



GraphWorX

Using New Smart Tile Microchart Technology



APPLICATION NOTE

October 2015

Description: Guide to configuring GraphWorX Microcharts in Smart Tiles.

Introduction

Microcharts can be embedded within Smart Tiles to allow users quickly view the history of important tags at a glance. This configuration is all done from the content of a Smart Tile.

Adding a Microchart to a Smart Tile

1. Open up **GraphWorX64** by going to Start → All Programs → ICONICS → GENESIS64 → GraphWorX64 → GraphWorX64
2. Create a Smart Tile by clicking the controls tab in the ribbon, selecting smart tile, and then click and drag on the canvas. Figure 1 shows its location in the controls tab.

NOTE: Holding shift while dragging creates a perfect square.

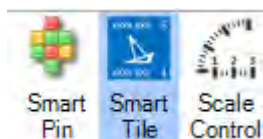


Figure 1 - Location of 'Smart Tile' in the Ribbon Menu

3. Double click on the Smart Tile to bring up the "Smart Tile Configuration"
4. Select the Content tab
5. In The Content: Field, click the dropdown ('Symbol' will be selected by default) and select 'Microchart'

Configuring a basic Microchart

1. On the Content tab of the Smart Tile configuration, right below where you selected Microchart for the Content, click the 'Configure...' button. This will bring up a Microchart Configuration Dialog
2. Under the data section, select the 'SamplingRate' for your chart- this is the time between the data points for your trends.
3. Under the series section, click the + button to add a series to your chart
4. Select this series and click the pencil button to the right to edit it
5. Give the series a name by filling in the 'Name' field
6. Select the tag to be plotted by filling out the 'Tag' field under the 'Data' section manually, or by clicking the 3 dots to the right of the tag field to open up the data browser and browse

to a tag. To display a sinusoid for instance, the tag "@sim64:Double.Sine(1,-50.0,50.0,0).Value" will suffice.

NOTE: For advanced configuration, you can select the down arrow below the tag field and enter parameters for this data. Clicking the three dots next to this field brings up a popup where you can specify DA/HDA data as well as the aggregate type.

7. Select the 'Series type' you would like for this series under the 'Type' section. Selecting the down arrow will bring up more types.
8. Under the appearance section select the fill/stroke colors, and the stroke thickness. You can fill in the Hexademical RGB value manually or by selecting the three dots next to each field to select a color. 'Opacity' can also be lowered to make the line more opaque, but will be 1 by default. Your Series configuration may resemble Figure 2. below:

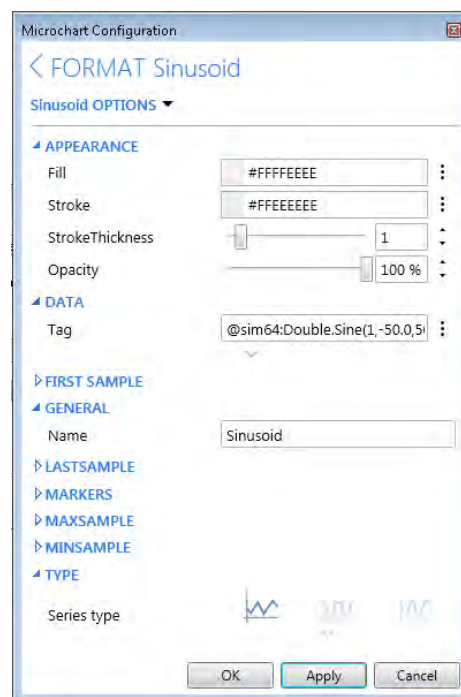


Figure 2 - Configuration of the Format Microchart Dialogue

9. Click the '<FORMAT' button at the top to return to the chart configuration.
10. Optionally repeat steps 3-8 to add more pens to the chart.
11. Expand the 'Horizontal Axis' section of the 'FORMAT Microchart' dialogue and enter a value for 'Interval (s)' (60 is default)
12. Expand the 'Vertical Axis' section of the 'FORMAT Microchart' dialogue. 'VerticalAxisMaximum' and 'VerticalAxisMinimum'



GraphWorX

Using New Smart Tile Microchart Technology



APPLICATION NOTE

October 2015

are set to 'AutoScale' by default. This enables auto scaling the axis so all of the data points will fit. This can be overridden by selecting 'Manual' and then specifying the specific values for both 'VerticalAxisMaximum' and 'VerticalAxisMinimum' fields.

Advanced Pen Configuration

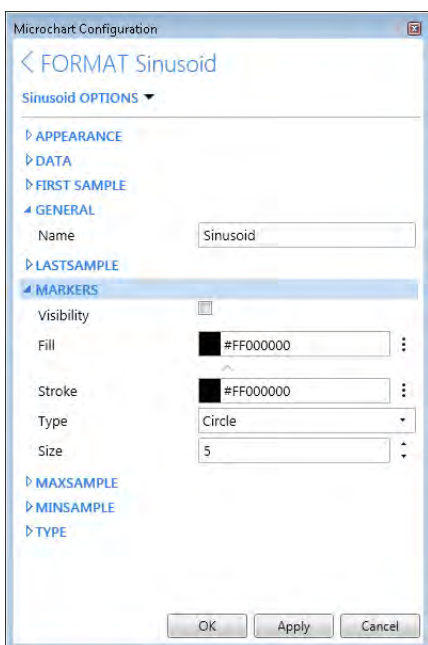


Figure 3 - Advanced Pen Configuration Dialogue

1. To add markers for the data samples of a specific pen, check the visibility field of the Markers section in the Format Series configuration dialogue (see Figure 3). Optionally specify the fill color of these markers as well. For advanced marker configuration, click the down arrow and specify the stroke, type (shape), and size of the markers.
2. To configure the first sample of a specific pen, expand the 'First Sample' section and follow the process in step 1. The same can be done for the last sample of a specific pen with the 'Lastsample' section.
3. To configure the minimum sample of a specific pen, expand the 'Minsample' section and follow the process in step 1. The same can be done for the max sample of a specific pen with the 'Maxsample' section.