



FDDWorX Viewer



APPLICATION NOTE

August 2014

Description: Brief configuration of FDD Viewer to diagnose and detect faults, data presentation and drill down.

General Requirement: Basic Facility AnalytiX knowledge.

NOTE: Facility AnalytiX software solution is powered by ICONICS' FDDWorX engine. For tips relating to configuration and deployment of Facility AnalytiX, please review the application notes starting with "FDDWorX". This application note is about viewing data in FDD Viewer in PortalWorX Silverlight (SL). It is possible to use same approach to configure the FDDWorX Viewer in GraphWorX64. Both these components have same functionality and can be setup according this application note.

Introduction

This document will provide a guide on how to create the FDD Viewer instance in PortalWorX-SL page, configure the chart and the drill down so you can view the faults, causes, and diagnostics of your facility. This will also require you to already have an active configuration for FDDWorX in Workbench Silverlight. If you need more information about installation setting up the Facility AnalytiX configuration please refer to the product documentation.

It is worth to know that all components in PortalWorX-SL are always in runtime mode. By clicking an  in the tab header you can configure the component – get the configuration dialog(s).

Creating FDDWorX Viewer and its initial configuration

In PortalWorX-SL you can place a new FDDWorX Viewer web part instance by clicking appropriate hyperlink on 'Please select a control' tab/pane, in Toolbox pane or 'FDDWorX Viewer' button in the ribbon, 'Home' tab. When you place it to the PortalWorX-SL page the popup dialog for initial configuration will be opened:

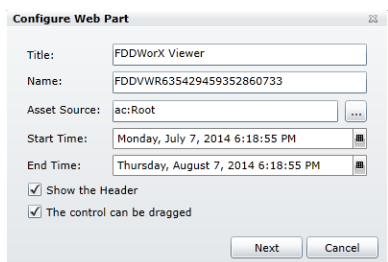


Figure 1 – Initial FDDWorX Viewer configuration

In GraphWorX64 you can place the control by clicking appropriate button in 'Controls' ribbon tab, followed by placing it in display's canvas. To configure it, you have to have object

selected and in ribbon tab 'FDDWorX Viewer Configuration' click 'Configure' button.

For detailed configuration of FDDWorX Viewer you will get a tree and three tabs: General, Appearance, and Configuration.

- **General:** It will have the setting where you can configure your chart. You will also have a selection where you can set to override inherited asset (will be explained later) and override inherited time range (when you want to have customized time frame of the diagnostic chart)
- **Appearance:** Lets you customize the appearance of the viewer.
- **Configuration:** Let you customize the configuration which you got the data from.

When you right-click on the 'Viewer' root tree item, you have many options for the viewer mode like you see on Figure 2. You can add chart, grid, tabs container, panel, or detail, and also an option to remove any of the items.

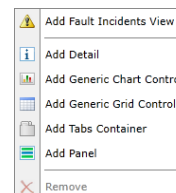


Figure 2 - Viewer options

In this application note, we are going to use Grid and Chart with option to drill down.

Creating Grid Chart

1. Right-click on the **Viewer** and select **Add Generic Grid Control**
2. In the **General tab** of the Grid, check on the **Override Inherited Assets** and select from **Specific Asset** that you want to use for the diagnostic.

NOTE: The other two options (Child of Inherited Asset and Child of Specific Asset) should be used if you bring over the configuration and/or asset list to the control property window and these options will then be used to bring those assets from that list to the grid.

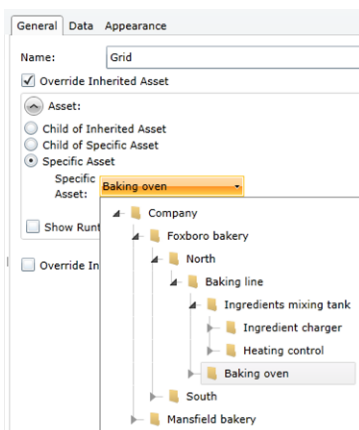


Figure 3 - Choosing Asset

3. Go to **Data** tab of the **Grid** item, and choose the appropriate **Data Query**. We would select the '**Faults**' for this section as it will be used against the cause matrix to show all of the faults that have been recorded so far. You can also modify the grid columns (to customize what you want to see in the grid) and whether to include a children asset.

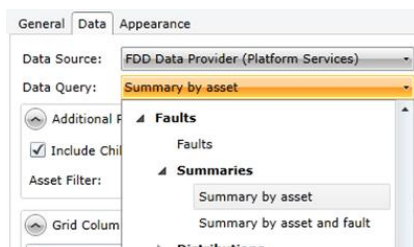


Figure 4 - Grid Data Query

4. We will now add a Row Detail to the **Grid** by right-clicking on Grid and select '**Add Row Detail**'. You can customize the general appearance of this item.
5. We will now add a chart for the grid (for the fault/cause diagnostic) by right clicking on '**Row Detail**' and select '**Add Generic Chart Control**'. You can then select any chart mode/type that you want. For this example, Radial type is selected.
6. Finally, we want to add Series to the chart. Right-click on the **Chart** and select '**Add Series**'. Go to the **Data** tab of the Series and select the '**Data Query**' to be '**Latest causes**' as we want to compare the faults to the symptoms and get a diagnostic of the facility. What we will have is the cause chart showing possibilities of causes affected by different symptoms.

7. At any point where you are configuring the data, you can always customize the mappings to show value as rank or text, hide/show legend, labeling, and/or tooltip.
8. After all this just confirm the dialog (and if you're in GraphWorX64 switch to the **Runtime** mode). You will see that for each fault that is recorded, there is a (+) column that you can expand to show the diagnostic of the causes/symptoms.

Creating Chart with Drill-down

We will also take a look at creating a chart with a drill down capability. The chart in this example will show distribution of asset and can drill down to see specific asset faults and its children.

1. While editing the web part right-click on the **Viewer** and select '**Add Generic Chart Control**'.
2. For this simple example, we are going to have a '**Linear**' chart so select that under the mode for the chart item.
3. We also want to select the **Drill-Down** to be the **Asset** so we can drill down based on the asset.

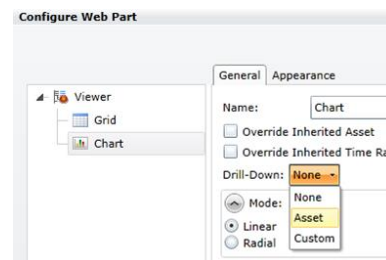


Figure 5 - Drill-Down option in Chart

NOTE: If you do not combine FDDWorX Viewer control with AssetWorX Navigator web part you should check on the Override Inherited Assets and select from Specific Asset that you want to show for this chart.

4. Right-click on the **Chart** and select '**Add Series**'. Go to the **Data** tab, and we will select the **Data Query** to be '**Summary by Asset**' under **Faults** so the chart will show asset summary that will be drillable.

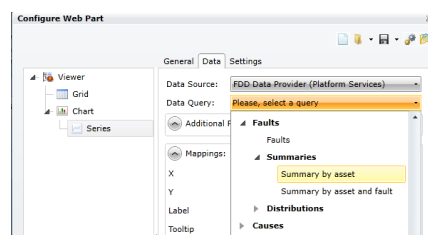


Figure 6 - Summary by Asset



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5. If you're in GraphWorX64 go to **Runtime** (otherwise you just need to confirm the configuration dialog), and you can see the chart of the specified assets (which has the faults recorded). When you click on any of the asset, it will drill down to that asset category, showing the asset and all of its children's faults. You can drill even deeper by clicking on the children bar, if it has more children. The indication of where you are in the chart is located at the top of the chart.