Product Brief for BizViz V9.2

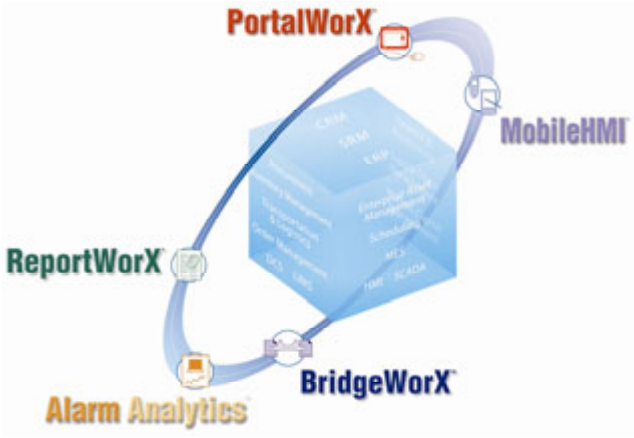
April 2010

BizViz V9.2
Product Brief

April 2010

Includes PortalWorX, ReportWorX, BridgeWorX, MobileHMI, Alarm Analytics, SAP BAPI Connectivity, Unified Data Manager and SNMP Connectivity

ICONICS' manufacturing intelligence suite, BizViz™ V9.2, empowers decision makers at all levels of the enterprise with real-time and accurate information to help them drive global operational efficiency and strengthen competitive market advantage. BizViz provides real-time data aggregation, enables connectivity to multiple data sources, establishes manufacturing context with KPIs, and delivers manufacturing intelligence to the entire organization. BizViz is designed to bridge the gap between manufacturing and corporate business information systems. The core of the BizViz suite is in its data-mining and analytics capabilities, Web portal and digital dashboard technologies, and extensive connectivity to plant and corporate IT systems.



Features	Benefits
Customizable, Role-Based Portals	Common platform throughout entire organization. Customize functions/layout based on individual needs.
Preconfigured Web Parts for Many Manufacturing Business Processes	Over 20 Manufacturing Web Parts: Interactive graphics, drill-down reports, extensive charts, KPI gauges, etc.
Secure Collaboration with Single Sign-On Services for All Modules	Collaborate on/share documents in secure Microsoft SharePoint architecture. Streamline access with single sign-on.
Configurable KPIs for Lean Manufacturing/Six Sigma Initiatives	Configure/visualize KPIs with plant-specific calculations for OEE, Cycle Time, MTBF, TAKT time, Efficiency, Right First Time, etc.
OEE Comparison Chart	Enables side-by-side analysis of two or more assets.
Automated Reporting with Advanced Analytic Functions	Generate automatic real-time intraday/historical status reports. Easily perform advanced analytics/what-if scenarios.
Information Delivery to Mobile Devices Supports Multiple Protocols	Reach users wirelessly anytime. Deliver KPIs/alerts/notifications to cell phones, PDAs and two-way pagers.
Connect to SAP BAPI, SNMP, Microsoft SQL Server, Oracle, ODBC, OLEDB and Other Data Sources	Connect to all critical data sources. Aggregate vital operation information from multiple applications.
Advanced Alarm Analytics Based on EEMUA and OSHA Industry Standards	Leverage standardized industry templates for advanced Alarm Analytics to gain insight into processes/operations.
Web Services and .NET-centric Architecture	Build your architecture around a common .NET platform and unleash the flexibility of Web services.
Powerful and Intuitive Drag-and-Drop Graphical User Interface	Use interactive graphics and intelligent portal layout for easy navigation and fast access to all information.
Workbench32 and Workbench64 for centralized configuration	Enables ReportWorX and BridgeWorX with easy web-based configuration, supports pack & go, search and replace.
Support for Office 2007 and 2010	Native support for Office 2007 and Office 2010 templates and reports.

PortalWorX

Collaborative Portals and Digital Dashboards

PortalWorX allows users to design, develop, and deploy portals and dashboards to effectively visualize vast amounts of available manufacturing and business information. PortalWorX is based on Windows SharePoint Services, with built-in Web services to enhance the user experience — from native single sign-on to interactive HMI visualization.

Users can share and collaborate with all types of information, including events, calendars, Web links, real-time data, discussions, surveys, and much more. In addition to the numerous standard Web parts from Microsoft, PortalWorX comes with an extensive set of ready-to-use, manufacturing-focused Web parts for visualization, reporting, data access, and operations. Now with the introduction of BizViz V9.2, here are some of the great new features to look forward to:

Enhanced Administration Interface

- More intuitive user interface
- Improved single sign-on capability
- Better localization and OEM support
- Simpler and faster installation of sample portals
- Ability to add ICONICS Web parts to existing SharePoint sites

New Web Parts

- Navigation Tree Web Part
- Charting Web Part
- Slide Show & Carousel Web Parts

Web Part Enhancements

- Selective refresh of individual Web parts
- Backwards compatibility with previous versions of WebHMI
- Faster rendering of the entire page

Those are just a few of the many improvements that have been made to PortalWorX for Version 9.2. Another feature that will excite our users is the Web Part Toolkit. This toolkit integrates into Visual Studio 2005 as a wizard, and allows users to build their own Web parts on top of a common framework provided by ICONICS. In addition, users will have two new utilities at their disposal: a Site Deployment Utility for easily packing up portals and deploying them to another server, and a Migration Utility to help users upgrade their existing Version 8 portals to Version 9.

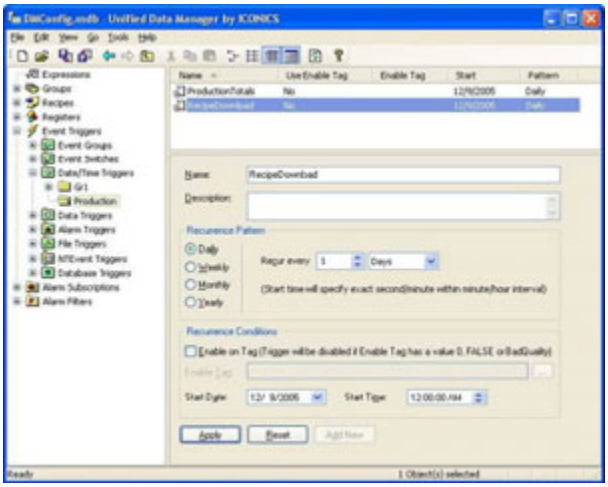
ReportWorX

Automated Reporting and Analytics

The award-winning ReportWorX™ takes volumes of data from disparate data sources and turns them into valuable information in the form of reports. ICONICS brings you the most advanced reporting tool available today, taking maximum advantage of Microsoft's most powerful technologies. ReportWorX, which is based on Microsoft .NET technology and provides native support for Office 2007 and 2010, enables you to push data into your reports and to control the report execution frequency and delivery format. Powerful .NET technology allows the data mining of virtually any corporate database. Once generated, the reports are automatically sent to local or remote disk drives, redundant printers, PDF files, Web servers, fax machines, or multiple users via e-mail.

A powerful Unified Scheduling Engine allows for the execution of reports in conjunction with other logical areas of your process. Configure your triggers once in a centralized location and associate them with any actionable item anywhere within ICONICS' products. The criteria by which reports can be triggered are:

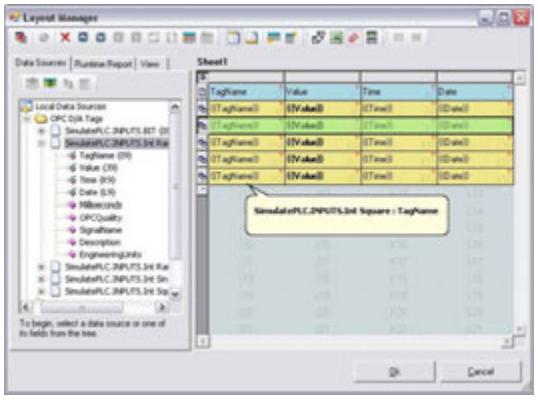
- Manually based on direct operator commands
- Periodically based on time and/or date
- Based on alarms or events
- Based on real-time OPC tags
- Expressions or calculations
- Based on NT events
- File system changes
- Database value changes



Template Designer Enhancements

For ReportWorX V9.2, one area that received a lot of attention is the ReportWorX Template Designer. The most noticeable difference for our users will be the ease with which they can now configure many cells for data at one time. Hundreds of OPC tags can be added to a report in just seconds! To help keep track of these hundreds of data sources, ICONICS has introduced a new Data Source Manager.

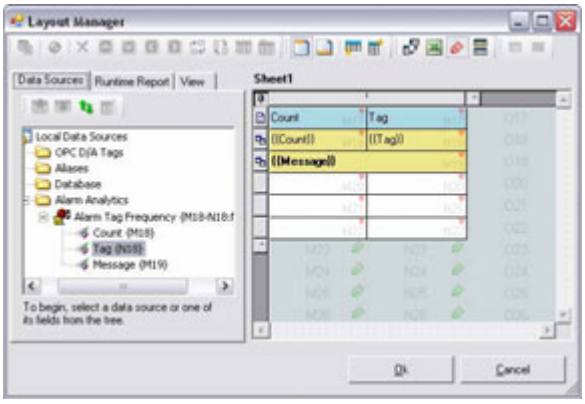
Users can now visualize all of their configured data sources in one centralized location and edit them through simple property dialogs. All of these enhancements lead to much better performance when loading and editing your templates.



Outside of the Template Designer, two major features have been added for managing templates: Template Versioning Support and Check-in/Check-out Support. This will allow users to implement changes in their template, submit comments to help them remember what they changed for each revision, and roll back to any previous version of a template if desired.

Another piece that greatly enhances the user experience in ReportWorX V9.2 is the Layout Manager. This interface can be launched from the Template Designer, and it provides a simple way to map various data sources to cells in your report. The Layout Manager allows users to manipulate the columns and rows involved in their data mapping in the following ways:

- Merge cells and map data sources to them
- Insert unmapped columns between mapped columns of data (for Excel formulas or calculations)
- Intelligently detect potential collisions in data-mapping layouts
- Span multiple rows with a single data source
- Auto-expand horizontally and vertically
- Quickly transpose configured cells from vertical alignment to horizontal alignment with one click

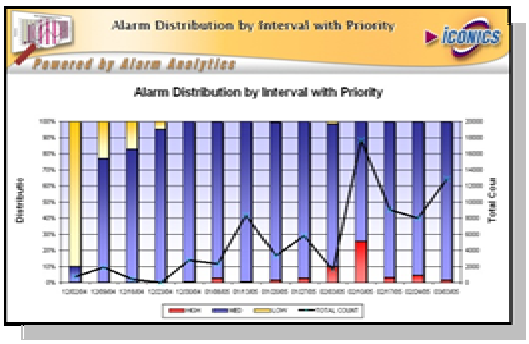


Alarm Analytics

Industry Standard Based Alarm Reporting

Alarm Analytics, which is based on ReportWorX and AlarmWorX32, provides advanced Alarm Analytics, Alarm Reporting, and Alarm Management. Alarm Analytics supports industry standards for Alarm Management issued by OSHA and EEMUA.

The Alarm Analytics module contains 15 specific report templates with advanced Alarm KPIs, such as:



- Alarm distribution by priority and interval
- Alarm tag frequency
- Alarm tag chattering
- Cross-correlation analysis
- Operator response time
- Standing alarms
- Operator changes by interval
- Percentage of alarms from top actors
- And many more…

ReportWorX Supported Data Sources

This revolutionary reporting product integrates with virtually any data source, such as Microsoft SQL Server, Microsoft Access, Web services, Oracle, SAP, OPC and any custom database. ReportWorX is optimized to work with ICONICS' GENESIS32™ TrendWorX™32 Data Historian, AlarmWorX™32 Alarm Logger, Alarm Analytics, DataWorX™32 and OPC real-time Data Exchange. ReportWorX integrates other popular data sources, such as:

- Most HMI, SCADA and DCS systems
- Maintenance systems
- EAM, MES, ERP and plant historians
- LAB information systems
- Custom corporate databases
- SNMP and BACnet (via supported OPC servers)

ReportWorX comes with many preconfigured templates suitable for development of specific vertical-industry reports, such as:

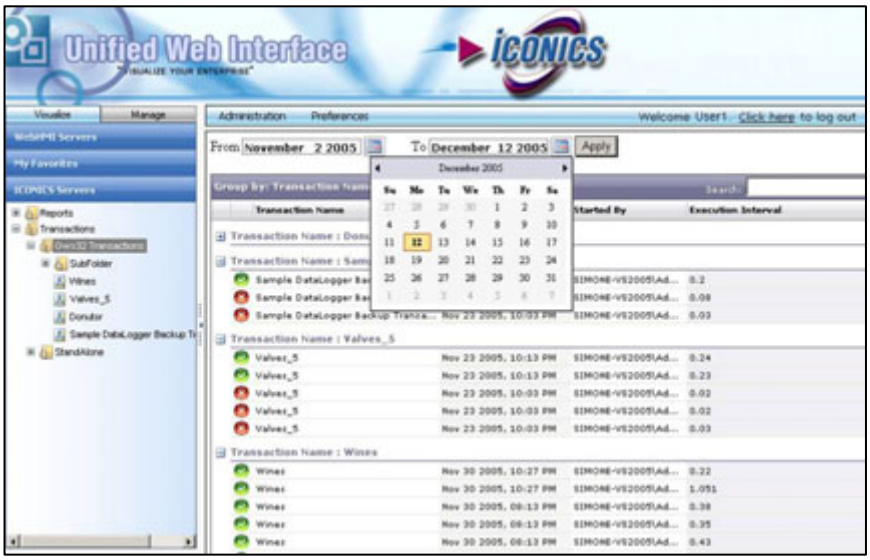
- **Water and Wastewater** – Quickly create EPA and government reports
- **Automotive** – Birthing information, production counts, utilization, SPC and quality reports
- **Material Handling** – Material flow rates, machine efficiency and usage reports
- **Building Controls and HVAC** – Energy usage, building efficiency and maintenance reports
- **Security** – Personnel and time reports
- **Power** – Energy usage, EPA and maintenance reports with secure electronic signatures
- **Government** – Government regulatory reporting
- **Chemical / Oil / Gas** – Production reports and custody transfers
- **OEMs and Machine Builders –** Downtime, SPC and Six Sigma reports
- **Biotech, Food and Pharmaceuticals** – FDA 21 CFR 11 and EC 178 reports

NEW! Unified Web Interface

ICONICS is proud to introduce a totally new Unified Web Interface for V9.2. This Web Interface combines the power of the ReportWorX and BridgeWorX Web Interfaces by allowing users to visualize, execute, and manage their reports *and* transactions from any Web-accessible, thin-client browser. The new and improved design includes an extensible plug-in system to allow for easier customization of the Web Interface.

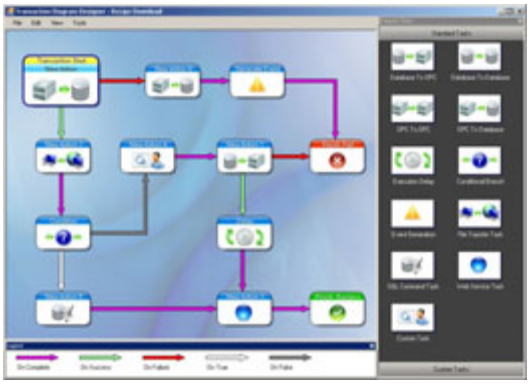
Some of the other notable design enhancements include the ability to connect to and manage multiple servers from one centralized location, a new scalable security model with support for custom security, progressive data loading for improved performance, and client-side rendering of the controls for a richer user experience. Several user-centric enhancements have also been added, including:

A context menu that provides shortcuts to the most common functionality
Support for item sorting and grouping, enabling easier analysis and retrieval
Specialized 'Favorites' and 'Most Recent Items' folders
Subfolder support for reports and transactions
A new Skin Browser that allows users to preview skins before applying them
Support for complete customization of the look and feel through configuration files



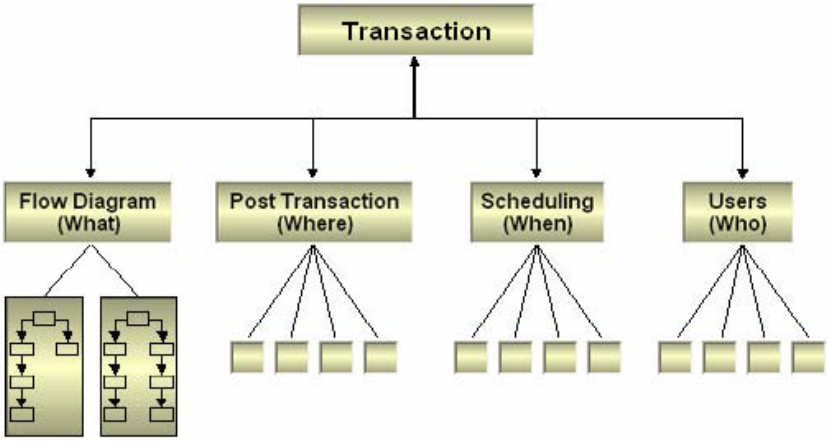
BridgeWorX

Data Bridging and Integration



BridgeWorX™ efficiently exchanges data between any enterprise databases. BridgeWorX is designed from the ground up on Microsoft .NET technologies, and is written in the Microsoft C# (C-Sharp), VB.NET and ADO.NET programming languages. A unique visual transaction configuration wizard for data mapping enables users to transfer information to and from real-time OPC manufacturing devices and corporate business information systems. Powerful BridgeWorX data-mining technology can access virtually any data source, including Microsoft SQL Server, SAP, Microsoft Access, ODBC, OLEDB, Web services, and Oracle.

The key concept of BridgeWorX is the transaction. A transaction is a set of data-transfer tasks (operations), defined by the user, to be executed in a user-configured order. A transaction represents a user-configured flowchart of data operations and data transfers, prioritized by the user, with optional precedence constraints (e.g., do step 2 only if step 1 succeeds) and completion actions.



Transaction Diagram Designer Enhancements

BridgeWorX' easy-to-navigate, graphical workflow configuration wizard (known as the Transaction Diagram Designer) has been greatly enhanced for V9.2 to allow users to more easily configure data movements to and from individual data sources.

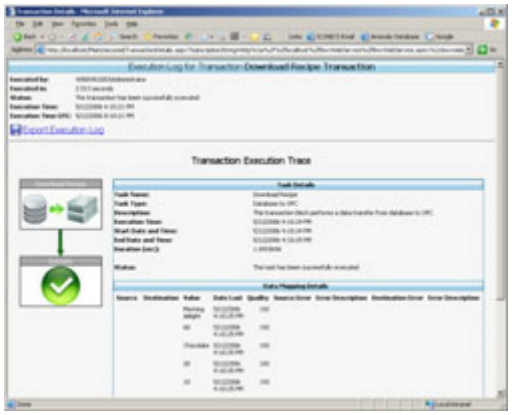
Some of the new features include:

- Fewer mouse clicks and faster configuration due to more intuitive data-mapping dialogs
- Ability to manage all data connectors from within the Transaction Diagram Designer
- Information about each trigger will be available for data mapping (including expressions!)
- Easily apply a single calculation to many rows of data mappings
- Designate incomplete diagrams as "Under Construction"
- Web services now support custom classes, SOAP headers, arrays, datasets, and more!

Unified data-mapping dialogs for mapping different types of data sources in the same dialog
ADO.NET 2.0 integration for better native data-mining capabilities, including FTP

BridgeWorX Version 9 uses the same powerful Unified Scheduling Engine to execute its transactions that ReportWorX uses to execute its reports. Once triggered, transaction blocks can carry out data integration and interface management among automation and IT systems, such as SCADA, MES, EAM, SCM and ERP. The following transaction blocks are available:

OPC to Database
OPC to OPC
OPC HDA to any OPC HDA compliant server
OPC to Web Service
Web Service to OPC
Web Service to Database
Web Service to Web Service
File Transfer (FTP)
Database to Database
Database to OPC
Database to Web Service
NT Event Block
Delay Block
Conditional Execution Block
User Custom Block in .NET One feature unique to BridgeWorX is the concept of tasks after a transaction has been processed. Each post-transaction task can contain a combination of different actions, including:



E-mail action
Write to NT event log
Write to OPC tag(s)
Run “Insert,” “Update” or “Delete” SQL queries
Execute a database stored procedure

BridgeWorX also provides several tools for troubleshooting and monitoring transactions, such as:

Viewing status information for executed transactions and post-transaction tasks
Viewing diagnostic information for scheduling
Viewing, filtering, and sorting events posted to GenEvent™
Monitoring selected OPC tags and BridgeWorX registers

BridgeWorX integrates fully with the Windows NT security architecture. Transactions can be restricted on a three-tier basis: Visualization, Execution, and Management. Users are authenticated over the Web with their NT login credentials, which are then checked against BridgeWorX security access rights.

MobileHMI™

Wireless Connectivity and Communication

MobileHMI™ turns data from different data sources into valuable, secure information right on your mobile phone, two-way pager, Blackberry, or PDA. The wireless device can connect to OPC Data, OPC Alarms and Events, OPC Historical Data Access, Microsoft SQL Server, and Microsoft Excel workbooks. MobileHMI supports a range of standards, including OPC Data Access, GSM, TDMA, CDMA, and wireless application protocols (WAP). Plant personnel can acknowledge alarms and analyze real-time KPIs from their mobile devices anywhere, anytime.

SAP Connectivity

Tap into your SAP Enterprise system with BizViz V9.2's certified SAP BAPI (Business Application Programming Interface) support. Each product in the ICONICS BizViz suite has full connectivity to SAP via BAPI functions. SAP business objects are accessed through BAPIs, which are stable, standardized methods. SAP business objects and their BAPIs provide an object-oriented view of business functions.

SNMP Connectivity

ICONICS BizViz products now support Simple Network Management Protocol (SNMP), an application layer protocol that facilitates the exchange of management information between network devices. The SNMP connector from ICONICS enables network administrators to visualize and manage network performance, find and solve network problems, and plan for network growth.

System Requirements

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

PortalWorX Client-Side Requirements

Microsoft Windows 98, Windows 98 SE, Windows Me, Windows 2000 Professional, Windows XP Home, Windows XP Professional, or Windows Server 2003
Microsoft Internet Explorer 6.0

PortalWorX Server-Side Requirements

Microsoft Windows Server 2003
MSDE 2000, Microsoft SQL Server 2000, SQL Server Express, or SQL Server 2005
Microsoft Internet Explorer 6.0
Microsoft Windows SharePoint Services 2.0 or Microsoft Office SharePoint Portal Server 2003
Internet Information Services (IIS) 6.0 or later
Pentium 4 CPU, 2.0 GHz or greater
512 MB of RAM

ReportWorX

Microsoft Windows 2000 Professional or Server, Windows XP Professional, or Windows Server 2003
MSDE 2000, Microsoft SQL Server 2000, SQL Server Express, or SQL Server 2005
Microsoft Excel 2000 or Microsoft Excel XP
Microsoft Internet Explorer 6.0
Pentium 4 CPU, 1.8 GHz or greater
512 MB of RAM

BridgeWorX

Microsoft Windows 2000 Professional or Server, Windows XP Professional, or Windows Server 2003
MSDE 2000, Microsoft SQL Server 2000, SQL Server Express, or SQL Server 2005
Microsoft Internet Explorer 6.0
Pentium 4 CPU, 2.0 GHz or greater
512 MB of RAM

MobileHMI

Microsoft Windows 2000 Professional or Server, Windows XP Professional, or Windows Server 2003
MSDE 2000, Microsoft SQL Server 2000, SQL Server Express, or SQL Server 2005
Microsoft Internet Explorer 6.0
Pentium 4 CPU, 2.0 GHz or greater
256 MB of RAM

Visualize Your Enterprise™

VISIT US AT WWW.ICONICS.COM

ICONICS World Headquarters

100 Foxborough Blvd.
Foxborough, MA 02035
Tel: 508 543 8600
Fax: 508 543 1503
Email: info@iconics.com

ICONICS Europe

Czech Republic
Tel: 420 377 183 420
Fax: 420 377 183 424
Email: czech@iconics.com

France
Tel: 33 45 019 1180
Fax: 33 45 001 0870
Email: france@iconics.com

Germany
Tel: 49 2241 16 508 0
Fax: 49 2241 16 508 12
Email: germany@iconics.com

Italy
Tel: 39 010 46 0626
Fax: 39 010 65 22 187
Email: italy@iconics.com

Netherlands
Tel: 31 252 228 588
Fax: 31 252 226 240
Email: holland@iconics.com

ICONICS Asia

Australia
Tel: 61 2 9727 3411
Fax: 61 2 9727 3422
Email: australia@iconics.com

China
Tel: 86 10 8494 2570
Email: china@iconics.com

India
Tel: 0091 22 67291029
Fax: 0091 22 67291001
Email: india@iconics.com

ICONICS UK

United Kingdom
Tel: 44 1384 246 700
Fax: 44 1384 246 701
Email: uk@iconics.com

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 250,000 installations worldwide and have been chosen by more than 70% of the Fortune 1000.

Compatible with Windows 7 · Certified for Windows Vista · Certified for Windows Server 2008 · Microsoft Gold Certified Partner · OPC Charter Member

© 2010 ICONICS, Inc. All rights reserved. Specifications are subject to change without notice. GENESIS64, GENESIS32, Hyper Historian and their respective modules, OPC-To-The-Core, OPC-UA-To-The-Core and Visualize Your Enterprise are trademarks of ICONICS Inc. Other product and company names mentioned herein may be trademarks of their respective owners.