Real Time Solutions for Sustainable Energy and Facility Management



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Visualize Your Enterprise™

ICONICS' FOCUS ON SUSTAINABILITY

Sustainability for the corporate enterprise has evolved to define both the long-term viability of the enterprise, as well as the moral obligation of the company to ensure the long-term wellness of the environment. Sustainability is now a critical pillar in the strategic plans of many corporations and brings focus to how an enterprise optimizes the use of all resources in order to:

- Minimize production and operational costs in relation to its global competition
- Minimize the use of limited non-renewable resources and energy
- Minimize the emission of byproducts that have negative effects on the environment

Implementing a successful sustainability improvement program requires the seamless integration of past, present, forecasted and targeted data, as well as analytics to provide the insight and intelligence needed to drive action.

The ICONICS Sustainability Software Solution includes native capability to integrate across the enterprise to access and merge real-time and historical information on energy and resource consumption, carbon emissions and most importantly, causes of excessive consumption. This includes real-time access to metering, instrumentation and existing control systems achievable through ICONICS' compliance with open standards such as BACnet, OPC, SNMP and Modbus. Also critical is integration with numerous IT systems, such as those providing rate schedules, carbon emissions data and demand control requests, all of which are integrated through database interfaces, private and public Web services and more.

Insight into sustainability performance and opportunities for improvement is achieved by the solution's ability to handle all data, provide aggregation, normalization and comparison. User-definable dashboards deliver the intuitive graphical visualization, KPIs and benchmarking needed to bring focus to issues. In addition to the intelligence needed to support user analysis, ICONICS provides a fault detection and diagnostics solution that runs continuously, analyzing equipment and operations for inefficiency or energy-wasting failures. Faults are immediately provided as alerts, along with a probability analysis of potential causes.

ICONICS' Sustainability Software Solution is very scalable, and can easily expand from a single building or process to a global enterprise implementation. Customers are achieving double-digit resource savings and very short paybacks. Your operation can too.

"ICONICS has proven that Windows 8 delivers the responsiveness and robustness needed for critical building and utility operation. Building operators and supervisors no longer need to be tethered to the control room, and real estate executives are now virtually a touch away from real-time operations performance KPIs, independent of their travel schedules."

John Richards
Senior Director of Windows App Marketing
Microsoft

ICONICS' FOCUS ON SUSTAINABILITY

Cost of Operations	*Building Intelligence (BI)*
ENERGY - An organization's consumption of energy should be directly associated with the production of work. This means providing an acceptable and safe environment for occupants producing or consuming a product, not cooling or heating empty space. It can also mean power for computers and equipment doing work, not idling, or wasting energy with inefficient cooling.	**CONSUMPTION, COST, CARBON** - The ability to integrate, collect, and mash real-time 'big' data, including all consumption metering, all equipment operational parameters, occupancy and utilization data, and business output data enables correlations and comparisons between the consumption of energy and other resources and the causes of consumption. Powerful visualization provides the insight needed to drive improvement actions.
ASSET USEFUL LIFE - A significant cost of any real estate portfolio is the cost of capital. Maximizing the useful life of HVAC, elevators and other mechanical equipment supports strong ROIs of any capital projects.	**ASSET HEALTH** - Recording operational parameters for equipment in real time and maintenance for the life of the equipment can identify critical trends for remedy before they produce costly damage, downtime and the waste of energy. Correlating equipment runtime and cycles with occupancy and occupant work will eliminate unnecessary operations and extend useful life.
MAINTENANCE COST - Efficient, attractive, and functional buildings require continuous maintenance and continuous commissioning. Equipment tuned to perfection this week might be wasting heated air next week. Using technology to continuously check for common issues enables more coverage with less labor. Reducing wasted labor resources equates to sending technicians to the problem vs. looking for the problem, and equipping them with necessary tools, parts and reference materials to reduce time-to-diagnose.	**REPEATABLE AND AUTOMATABLE WORKFLOW** - The recognition and prediction of equipment failures is a deduction based on available symptoms and input. In the past, this has been accomplished by experienced maintenance people; their skills gained through years of experience. With Fault Detection software, we can now capture this knowledge as rules that can be executed continuously vs. relying on an often expensive "expert". When faults do occur, current real-time data can be applied to diagnostic probability tables to recommend most probable causes.
CULTURE - Employees care about the success of their employer and will eliminate waste when they are aware and empowered to do so. All of us care about our environment and, if made aware and empowered to do so, will waste and pollute less.	**TRANSPARENT, INSIGHTFUL, VISUALIZATION** - Windows 8 has brought to market previously unreachable levels of mobility. From the corporate SharePoint Portal that opens on your desktop, to your Windows 8 tablet or iPad, Windows 8 phone or iPhone, your operational efficiency and performance toward goals are always front and center. Critical KPIs such as current and accumulated energy use, compared to your peers and your reduction goals, are always before you, before your management, and before your competition. Your maintenance response time and open work orders can be always present on smart tiles, so you can respond to drive improvement immediately. The visibility of performance results drives a culture of operating to benchmarks of excellence.

ICONICS' SUSTAINABILITY SOLUTIONS

GENESIS64™ - BACnet Compliant, 64-Bit, 3D and 2D Building Automation Integration Platform - Just 'Plug-It-On' your existing networks to integrate data from all equipment and IT systems. GENESIS64 provides rich dynamic graphics, analysis, trending and reporting of all equipment and facility operations. Supports all advanced profile features such as scheduling and controller resident trend logs.



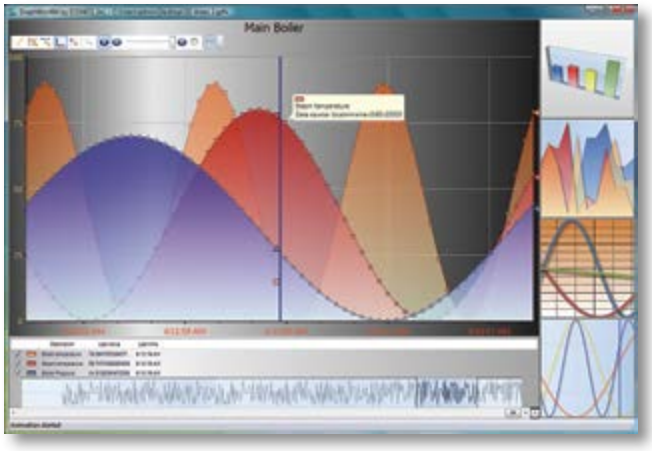
Energy AnalytiX® - Energy Monitoring and Management Software is available as a standalone product or as a fully integrated option within the GENESIS64 Building Automation System. Be aware of not only what you are consuming, but why. Energy AnalytiX delivers the back-end calculations, KPI analytics, data historian, reporting and rich visualization you need to take decisive action to reduce and manage your energy costs and sustainability programs.



Facility AnalytiX® - Predictive Fault Detection and Diagnostic Software available as a standalone product or as a fully integrated option to the GENESIS64 Building Automation System. Facility AnalytiX continuously commissions your facility, monitoring the condition of your equipment assets, and reports equipment and efficiency faults, identified through rules that you have defined. When faults do occur, it analyzes all available data and provides the operator with probable causes, sorted by estimated probability.



Hyper Historian - High Speed, Mission Critical Plant Process Data Historian - Designed to log greater than 100,000 tags per second and works with multiple data sources across the enterprise including OPC UA Servers, OPC DA Servers, OPC XML DA Servers, BACnet, SNMP devices and many more.



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ICONICS' SUSTAINABILITY SOLUTIONS



PortalWorX™-SL - Integrated Dashboard Technology - Users can easily combine and configure HMI graphic displays, trending, alarming, Energy AnalytiX views, data grids and other Web Parts into a role-based dashboard. Run PortalWorX dashboards in any popular Web browser including Internet Explorer and many others.



MobileHMI™ - Instant KPIs and Alerts Any Time, Anywhere - All analysis, visualization, alarms and alerts, provided by the GENESIS64 Building Automation System, Energy AnalytiX and Facility AnalytiX, are accessible anywhere and at any time via your smartphone. Define your graphics, trends and alarm views only once, then publish and authorize them for access via any browser or smartphone.

Features	Benefits
Aggregate and Analyze Consumption, Cost and Carbon Emissions	A single software solution for energy management and sustainability management
Fault Detection and Diagnostics Continuously Monitor for Efficiency Losses	Continuously commissions large numbers of equipment assets, constantly alerting on any efficiency faults
Built Upon the latest Microsoft Technologies including Windows 7, Windows 8, Windows Server 2012, Windows Phone and SQL Server 2012	Enterprise IT scalability that enables integration of data from across the global enterprise
Visualization on Desktops, Any Web Browser, Smartphones or Microsoft SharePoint	Delivers the information to users that need it, anytime, anywhere

ICONICS' SOLUTIONS BUILT ON THE MICROSOFT STACK

ICONICS Sustainability solutions help reduce energy costs, cut consumption and curtail carbon-based greenhouse gases generated by manufacturers, buildings and factories. To achieve this, ICONICS solutions integrate throughout the complete Microsoft stack including; .NET (WPF, WCF, WF), Silverlight, Active Directory, Windows Server, SQL Server, Windows 8, Windows 7, SharePoint, SQL Server, Internet Explorer, Windows Phone, Bing Maps, IIS and Office.

Microsoft technology is at the core of the ICONICS Sustainability solutions.





SMART BUILDING SOFTWARE FOR ENERGY EFFICIENCY

Property managers of industrial plants and facilities are under constant pressure to improve comfort, efficiency, sustainability and reduce overall energy costs. Smart energy solutions turn data and information into building intelligence by integrating with existing BMS, SCADA and control systems. This can have an instant payback and assist facility managers in achieving Energy Star and LEED certification.

Energy Management and Sustainability
ICONICS has software solutions for performing continuous commissioning, energy management and building automation. Energy AnalytiX® and Facility AnalytiX products help to collect, record, visualize and provide analytics for any facility. These solutions provide the rich visualization dashboards and reporting needed to assist in making decisions to reduce energy cost and improve overall sustainability.

- Facility and Energy Dashboards with KPIs, Metrics & Analytics
- Standard Cost, Consumption and Carbon Reports and Dashboards
- Real Time to Goal Comparisons for Improvements
- Integrate and Data Log Electricity, Gas, Steam & Other Meters

Unified Building Automation
Operate your facilities at peak efficiency and maximum comfort by integrating all mechanical, electrical, safety, lighting, video and card access into an operations center. FacilityWorX™ unifies systems into a single operator workstation for coordinating resources and includes simple-to-create floor plans and graphics, alarming, trending and scheduling with BACnet discovery. Use WebHMI™ to operate facilities with a Web browser or access information from a phone with MobileHMI™.

- Easy Import of 2D and 3D Drawing and Floor Plans
- Real-time Tree Navigation with Alarms and Trends
- Coordinated Control and Schedules Across all Buildings
- Advanced Calendar Scheduling with Easy Configuration

"(On 9/11/01…) What was the value of this system the day it did not shut down? From my laptop, I tapped into the Pentagon's automation network and send out commands that closed dampers and turned off fans around the building to contain the smoke."

Steve Carter
Facilities Engineer
The Pentagon

Fault Detection Improves Maintenance
Real-time fault detection and diagnostics technology assists with commissioning as well as makes recommendations as to where to make improvements. It works by predicting equipment faults and looking for energy offenders before they occur. When failures occur, automated FDD diagnostics will analyze sensor readings and provide a list of probable causes of failure and guidance to the service technician. This reduces the mean-time- to-diagnose and helps cut maintenance costs.

Advanced Visualization and Reporting
View and manage building operations using any desktop, Web browser, kiosk, signage, mobile phone or with Windows SharePoint®. Easily create and deliver dazzling real-time collaboration portals and execution dashboards with 2D and 3D rich animated graphics, trends and alarm/event summaries and grids. Integrate information from building controls with Microsoft® Bing® Maps into a GEO-Facility and create a one-click operations interface with any location.

SMART BUILDING SOFTWARE FOR ENERGY EFFICIENCY

Simple to Engineer and Deploy
ICONICS building automation solutions require no programming. The Web-enabled Workbench helps save time and money. It is the single tool used for creating, engineering and deploying all of the application configurations. Now, automation experts and consultants can configure and maintain buildings from anywhere.

Universal Connectivity
ICONICS' high performance communications interface supports the popular standards such as BACnet, Modbus, OPC, OPC UA, Web Services and databases. Configuration and integration with BACnet is made easy with built-in support for the native BACnet, alarms, trends and network objects. Simple discovery of devices on the network make integration seamless and easy. Information is collected, aggregated and normalized from a wide variety of protocols and interfaces.

- BACnet
- OPC
- SNMP
- Modbus
- Web Services
- Databases

Building Applications
- Data Centers
- Casinos and Stadiums
- Correctional Facilities
- Hospitals and Education
- Airports and Transportation
- Commercial and Retail Offices
- Pharmaceutical, Biotech and Labs
- Helps Meet FDA 21CFR11 Compliance
- Government and Military Infrastructure



Benefits
- Future Proof Your Investment in Building Automation
- Proven Scalability from Hundreds of BACnet Devices
- Integrates with BAS, Lighting, Access and More
- Instant Alert Notification via Email and Mobile Devices
- Provides Unified Operations Center Monitoring and Control
- Reduce Engineering, Startup and Deployment Costs
- Single Schedule Coordinates All Buildings

Microsoft Exec Touts New Main Campus Sustainability Project

Rob Bernard, Chief Environmental Strategist at Microsoft, was recently interviewed by Joel Makower, Executive Editor at GreenBiz Group. The two discussed recent Microsoft sustainability-focused initiatives including one involving its main Redmond, WA campus (in which ICONICS GENESIS64™, Energy AnalytiX® and Fault AnalytiX® (FDD) technology is utilized). The project involves 115 buildings, built over the past 30 years, comprised of over 15 million square feet. The campus generates 500 million data points a day for its building management system.

See the video online at:
http://www.greenbiz.com/video/2012/12/14/rob-bernard-microsoft-living-lab-big-data

ICONICS CHOSEN AS MICROSOFT SUSTAINABILITY PARTNER OF THE YEAR

ICONICS was chosen for the Microsoft Sustainability Partner of the Year Award for 2012 from nearly 3,000 entrants. Due to our successful implementation of customer solutions based on Microsoft technology and a continued dedication to new technology, ICONICS puts sustainability at the forefront of its innovation. After the second Microsoft Award received in four years; the other being the 2008 Microsoft Partner of the Year Award; ICONICS is proud to produce the cutting edge software that Microsoft has come to expect and appreciate in ICONICS.

Sustainability is a growing priority for many businesses including many building and manufacturing facilities worldwide. In the United States alone, industry experts estimate that businesses spend about $100 billion on energy for their offices. This creates a pronounced need for the careful allocation and management of natural resources. Customers, as a direct result of using the ICONICS solution, have realized a 6-12% cost reduction and energy savings in year one, with an ROI in as short as nine months. A prescriptive software approach to identifying sources of energy loss has proven itself in buildings, manufacturing operations and water/sewer industries.

"For its commitment to helping customers increase the energy-efficiency of their operations, ICONICS, Inc. is recognized by Microsoft as the 2012 Sustainability Partner of the Year. By using the Microsoft technology platform to harness the power of real-time data from manufacturing and facility operations, ICONICS has achieved outstanding results in driving customer sustainability efforts and reducing energy costs across all the multiple industries."

Rob Bernard
Chief Environmental Strategist
Microsoft

ICONICS' Sustainability and AnalytiX® solutions help reduce energy costs, cut consumption, and curtail carbon- based greenhouse gases generated by manufacturers, buildings and factories. To achieve these goals, ICONICS solutions utilize the complete Microsoft stack including; .NET (WPF, WCF, WF), Silverlight, Active Directory, Windows Server, Windows 8, SharePoint 2010, SQL Server 2012, Internet Explorer, Windows Phone, Bing Maps, IIS and Office 2013.

In today's competitive global economy, everyone is looking for ways to reduce consumption, monitor conditions, lower energy costs and minimize carbon emissions. To that end, ICONICS designed its AnalytiX suite with the flexibility to cater to any application in any industry. Virtually any process, production or building data that requires summarization, aggregation, comparison and observation over time can greatly benefit from this solution. Applications range from buildings and facilities, smart grids, large water plants, wind and solar renewable energy sites, airports and campus-wide installations; all providing the desired, sustainable results that customers can anticipate when using ICONICS software solutions.

Microsoft Partner Network

2012 PARTNER OF THE YEAR
Sustainability
Winner



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