MobileHMI
Integration with GraphWorX64

APPLICATION NOTE

October 2015

Description: Guide to configuring your MobileHMI Application for Mobile Devices with advanced graphical views using GraphWorX64.
OS Requirement: AnyGlass functionality requires a Windows Server 2012 (or R2) machine to serve as a MobileHMI server, but the GraphWorX64 displays can be created on a wider variety of operating systems, such as Windows 7.

Introduction

With MobileHMI and GraphWorX64, you have the ability to create detailed graphical displays to view and interact on your Mobile Devices. You have the ability to leverage much of the existing GraphWorX64 functionality such as viewing trends with the TrendWorX64 Viewer, acknowledging alarms with the AlarmWorX64 Viewer, monitoring production with the EarthWorX64 Viewer, and much more all from your mobile device using MobileHMI.

In this application note you will create a GraphWorX64 mobile display including the Pivot Control. Then you will publish the display and view it from your mobile device.

Creating a GraphWorX64 Mobile Display

1. Open **GraphWorX64** from the Start Menu to create MobileHMI displays.

   NOTE: If you did not install MobileHMI, but installed GENESIS64, you can still create a GraphWorX64 Mobile Display from GraphWorX64.

2. Go to **File → New Settings**. Pick the **MobileHMI** platform. Choose display properties to match your desired device.

   NOTE: Choosing display properties to match the device is not mandatory. A device with properties for an iPhone can run on a Windows Phone 8, but its aspect ratio and size will best fit the iPhone.

3. Select the **Pivot Control** from the MobileHMI Configuration ribbon, click and drag it onto the display so that it fills the whole display.
4. Select the added Pivot Control from the Explorer, and then on the Properties, under "Content", edit the "Text" field to "Overview". Change the Foreground color (Text color) as you wish.
5. In the items row, select the ellipsis button to add a collection which contains three pages (alternately, you can add pages using the "Add Pages" button in the Pivot Pages group after select your pivot control).

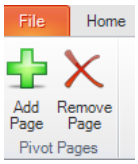

Figure 1 - Add page

6. In Explorer, right-click on a page, choose **Edit Text**, and name it, "KPI". Repeat for the other two pages, naming them "Alarms" and "Trends".

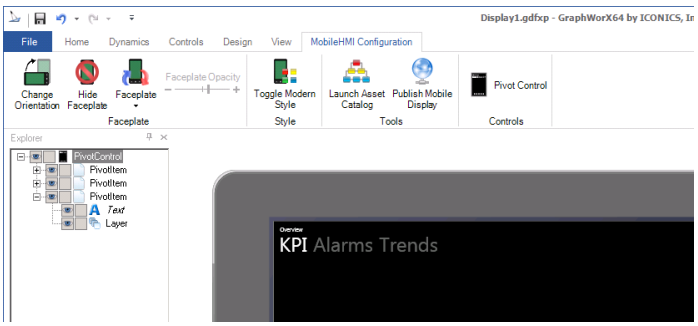

Figure 2 - Pivot Control with Multiple Pages

7. With the PivotItem for the KPI page fully expanded in the explorer, select the **Layer** that is located below it, as in Figure 3.

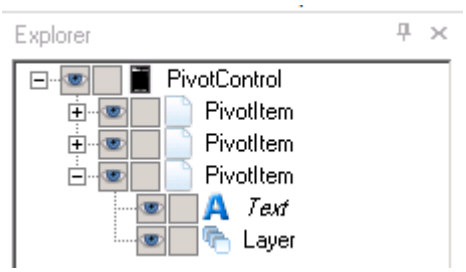

Figure 3 - Editing a Group for a PivotItem

8. With only the layer selected, you can now add various GraphWorX64 objects and controls to it. As this is the KPI page, add several process points and labels related to KPIs (Key Performance Indicators). You can use the Simulation tags for these if you wish.
9. In a similar fashion, add an AlarmWorX64 Viewer to the **Alarms** page.
10. Finally, add a TrendWorX64 Viewer to the **Trends** page and add an OPC or Simulation data source pen to it.
11. Save all of your changes, and now publish the display using the **Publish Mobile Display** button from the MobileHMI Configuration ribbon.

Copyright 2015 ICONICS, Inc.

NOTE: Publishing a GraphWorX64 MobileHMI Display is the similar procedure as publishing any other display. For more information on how to publish a GraphWorX64 display, please refer to the "GraphWorX64 – Publishing Display Using…" application notes. If you did not install MobileHMI, but GENESIS64 instead, you will want to make sure you publish path is pointing to the MobileHMI folder such as …/GENESIS64/Websites/PubDisplay**/MobileHMI**

Configuring a Single Display Layout

To configure your MobileHMI clients to see this page first when choosing your server in the MobileHMI app we need to configure it on the MobileHMI server.

1. On the server, launch **Workbench for Desktop** from Start → Programs → ICONICS.
2. In Workbench for Desktop, choose the **MobileHMI** provider.
3. Expand the provider, then right-click on **Layouts** and choose **Add Layout**.
4. Give your layout a name. It should look something like Figure 4. Click Apply.

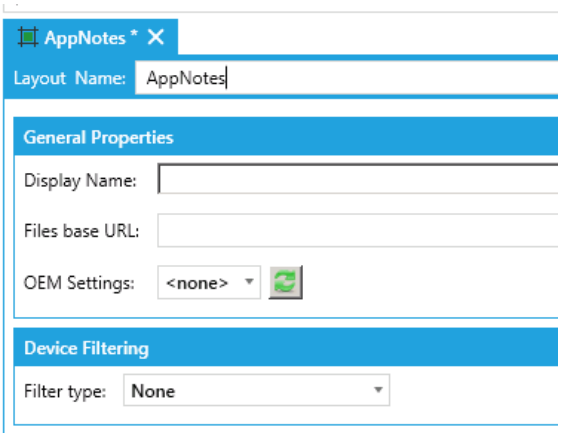

Figure 4 - New Layout

5. Right-click your layout and select **Add Group**. Give your group a name. Click Apply.
6. Right-click on your group and select **Add Tile**. Give your tile a name, then go to the Command section. Choose the "Load Graphics Display (*.gdfxp|*.gdfxpz)" command and browse for your display or enter the URL of your published MobileHMI display, such as:

http://ServerName/PubDisplay/MobileHMI/YourDisplayName.gdfxp

7. Click Apply.

Viewing the Published Page

With the page published you should now be able to view it on your mobile device. Pages can either be viewed in an HTML5-compliant browser, or opened within the MobileHMI app for your device.

Viewing in the MobileHMI app

1. If you do not already have MobileHMI installed on your device, please refer to the "MobileHMI – Getting Started" Application Note and help documentation.
2. Launch **MobileHMI** from your mobile device.
3. Connect to your server. If you do not already have a server listed, add one. Make sure you are either on the same WiFi network as your MobileHMI server or that you are using the fully qualified domain name (like mobilehmi.iconics.com). Once connected, log in if you have security enabled, otherwise you should be taken to the page you specified in your tile in the "Configuring a Single Display Layout" section.
4. To select other pages you can either tap the header, or slide your finger from right to left.

Viewing in an HTML5-Compliant Browser

To view your page in an HTML5-compliant browser, simply navigate to the AnyGlass URL of your page, such as:

http://ServerName/AnyGlass/PubDisplay/MobileHMI/DisplayName.gdfxp

NOTE: It is important to remember the "AnyGlass" part of the URL.