ICONICS V10.9 RC III
What's New

September 2015

Microsoft Partner
Gold Application Development

Microsoft Partner
2014 Partner of the Year Winner
Public Sector: CityNext

BACnet BTL Testing Laboratories
Compatible with Windows 7
Windows 8 Compatible
Windows Server 2012 Certified
CERTIFIED OPC FOR COMPLIANCE FOUNDATION

Contents

Overview 2
How to use this Document 2
Recommendations 2
Components 3
AlertWorX 3
AssetWorX 4
ConverterWorX 8
EarthWorX 9
Energy AnalytiX 11
Facility AnalytiX 14
FDDWorX 17
GraphWorX64 18
Hyper Historian 24
MobileHMI 25
Platform Services 34
RecipeWorX 36
Workbench 37

Overview

How to use this Document

Arranged so that users can see the features of each module or provider all of the new features listed were picked to give the best examples for what could be tested and used in this release. Each feature includes a brief description, benefits the user or developer will receive from the feature as well as some use cases and examples.

Recommendations

ICONICS suggests that anyone viewing this document should browse the Table of Contents before diving into the text as some features may or may not be applicable to all projects. Once a feature that is of interest to the reader is found, read the description and benefits before attempting to use the feature. If there is a feature you have been informed of by an ICONICS representative is not available that should be, please email us as soon as possible so we can verify the feature and timing.

Components

AlertWorX

AlertWorX

Description

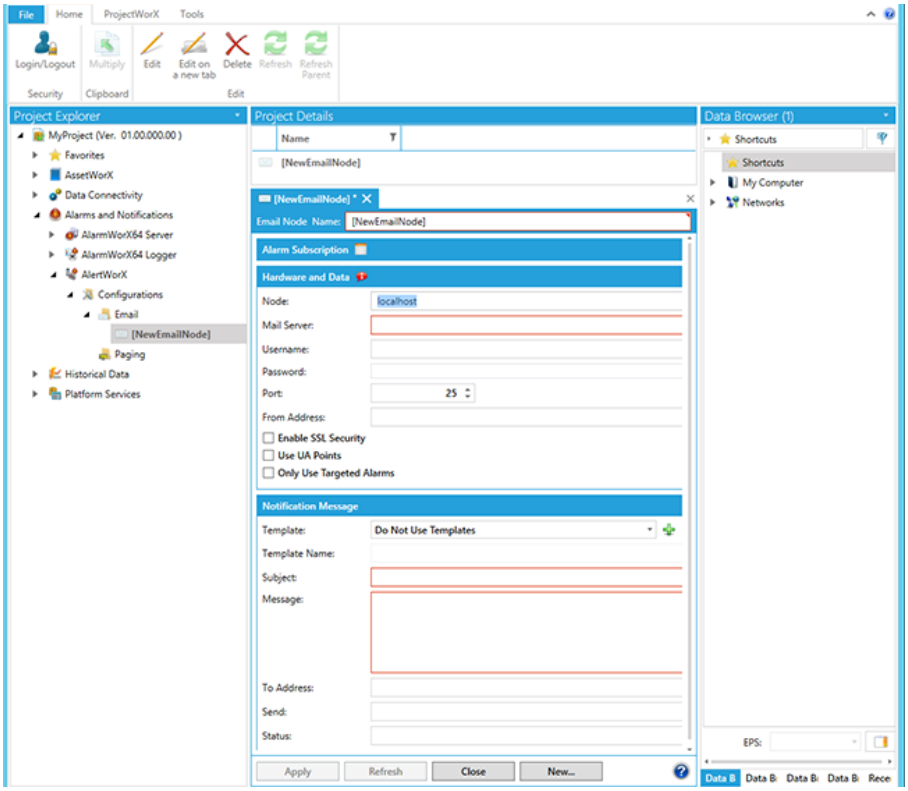
AlertWorX is a new component within the GENESIS64 suite that allows users to trigger, one or more notification methods (email, pager) by command, based on real-time UA or alarm data. It also allows information to be passed via definable fields and allows for error updates and notifications.

Benefits

AlertWorX provides a simplified method for sending media notifications that is tightly integrated within the GENESIS64 product.

Use

Users configure AlertWorX hardware properties, alarm subscriptions, and/or UA data via the Workbench for Desktop. Once configured, users can trigger alerts from ICONICS products that support commanding via UA data change or alarm events.



AssetWorX

Shared Equipment Classes

Description

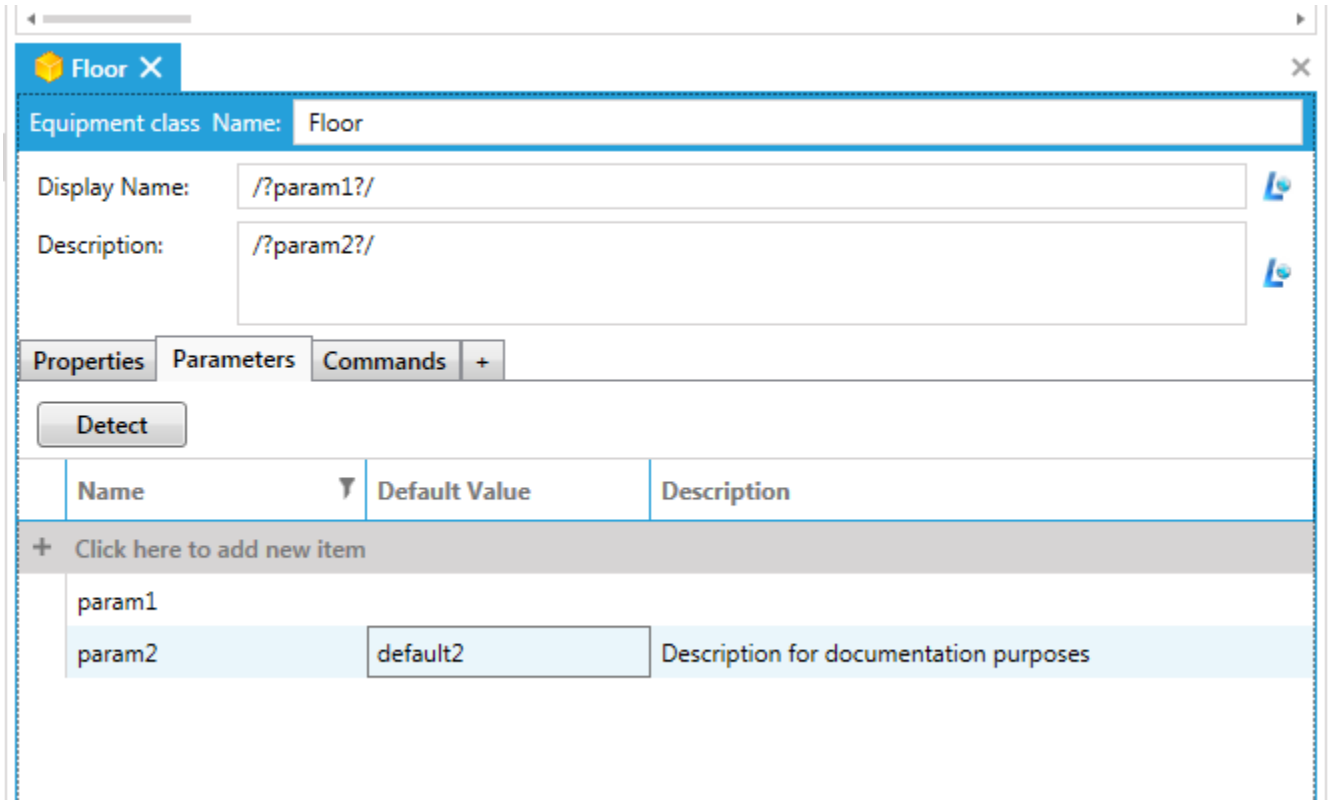
AssetWorX now includes improved sharing of equipment classes.

Benefits

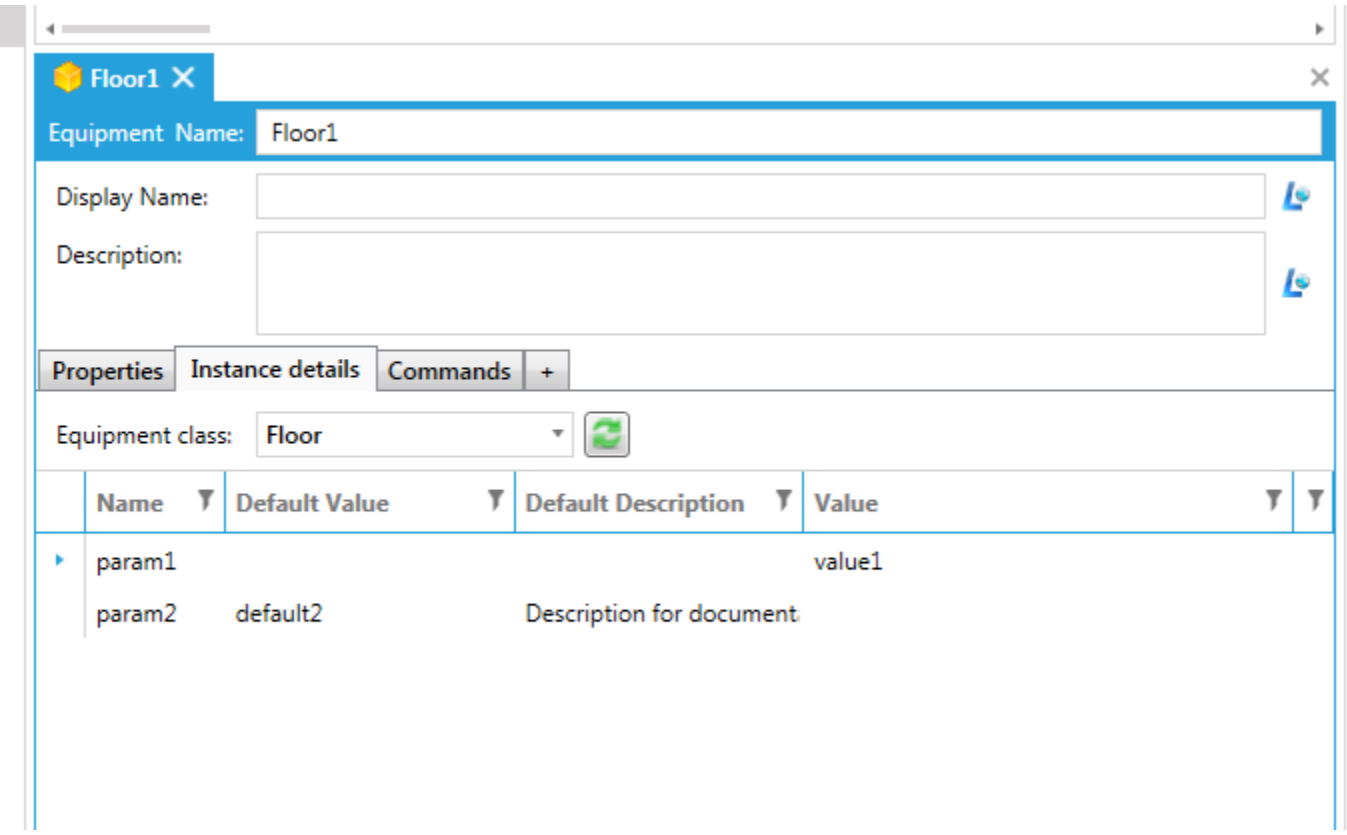
Users may have multiple equipment classes as well as many tree “instances”. This improvement allows users to make changes to an individual equipment class (or multiple equipment classes) and have those changes be reflected within selected instances rather than all of them.

Use

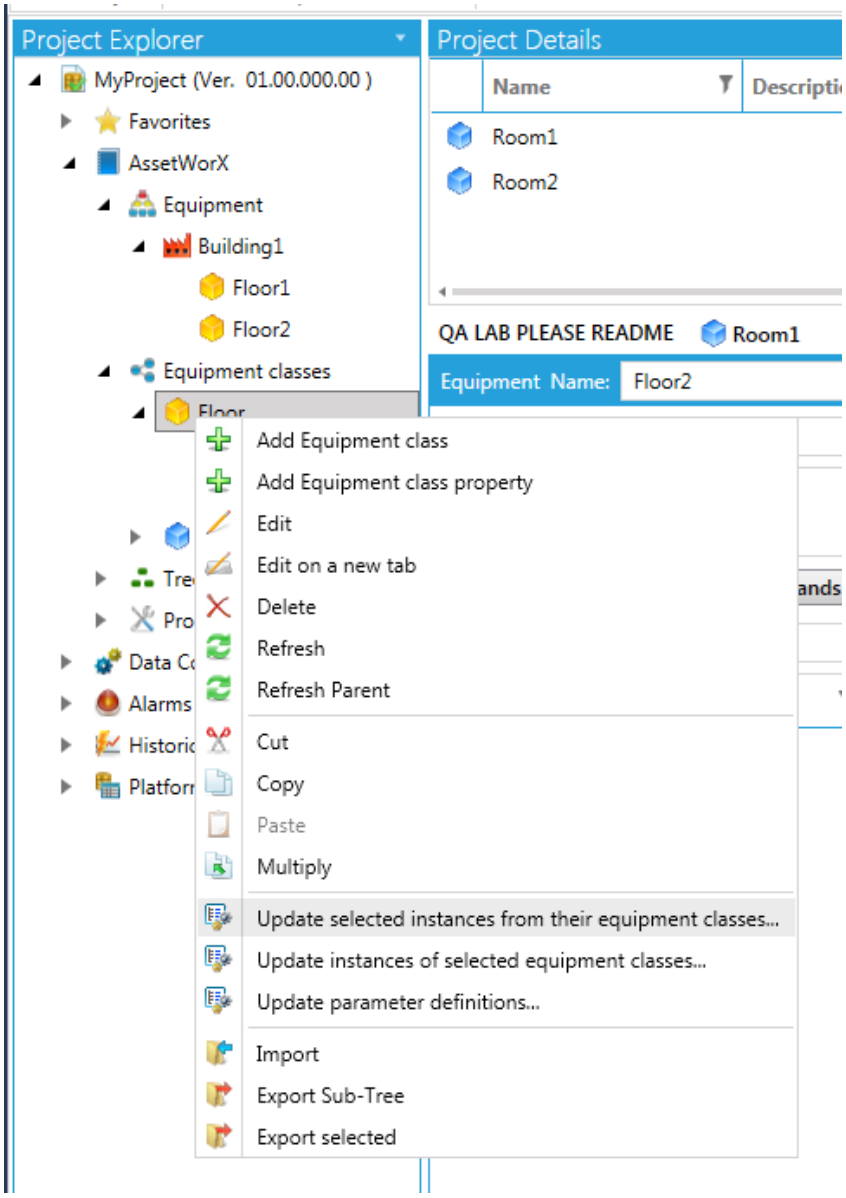
Equipment Class configuration properties now contain a new “Parameters” tab. Previously, it was sufficient for users to include the parameters for an Equipment Class anywhere, in text fields (like /?param1?/). Now, users will be able to repeat those parameters in this specific “Parameters” tab. To make this even easier, there is a “Detect” button that will go recursively through the Equipment Class definition and fill in the table. Note that parameters not mentioned in this tab will not be processed later. The “Update parameter definitions”, mentioned below, does the same, filling in this tab, but for multiple Equipment Classes at one time.



For instance, there is now a new “Instance details” tab. Here, users can fill in values for the parameters specified in the “Parameters” tab. If there was a default value for a parameter, filling in the value is no longer necessary. Otherwise, without a default value, the values are still required. The Description columns/fields on both tabs are just users to describe each parameter usage (useful for differentiating later on).



The following image shows the newly added action items, described below, for Equipment Classes.

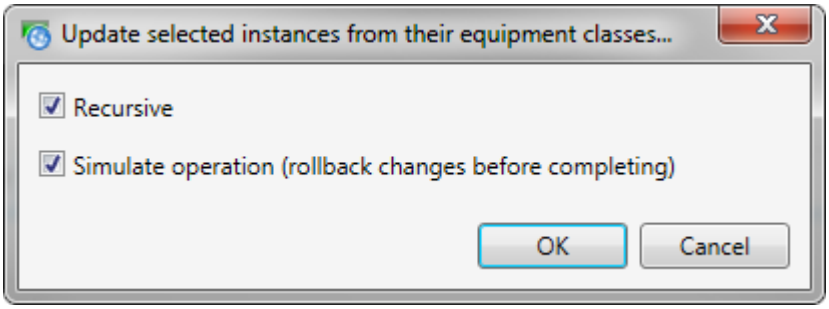


The “Update selected instances from their equipment classes” option will go through the selection, and looks for Assets, which are instances of Equipment Classes. It then updates those to match the Equipment Class.

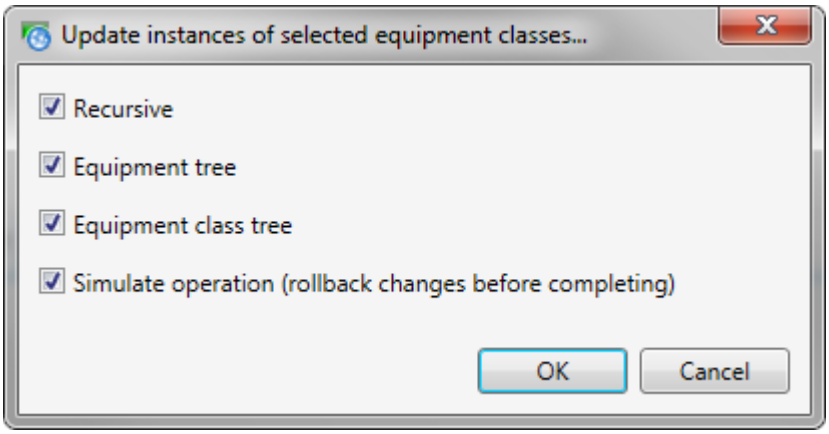
The screenshot below shows the “Recursive” option. The “Floor” from the screenshot example above contains two instance of the Equipment Class “Room” (those instances are “Room1” and “Room2”). Also, “Building1” contains two instances of the Equipment Class “Floor”: “Floor1” and “Floor2”. If one were to run the action “Update selected instances from their equipment classes” on “Building1” and leave the “Recursive” option unchecked, the action will only update “Floor1” and “Floor2” from the “Floor” Equipment Class. If the checkbox is checked, it will first update “Room1” and “Room2” on the

“Floor” Equipment Class to match the “Room” Equipment Class, and it will then update “Floor1” and “Floor2”.

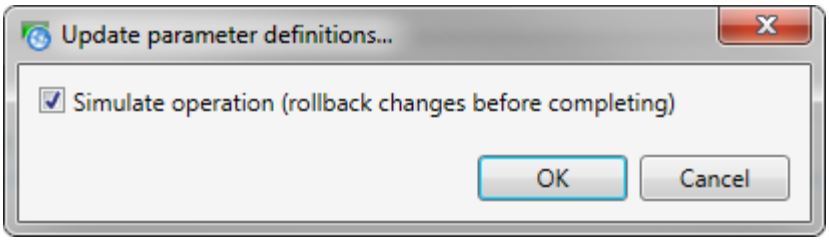
When “Simulate operation (rollback changes before completing)” is checked, this will roll back the database transaction, so any changes written to the database will be undone. Note: When using this option, it may be useful to review the output log to see what occurs without actually committing to the possible changes.



The “Update instances of selected equipment classes” option will look for all instances of the selected Equipment Class(es) and update them. The “Recursive” and “Simulate operation (rollback changes before completing)” option work as described above. The “Equipment tree” and “Equipment class tree” checkboxes can constrain the changes only to the respective trees.



The “Update parameter definitions” option automatically updates the “Parameters” tab of the selected Equipment Class(es). It will automatically add and remove the detected parameters, without further prompting. The “Simulate operation (rollback changes before completing)” option works as described above.



Tree Views

Description

The new Tree Views feature allow users to better filter and reorganize items within tree-based navigation in ICONICS Workbench providers, such as AssetWorX.

Benefits

Enhanced filtering and organization within the Tree Views allows the user to better store and navigate data. Features also increase AssetWorX flexibility within Runtime mode.

Use

A user can now create a new Tree View in configuration mode that provides filtering and organization. An example is how a user could create a new tree view in runtime mode that contains only the BACnet devices from “Building 1” and with a device name starting with “AHU” in its name. Tree Views are stored in the AssetWorX database. Another example is to use it for viewing similar types of assets across manufacturing plants.

ConverterWorX

BACnet, Language Aliasing, Recipe Server, and ScheduleWorX

Description

ConverterWorX can assist with the conversion of a GENESIS32 project to a GENESIS64 project. Version 10.9 now supports tools for converting 32-bit BACnet, ScheduleWorX32, Language Aliasing, and Recipe Server configuration databases to the GENESIS64 BACnet, ScheduleWorX64, Language Aliasing and RecipeWorX configuration databases respectively.

Benefits

Adding support for the GENESIS32 BACnet, ScheduleWorX, Language Aliasing, and Recipes provides a more complete conversion via ConverterWorX.

Use

A user can convert a GENESIS32 project that includes BACnet, Language Aliasing, Recipe Server, and ScheduleWorX to GENESIS64 using ConverterWorX.

EarthWorX

Esri Integration

Description

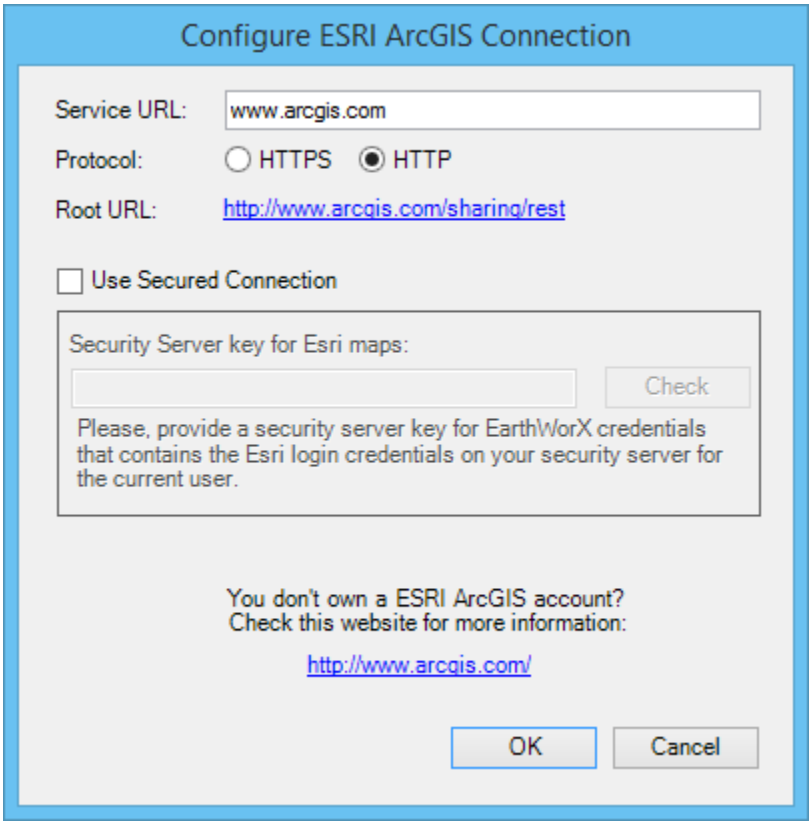
Esri integration brings the GIS capabilities of ArcGIS directly to the user within EarthWorX. By connecting with Esri via the EarthWorX Custom Esri Map Connection, users can utilize a multitude of geographic, demographic and custom maps available through ArcGIS.

Benefits

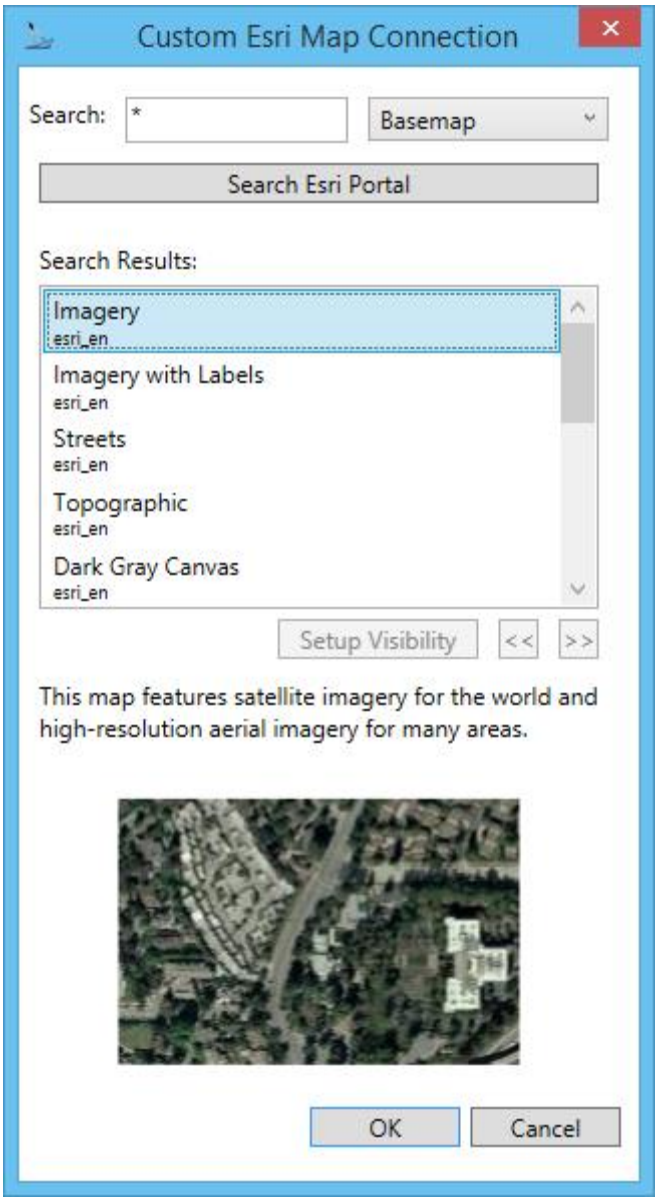
The updated Esri integration allows for better transition between Esri and other GIS providers. All previous GIS functionality was retained while providing multiple ease of use enhancements that allow for more efficient use of Esri features, automatic sign in and automatic security. These updates will give an EarthWorX user access to all of Esri's ArcGIS functionality.

Use

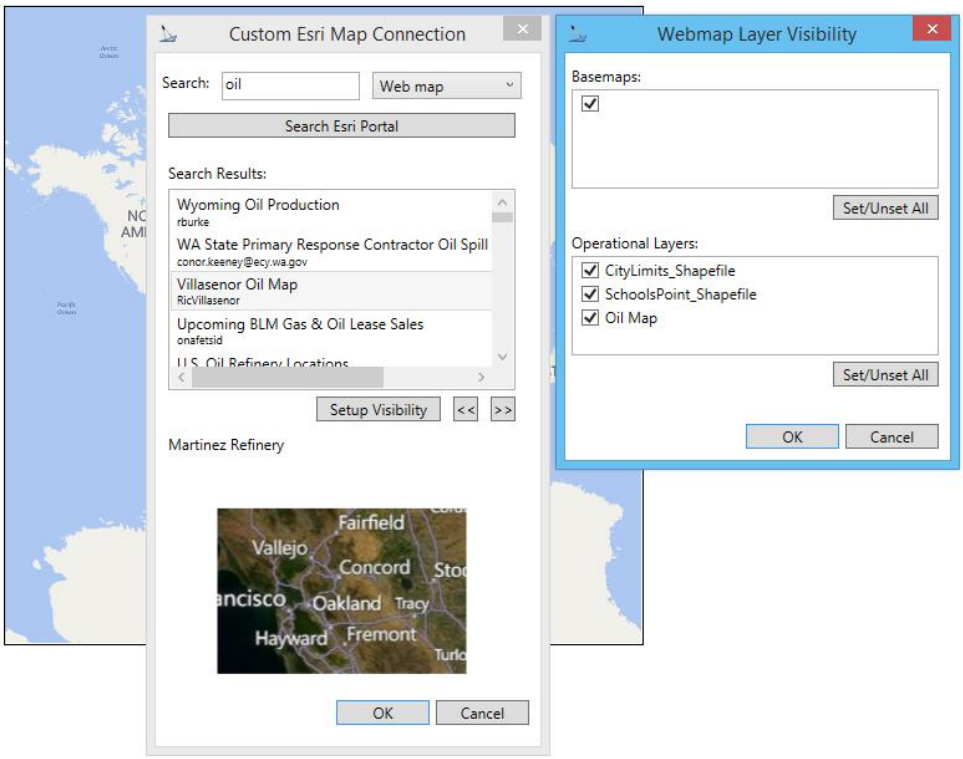
The initial Esri connection in EarthWorX is setup by selecting the Esri button in the Setup Connection menu.



Security is now handled within the Workbench, similar to other map providers. Once connected, the user can select various Esri maps to embed within their EarthWorX display.



The user can finish by setting visibility and selecting the operational layers.



Energy AnalytiX

Cost Analysis and Cost Summary Charts

Description

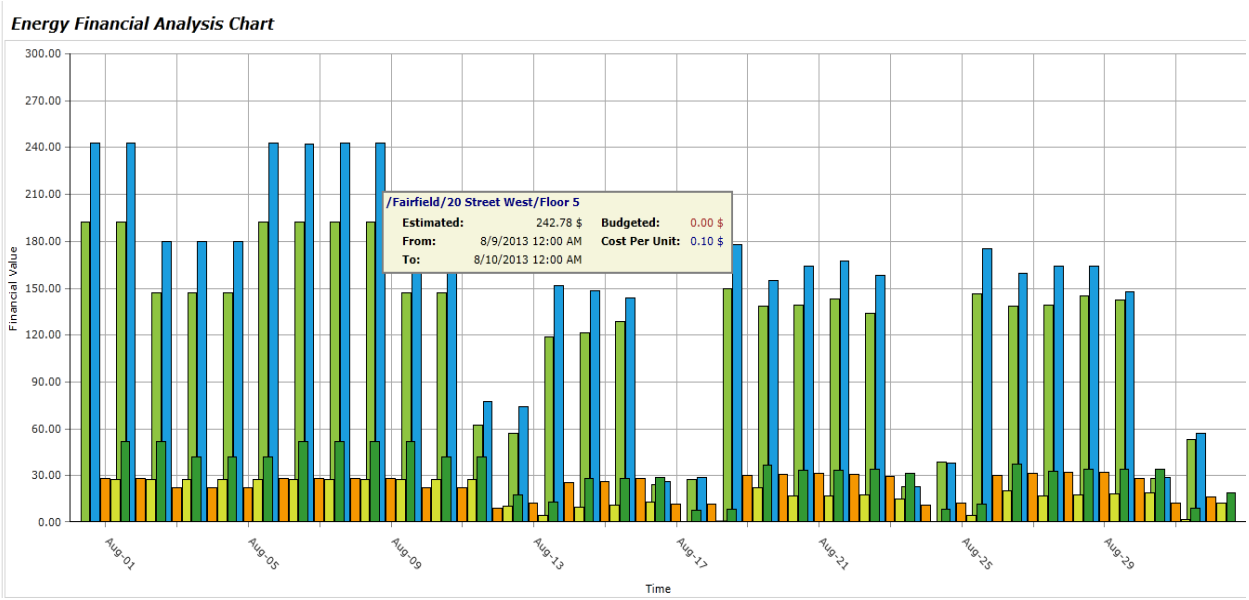
The new Cost Analysis and Cost Summary Charts for Energy AnalytiX include a number of features to help the user develop a financial analysis chart to display the built-in asset cost data in a single, customizable chart.

Benefits

The new Cost Analysis and Cost Summary Charts for Energy AnalytiX support both time-based data as well as value-based charts utilizing the two styles (Analysis and Summary). The charts include flexible data drill-down capabilities such as asset-based, time-based, metadata-based, and custom drill-down.

Use

Similar to the other pre-configured Energy AnalytiX charts, the Cost Analysis and Cost Summary Charts utilize the Configure Web Part menu to design the display and can be customized to display financial analysis information for the user.



Data Backfill

Description

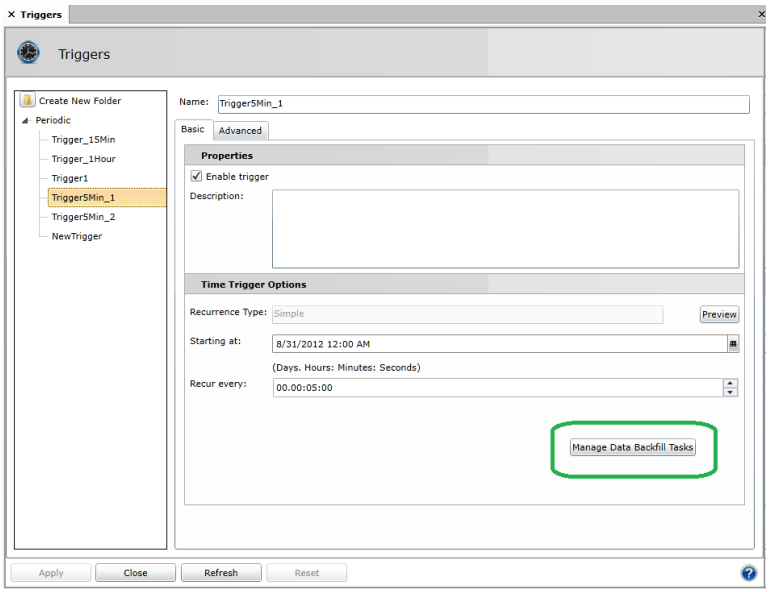
The user can now manually trigger existing (configured) periodic triggers to retrieve historical data for a defined interval. In addition, the Energy AnalytiX service now automatically backfills data for configured triggers in the event that the service was shut down for a period of time.

Benefits

Energy AnalytiX Data Backfill provides higher flexibility in handling historian data. This feature also provides a way to import Energy AnalytiX updated historical data from an older historian database.

Use

Using the “Manage Data Backfill Tasks” Button within Time Trigger Options, users can manually set retrieval periods for historical data.



Advanced Energy Analysis Chart

Description

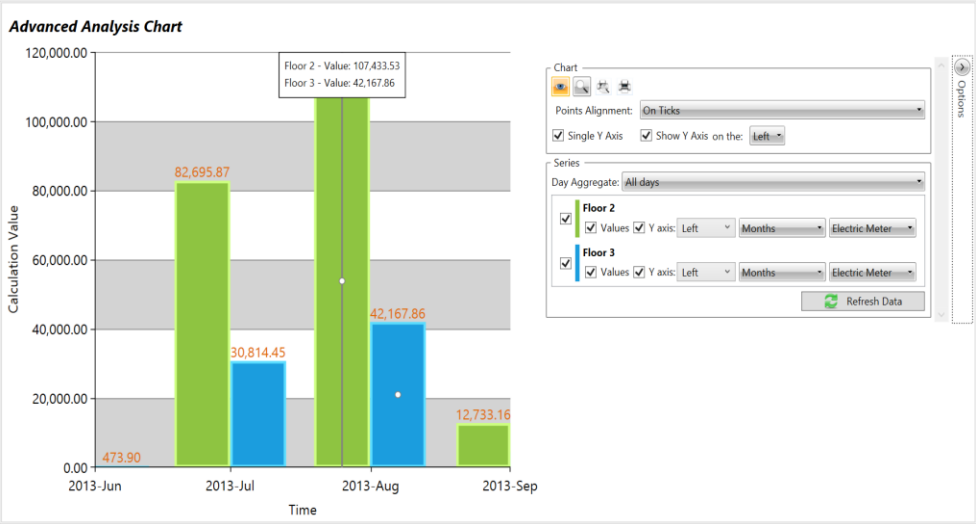
The Energy AnalytiX Advanced Energy Analysis Chart is an additional type of charting available to Energy AnalytiX users. This chart is primarily a generic charting type for Energy AnalytiX data. Specific to this type, Advanced Energy Analysis Charts are the only chart type available that are automatically built within GridWorX with all available GridWorX functionally.

Benefits

This new charting feature allows a user to leverage multiple queries with a single chart. Similar to other chart types, the new Advanced Energy Analysis Chart continues to feature live data updates and filtering within runtime while also utilizing vast visual customization options.

Use

Configuring an Advanced Analysis Chart in Energy AnalytiX is done exactly like all Energy AnalytiX value and analysis chart. Within the Energy AnalytiX Viewer context menu, select the *Add Advanced Analysis Chart* option. This will give the user access to both General (for options such as time range and axis configuration) and Appearance options (options like text and palette). Selecting the series configuration will give the user access to all *General*, *Data*, and *Appearance* options for the selected series. Once in runtime, the user will still have access to select options to allow instant customization without returning to configuration mode.



Facility AnalytiX

Commanding

Description

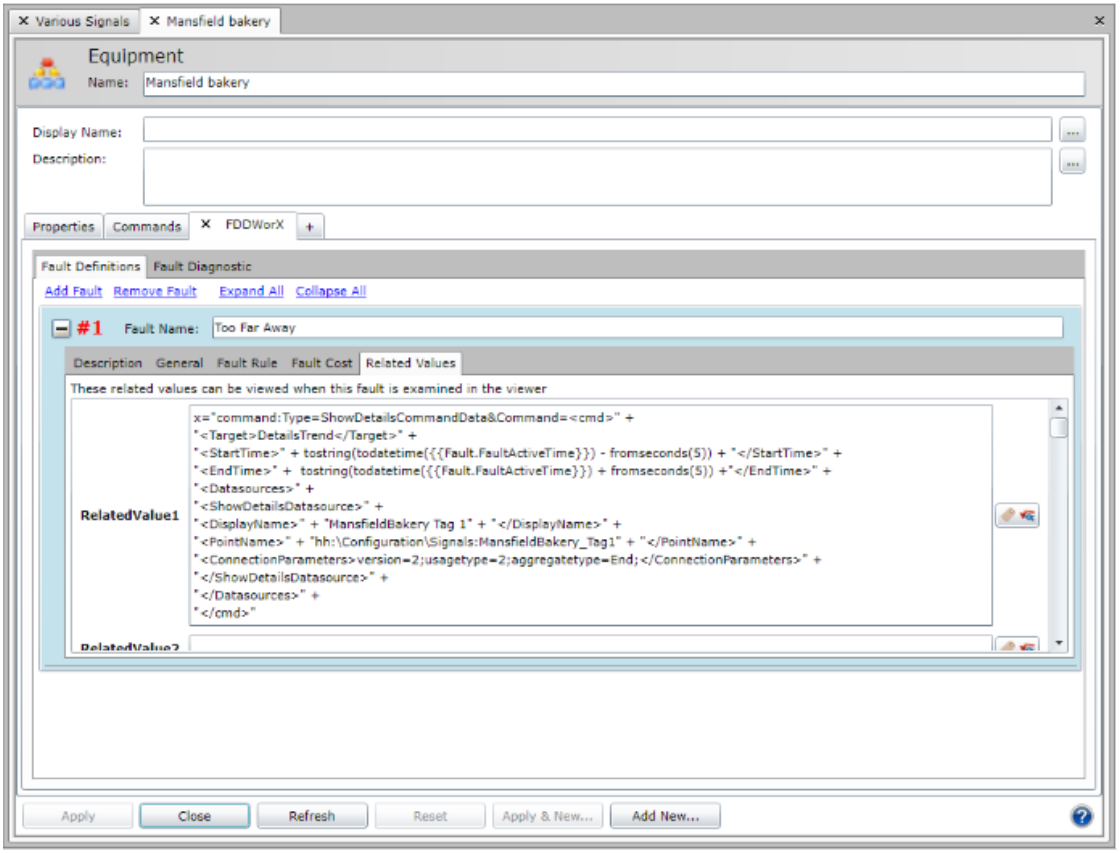
Commanding within Facility AnalytiX allows the user to execute any command through the FDD Viewer (configurable through the Workbench). Each value in the viewer can be configured as a tag or expression.

Benefits

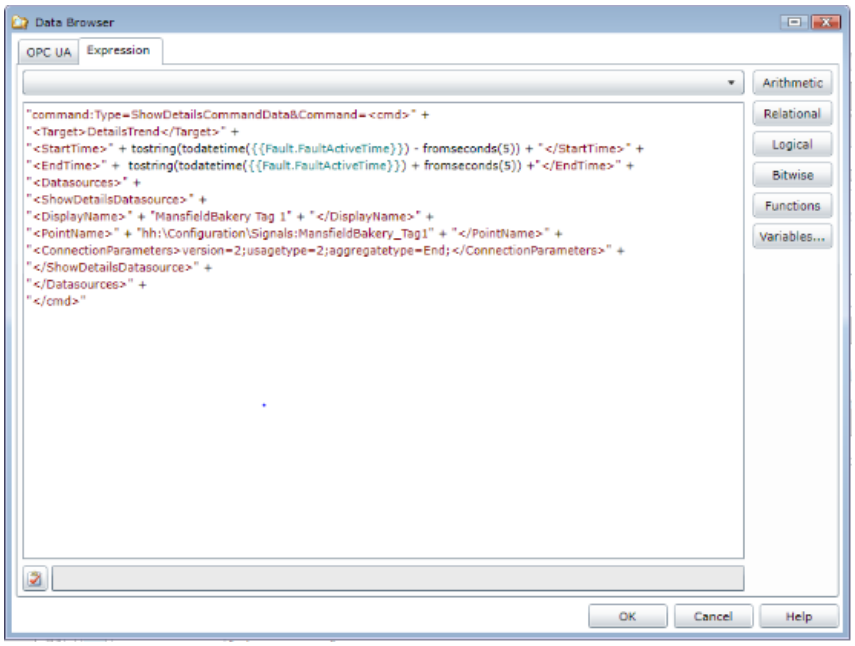
Facility AnalytiX commanding allows the user to execute any command from FDD Viewer. This allows the user to take values from the fault itself, enabling tighter integration to disparate systems such as Building Automation Systems, ERP Systems, Work Order Management or CMMS.

Use

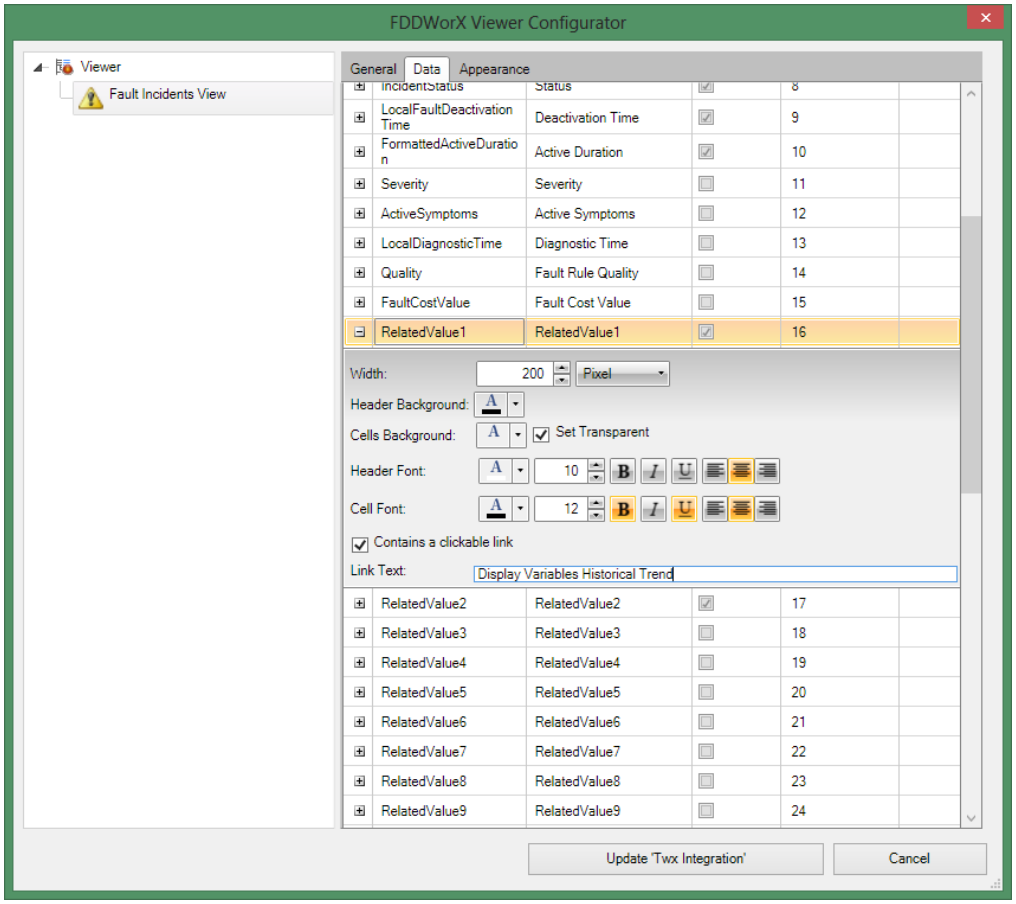
Within the FDDWorX provider of AssetWorX, the commands must be configured through one of the *Related Values* field, under the *Fault Definitions* tab.



Within the Data Browser, the user can script valid expressions connected to a number of actions. Set **Apply** to verify these expressions.



If the expressions contains a URL, the user must specify this by checking **Contains a Clickable Link** box within the FDDWorX Viewer Configurator.



Ability to Traverse Higher up the Parent Path

Description

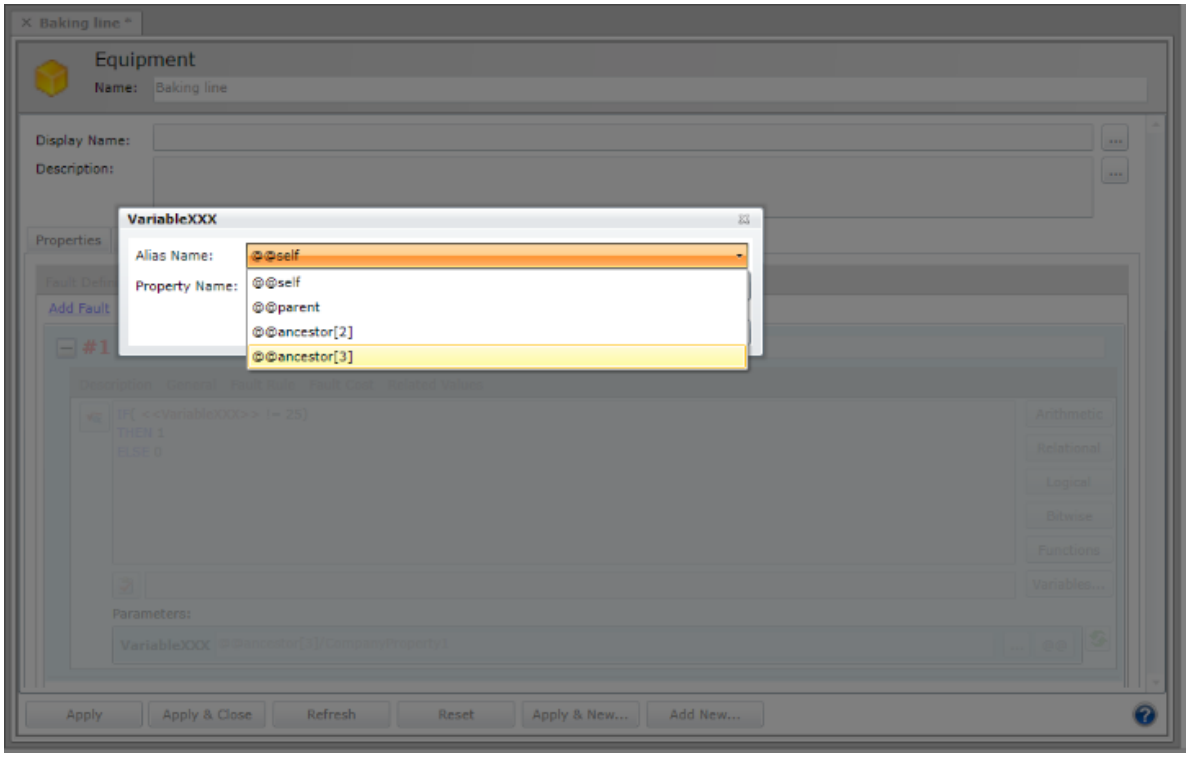
Facility AnalytiX now includes an expanded ability to parameterize asset references.

Benefits

Previously, users could only use Self and Parent (@@self and @@parent referencing commands). Users can now use Ancestor (@@ancestor referencing command). This gives the user access to more total asset references.

Use

Within the Fault Rules tab of the FDD Viewer, select the "@@" button next to the *Parameters* field. This will open the *Variable* window. From the Alias Name field, select the appropriate ancestor to reference (@@ancestor, @@ancestor [2], …].



FDDWorX

Performance Improvements

Description

FDDWorX now features FDD Engine enhancements including wide use of concurrent collections and parallel tasks, the ability to capture and log data values of individual variables used in expression calculations, and the exposure of runtime counts of active faults as DA points (per asset and also per asset with sub-assets).

Benefits

This improves the user experience for clients accessing and interacting with FDDWorX information.

Use

The new performance improvements in FDDWorX will be apparent regardless of how FDDWorX is being used.

Usability Improvements

Description

The FDD Viewer features additional views to display faults. FDD configuration has also been enhanced with simplified configuration.

Benefits

These usability improvements will greatly reduce the time it takes to configure faults and to display appropriate information to the user. FDDWorX calculations formerly occurring in the AlarmWorX64 Server and Unified Data Manager are now consolidated into the FDDWorX Engine, thereby streamlining the user experience.

Use

Many of the ease of use features will be apparent via a more intuitive user interface.

GraphWorX64

KPIWorX Integration

Description

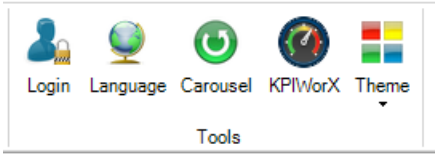
KPIWorX enables the creation/saving and loading of dashboards, providing a user-friendly interface. Users can drag and drop data, configure widgets, split screens to add new widgets and save dashboards into a Favorites location. KPIWorX is accessible through MobileHMI as well as within GraphWorX64 (which can handle more complex displays). KPIWorX contains several preconfigured widgets, such as gauges, process points, trends, alarms and grids to display data from ICONICS applications. Primarily a mobile feature, this all new functionality is also available on the desktop. For more information on the Benefits and Use of the new KPIWorX feature, please refer to KPIWorX description within the MobileHMI section.

Benefits

KPIWorX allows the user to instantly create dynamic displays on both desktop and mobile devices. The desktop KPIWorX integration enables KPIWorX functionality across platforms for easy transition between mobile and desktop versions.

Use

KPIWorX integration allows GraphWorX64 and MobileHMI users to view the same KPIWorX displays on different platforms.



Drag and Drop Browser

Description

The new GraphWorX64 drag and drop browser allows users to quickly and easily select data sources from any browser and place them into a display. This new ease of use function allows users to instantly visualize any data source available. This feature is also inherent to the new KPIWorX feature.

Benefits

This new drag and drop feature is primarily an ease of use enhancement. Creating and configuring displays that utilize data sources will be significantly quicker and more user-friendly.

Use

The new GraphWorX64 drag and drop browser will be utilized by anyone creating or configuring a display. Once a data source is selected within the browser, it can be dragged into a GraphWorX64 display to create a process point, or onto a TrendWorX64 Viewer to add a pen.

High Speed Symbol Search with Updated Indexing and Content

Description

The new search capability significantly increases the speed of the symbol search function within the GraphWorX64 Symbol Library. Additionally, multiple indexing improvements and the addition of new symbols to the default library all combine for easier Symbol Library navigation.

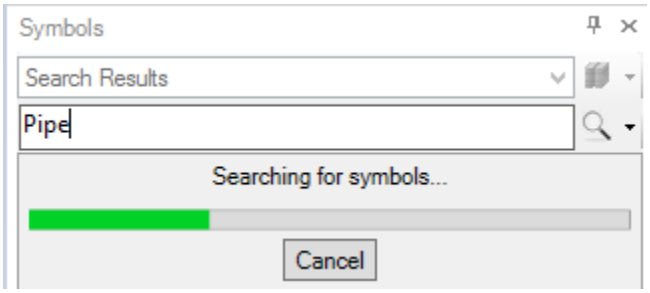
Benefits

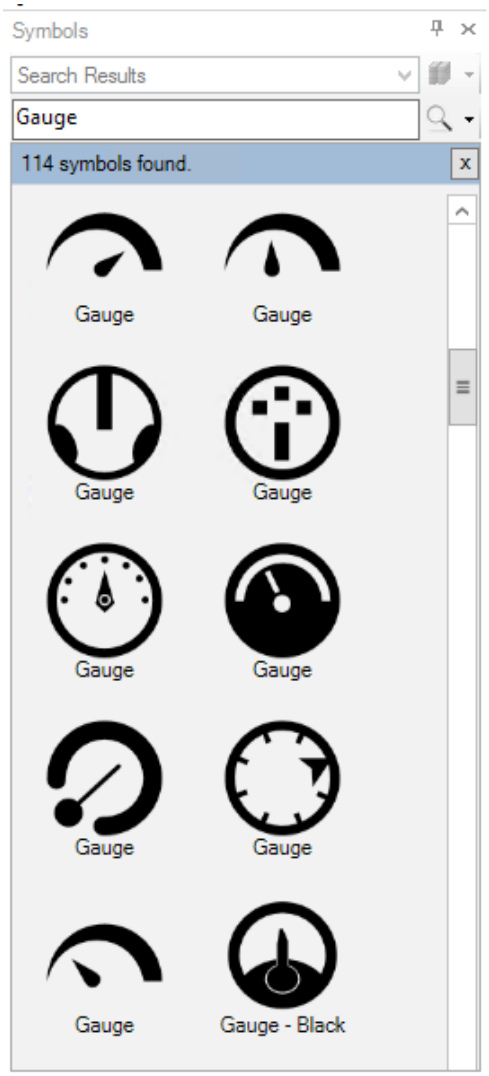
The enhanced symbol search ability significantly decreases the amount of time spent waiting for the library to match symbols to the user-specified search terms. Updated symbol details and metadata improve the searchability of the default Symbol Library as well as upgrade imported and user-created symbols. The default Symbol Library has also been expanded with 250 new symbols.

Use

Anytime a GraphWorX64 user utilizes a symbol, they will interface with the Symbol Library improvements. When searching for a symbol, users will notice a drastic decrease in search time. Saving and importing symbols will benefit from the updated symbol details and indexing. New symbols are also available within the default library.

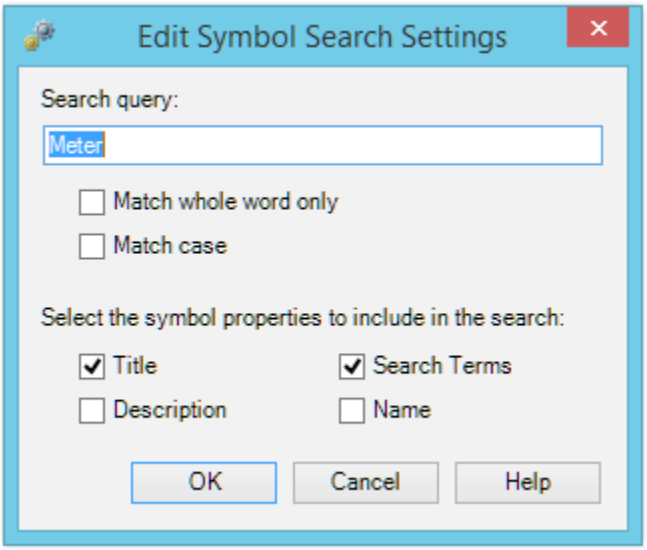
A user can quickly find the symbols needed for a particular display by entering search terms into the text box located near the top of the Symbol Library tool. Search terms are associated words and descriptions that help find the desired symbol. Search for symbols by name, function, industry, color, and style. Select the search button (magnifying glass) or press the Enter key on the keyboard to search for symbols with the associated search terms. The symbols currently-opened category or currently-shown set of search results auto-save whenever a search operation is initiated.





The associated symbols, along with the total number of symbols found, will then appear in the Symbol Library tool. Symbols from this pane can then be dragged and dropped directly onto the canvas.

The user can edit a symbol's properties directly in the search results to customize a symbol further or to make future searches easier. To do this, either right-click a search result and select "Edit Symbol Properties," or select a search result and press Ctrl+E on the keyboard.



The user can also find symbols that are closely related to a particular search result by opening the result's symbol library category. To do this, either right-click a search result and select "Open Containing Category," or select a search result and press Ctrl+O on the keyboard.

Smart Tiles with Microcharts

Description

Microcharts can now be inserted into Smart Tiles. Both the Smart Tiles and Microcharts retain their distinct abilities, yet combine to create a fully functional Microchart capable of trending data while utilizing all the dynamics of a Smart Tile.

Benefits

The combination of Microcharts and Smart Tiles offers a number of possibilities for display design. Combining a trend view of data with Microcharts within the Smart Tiles creates a preview of real-time data while still being fully navigational within the display.

Use

Combining a Microchart with a Smart Tile can be completed just like adding a symbol or control to a smart tile. A user can connect the two for purposes of seeing a basic visualization of the data source, while still having the ability to navigate to the full viewer of the data source simply by clicking on the Smart Tile.

Auto Floor Plan Generation with BIM Integration

Description

GraphWorX64 features improved BIM model import and support in its 3D visualization capabilities, including support for Autodesk Revit BIM properties. In addition, GraphWorX64 now includes automatic floor plan generation.

Benefits

Including BIM functions within GENESIS64 provides a number of visual and architectural benefits as well as opening the door to rapidly improving BIM technology. New BIM integration enhancements allow for Autodesk Revit BIM property import in addition to BIM images and designs.

Additionally, GraphWorX64 now features an auto floor plan generation capability that allows a user to automatically convert floor plans into individual polygons for rooms and zones.

Use

New BIM integration allows any user importing a BIM file to maintain access Autodesk Revit BIM properties. Once a 3D object is created in Autodesk, it can be imported directly into the GraphWorX64 3D viewer without losing any of the original functionality.

The auto floor plan generation is highly recommended for any building automation project. Users can import a building plan from any source with GraphWorX64 and use the auto floor plan generation tool to select areas to be considered a zone or room. The individual zones or rooms will then be transformed into fully customizable polygons that can be tied to any dynamic.

3D Lighting Updates

Description

An important enhancement to the 3D environment within GraphWorX64 is the addition of various new 3D lighting options. Four new styles of lighting are now available for 3D views: ambient, directional, spot light, and point light.

Benefits

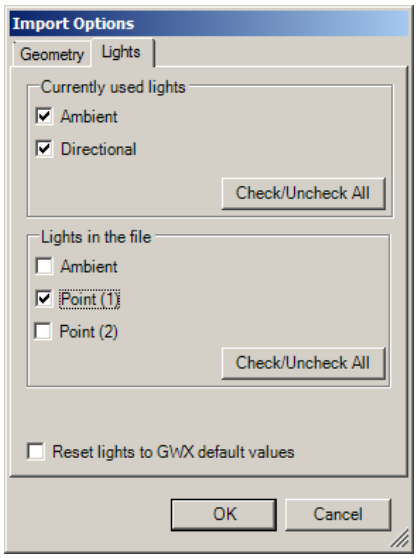
Enhanced import dialogs allow for greater user customization when importing 3D objects. The new options allow for overall greater customization of objects and environments.

Use

3D lighting updates include a number of object and environment lighting options. Four new styles of lighting are also available for 3D views: ambient, directional, spot light, and point light. Lights at any time can be reset to the default settings. Once set, the lights can always be customized. Additionally, import dialogs have been updated to reflect the 3D lighting updates. Users can specify if the originally created lights will be included within the GraphWorX64 import.

The light source of an object can be customized within GraphWorX64 or during the import of the 3D object. Lights at any time can be reset to the default settings. Once set, the lights can always be

customized using the property grid. “Helper objects” for directing the light source are also selectable with the mouse. When importing, new options are available for the user to specify the light source.



Enhanced Layout Capabilities

Description

These enhancements are part of a greater effort to provide an optimal viewing experience across a wide range of devices while moving away from the rigid “one display for each device” system. Rather, items, objects and displays can now dynamically adjust to various size parameters. The enhanced layout capabilities are a subsection of this idea, which aims to provide user-intuitive behavior when working within a grid, panel, container or control.

Benefits

These upgrades significantly enhance ease of use when working within a grid, panel, container or control. Objects behave to a more intuitive standard from a visual perspective. This creates a more efficient configuration when using these layouts as well as provides greater flexibility when adjusting a layout.

Use

Users will notice the greatest improvements within the responsive user interface of the Grid Layout. Other enhancements are noticeable within various panels, controls and containers.

NUI Integration with Kinect 2

Description

All Kinect 2 functionality is fully integrated into GraphWorX64 Natural User Interface.

Benefits

Any user with a Kinect 2 can now utilize all Kinect 2 functionality within GENESIS64. Additionally, all upgrades in Kinect 2 now provide usability enhancements for GENESIS64 users.

Use

Kinect 2 integration utilizes the same GENESIS64 functionality as the original Kinect. Users who upgrade will notice performance improvements as a direct result of upgrades to the Kinect 2 device.

Data Explorer

Description

The Data Explorer is a new feature that allows the user to navigate all data sources with zero configuration. Using the data browser tree view, users can navigate between all data sources and view live values for real-time data, historical data, data sets, alarms, schedules, assets and BACnet.

Benefits

The absence of a necessary configuration makes this tool especially simple to use. Navigating and selecting data will automatically render the appropriate view for the data set in a fully functional and real-time display.

Use

Users can utilize the Data Explorer directly within GraphWorX64. Simply by selecting the data tag, users can view and interact with the automatically configured display exactly as they would with any other viewer.

Hyper Historian

Hyper Historian Express

Description

Hyper Historian Express is a new “light” version of Hyper Historian. Its feature set is in line with the TrendWorX64 Logger, making it a perfectly suitable historian for smaller applications, but with the ability to scale up as your system grows. Advantages it has over the TrendWorX64 Logger are high performance data logging capabilities and easy to use data archiving and retrieval support. In addition to these advanced features, Hyper Historian Express also supports the filtering options that TrendWorX64 supports (Deadband, Max, Min, Avg, etc), on incoming data, as well as HDA Server Support and a SQL Query Engine. Hyper Historian Express is included as part of GENESIS64 and unlike the standard Hyper Historian, its input tags are counted as GENESIS64 tags.

Benefits

A high performance data logger with powerful, easy to use archiving is now included as part of GENESIS64.

Use

Hyper Historian Express can be utilized by any user who requires the basic, fundamental functionality of Hyper Historian but does not necessarily need all of the features of the standard Hyper Historian. ConverterWorX can be used to help convert TrendWorX64 applications to a Hyper Historian Express application.

MobileHMI

KPIWorX

Description

KPIWorX allows for the creation/saving and loading of dashboards, providing a user-friendly interface. Users can drag & drop data, configure widgets, split screens to add new widgets and save dashboards into a Favorites location. KPIWorX is accessible through MobileHMI as well as within GraphWorX64 (which can handle more complex displays). KPIWorX contains several preconfigured widgets, such as gauges, process points, trends, alarms and grids. Primarily a mobile feature, all new functionality is also available on the desktop.

Benefits

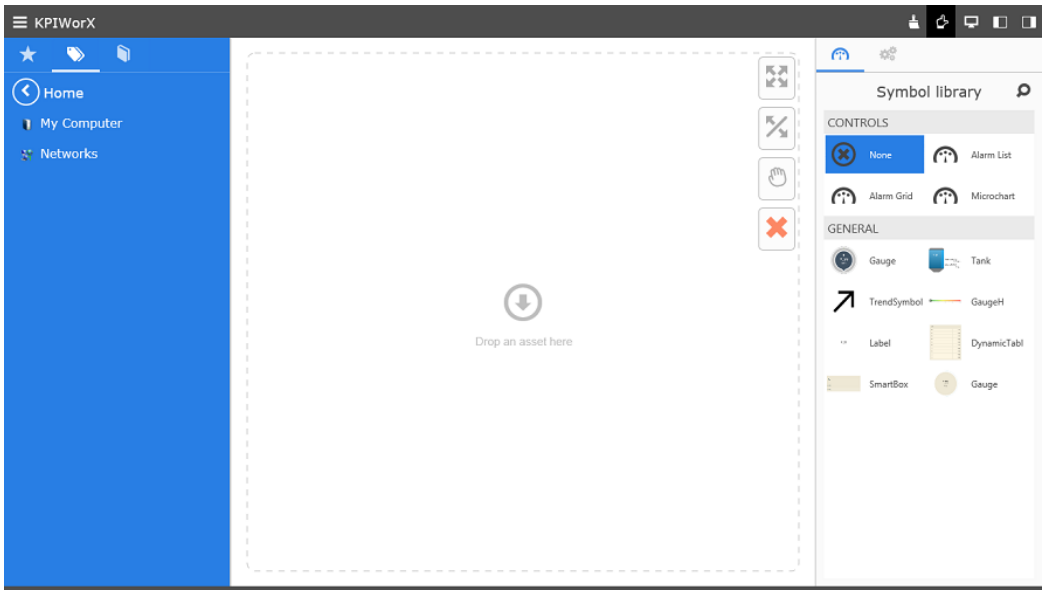
KPIWorX features a number of new and innovative benefits to the user. Ease of use and an intuitive design help create a simple to deploy displays that can be instantly created as they are needed. In addition, KPIWorX features split screen compatibility for use of multiple widgets and docked settings and navigator. KPIWorX displays automatically adjust for various data sources as well as smaller fonts, smaller margins and keyboard handling.

Use

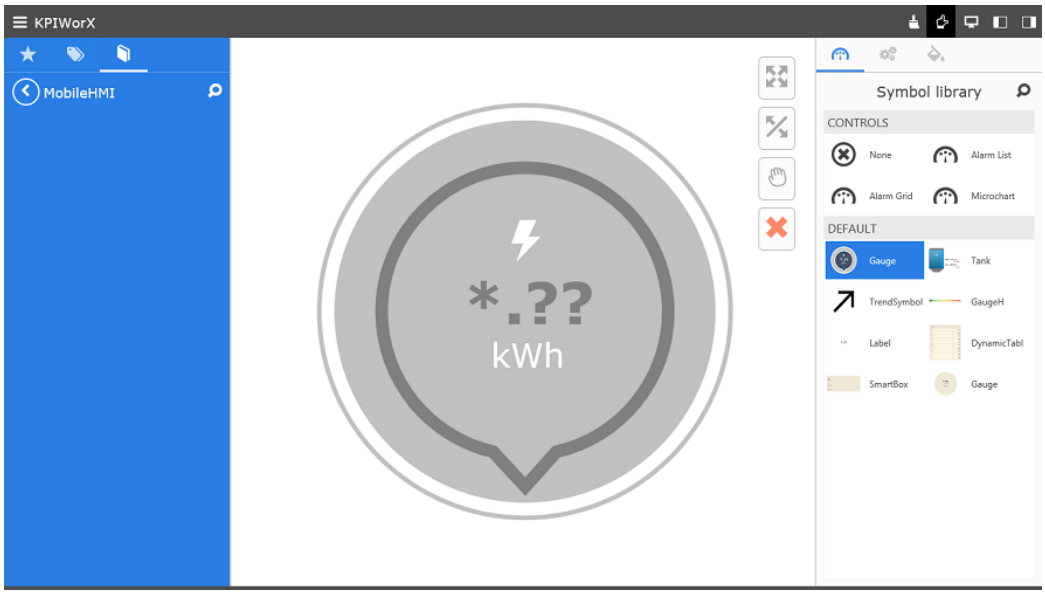
KPIWorX can be launched both on Mobile and Desktop devices. KPIWorX displays will be especially useful for on-the-spot display creation for visualizing data as it is needed. Combined with location services, KPIWorX can automatically render appropriate widgets and dynamics when desired. Interfacing with KPIWorX is visually appealing and operating within KPIWorX is user intuitive. KPIWorX displays can also be transferred to desktop mode for sharing.

Once initiated, KPIWorX allows a user to efficiently create runtime monitoring displays while maintaining the flexibility to modify any display quickly. KPIWorX also includes a number of configuration options allowing for fully customizable features for reusable displays.

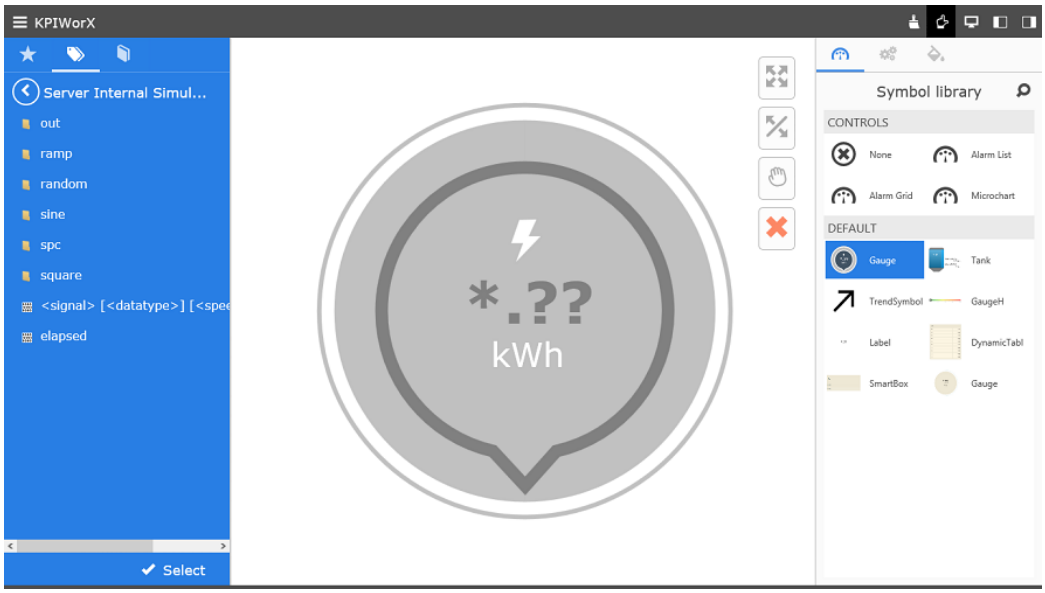
Beginning with the main page (see here for more information on initializing KPIWorX), a user can begin creating displays of varying complexity instantly.



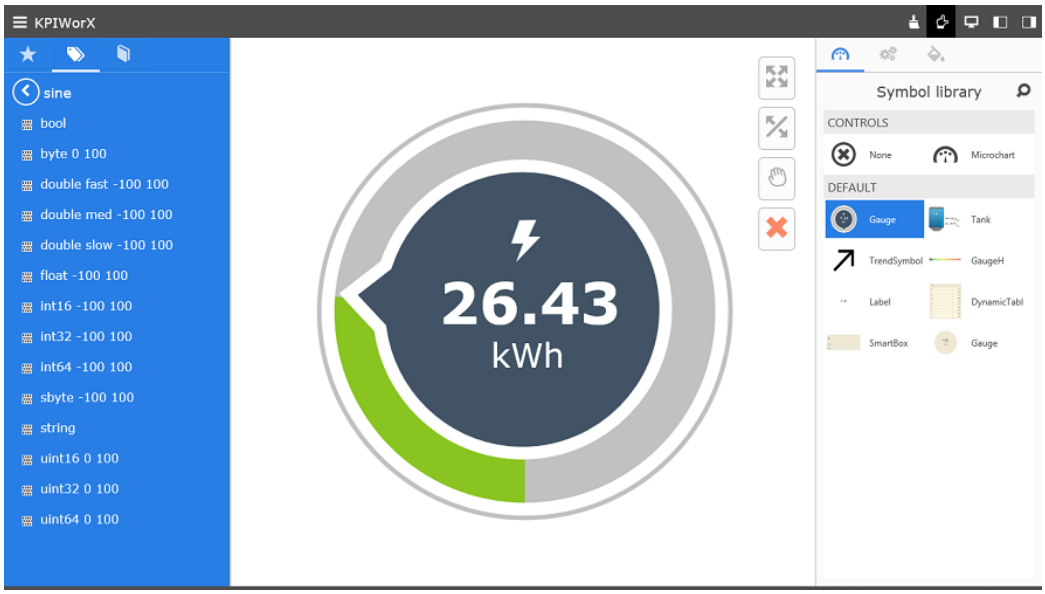
Begin by selecting which symbol, control or widget would best represent the desired data source. Populate the cell by selecting the desired symbol, control or widget.



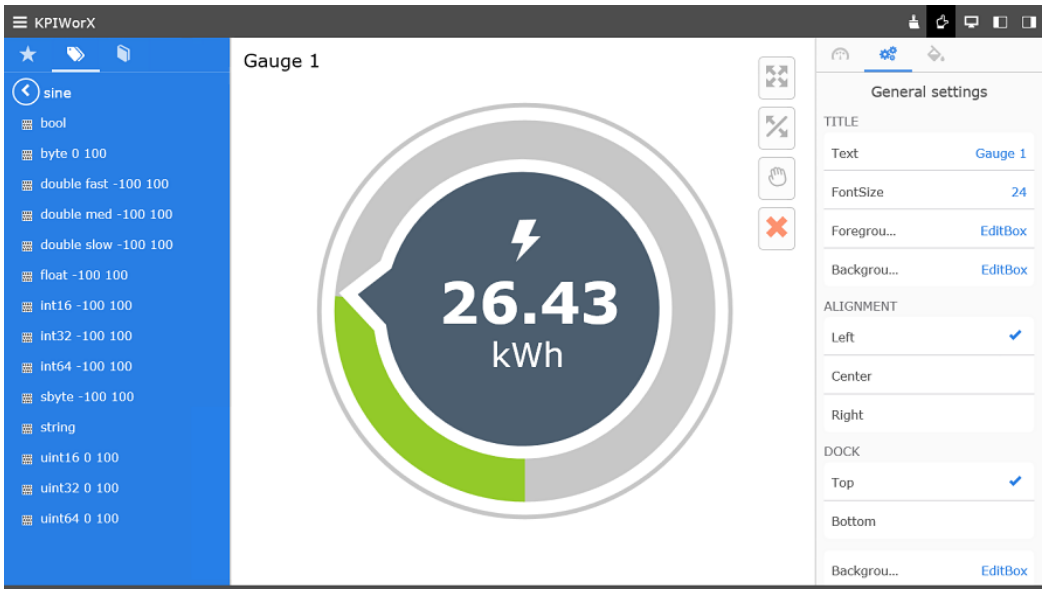
Once the symbol, control or widget populates the cell, the user can select the desired data source from within the KPIWorX Data Browser.



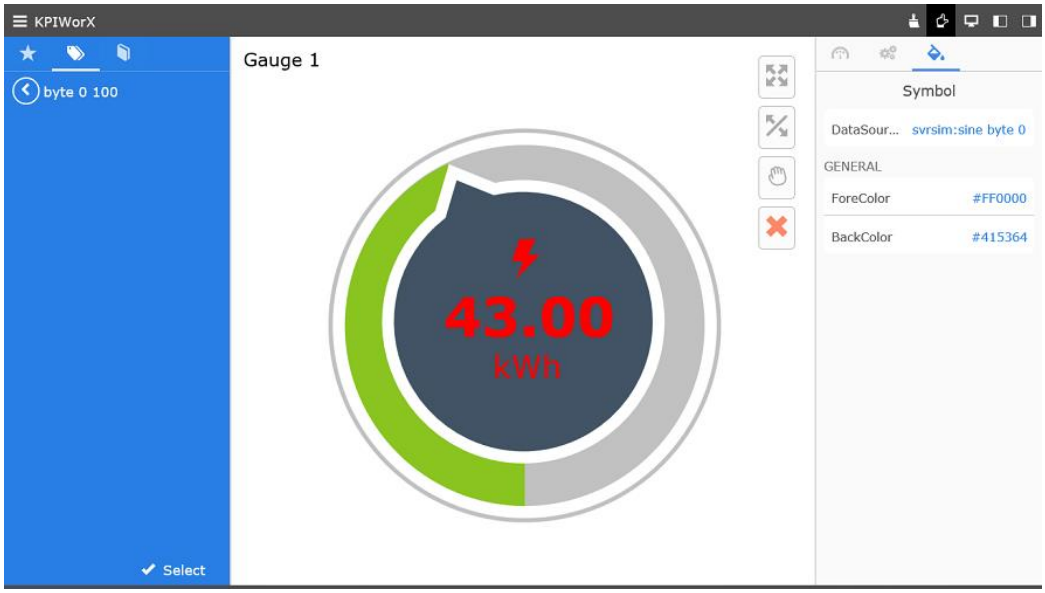
Drag and drop this data source directly on top of the symbol, control or widget. A black check mark will appear confirming you are correctly engaging with the object.



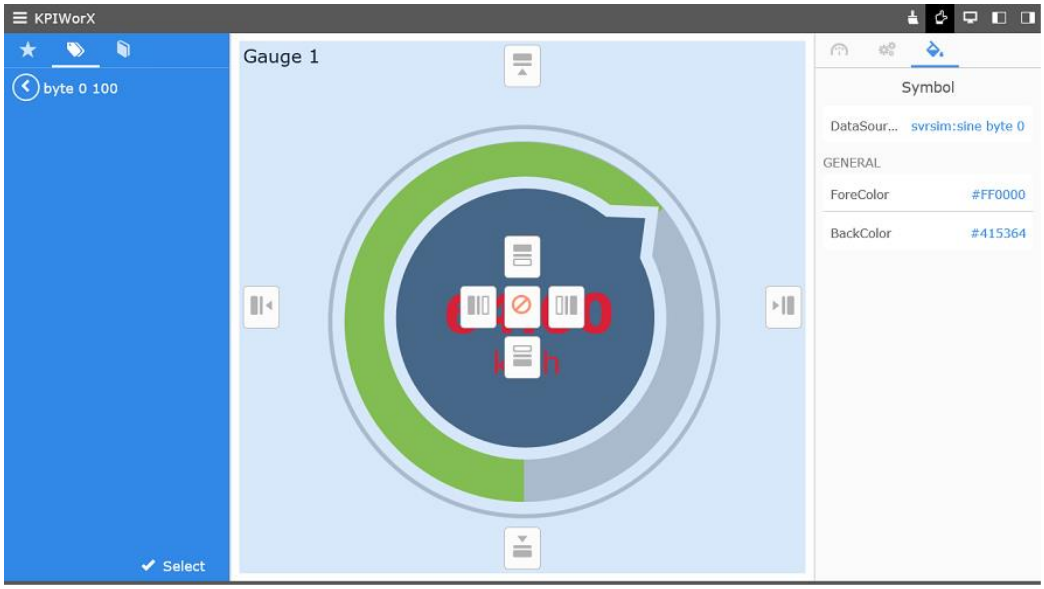
The symbol, control or widget will instantly start showing data. The user can always change the data source by dragging and dropping a new data source on top of the object. The user can also change the appearance of the cell via General Options within the KPIWorX Configuration Menu.



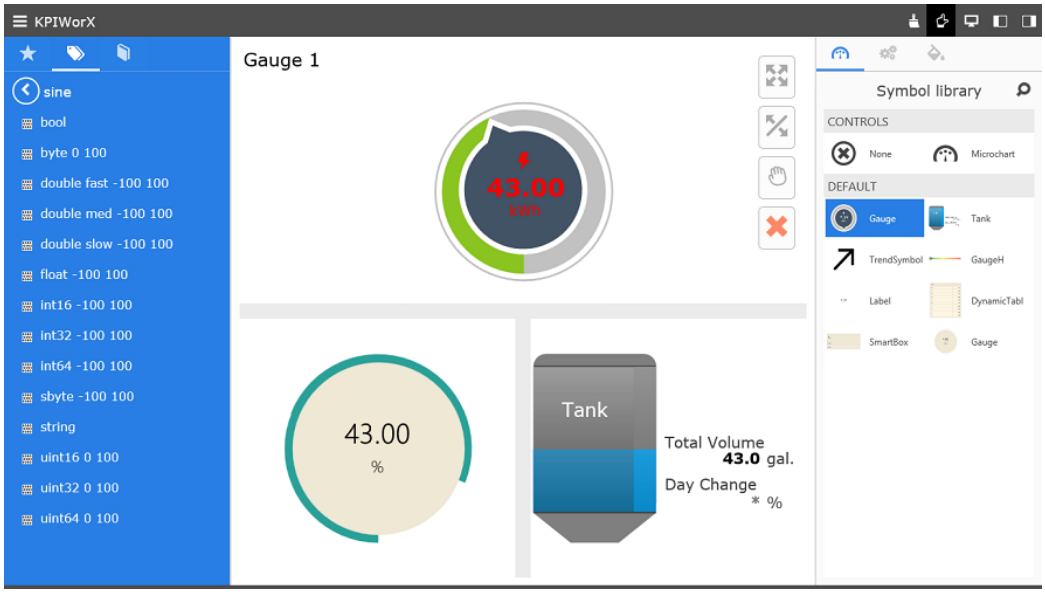
Multiple appearance options can be changed within this menu. A title with top-left alignment was added in the display above. Further symbol display option can also be changed via the Symbol options within the KPIWorX Configuration Menu.



Once the symbol accurately and aesthetically displays the desired data, the canvas can be rearranged and configured to show more symbols, controls or widgets. Select the icon within the cell resize options. Selecting this icon will offer a number of options for rearranging the cell and splitting the screen.



Use these icons to rearrange the cells as desired. Continue adding and modifying symbols, controls and widgets to create a full runtime dashboard.



Displays can always be saved and reloaded using the KPIWorX Menu for future use.

HTML5 AlarmWorX64 Viewer, GridWorX, and Tree View

Description

The AlarmWorX64 Viewer and Tree View are now both available in MobileHMI for HTML5 devices. The HTML5 GridWorX displays have also been significantly enhanced.

Benefits

The AlarmWorX64 Viewer and Tree View, both of which were previously available in WinRT devices, are now available in HTML5 MobileHMI devices. All GridWorX MobileHMI features for WinRT devices are

available in the GridWorX HTML5 displays as well. The addition of these features adds to an already impressive list of MobileHMI features to help provide a seamless transition between desktop and mobile devices.

Use

These new components should be utilized by any MobileHMI user that wishes to utilize alarms, tree views, or GridWorX capabilities on their HTML5 MobileHMI devices.

Location Services (QR Codes)

Description

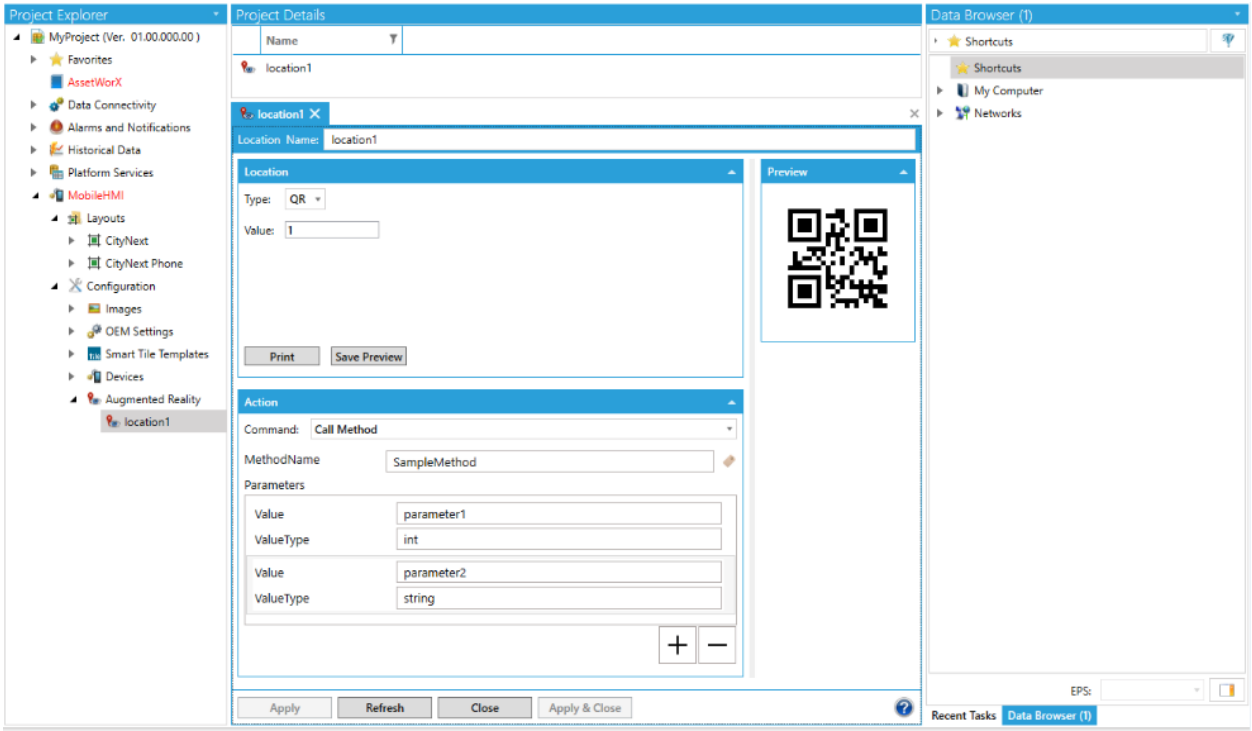
Location Services are a group of MobileHMI features that allow displays to automatically load and display data based on the users' location and proximity to devices and meters. QR codes allow a user to scan a pre-established, physical QR code on a device, and retrieve current and historical information about that device in real time.

Benefits

QR code scanning gives the user information in real time, while physically interacting with the equipment. QR codes can be set to correlate to any equipment information while preventing operator confusion by having a physical tag associated with the equipment.

Use

QR Location Services are an ease of use enhancement that automatically displays a location map and associated information. To access QR location services, open the Configuration option within MobileHMI. Next, open the Augmented Reality heading. Within this window, set Location Type to QR. This will allow the user to begin scanning QR codes and retrieving associated information.



Location Services (GPS)

Description

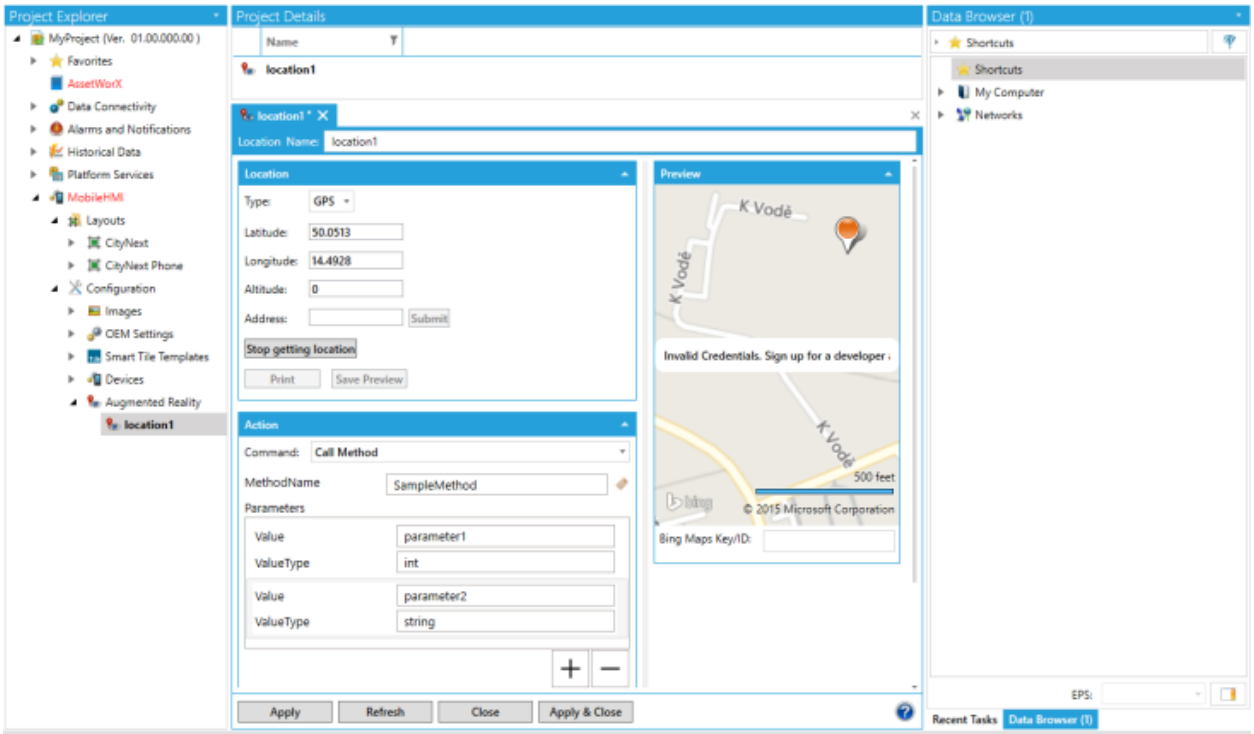
Location Services are a group of MobileHMI features that allow displays to automatically load and display data based on the users' location and proximity to devices and meters. GPS specifically loads information and a map based on the users physical location.

Benefits

The GPS feature of Location Services renders a map and information associated with that location. This allows a mobile user to automatically view information preconfigured for a user's physical location.

Use

GPS Location Services are an ease of use enhancement that automatically displays a location map and associated information. To access GPS location services, open the Configuration option within MobileHMI. Next, open the Augmented Reality heading. Within this window, set Location Type to GPS. This will allow the user to specify a location or automatically retrieve the current location.



Location Services (OCR)

Description

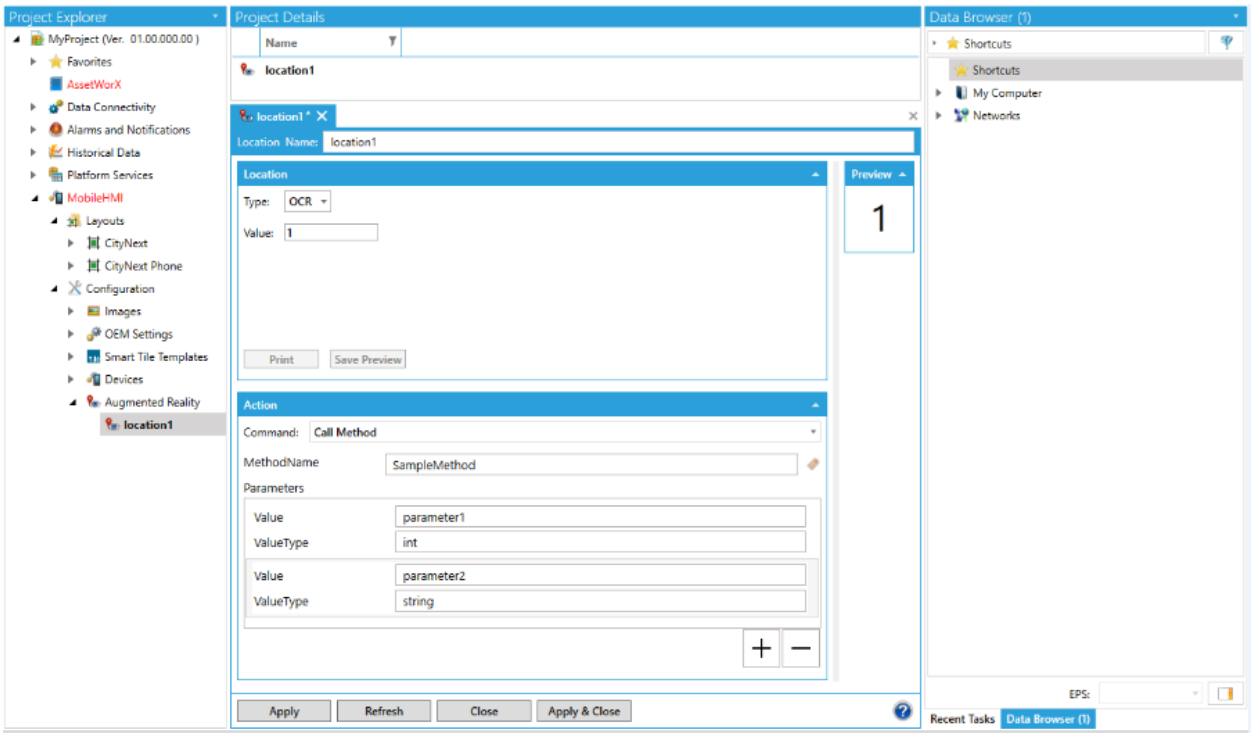
Location Services are a group of MobileHMI features that allow displays to automatically load and display data based on the users' location and proximity to devices and meters. Optical character recognition, or OCR, is an augmented reality feature that allows a mobile device to derive information from standard alphanumeric characters.

Benefits

The OCR feature of Location Services provides a number of ease of use and convenience options for MobileHMI users. Information associated with numbers, letters and words can all be drawn by scanning standard words and characters within requiring specially configured codes and symbols.

Use

OCR scanning is a major ease of use improvement that allows a user to simply scan alphanumeric characters, in the form of words or isolated characters, and instantly retrieve all device information while displaying it in the MobileHMI display. To access this feature, select *Location* within KPIWorX and change *Type* to OCR. This will allow for the user to scan a character, while also allowing access to Action options.



Location Services (Barcodes)

Description

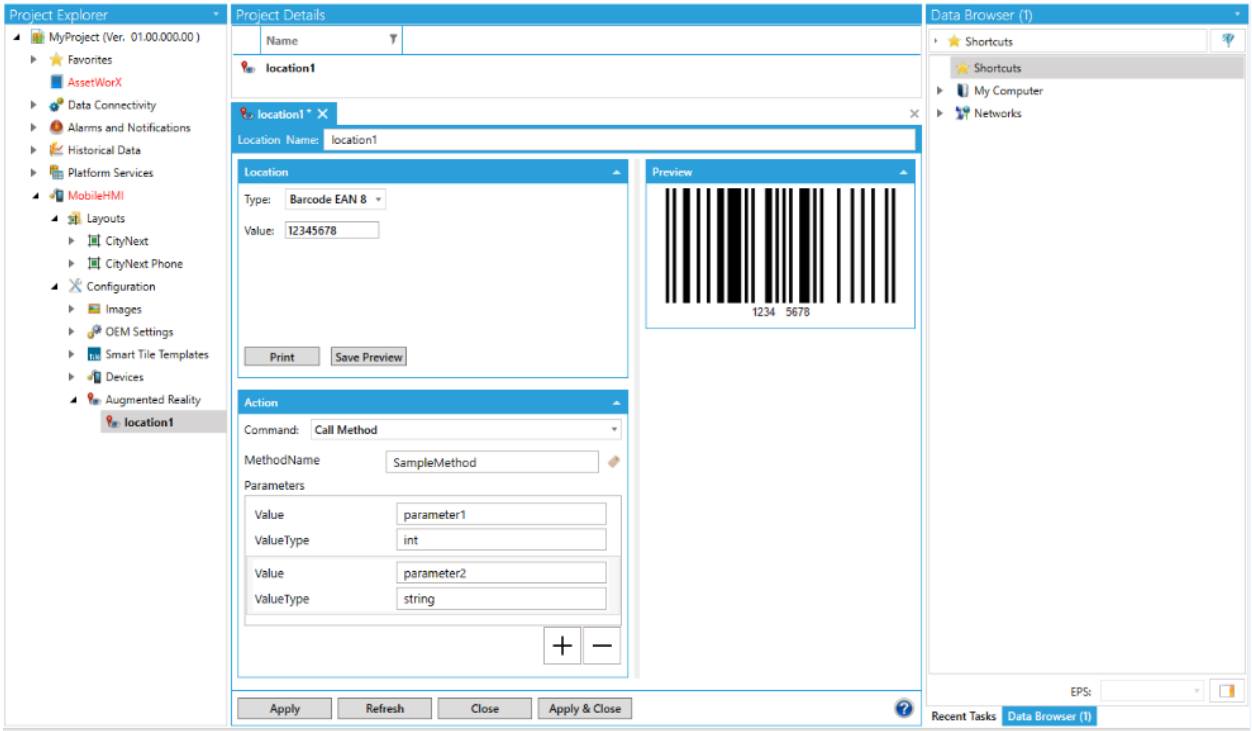
Location Services are a group of MobileHMI features that allow displays to automatically load and display data based on the scanning a barcode.

Benefits

Barcode scanning gives the user information in real time, while physically interacting with the equipment. Barcodes can be set to correlate to any equipment information while preventing operator confusion by having a physical tag associated with the equipment.

Use

Barcode scanning is a major ease of use improvement that allows a user to simply scan a barcode and instantly retrieve all device information while displaying it in the MobileHMI display. To access this feature, select *Location* within KPIWorX and change *Type* to Barcode. This will allow for the user to scan a barcode, while also allowing access to Action options.



Platform Services

System Health Monitoring Service

Description

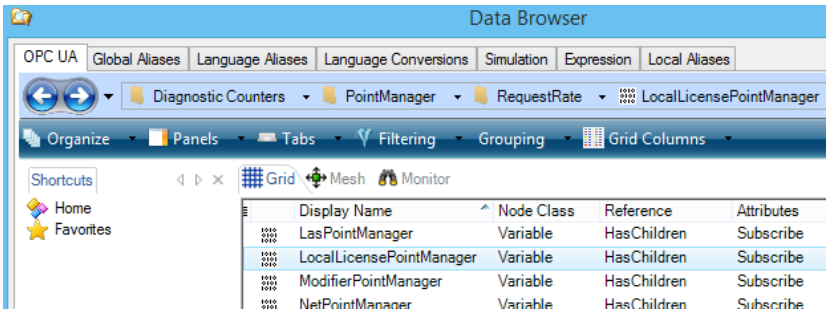
The System Health Monitoring Service acquires data from System Performance Counters (the CPU and memory usage for all processes, FrameWorX Server-published internal diagnostics variables, and other GENESIS64 services), evaluates abnormal conditions, notifies users and saves logs into the Windows Event Log.

Benefits

The System Health Monitoring Service creates a central location for all internal performance counters. A Performance Monitor provides the user with a dashboard visually displaying current values and logged historical data. A Windows Event Viewer also logs system health events, giving the user real-time insight into the status and health of their ICONICS applications. A number of new features have been compiled into a single service including diagnostic counters, server limits, performance counters, drives and installation and setup validation.

Use

The System Health Monitoring Service provides information on a number of system health diagnostics. This information is primarily used for viewing and monitoring of the system and can be combined with alarming features to notify the operator.



Open Accessibility Tools (OData Connector)

Description

A new data connector has been added that provides secure access to ICONICS data through a REST interface. For instance, all related Energy AnalytiX queries now utilize the Energy AnalytiX point manager based on this data connector for easy data discovery. OData is also used to retrieve Hyper Historian data for use in ReportWorX Express. Users can parameterize all related queries as needed. The OData Connector uses an asynchronous approach to process results and return data to the clients.

Benefits

This open accessibility layer improves access to ICONICS data sources from any client that can make an HTTP request, including third party applications. It also exposes that data in a uniform way across all providers.

Use

The OData Connector will be used as an interface to all ICONICS data sources. Point-and-click tools, such as the Unified Data Browser and Excel data connections, allow users to access ICONICS data through this new interface. Users can also can create custom applications that leverage the OData Connector.

New OPC UA Alarms and Enhancements

Description

GENESIS64 is built upon ICONICS Platform Services, which includes universal connectivity to OPC UA, OPC, BACnet, SNMP, Databases and Web Services. Multiple enhancements to the alarm technology allow for access to many more data sources using OPC UA clients.

Benefits

Through this powerful middleware, GENESIS64 makes it easy to visualize, via its OPC UA interface, virtually any equipment, process, operation or business data. For example, OPC UA clients can now securely access: registers and data from PLCs or DCS Systems, equipment maintenance records from most maintenance management systems, energy data from any metering system and incoming order data from any ERP system. A number of security upgrades have also been included for OPC UA alarms.

Use

Any user of OPC UA alarms will now have access to vastly more data sources using OPC UA clients. Users will also benefit from updated security components. Critical to industrial automation systems are the protection of control systems and all related communications. OPC UA, and ICONICS' implementation of OPC UA, provides multiple layers of security, including user-generated and authority-generated certificate authorization, symmetric encryption, signatures on all communications and strict user authentication.

Alarm Logger Configuration Database Redundancy

Description

AlarmWorX64 Logger now uses common logic with ICONICS .NET servers to load configuration data. This method provides the ability to cache loaded configuration data and a standard way to handle online changes.

Benefits

After a configuration is loaded at least once, AlarmWorX64 Logger will be able to start, even if the configuration database is unavailable. This results in the ability to make online changes.

Use

ICONICS provides syntax to set the AlarmWorX64 Logger configuration cache. Once this has been set, users can restart AlarmWorX64 Logger to enable the database redundancy.

RecipeWorX

RecipeWorX Feature

Description

A recipe is a list of ingredients that is used to create a product. It specifies the amount of each ingredient and is categorized by product variation. RecipeWorX allows users to easily work with recipes within the GENESIS64 platform.

Benefits

RecipeWorX adds recipe control, navigation and commanding to GENESIS64. Recipes, configured in the Unified Data Manager, simplify work with a large set of data tags (recipe items). This feature allows a user to specify all of the ingredients that are necessary to a product as well as specify and sort by the quantities of each ingredient or ingredient variation.

Use

The recipe control, navigation and commanding operate similar to other controls within GraphWorX64. Each recipe consists of any number of recipe items. The Recipes branch of Platform Services in the Workbench enables users to specify a list of ingredients that are used to create a product.

Workbench

Workbench for Desktop

Description

The Workbench for Desktop is a new centralized environment for GENESIS64 product configuration and runtime operations, providing a framework for security, project management, and multimedia technology to configure alarms.

Benefits

Several providers for Workbench for Desktop, including Energy AnalytiX, AssetWorX, SNMP, Web Services, AlarmWorX64 Logger, Global Aliasing, Language Aliasing, TrendWorX64 Logger, Facility AnalytiX, BACnet, AssetWorX, Hyper Historian, Hyper Historian Express, MergeWorX, FrameWorX, and ScheduleWorX have been visually updated within the new Workbench UI.

Use

While maintaining powerful functionality, the new interface will allow for a better user experience while creating an updated, visually appealing Workbench.

Ease of Use Enhancements

Description

A number of UI updates have been made to project controls and views, import and export, tag browser control and view, TrendWorX64 axes synchronization and the TrendWorX64 Ribbon.

Benefits

These updates are intended to assist users in quicker, more intuitive configuration, import and export options, and greater control over customizable options.

Use

These new Workbench ease of use enhancements will allow the user to continue to use the powerful Workbench functionality while benefitting from greater control and customization. A variety of the new enhancements will also be internal upgrades that provide a faster response and configuration times, while not necessarily having any interface changes.

Read/Write Clients

Description

GraphWorX64 and WebHMI clients can now be marked as either read or write clients. Previously, this functionality was limited to MobileHMI and now offers the ability for a client to be set as read and write, allowing for both configuration and runtime, or as just read, which the client can view and monitor the display without being able to configure.

Benefits

Read and write client separation offers a user more specific options and configurations specially tailor to the needs of application.

Use

For GraphWorX64 and WebHMI clients set to read and write, users will notice no difference as these clients will maintain all present functionality. Distinctions between read and write clients and read only clients are configured at the user level in security.

Founded in 1986, ICONICS is an award-winning independent software developer offering real-time visualization, HMI/SCADA, energy, fault detection, manufacturing intelligence, MES and a suite of analytics solutions for operational excellence. ICONICS solutions are installed in 70% of the Fortune 500 companies around the world, helping customers to be more profitable, agile and efficient, to improve quality and 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 & gas, renewable energy, utilities, water/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 300,000 applications installed in multiple industries worldwide.

World Headquarters
100 Foxborough Blvd.
Foxborough, MA, USA, 02035
Tel: 508 543 8600
Email: us@iconics.com
Web: www.iconics.com

European Headquarters
Netherlands
Tel: 31 252 228 588
Email: holland@iconics.com

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

France
Tel: 33 4 50 19 11 80
Email: france@iconics.com

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

Italy
Tel: 39 010 46 0626
Email: italy@iconics.com

UK
Tel: 44 1384 246 700
Email: uk@iconics.com

India
Tel: 91 22 67291029
Email: india@iconics.com

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

Australia
Tel: 61 2 9605 1333
Email: australia@iconics.com

Middle East
Tel: 966 540 881 264
Email: middleeast@iconics.com

Microsoft Partner
Gold Application Development

Microsoft Partner
2014 Partner of the Year Winner
Public Sector: CityNext

VISUALIZE ANALYZE MOBILIZE CLOUD

www.iconics.com/genesis64

© 2015 ICONICS, Inc. All rights reserved. Specifications are subject to change without notice. AnalytiX and its respective modules are registered trademarks of ICONICS, Inc. GENESIS64, GENESIS32, Hyper Historian, BizViz, PortalWorX, MobileHMI and their respective modules, OPC-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.