MobileHMI™

Instant KPIs and Alerts, Anytime, Anywhere

Product Brief v10.9
October 2015

64™

ICONICS

Visualize Your Enterprise™

MobileHMI
Product Brief

Overview

MobileHMI™ is a must-have mobile software solution for anyone monitoring any critical building, manufacturing or industrial application. Designed for either on-premise or cloud based deployment, MobileHMI is remarkably easy to set up and use but, at the same time, incredibly powerful. Users can monitor and access their most important data, anytime, anywhere and on any device. MobileHMI works on hundreds of Web-enabled smartphones, tablets, browsers, HDTVs and more. Real-time access to critical data is now available to executives, engineers, maintenance technicians and operators on the go.

If you want information at your fingertips and want to see real-time, historical, alarm, energy, quality, production or other critical information, then MobileHMI is just what you need. Add MobileHMI to any existing application and quickly access KPIs, trends, alarms, scorecards, GEO SCADA visualization and more from any real-time, historical or Web service data source.

MobileHMI is a full HMI/SCADA client that is quick to download and install on your favorite smart device and securely connect to any manufacturing, industrial or building automation system. It was designed from the ground up to be simple and effective, offering smart mobile applications that can be deployed in hours with zero code and effort. Use MobileHMI with any of the latest devices such as Microsoft Windows Surface tablets, Windows Phones, iPhones, iPads, Android devices, HDTVs or any other Web-connected device.

Try it now by downloading our native apps from the Windows Store, Apple Store, Google Play Store or Amazon Store and connecting to the **mobilehmi.com** demo server. Note that selecting to add credentials will switch the connection protocol from HTTP to HTTPS.

MobileHMI Key Features

- Instant Access to Information via Smart Devices
- Designed for Secure Real-time Operations
- Easy to Set Up and Simple to Deploy
- Analytics for Phones, Tablets and Smart Devices
- Create Mobile Applications with HTML5
- Drill Down to Any Asset Detail
- Real-time Data, KPIs, Scorecards and Metrics

Benefits

- Real-time Visualization on Any Tablet or Smart Device
- One Touch to Real-time Data, KPIs and Metrics
- Drill Down to Any Detail Using S95 Asset Navigator
- Create Mobile Applications with HTML5 for Any Device
- Secure Real-time Communications
- Available for Microsoft, Apple or Google Devices
- OPC, OPC UA, BACnet, SNMP, SQL & Web Services

MobileHMI Applications

Users of MobileHMI can create real-time visualization for any device using GraphWorX64™ and the Workbench-SL to customize the application's landing page, known as the AppHub™. Dazzling graphics, alarms, trends and charts are provided to help view any operation and address inefficiencies in equipment and building performance before it impacts the bottom line. Instant alarm summaries provide guidance to facility managers, operators and maintenance personnel to take corrective action to prevent equipment failure and excessive use of energy. With applications available for devices on the major hardware providers of Microsoft, Apple and Google MobileHMI can deliver information instantly to any device. Each device has an AppHub concept that provides a consistent experience for all users regardless of device type.
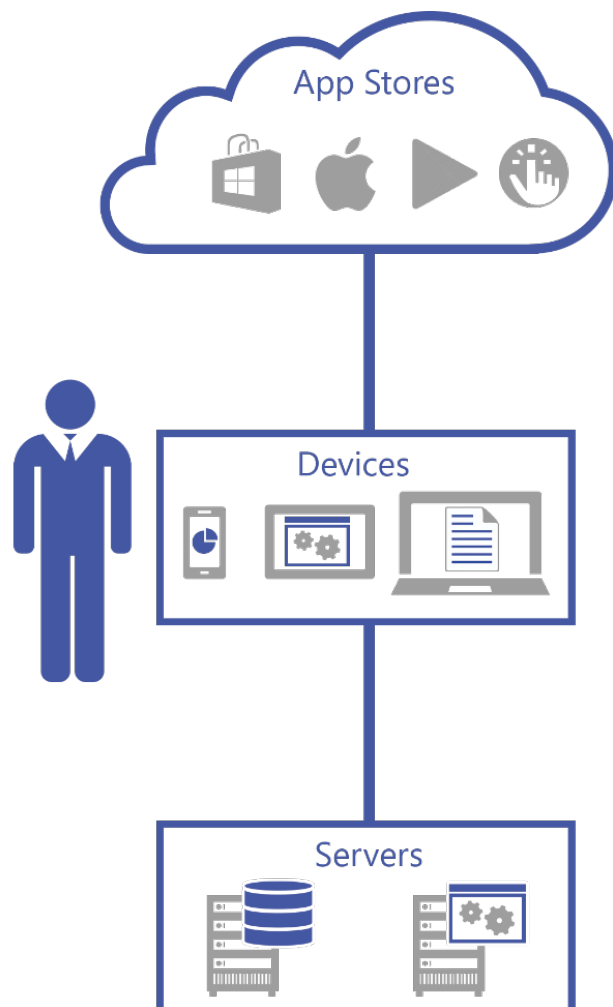
Platforms

Microsoft - Utilizing the Windows Runtime (WinRT) architecture GraphWorX64 displays can run natively on Microsoft devices while MobileHMI for Microsoft devices delivers displays, alarms, trends and assets. As the smartest of the available MobileHMI clients the Windows platform offloads much of the processing for the visualization natively on the device.

Apple - With HTML5, MobileHMI now supports Apple devices! With MobileHMI's AnyGlass Server the processing remains on the server allowing full client acces via iOS devices like iPhones and iPads. Also encompassing the AppHub, displays, alarms, trends and assets, MobileHMI is consistent experience across all devices.

Google - Also working with the HTML5 architecture, Google Android devices access the Google Play store for the MobileHMI App which will serve up the AppHub, displays, assets, trends and alarms just like any other device. This ensure consistancy, while allowing user customization on the device itself or through targeted MobileHMI Layouts.
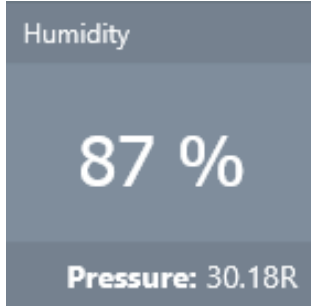
Amazon - Running via HTML5, Amazon Kindle devices can access MobileHMI through the Amazon Store for fully featured MobileHMI including AppHub, displays, assets, trends and alarms. As the newest addition to the MobileHMI family, Amazon allows for broader reach of MobileHMI.

MobileHMI™

Customizable

AppHub

The MobileHMI AppHub is a central place for all access to MobileHMI content. The AppHub serves as a landing page for all devices, but includes role-based customization for all applications. Made up of Smart Tiles it is set to automatically load when a client connects to a server providing one principal entry to your application.
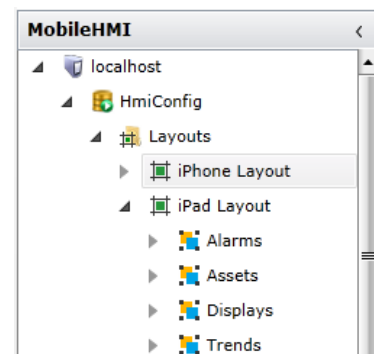
Smart Tiles

Designed for quick access to key performance metrics, Smart Tiles allow users to link to displays, assets, alarms and trends. Each Tile can include text, icons and values all allowing information to be displayed before operators get to a display. Smart Tiles can show alarm states by changing color, depict the display they link to with a background image or even contain GraphWorX64 dynamic objects as content. Reference Templates are also supported by saving GraphWorX64 created Smart Tiles for use in the MobileHMI AppHub.

Layouts

A new concept with MobileHMI is the device Layouts. These provide the AppHub configuration from the server to the client upon connection and can be used to provide role-based or device-based experiences. Each layer can be configured with a device-filter that will classify it. Some common filters that are included by default are resolution based (4:3 or 16:9), device based (phone or tablet) and platform type (iPad or Android Phone). Layouts can also be configured per role so that based on the client each operator can customize their own view of production. Hierarchical layouts can also be configured to create another level of organization.

Universal Data Access on Any Device

MobileHMI's innovative universal connectivity is built on industry open standards such as OPC Classic, OPC Unified Architecture, BACnet, SNMP, Modbus, database access and Web Services. Simply plug MobileHMI into any existing BAS, SCADA or IT network to immediately enable both cellular and Wi-Fi instant real-time access.
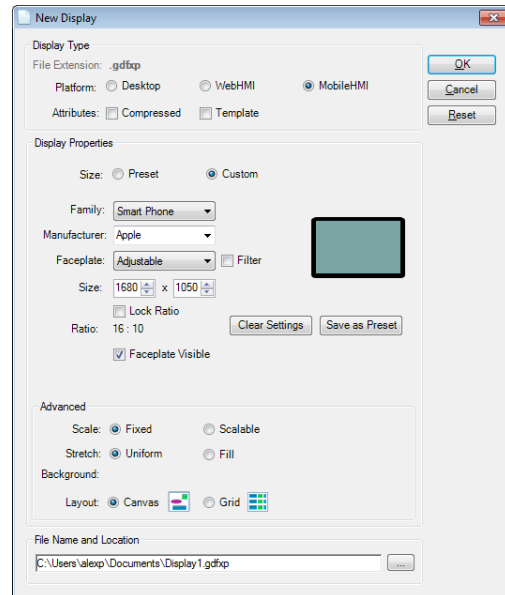
Industry Applications

- Management Scorecards
- Water and Wastewater
- Building/Facilities Automation
- Wind , Solar, Renewable Energy
- Any Process Manufacturing

- Pharmaceuticals, Bio Tech
- Oil and Gas
- Electric Utilities
- Data Centers

GraphWorX64

New GraphWorX64 HMI displays can be made using pre-defined device templates for Microsoft, iOS and Android devices or users can create customized sizes for other form factors. Full control of resolution and aspect ratio is native to GraphWorX64 already, but with MobileHMI developers can target any device type are all devices with scalable displays. To maximize screen space and provide quick information the Pivot Control and Smart Tile concepts are available as .NET Controls to be embedded in any display.

GraphWorX64 allows users to create compelling, easy to understand graphics with little training and has MobileHMI-specific properties for layering objects and locking orientation of specific layers to leverage the orientation-aware devices.

AppHub Configuration

The MobileHMI AppHub is a consistent organization for all content that is configured within the Workbench-SL's MobileHMI Provider. The AppHub is split into the concept of Layouts that will determine what Smart Tiles are shown to users and whether or not the AppHub is filtered for specific devices. Device Filters are custom or pre-configured to filter the Layouts based different factors that can distinguish devices. Each layout can contain Smart Tiles representing HMI displays, alarms, trends and assets. Configuration options include the ability to OEM the AppHub by replacing images and text throughout the app. Images for tiles can also be uploaded for use in Smart Tiles (although Smart Tile Templates can also accomplish this).
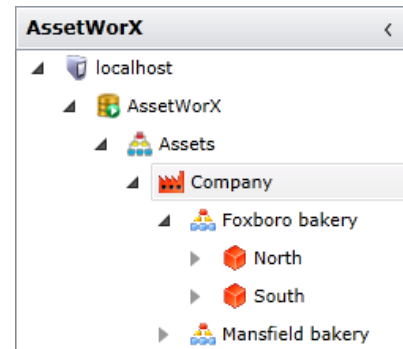
GEO-SCADA

EarthWorX maps provided by the Bing™ Maps service can be placed on GraphWorX64 for Mobile displays aligned with objects and data to create GEO-SCADA displays. GEO-SCADA allows operations to be viewed in a geographically and geo-spatially accurate manner, enhancing understanding of issues and speeding up maintenance. Combining mapping on horizontal orientation-specific layers and details on vertical layers can provide a unique and powerful view of assets with real-time data. Extend your maintenance reach with remote diagnostics in the field. Give your operations management the tools to review and acknowledge issues on the go.
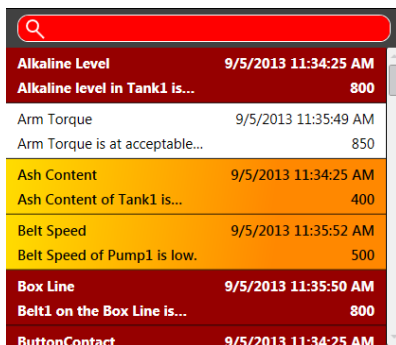
M o b i l e H M I ™

AssetWorX Navigator

The AssetWorX Navigator is an asset catalog based on the the ISA-95 navigation standard and is a centralized repository for integrating business and manufacturing intelligence systems. It provides a tree structure in which you can build your enterprise in the form of physical locations and business units, organizing assets such as buildings and machinery in one centralized system for viewing within MobileHMI. The asset tree provides a way to organize data sources (OPC, database, Web services) and physical entities in a logical hierarchical structure. For example, rather than OPC data sources being organized based on the address space of the server itself, these data sources can be organized based on the physical locations of the associated sensors (by site, building, floor, or machine).

Simple Configuration

The AssetWorX Navigator is configured through ICONICS' Workbench-SL, which is the centralized Web-based configuration application. Assets can be created and placed into hierarchical groups to represent logical grouping. Commands and images can be added to individual assets to make them recognizable and extend their functionality to allow users to get useful information pertaining to the specific asset. Creating assets is simple and intuitive, allowing for complex structures to be developed by even first time users. Users can create hierarchies and additional information to communicate details. ICONICS AssetWorX Navigator is shared between MobileHMI, GENESIS64 and the powerful AnalytiX® line of products, which allows users to leverage a streamlined navigation interface in their MobileHMI applications.
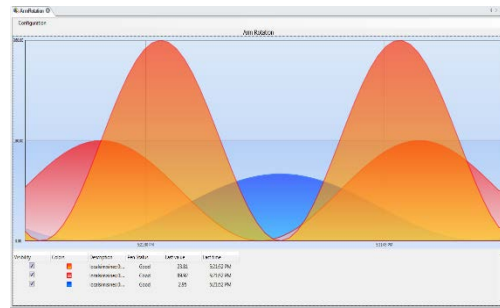
AlarmWorX64

AlarmWorX64 is a distributed enterprise-wide alarm and events management system that incorporates auto-synchronization and optimistic concurrency as standard features. Available in the standard GENESIS64 suite of applications, or as a stand-alone open series component, AlarmWorX64 offers the tools you need to deliver real-time and historical alarm information throughout your system. Viewing alarms on mobile devices is essential for full visibility of operations at any time.

For MobileHMI a new List View has been developed for easier mobile access to alarms. The view is available for all displays, but is optimized for touch interfaces and maximizing screen space. Each alarm can be tapped to reveal more information and an option to acknowledge the selected alarm. With filtering and the ability to embed alarms into any display operators have instant access to real-time alarms and events occuring in their application.

TrendWorX64

MobileHMI ™

TrendWorX64 is an enterprise-wide data collection, charting, and analysis solution. TrendWorX64 offers the tools you need to trend and chart real-time and historical data from all your enterprise assets. TrendWorX64 is OPC-UA-to-the-Core™ and provides open connectivity to any OPC/OPC-UA data source, making it an extremely versatile and comprehensive OPC trending application. This means it can easily plug and play with not only ICONICS servers and trend components, but with other 3rd-Party trending solutions, as well. Allow your operators to see what's happening in real-time or what's happened historically to give them true predictive ability.

GridWorX

GridWorX allows unparalleled access and control to enterprise data wherever it is stored. It integrates data from external and/or legacy databases for use with HMI/SCADA, storage as historical data or for real-time control. With the GridWorX Server, users can connect to data sets from any of the supported database types: SQL Server, OLEDB (x64), ODBC (x64), Oracle (via ODP.NET) and SAP. For visualization, the GridWorX Viewer is a powerful tool that allows real-time sorting, filtering and grouping as well as Read/Write support.

Industry Apps

MobileHMI has a number of Industry-specific examples for Oil and Gas, Water and Wastewater as well as Manufacturing. While these apps are just demonstrations, they represent application examples focused on the needs of each industry. All industry apps include a tutorial to help users find the features available.

Specifications

MobileHMI™

Graphics	
Technology	WinRT, HTML5
.NET Controls	GraphWorX64, AlarmWorX64, TrendWorX64, GridWorX, AssetWorX, EarthWorX, Pivot Control, Smart Tile
Orientation-Aware	Configurable
Display Extensions	
Phone	gdfxp
Phone Template	tdfxp
Compressed Versions	gdfxpz, tdfxpz
Symbol Library	sdfx, tiles.sdfx (Smart Tile Templates)
Templates	
Family	Phone, Tablet, Other
Manufacturer	Samsung, Apple, Nokia, Microsoft
Faceplate	Adjustable, Galaxy S4, iPhone 4S, iPhone 5, Lumia 920, Galaxy Tab 10.1, iPad, iPad Mini Surface RT, KindleFire HD 8.9
Faceplate Visibility	Optional
Template List	Customizable
Client Application	
Platforms	Microsoft, Apple, Android, Amazon

System Requirements

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

Minimum Hardware and Additional System Requirements:

Component	Requirement
CPU	Dual Core 64-bit processors (e.g. AMD Athlon 64 X2, Intel Xeon, or AMD Phenom)
Memory	*Minimum*: 4 GB of RAM *Recommended*: 6 GB of RAM **Note:** It is recommended that the system page file size be a minimum of four (4) times the size of installed (physical) RAM.
Hard disk	At least 4 GB of free hard disk space is required. (6 GB Recommended)
Drive	DVD Drive for installation
Display	*Recommended: Onboard Video Memory (256Megs)* *Display resolution minimum -* **1024x768, 32bit color** **DirectX 9 or 10** *Video Card or better*
.NET Framework	Microsoft .NET Framework 4.5
Web Server	Microsoft Internet Information Services (IIS) 7.0 or higher Internet Explorer, Firefox, Safari, Chrome

ICONICS
Visualize Your Enterprise™

Operating System	Any Windows 64-bit operating system, including:
	Windows Server 2012 R2 x64
	Windows Server 2012 x64
SQL Server	Microsoft SQL Server 2014
	Microsoft SQL Server 2012
	Microsoft SQL Server 2008 R2 SP1
	Notes:
	1. The connection to SQL Server data source may be either local or remote.
	2. ICONICS supports SQL databases with encryption.

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
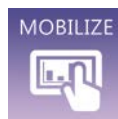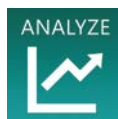Email: australia@iconics.com

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

www.iconics.com/mobilehmi