & Biotechnology
- Building Controls
- Food & Beverage
- Water & Wastewater
- Government & Postal Systems
- Robotics
- Entertainment
- Security Access
- Utilities
- Machine Builders & OEMs
- Power & Energy
- Airports

## GENESIS64 Takes Visualization and SCADA to New Levels

Manufacturing, automation and general computing technology is changing at an ever accelerated rate. To stay competitive, companies need to adopt 64-bit technology. GENESIS64 takes advantage of the following Microsoft Windows Vista key features, providing fast returns from your automation project and giving you a competitive advantage:

- Universal Data Connectivity using Windows Communication Foundation (WCF)
- Real-time KPI Gadgets and Windows Vista Desktop Sidebar Technology
- Enriched User Experience with Windows Presentation Foundation (WPF)
- Hardware Accelerated Graphics for 3D Imaging
- Increased Security via User Account Control (UAC) Integration
- Virtual Earth Geographical Information System (GIS) Integration
- Integrated Windows Vista Search & Organize Technology
- Windows Workflow Foundation for Secure Real-time Data Communications (WF)





## OPC-UA-To-The-Core™

GENESIS64 is truly OPC-UA-To-The-Core. OPC Unified Architecture (UA) is the next generation of OPC Data Access, OPC Alarm and Events and OPC Historical Data Access. OPC-UA is the next generation open standard for automation systems. This built-in technology allows for secure, open connectivity from plants and facilities to the enterprise level.



### Innovative, Real-time KPI Gadgets for Automation

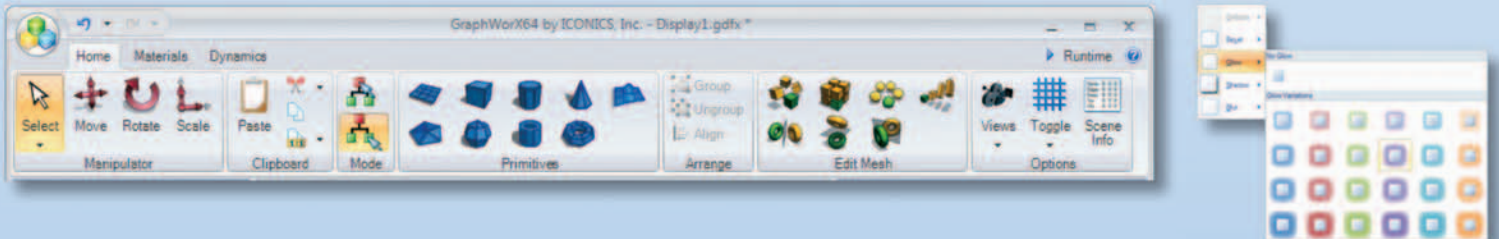
ICONICS has created a series of automation-centric Microsoft Gadgets, designed to run in the Windows Vista Sidebar. GENESIS64 uses Microsoft Gadget, Sidebar and Sideshow technologies through mini-applications designed to provide at-a-glance information, useful search abilities and valuable Key Performance Indicators (KPIs). Automation specialists can quickly see how a plant or facility is performing with these powerful, informative and easy-to-use GENESIS64 Automation Gadgets.



### Unsurpassed Visualization Using Windows Presentation Foundation (WPF)

Windows Presentation Foundation (WPF) and XAML are at the core of the new GraphWorX64 component of GENESIS64 and are widely used to provide real-time visualization of any manufacturing and business intelligence information. GENESIS64 exploits both the 2D and extensive 3D capability of WPF to deliver real-time data in a variety of visualization options, giving users the richest client user experience found today.

GraphWorX64 takes maximum advantage of WPF for rich HMI and SCADA data visualization. It allows users to build scalable, vector-based graphics that do not lose details when zoomed upon. GENESIS64 also takes advantage of the Vista Aero transparency look and feel, as well as Ribbons found throughout Vista and other integrated applications, such as Microsoft Office 2007. Users can quickly browse through galleries that provide a rich preview of available actions. For instance, an operator may wish to add transparency and/or shading to several objects and, with GENESIS64, this task is done with just a few simple clicks, truly unleashing the power of 64-bit computing.



GENESIS64 also takes advantage of state-of-the-art graphic hardware acceleration through DirectX10, powered by Windows Vista. GraphWorX64, integrated with the Windows Presentation Foundation, provides users with a compelling 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 angle. It's a whole new approach to visualization.





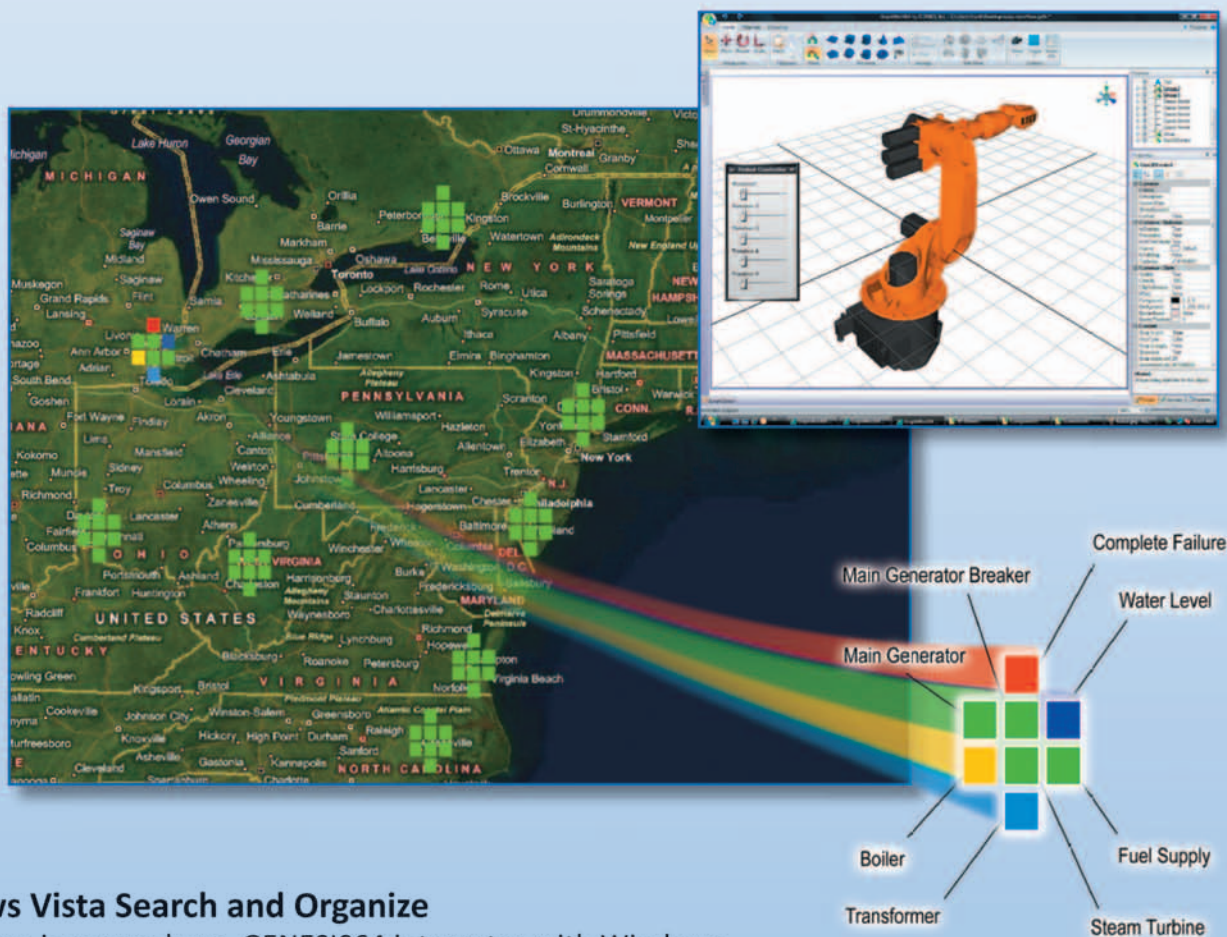
# *“The technology in GENESIS64 can now give you a 360-degree view of your entire operation”*

## **Increase Your Security via User Account Control (UAC)**

GENESIS64 takes advantage of the new Windows Vista User Account Control (UAC). With the integration of UAC, GENESIS64 users will benefit from reduced attack exposure by preventing potentially dangerous software from making unauthorized system changes, thus improving overall application and system security. Taking advantage of UAC allows for fewer security patches and keeps operations running 24/7.

## **Quickly View Assets with Geographical Information System (GIS)**

GENESIS64's new geographical information technology provides real-time visualization to widely dispersed assets such as factories, facilities, oil fields and many others. ICONICS' unique Smart Pin technology allows for an innovative drill down capability to quickly view alarm conditions and status for any location around the world. Within seconds, that asset can be identified and located through GENESIS64's integration with Microsoft's Virtual Earth.



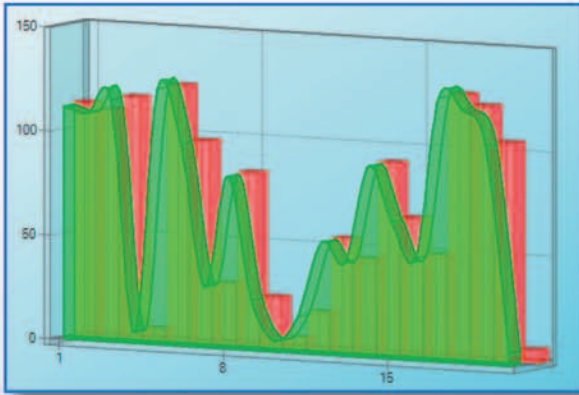
## **Windows Vista Search and Organize**

Information is everywhere. GENESIS64 integrates with Windows Vista Search and Organize technology to help users organize documents and project files in order to quickly find needed information. For example, one could search on “TANK 024” and within seconds the integrated search would quickly display any graphic file, OPC server, desktop gadget or associated file that contains a reference to “TANK 024”.



## TrendWorX64™ and AlarmWorX64™

Taking advantage of Vista's WPF and hardware acceleration, trend and alarm information can be visualized unlike ever before. A rich set of charting types can be applied to alarm and real-time historic trends.

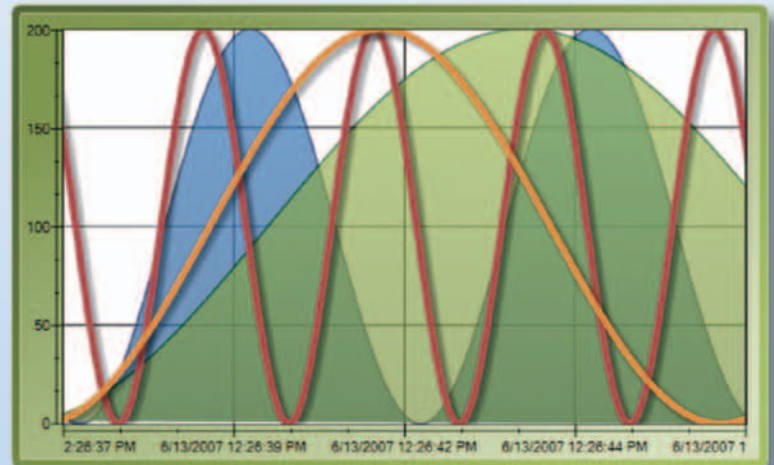


Time	Alarm Description	Value
2:45:32 PM	5/11/2007 Cooling level is critically low. Shutdown in	46
2:45:32 PM	5/11/2007 Valve Valve Activation	47
2:45:32 PM	5/11/2007 Core humidity is normal	Humidity 26 700
2:45:32 PM	5/11/2007 Arm Torque is at acceptable level	Arm Torque 26 500
2:45:32 PM	5/11/2007 Normal condition	Pressure 41 600
2:45:29 PM	5/11/2007 Normal Condition	Temperature 39 300
2:45:10 PM	5/11/2007 The PSI in Tank3 is normal	Tank PSI 60 625
2:45:10 PM	5/11/2007 Level gauge is normal	Level Gaug 60 400
2:45:10 PM	5/11/2007 Compressor gauge is reading normal	Compresso 60 360
2:45:10 PM	5/11/2007 Belt Speed of Pump1 is normal	Belt Speed 60 600
2:44:58 PM	5/11/2007 Critical Mazo is ok.	Critical Ma 60 500

## New Hyper-Historian™

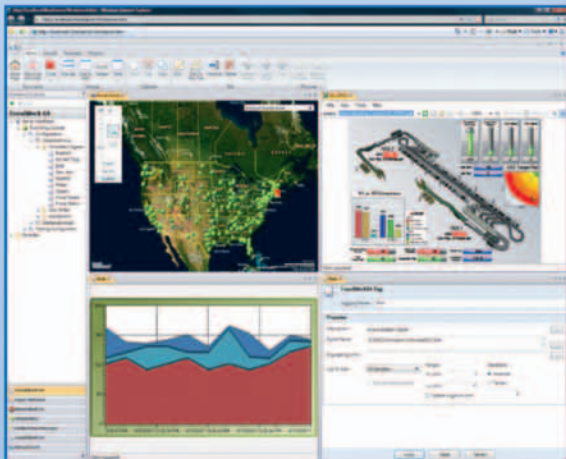
ICONICS GENESIS64 also contains a new, high-speed, reliable and robust Plant Historian product. It's designed to data log up to 50,000 tags from multiple data sources including OPC UA Servers, OPC DA Servers, OPC XML DA Servers, BACnet, SNMP and much more.

The ICONICS Hyper-Historian also provides full, Web-based online configuration. Optional redundant configurations are supported using redundant Hyper-Historian Collectors and redundant Loggers. The Hyper-Historian also supports Store-and-Forward technology, providing data synchronization with remote loggers.



## Universal Data Connectivity

With Vista's WCF, users are able to connect to required data whether visualizing real-time information from manufacturing via OPC, facilities via BACnet or network status via SNMP, to name a few possible scenarios. GENESIS64 helps to supply connectivity to any database.



## Powerful Workbench Provides Web-based Configuration

A centralized Workbench environment provides a common look and feel for all GENESIS64 applications. This powerful Workbench provides Web-based configuration and is the visualization platform on which to build any automation project. Users can quickly monitor and configure remote applications through the Workbench's unique thin client technology.

*Are You Ready for the  
Next Generation in  
Automation Software?*



Visualize Your Enterprise™

VISIT US AT WWW.ICONICS.COM

# GENESIS64™



## WHY CHOOSE ICONICS?

ICONICS, Inc. is a leading provider of award-winning enterprise manufacturing intelligence and automation software solutions and implementation services. ICONICS solutions deliver real-time visibility into all enterprise operations and systems, helping companies to be more profitable, more agile and more efficient. ICONICS products have delivered value within over 225,000 installations worldwide and have been chosen by more than 70% of Fortune 500 manufacturers.

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