ICONICS Product Catalog

ICONICS

Make the Invisible Visible™

Gold

Microsoft Partner

Six-time Partner of the Year Winner

In This Catalog

ICONICS products represent over 30 years of innovation and automation experience. These breakthrough technologies and cutting-edge solutions excel in the areas of visualization, mobility, analytics, and connectivity to deliver a contextualized view of enterprise operations for manufacturing, energy, industrial, and building automation customers.

Use GENESIS64™ HMI/SCADA and Hyper Historian™ plant historian to record, view, and control your plant with precision. Apply the AnalytiX® solution suite to analyze your data in new ways, giving you unparalleled insight. Access it from anywhere – even on your watch – with MobileHMI™ and KPIWorX™ mobile apps. Extend your insight to every corner of your enterprise with IoTWorX™ and the Industrial Internet of Things.

Reach farther, work smarter, and stay on top with ICONICS. Connect with your data in ways you could never imagine and Make the Invisible Visible™.

30 Years of Automation

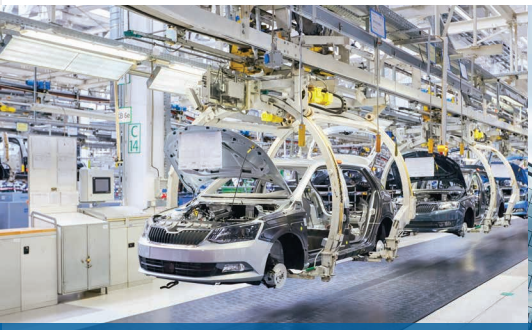
100 Countries

375,000 Installations

6 Time Microsoft Partner of the Year

Designed for Any Industry

Now in its fourth decade, ICONICS has developed leading-edge software tools for manufacturing, industrial, and building automation. ICONICS has shipped over 375,000 systems that are installed in applications spanning the globe in various industries, including:

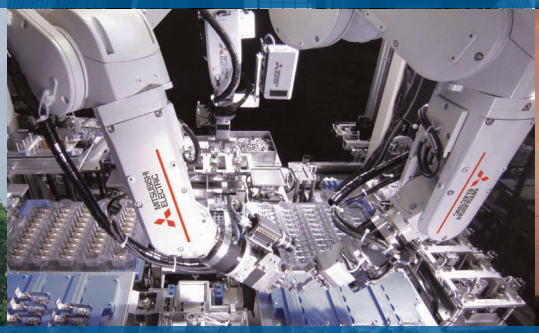


Automotive

Building Automation

Food & Beverage

Government & Military



Manufacturing

Oil & Gas

Materials & Mining

Pharmaceutical

Sustainability

Transportation

Utilities & Energy

Water & Wastewater

ICONICS Suite of Products

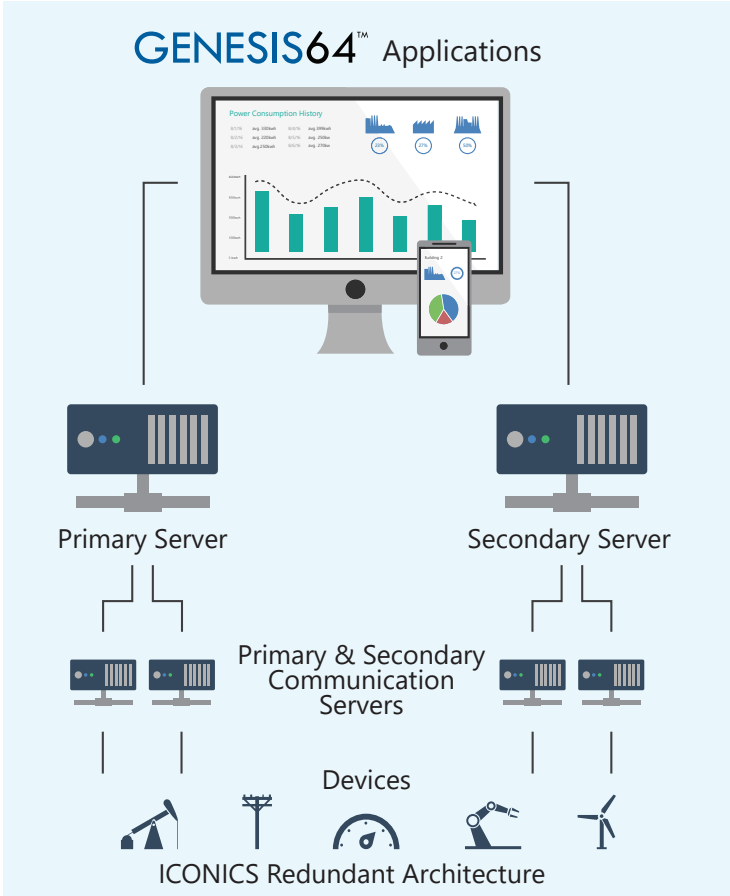
Core to ICONICS' scalable suite of solutions are its advanced visualization technology to run on any desktop or mobile device, high availability, centralized configuration, and ability to connect to a wide variety of industry standard communication protocols.

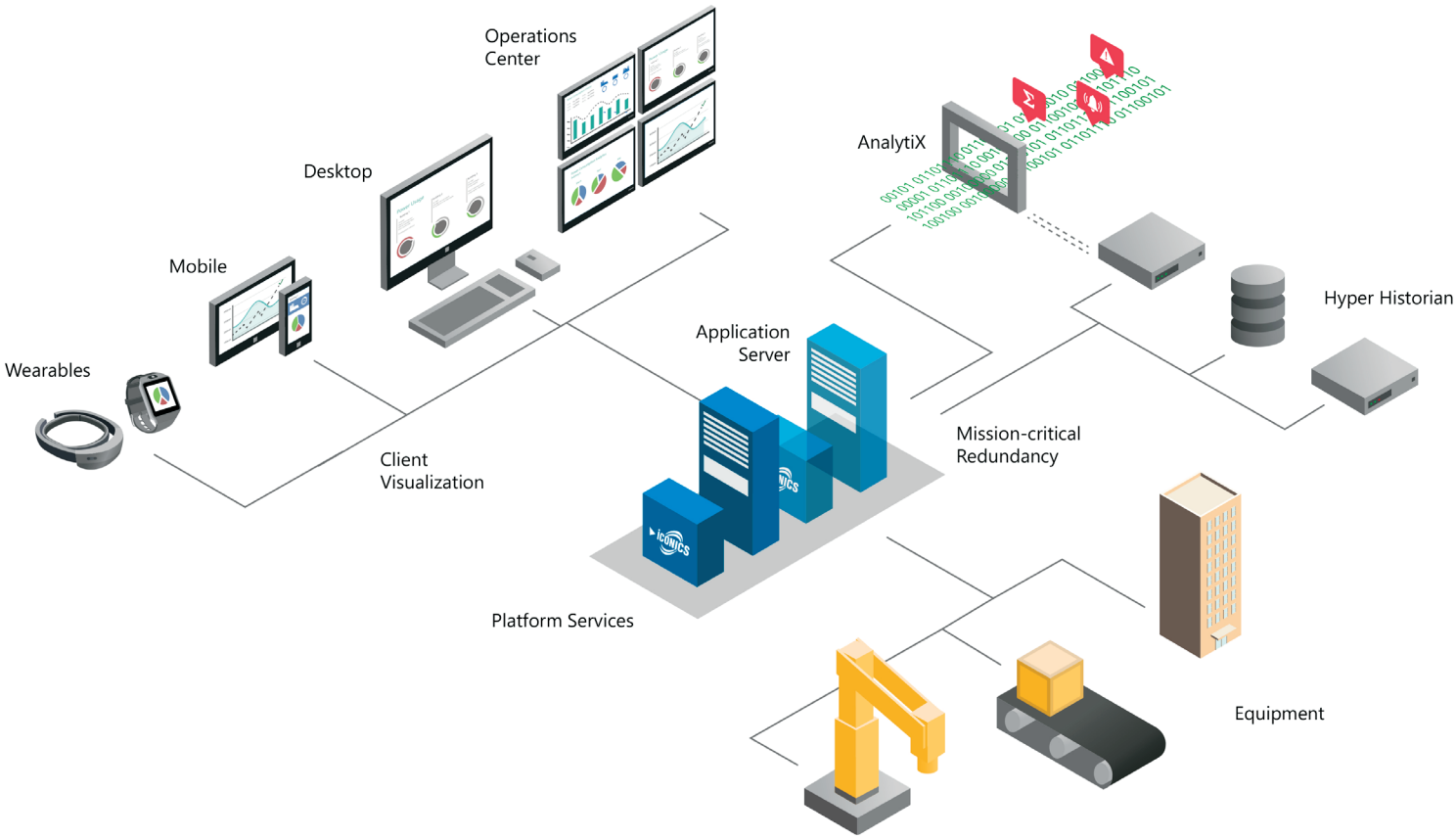
Advanced Visualization on Any Device

Bring the visualization of ICONICS to any device. Create displays on the desktop that can responsively scale to run on any mobile client. Leverage native apps to provide a consistent user experience on any smartphone or tablet. Access HMI/SCADA applications on any HTML5 compliant web browser. Deliver self-service executive dashboards to any desktop or mobile device utilizing preconfigured widgets for business intelligence. Get timely KPIs on your wrist with Apple Watch support. ICONICS' responsive UI technology flawlessly transitions between clients to provide a consistent user experience.

Mission-Critical Redundancy

ICONICS ensures the safety of any critical data by offering high availability redundancy for communication reliability. Redundant collectors and loggers serve as a backup in case of a system failure. With automatic fault detection and store-and-forward technology, ICONICS users can be assured that mission-critical real-time data, historical data, and alarm information are always available. ICONICS redundancy solutions are simple to configure, install, and deploy.





ICONICS System Architecture

Powerful Centralized Configuration

The Workbench is the multi-functional, centralized configuration environment for all back-end applications, making development more efficient and minimizing design time for any application. Configure assets and historical logging from the same screen. Users can configure and manage their entire GENESIS64 application from any workstation.

Front-end user interfaces and dashboards are configured using the GraphWorX™64 visualization module. Design HMI and SCADA displays leveraging 2D and 3D graphics, integrated parallel projection, preconfigured symbols, dynamic properties, animation, and flexible aliasing.

Universal Connectivity

ICONICS supports industry standard communications such as OPC, OPC UA, Modbus, BACnet, MQTT, web services, and databases. As the first 64-bit Advanced Workstation (B-AWS), ICONICS Platform Services have been certified by the BACnet Testing Laboratories, ensuring maximum integration with BACnet protocols such as BACnet objects, trends, and alarms. ICONICS has been certified for OPC UA compliance by the OPC Foundation as both a client and server. Simple device discovery on the network makes integration seamless and efficient.

GENESIS64™

Next Generation in HMI/SCADA Automation Software

The GENESIS64 suite provides connectivity from plant floor and building facilities to corporate business systems. Designed to leverage 64-bit platforms and OPC UA technologies, GENESIS64 allows operators, executives, and IT professionals to integrate real-time manufacturing, energy, and business information into a secure and unified web-enabled visualization dashboard.

GENESIS64 Key Features

- Visualize assets with 2D and 3D graphics
- ISA-95 asset management
- Create powerful reusable smart symbols
- Configure once and deploy anywhere
- Distributed alarm management
- Harness point-and-click commands for interoperability

Minimize Design Time

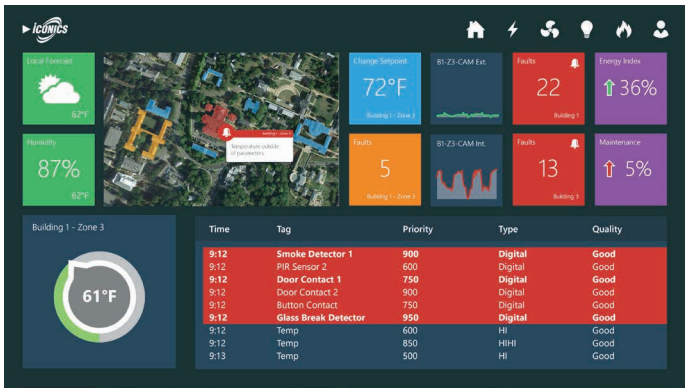
The largest cost of any automation project is in engineering the application. For an average project, this can be well over 60 percent of the total investment. GENESIS64 greatly reduces configuration effort and minimizes design time, resulting in enormous cost savings and drastically reduced deployment time. As an award-winning Microsoft Gold Partner, ICONICS is able to consistently deliver software solutions that run on the latest 64-bit Microsoft operating systems, affordable IoT devices, and Microsoft Azure. Leverage key features of Windows within GENESIS64 and provide users with the greatest application performance, reliability, and flexibility.

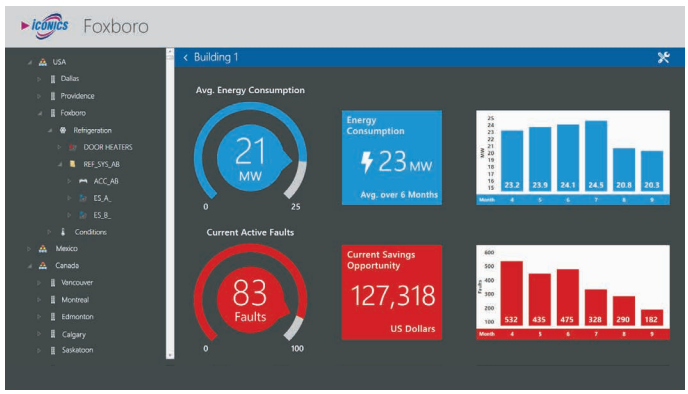
Distributed Alarm Management

Enterprise-wide distributed alarm management is provided through AlarmWorX™64, ICONICS' native alarming module. Notify your personnel of abnormal conditions and events in real time with ISA 18.2 compliant features. Integrate the AlarmWorX64 Viewer into any SCADA or HMI display to bring to light real-time and historical alarms when and where operators need to see them.

Asset Management

GENESIS64 includes an ISA-95 compliant asset management module called AssetWorX™. Assets can be organized and configured in the Workbench with a runtime component critical for scaling large projects while providing intuitive navigation. These hierarchies can optionally include alarms, customizable colors, icons, names, and drag-and-drop functionalities.



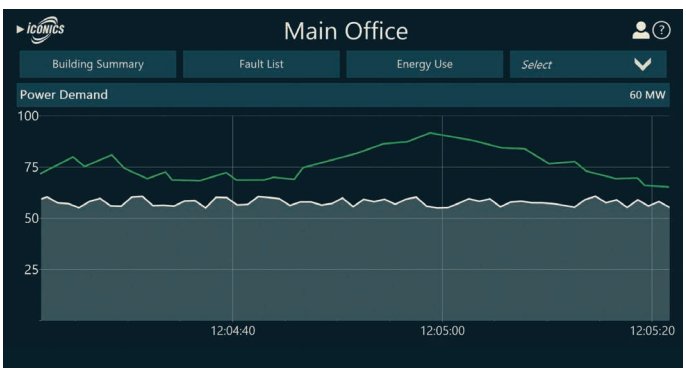


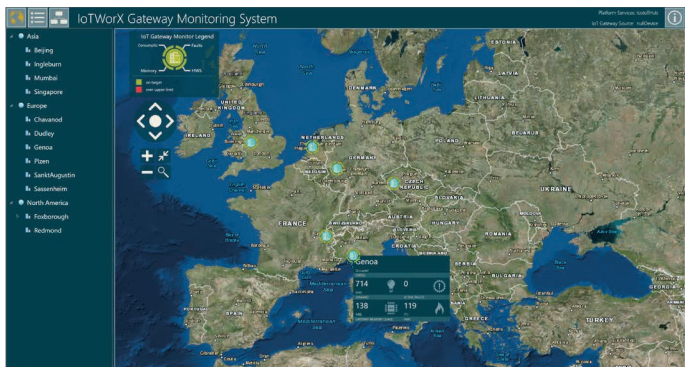
Real-Time and Historical Trends

Visualize enterprise-wide data in trends, logs, charts, and reports with GENESIS64's trending module, TrendWorX™64. Chart real-time and historical data from any relational database to provide users with actionable data. Customize trends with varying data replay rates, colors, multiple data sources, and multiple cursors. Interact with trends in runtime with multiple playback and filtering functions.

Native Geo-SCADA

ICONICS' geographic information system (GIS) mapping module, EarthWorX™, provides visualization for widely dispersed assets. Create a geographical overview to monitor multiple locations while maintaining the ability to locate and drill into specific assets. Users can integrate with Google Maps, Bing Maps, and Esri to include additional GIS mapping features and data layers.





Hyper Historian™

High-speed, Reliable, and Robust SCADA Historian

ICONICS' Hyper Historian™ is an advanced 64-bit high-speed, reliable, and robust historian. Designed for the most mission-critical applications, Hyper Historian's advanced high compression algorithm delivers unparalleled performance with very efficient use of resources. Hyper Historian integrates with the latest big data technologies, including Azure SQL, Microsoft Data Lakes, Kafka, and Hadoop. This makes Hyper Historian the most efficient and secure real-time plant historian for any Microsoft operating system.

Hyper Historian Key Features

- Collect data from any equipment, anywhere
- Replay real-time, historical, and archived data
- Store and forward critical data
- Use insightful trends and charts for proactive decision-making
- Leverage rapid collection for enterprise deployments
- Export data to Azure Data Lakes and other cloud storage

Charts, Data Analysis, and Reporting

Choose from a multitude of chart and trend styles to best represent and accentuate real-time and historical data. Use configuration options to customize trends to make data analysis concise and intuitive. Drag and drop data sources during runtime and view multiple trends simultaneously. Enter operator comments as well as manage lab data and audit trails.

Hyper Historian includes an industry standard **SQL Query Engine** for reporting and bulk data editing, enabling tight integration with any SQL compatible database such as Microsoft SQL Server, Oracle, and any open database.

Data Merging

Hyper Historian includes a module for automatic or manual insertion of data, empowering users to import historical or log data from databases, other historians, or intermittently connected field devices and equipment. This also provides for greatly increased reliability in capturing all data, even when network disruptions occur.

Performance Calculations

Customize calculations that can be triggered periodically or on any event, using flexible date/time, mathematical, string, and historical data retrieval functions within the expression editor.

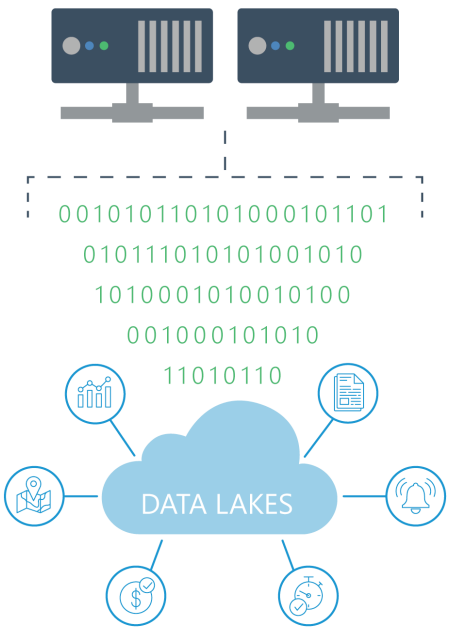
Hyper-to-Hyper

Merge data collected by distributed servers, while maintaining full system interconnectivity for metrics and analytics. Hyper-to-Hyper connectivity can also automatically detect changes in the source data and propagate those to the central Hyper Historian server, maintaining a unified historical database.

Remote Collectors

Architected as a distributed, enterprise-wide historian, Hyper Historian remote collectors allow for historical data collection from dispersed locations. Remote collectors ascribe by ICONICS' universal connectivity capability including OPC UA, BACnet, and SNMP protocols.

Hyper Historian™



Big Data and Long Term Storage with Data Lakes

Hyper Historian is designed to handle "hot," "warm," and "cold" data. Hot data is acessible immediately for daily use, warm data is archived but easy to get to for reports and analytics, and cold data has been archived for long term storage or advanced analysis. The Hyper Historian Data Exporter moves cold data to a variety of external storage systems, such as Azure SQL, Microsoft Data Lake, Hadoop, and Kafka. Securely keep your data for long term storage or use powerful analytics and machine learning to elevate your Hyper Historian data to new levels and bring even more insight into your processes and systems. Collect your data in one place and turn it into knowledge.

MobileHMI™

Instant KPIs and Alerts on Any Glass, Anytime

MobileHMI™ is an enterprise mobile application that runs on hundreds of different phones and tablets and can scale to thousands of devices. MobileHMI delivers real-time rich visualization, historical trends, and alarm notifications without compromising security. MobileHMI addresses the growing need for connectivity away from operator stations, allowing personnel to monitor and control from anywhere. The consistent user experience across any device enables teams to mobilize without requiring any upfront investment in device standardization.

MobileHMI Key Features

- Access HMI and SCADA on any mobile device
- Native apps on iOS and Android devices
- Leverage augmented reality with location services
- Navigate mobile displays with the AppHub
- Scale applications with IoTWorX™ integration
- Visualize with innovative 3D graphics capabilities

Download from Windows Store | Download on the App Store | GET IT ON Google Play | Available at amazon

Enhanced User Experience

The next generation of user interaction has arrived with the emergence of wearable devices and augmented reality. ICONICS is at the forefront of this exciting trend with cutting-edge solutions for devices including Microsoft HoloLens and RealWear HMT-1. Streamline user experience by increasing ease of access while also minimizing intrusiveness and barriers to information. Just as touch and voice input provided useful supplements to traditional user interface technologies, this innovation with wearable devices will enhance interaction and collaboration, enhance situational awareness, and maximize operator efficiency.

Responsive UI

ICONICS responsive design ensures that all user-created applications migrate seamlessly to any device or web client. Flexible design tools in GraphWorX64 and the Workbench assist users in designing displays for both desktop and mobile applications. Application images and controls automatically resize and reformat, allowing users to truly access all of their applications on any device without having to compromise on user experience.

Notifications

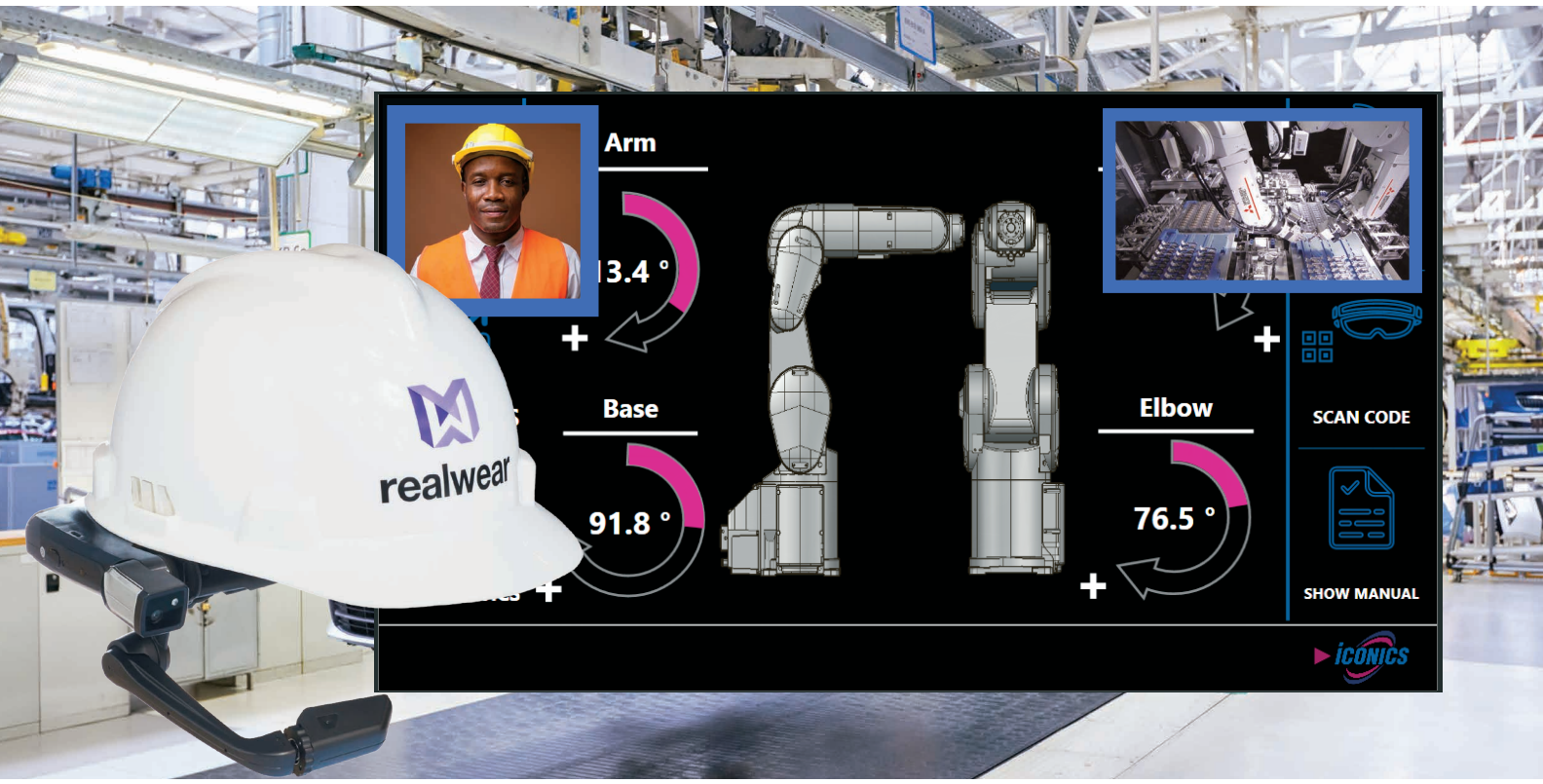
React rapidly to critical alarm conditions with any mobile smart device. View and sort alarms and take immediate action by acknowledging critical alerts via phone or SMS messaging. Integrated support for operator commands helps record operator actions to provide complete audit trails and regulatory reporting.

Remote Expert Technology

Get critical help where you need it. Operators in the field can invoke MobileHMI's remote expert mode on their RealWear HMT-1 or any other supported mobile device to instantly tap into the knowledge of experts back in the control room or office. Start a live video stream and mark up images to effectively communicate between the field and the office and fix issues quickly and efficiently.

Augmented and Mixed Reality Key Features

- Interact with mixed reality holograms
- Conduct operations hands-free
- Leverage native gesture-based interactions
- Improve collaboration and cooperation
- Maximize maintenance efficiency



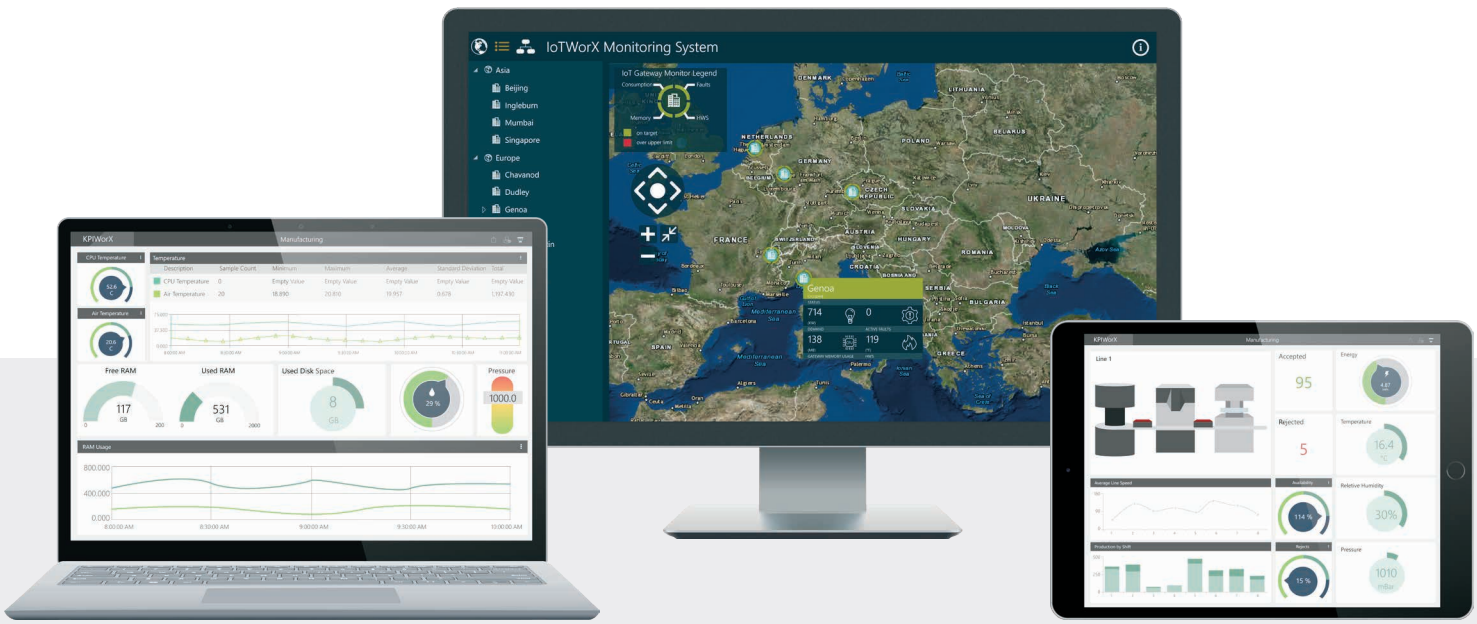
IoTWorX™

IoT Software Solution for Any Edge Device

IoTWorX™ combines ICONICS' cutting-edge IoT micro SCADA software technology with its proven HMI/SCADA, analytics, and mobile solutions running in the cloud. ICONICS offers manufacturers and facility managers several key IoT technologies, including rich connectivity to assets, secure cloud communications, and built-in real-time visualization and analytics. Connect to virtually any automation equipment through supported industry protocols such as OPC UA, BACnet, SNMP, Modbus, web services, and classic OPC tunneling.

IoTWorX Key Features

- Publish data securely to the cloud
- Visualize on any device, anywhere
- Remotely monitor and control assets
- Drill down into enterprise-wide KPIs
- Integrate with existing equipment
- Over-the-air automatic update technology



ICONICS IoTWorX Integration

ICONICS' IoT solution takes maximum advantage of the Azure cloud to provide global visibility, scalability, and reliability. Leverage standard ICONICS apps in the cloud such as GENESIS64, Hyper Historian, AnalytiX, and more. Optionally integrate Microsoft Azure services such as Power BI and Machine Learning to provide greater depth of analysis.

IoTWorX Features

IoT Cloud Connector – Publishes real-time data from field devices to the Azure IoT Hub or other popular cloud platforms.

IoT Communicator – Enables bidirectional real-time communication to sensors and other field devices via popular standard protocols.

IoT Hyper Collector – Stores and buffers historical data and automatically merges it with Hyper Historian in the cloud or on-premises.

IoT Analyzer – Provides edge analytics with real-time AI rules and workflow technology.

IoT Visualizer – Allows for on-device visualization of IoTWorX real-time and historical data using ICONICS KPIWorX.

IoT System Health – Provides built-in remote monitoring and diagnostics via an intuitive dashboard.

Supported Operating Systems

Raspbian Buster (ARM32v7)

Raspbian Stretch (ARM32v7)

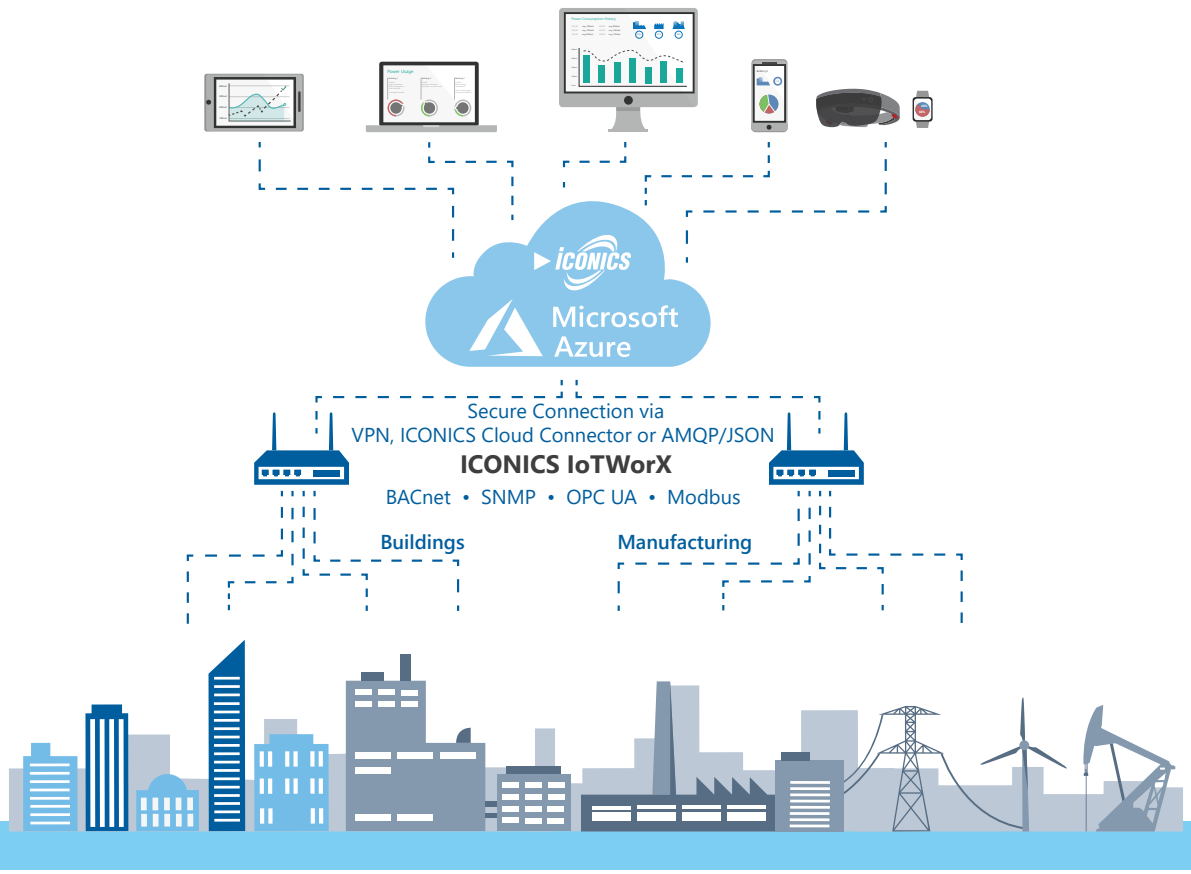
Ubuntu 16.04 (AMD64)

Ubuntu 18.04 (AMD64)

Ubuntu Server 16.04 (AMD64)

Ubuntu Server 18.04 (AMD64)

Windows 10 IoT Enterprise



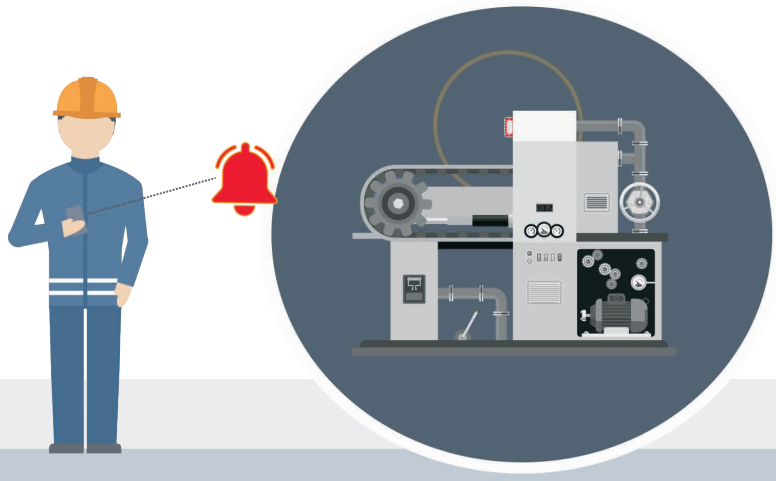
CFSWorX™

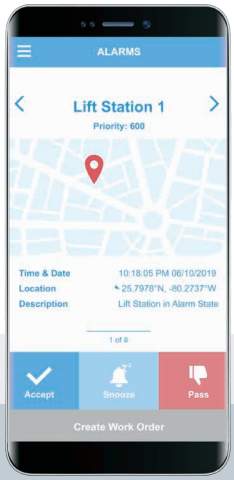
Connected Field Worker Solution

ICONICS CFSWorX™ is a solution designed to streamline the efficiency of field service organizations through intelligent scheduling and reliable notifications. It empowers field service workers and maintenance personnel to move past the legacy break/fix model toward more proactive facilities and equipment management. This enables organizations in any industry to reduce downtime and lower maintenance costs. CFSWorX provides a video expert capability, making it possible for a remote field worker to instantly be connected to subject matter experts anywhere in the world.

CFSWorX Key Features

- Workflow-based escalation
- Comprehensive audit trail
- Notifications via email, SMS, or mobile app
- Real-time monitoring and remote expert capability
- Weighted scoring system for prioritizing field workers
- Integrates with popular CRM systems and Active Directory





Real-Time Intelligent Monitoring

CFSWorX provides real-time monitoring of connected equipment, whether that be on-premises or via the Internet of Things. When any such equipment goes into an alarm state, CFSWorX uses intelligent algorithms and a customizable weighted scoring system to determine which field worker is best for the maintenance task – based on factors such as their location, schedule, availability, and skill level – and then sends a notification to the field worker's mobile device for immediate action.

Escalation and Accountability

Notifications can be delivered via email, SMS, or through the CFSWorX mobile app via push notification. The technician can then either accept, snooze, or pass the alert to the next person. With workflow-based escalation and a comprehensive audit trail, CFSWorX is the next evolutionary step in connected field service apps.

Facility AnalytiX®

Predictive Software for Facilities Management

Facility AnalytiX® is a complete, continuous commissioning software solution based on ICONICS' advanced Fault Detection and Diagnostics (FDD) technology that significantly reduces costs and improves operational efficiency. Facility AnalytiX incorporates customizable fault rules to report faults and failures, weigh the probability of equipment failure, and advise personnel of immediate preventative actions that can be taken, improving safety, and optimizing energy savings. An extensive library of standard HVAC and process equipment diagnostic models minimizes configuration, while a rules-based editor enables intuitive customization and new equipment diagnostic modeling.

Facility AnalytiX Key Features

- Leverage hundreds of fault rules for building equipment
- Optimize the efficiency of facility operations
- Minimize equipment downtime with actionable alerts
- Scale across a single building or entire campus
- Monitor fault state with enhanced analysis
- Analyze real-time and historical streams of data

Fault State Tracking

Provide better clarity into the lifecycle of faults for maintenance and operations leveraging fault state tracking. Log entries are made for each state of a fault's lifecycle when it becomes active or inactive and when faults are resolved by technicians or engineers. Fault state tracking provides the ability to enter comments for the root cause of each fault, enabling maintenance and commissioning personnel to communicate actions taken during a fault's lifecycle and easily track, sort, and filter on every state using the powerful Facility AnalytiX Viewer. This feature also empowers users to calculate relevant analytical metrics such as average fault duration and response time.

Quality AnalytiX®

Complete SPC Quality Software Solution

Quality AnalytiX® enables operators, quality personnel, manufacturing engineers, and management to view quality SPC data and other production parameters impacting product quality. Apply any of the extensive set of built-in SPC calculations to any process variable and integrate SPC data into expressions and logic to drive corrective actions based on process trends. Quality AnalytiX leverages ICONICS Hyper Historian technology for data collection and calculations. The architecture supports large enterprise-wide SPC quality programs as well as applications requiring rapid sample rates.

Quality AnalytiX Key Features

- Customize rule-based alarms
- Combine SQC and process monitoring
- Minimize overfills, scrap, and inefficiencies
- Universally connect to all new and existing equipment
- Unify control processes from dashboards
- Utilize preconfigured calculations to optimize conditions

Ensure Product Quality

Spot trends and make decisions based on real-time SPC data with Quality AnalytiX. Reduce scrap and increase production yields using built-in charts, graphs, and alarm views. Powerful workflow technology initiates control actions based on quality conditions or alarm violations, providing changes to process equipment such as PLCs, temperature controllers, and DCS systems. Utilize preconfigured charts to calculate optimum conditions and determine saving per unit or batch.

KPIWorX™

Self-service Real-time Dashboards for Any Glass

KPIWorX™ delivers a powerful patented visualization and analysis tool directly to executives, managers, and industry personnel. Connect all devices to KPIWorX to effortlessly manage and navigate assets with real-time data. Configure self-service dashboards that meet specific industry needs while interacting with displays in runtime. Visualize the most important performance indicators of any system or business from any desktop or mobile client and transfer dashboards seamlessly. KPIWorX's advanced user experience features automatically adjust using KPIWorX responsive UI while also providing a vast library of preconfigured industry and interface symbols.

KPIWorX Key Features

- Configure self-service dashboards
- Create and distribute reports
- View KPIs on tablets, phones, Apple Watch, and more
- Choose from a wide variety of industry specific symbol libraries
- Simplify configuration with drag and drop interactions
- Leverage powerful analytical tools with business intelligence

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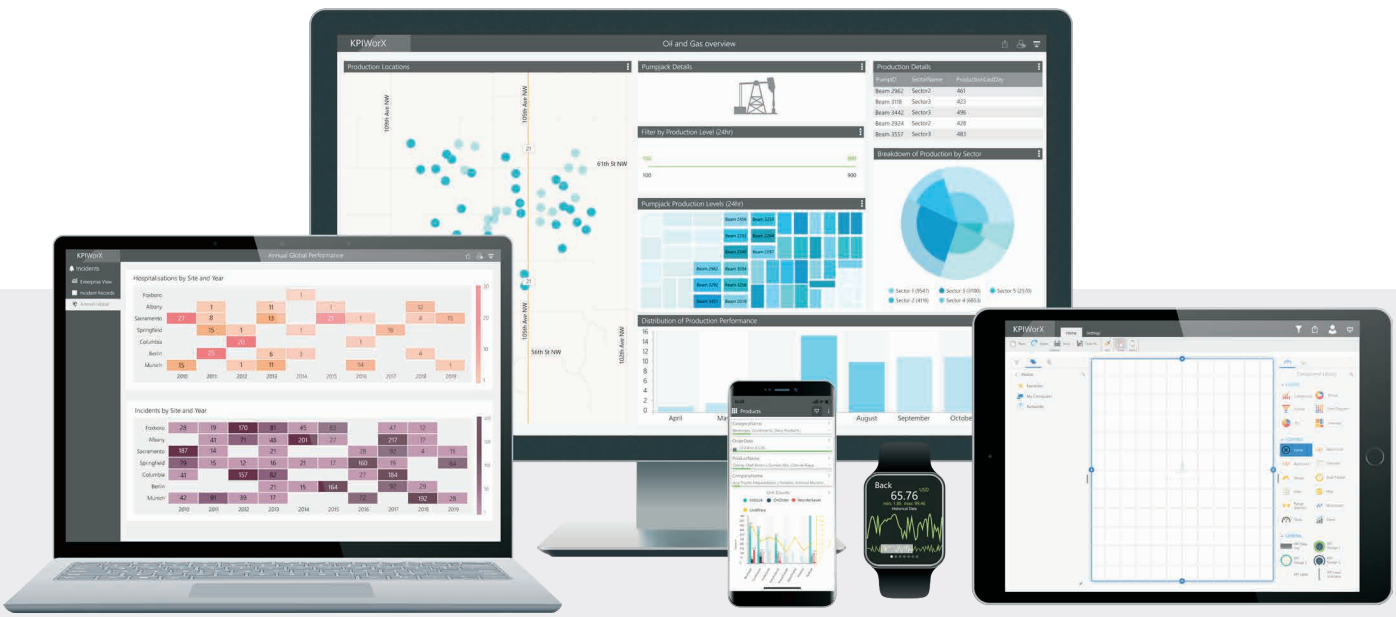


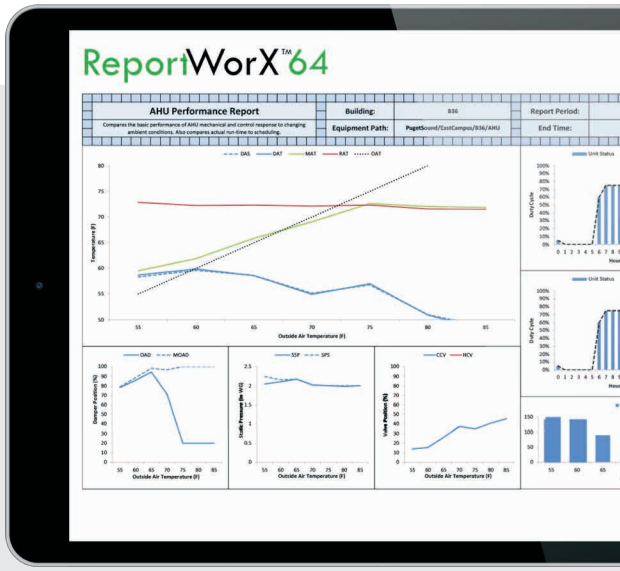
Self-service Business Intelligence

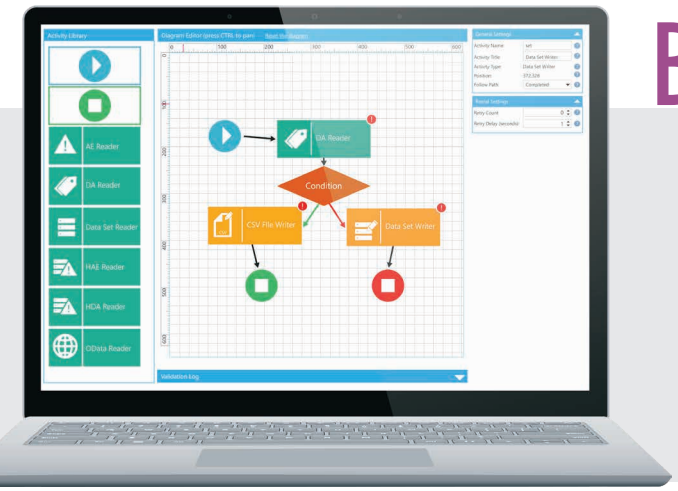
KPIWorX self-service dashboards continue to leverage the most intuitive, user-friendly features to reduce time spent creating and configuring. In addition to enhanced user experience and interface, advanced analysis is provided via new BI widgets. These widgets include filters, maps, tables, treemap charts, funnel charts, pie charts, donut charts, and categorical charts.

Additional ICONICS Tools and Add-ons

ReportWorX™64

ReportWorX™64 is a powerful reporting tool that turns volumes of data into manufacturing intelligence. ReportWorX64 empowers users to create reports using data integrated from any source within any system. Connect to data from the plant floor, corporate databases, and everywhere in between via OPC, OPC UA, BACnet, Modbus, and SNMP. ReportWorX64 can also retrieve data from Hyper Historian, AlarmWorX64, IoTWorX, and other ICONICS data sources. Based on scalable Microsoft .NET technology, ReportWorX64 populates data in report spreadsheets using the power of Microsoft Excel. Its advanced scheduling engine delivers reports automatically via the web, from an HMI screen, or based on user-specified criteria.





BridgeWorX™64

The BridgeWorX™64 service provides the latest 64-bit data bridging technology for ICONICS products. Graphical data bridging enables users to rapidly implement data orchestration and integration tasks that adhere to business logic without requiring programming. BridgeWorX64 can access Microsoft SQL Server, Oracle, Microsoft Access, SAP, and virtually any real-time or archived manufacturing or business data source.

AlarmWorX™64 *mmx*

AlarmWorX™64 Multimedia (MMX) is a complete and comprehensive OPC-based alarm management application with a distributed, enterprise-wide alarm notification system that delivers real-time alarm information directly to the user. Leverage email, pager, fax, voice, text-to-speech, and phone to alert users subscribed to an application.

OPC-to-the-Core™

ICONICS provides OPC-to-the-Core™ solutions ranging from OPC servers and clients to a toolkit for developing OPC Servers. ICONICS products support OPC UA extensively, along with classic OPC to provide total plug-and-play connectivity with a wide variety of controllers and hardware. ICONICS is a charter member of the OPC Foundation and has assisted over the years with creation of OPC standards, development of the OPC Foundation sample code, and participating and hosting OPC Interop testing. Currently ICONICS serves on the board of directors for the foundation.

For OPC specifications, please go to www.opcfoundation.org.

Additionally, ICONICS offers several free OPC development tools. These free OPC tools include:

- OPC Modbus Server
- OPC Simulator Server

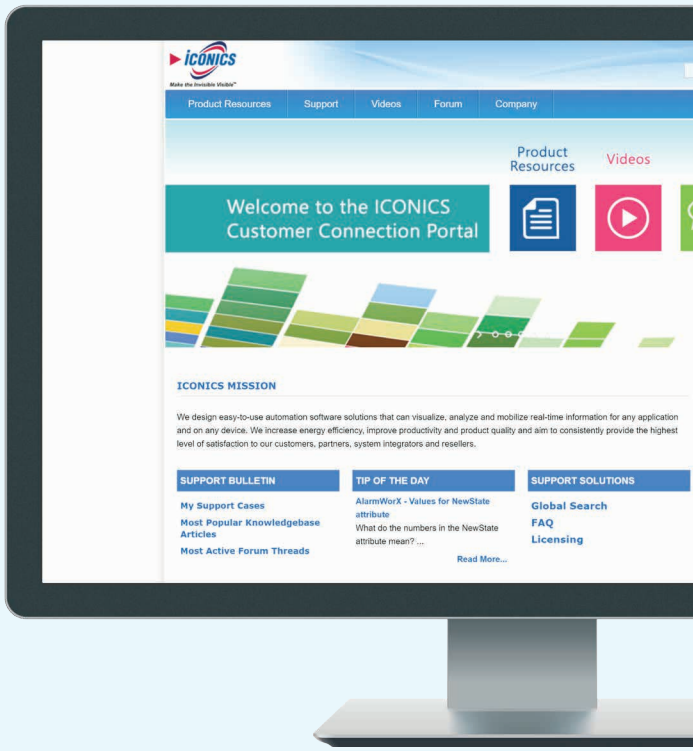
To download these OPC tools, visit iconics.com/opctools.

Support and Services

Get connected with ICONICS by visiting the Customer Connection Portal for general support, product downloads, product updates, customer collaboration, and product tips from ICONICS' engineers and support team. The Customer Connection Portal also features Support Solutions, a Support Bulletin, product videos, app notes, and whitepapers, enabling users to find answers quickly and easily.

A new feature of the Customer Connection Portal is the in-depth training videos highlighting many ICONICS products. These videos help users configure their systems and get the best results. Starting with a Quick Start series introducing each module in GENESIS64, these videos provide brief overviews and demonstrations of how to use ICONICS products. Send us your suggestions for additional topics to cover!

Visit the ICONICS Customer Connection Portal today at partners.iconics.com.



Founded in 1986, ICONICS is an award-winning independent software provider offering real-time visualization, HMI/SCADA, energy management, fault detection, manufacturing intelligence, MES, and a suite of analytics solutions for operational excellence. ICONICS solutions are installed in 70 percent of the Global 500 companies around the world, helping customers to be more profitable, agile and efficient, to improve quality, and to be more sustainable.

ICONICS is leading the way in cloud-based solutions with its HMI/SCADA, analytics, mobile and data historian to help its customers embrace the Internet of Things (IoT). ICONICS products are used in manufacturing, building automation, oil and gas, renewable energy, utilities, water and wastewater, pharmaceuticals, automotive, and many other industries. ICONICS' advanced visualization, productivity, and sustainability solutions are built on its flagship products: GENESIS64™ HMI/SCADA, Hyper Historian™ plant historian, AnalytiX® solution suite, and MobileHMI™ mobile apps. Delivering information anytime, anywhere, ICONICS' solutions scale from the smallest standalone embedded projects to the largest enterprise applications.

ICONICS promotes an international culture of innovation, creativity, and excellence in product design, development, technical support, training, sales, and consulting services for end users, systems integrators, OEMs, and channel partners. ICONICS has over 375,000 applications installed in multiple industries worldwide.

ICONICS Sales Offices

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