

## ICONICS Receives Windows 7 Certification, Well Positioned For Pent-Up Demand

By Craig Resnick

### Summary

ICONICS, a global provider of Web-enabled, OPC-based, HMI/SCADA visualization and manufacturing intelligence software based on Microsoft Windows operating systems, recently briefed ARC regarding the company's strategic plans going forward. ICONICS is preparing for the

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upcoming release of the Microsoft Windows 7 operating system, one which should drive many end users and OEMs to not only migrate to from Windows Vista, but also those who held out on migrating to Vista and are still using Microsoft Windows XP. The combination of end users and OEMs waiting

for the release of Windows 7 to upgrade their software solutions, along with the beginnings of an emergence from a global recession, creates a scenario where there is a significant pent-up demand in the marketplace that should bode well for software solution providers such as ICONICS.

### Windows 7 will enhance the 64-bit Experience

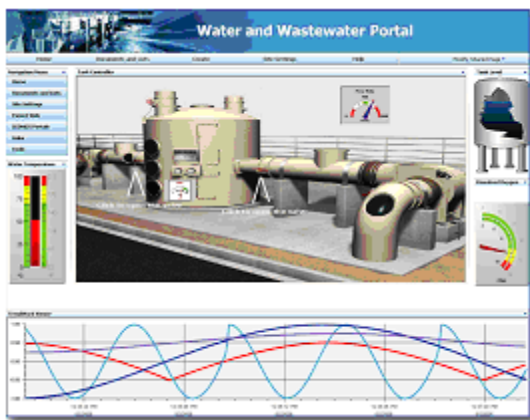
As one of the early companies to have its solutions both 'Certified for Windows Server 2008' and 'Certified for Windows Vista', and as a 2008 Microsoft Gold Certified Partner of the Year, ICONICS felt that it was critical to its strategy to be an early recipient of Windows 7 certification. It was also critical for ICONICS to fully leverage its latest HMI/SCADA offering, GENESIS64, designed as a .NET 64-bit product, to take advantage of the convergence of 64-bit-based computing machinery, the newest Microsoft operating systems and technologies, and customer requirements for 3D visualization of both manufacturing and business processes. Windows 7, running on computers with new 64-bit processors, will further enhance ICONICS visualization and control solutions used to provide 360-degree views of an end users enterprise.



GraphWorX64, a component of the GENESIS64 suite, provides users with 3D views of their operations in real-time with live data. GENESIS64 utilizes key features within Windows 7 to provide these 360-degree views, including universal data connectivity using Windows Communication Foundation (WCF), real-time KPI gadgets/Windows desktop sidebar technology, 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, Windows search and organize technology, and Windows Workflow Foundation (WF) for real-time data communications. GENESIS64 takes advantage of the graphic hardware acceleration through DirectX10. In addition to GraphWorX64, the core modules of GENESIS64 also include AlarmWorX64 enterprise alarm management software, TrendWorX64 to configure and view 3D charts, EarthWorX to leverage GIS, and Hyper-Historian 64-bit high performance plant historian. Finally, the Workbench module is the centralized Web-based environment for all GENESIS64 components' configuration, acting as an operator interface for service management along with built-in project management functionality.

### Windows 7 Helps to Bridge Plant Floor to Enterprise

The release of Windows 7 and its enhanced visualization capabilities will also have a major impact on the performance of ICONICS' BizViz suite of



**ICONICS PortalWorX**

real-time performance management, manufacturing intelligence, and business visualization software, which is designed around Microsoft .NET technology and Microsoft SharePoint services to help bridge the data gap between the plant floor and corporate business information systems. BizViz is a key component of ICONICS strategy to expand from a HMI/SCADA company to a full-fledged provider of manufacturing intelligence solutions. The core of the BizViz suite is in its data-mining and Web portal technologies. BizViz is based on C#, Microsoft .NET, and SharePoint technology

integration, and enables the bridging of real-time industrial or corporate databases. End users are able to integrate information from different data sources, including Microsoft SQL server, Oracle, SAP, OPC HDA

(Historical Data Access), OPC AE (Alarm and Events), and OPC real-time information. BizViz provides downtime analysis, Key Performance Indicators (KPIs), and Overall Equipment Effectiveness (OEE) metrics through manufacturing portals and digital dashboards. BizViz connects the plant floor to the enterprise using Microsoft .NET, Web services, ASP.NET, SNMP, OPC-UA and other Web-enabling technologies. Data can be delivered, read, and written to a multitude of wireless, secure Internet-enabled mobile devices such as cell phones by utilizing ICONICS MobileHMI product.

ICONICS' BizViz suite consists of a number of modules, including PortalWorX to create and manage custom manufacturing and business portals and visualization dashboards that provide single sign-on collaboration; ReportWorX to create and manage custom reports with a Microsoft Excel .NET "plug-in" that combine data from different data sources such as OPC, SNMP, standard databases and plant historians; and

BridgeWorX to perform data exchange to and from databases, accessing OPC, SNMP, Microsoft SQL Server, Oracle, Microsoft Access, SAP, Excel, ODBC, OLEDB, and Web services;



**ICONICS Productivity Analytics, OEE, and downtime**

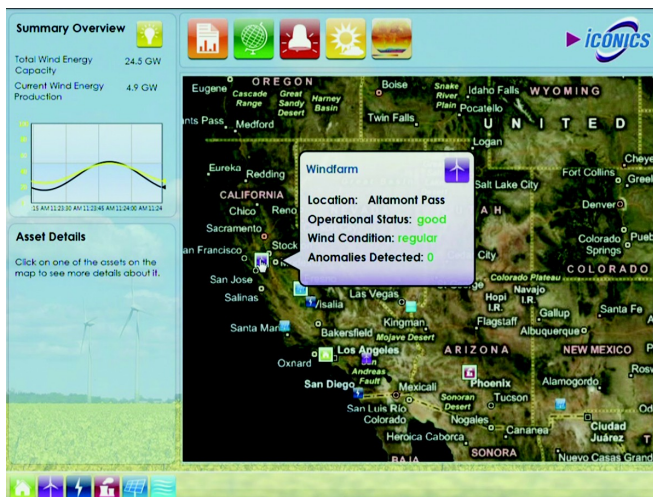
BizViz also provides a number of analytics solutions. Productivity Analytics measures and monitors assets in real-time and delivers manufacturing intelligence; Alarm Analytics provides analysis, visualization, reporting and management of alarms via an OSHA/EEMUA-compliant product; and Energy Analytics assists

companies with their energy conservation efforts by offering actionable intelligence to reduce energy consumption, aggregate and summarize energy usage by location, and forecast energy costs over time. Energy Analytics can also assist companies in meeting LEED (Leadership in Energy and Environmental Design) standards for the operation of green buildings. End users will be able to gain insight into energy consumption patterns, correlate information using Microsoft SharePoint-integrated dashboards, and convert energy usage data into KPIs to optimize asset utilization.

## Windows 7 Leverages Renewable Energy Solutions

There is an ever growing demand for end users and OEMs to implement their sustainability initiatives, including obtaining energy from renewable sources to meet future requirements. Driving forces for developing renewable energy consist of concerns for energy security, a global aversion to continued environmental degradation, and possible climate change. ICONICS strategy is to address the growing market created by the need for renewable energy by releasing its GEO Productivity Portals. Built on Microsoft.NET technology and designed to leverage Windows 7 visualization capabilities, the GEO Productivity Portal solution targets complete operations of wind and solar farms. It provides energy analytics, data historians and reports designed for specific applications such as wind farm management; offers GEO SCADA, with updates for integrating metrological information; features alarm management with instant alerts; and provides standards-based OPC Connectivity.

The GEO SCADA and other portals are built from a combination of ICONICS technologies, including productivity analysis and real-time online collaboration and visualization dashboards. Companies can use ICONICS GEO Productivity software, such as PortalWorX from the BizViz suite, to create and manage custom business portals and visualization PortalWorX is dashboards that provide single sign-on collaboration. based



**ICONICS GEO SCADA Portal Image**

on Microsoft SharePoint Server .NET technology, which provides the tools to create a portal for real-time and historical business information. PortalWorX requires minimal administration, and is designed for simplified configuration.

ICONICS Productivity Analytics, from the BizViz suite, is also a part of GEO Productivity software, which provides OEE and downtime information through real-time data aggregation and connectivity to multiple data sources. Productivity Analytics helps to establish

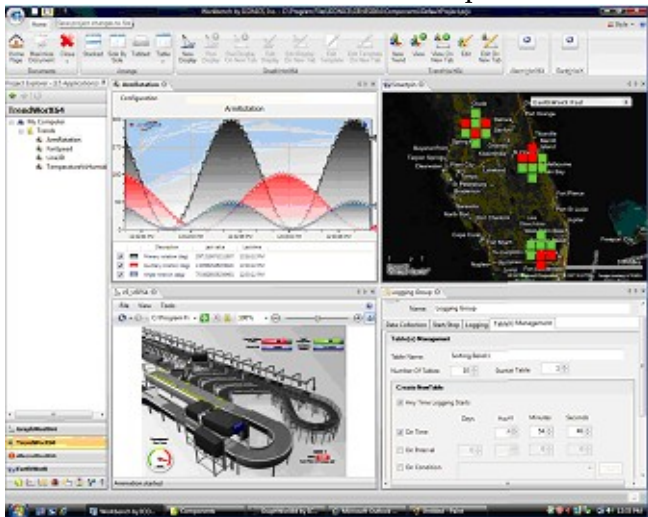
context with KPIs and deliver business intelligence throughout an organization.

Another component of the GEO Productivity software is EarthWorX, also from the BizViz suite, which provides real-time visualization of widely

dispersed assets, such as wind turbines placed in different geographical locations. ICONICS' SmartPin technology allows for drill down capability to view alarm conditions and status for any global location to identify, locate, view and manage assets through web-based GENESIS64's integration with Microsoft Virtual Earth.

## Windows 7 Delivers GEO Productivity Portal Benefits

ICONICS strategy is to provide operators of GEO Productivity Portals with Windows 7 capabilities to leverage 3D graphics for visualizing the



**ICONICS 3D Trends, Alarms and EarthWorX**

enterprise assets in real time with live data. This provides users with the ability to monitor and manage dispersed assets from any global remote location by using standard desktops, laptops, or PDA devices. Managers also have the ability to define and configure security roles and permissions to allow selected access of wind turbines, pumps, motors, valves, or any device requiring operational assistance; as well as the ability to control, start, and stop any process from a single user interface. Operators can use configurable KPIs for real-time

performance tracking against set targets, while also receiving real-time alarm notification to maintain operations running 24/7/ 365. Finally, managers can measure productivity by viewing real-time information to maximize global operational efficiencies via access to production reports, making comparisons against historical information obtained from a web-based portal.

## Windows 7 will Work with Legacy Systems

Most end users and OEMs that deploy ICONICS solutions will have to face the fact that there may be solutions within the plant that are not going to be upgraded to Windows 7. That is why it is critical that all ICONICS HMI software products have a common development strategy. The “one development system, multiple targets” approach utilizes a single development environment, so OEMs and end users can configure runtime



applications for Microsoft Windows Vista 32-bit, Windows Vista 64-bit, Windows XP Professional, Windows XP 64-bit, Embedded XP, Windows Server 2008, Windows Server 2003, Windows 2003 Server x64, Windows CE, Windows NT, Windows 2000, and Pocket PC platforms. Applications can also be published to any Web server, such as Microsoft IIS providing complete Web-based HMI/SCADA solutions. ICONICS products support most common databases including Oracle, Microsoft SQL Server 2005, Microsoft SQL Server 2000, Microsoft Access, MSDE, MySQL, and Microsoft SQL Express.

### **In Summary,**

ICONICS' latest strategies and offerings that leverage Windows 7 technology should be well poised to take advantage of the pent-up demand for secure, productive solutions, as purchases that have been delayed or

ICONICS' latest strategies and offerings that leverage Windows 7 technology should be well poised to take advantage of the pent-up demand for secure, productive solutions, as purchases have been delayed or postponed based on the global recession, along with some concerns regarding Microsoft Windows Vista.

postponed based on the global recession, along with some concerns regarding Microsoft Windows Vista. Microsoft appears to have addressed many of those Vista-related concerns in Windows 7, and ARC feels that end users and OEMs should be moving in the direction of Windows 7 based solutions. End users and OEMs that

are still using Microsoft XP and legacy Microsoft operating systems such as NT and 2000 need to upgrade to Windows 7 solutions at a minimum to protect from vulnerabilities and security risks, in which the elimination of one security incident would provide an immediate return on investment from the cost of the upgrade.

ICONICS should continue to enhance the productivity and security benefits of its Windows 7 based solutions, especially leveraging the ability to visualize and report data and information that will have the most dramatic affect on end users and OEMs profitability and asset utilization, and thus for current and future project justification for its customers. End users and OEMs are seeking return on investments and return on assets in shorter and shorter periods of time, often with less than a year for payback. If ICONICS can be successful in presenting the business justification, then it will be ensured of much sales success with its latest offerings.

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