GENESIS32 - Global Aliasing Quick Start

APPLICATIONS NOTE

April 2010

Description: Guide to configure and run the Global Aliasing Engine.
OS Requirement: Win 2000, XP Pro, Server 2003, Vista, Server 2008, Windows 7
General Requirement: General Knowledge of ICONICS GENESIS32 applications

Introduction

Aliases are a way of creating reusable displays with a different set of tags. The advantage of using aliases is that you could create one display and use it to display different information depending on the need.

Although Global Alias and Local Alias work in a similar way, you can use Global aliases across different ICONICS modules while local aliases are confined to GraphWorX32. You can use Global Aliases in GraphWorX32, AlarmWorX32, TrendWorX32, and DataWorX32.

Global Alias uses a central database driven engine and performs text substitution. During runtime, you select a theme that represents the value you would like to use. The alias resolves into an OPC tag or part of an OPC tag during runtime.

This document will take you through the steps of creating a Global Alias configuration and how to use it in GraphWorX32. Before we start the configuration, let's begin by exploring the Global Alias example. You can open the Floor_OVERVIEW.gdf in \Program Files\ICONICS \GENESIS32\Examples\GEN32DEMO directory. Click on the different floor buttons to see the values of the tags change.

Global Aliasing Configurator

1. Launch the Global Alias Configurator by going to Start → Programs → ICONICS Tools → Global Aliasing Configurator
2. You should see a default configuration in there. Select File → New and create a new Access configuration database by following the instructions in the configurator wizard.

   NOTE: Once you have made a new configuration active, the GenDemo file no longer works because the aliases do not exist.

3. In the tree-control in the left-hand pane, right-click on Themes and select New → Theme
4. Give the theme a name (we will use RampTags in this example), and click on "Apply"
5. In the tree-control, right-click on the Theme that you have just created and select New → Theme Item.
6. Give the theme item a name and click on "Apply"
7. Check the Default theme item checkbox. Click on "Apply"
8. Repeat steps 5-6 to two more times to create two more theme items. Your finished Theme should have three items and should look similar to Figure 1.

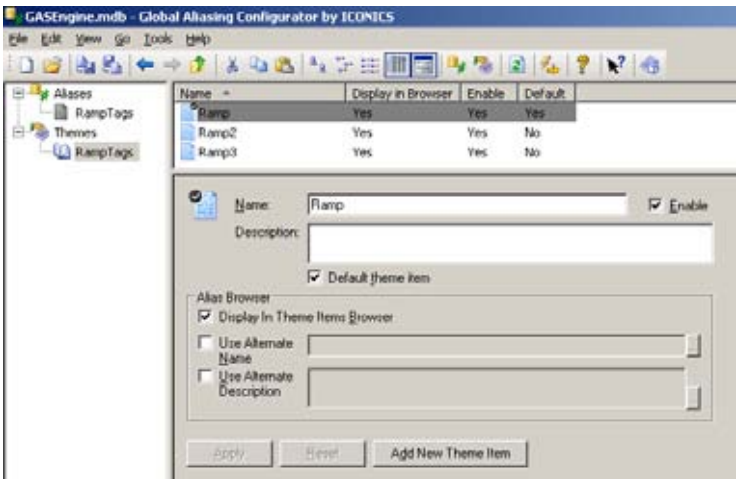

Figure 1 - Adding Themes

9. In the tree-control in the left-hand pane, right-click on Aliases and select New → Alias
10. Give the Alias a name, select RampTags as the Theme, and click "Apply". We will use RampTags (same name as the Theme) in this example.
11. In the tree-control, right-click on the alias that you have just made and select New → All Alias Values.
12. You will see that each theme has an alias value and the default value for each alias value is the name of the theme. Your configuration should now look similar to Figure 2.

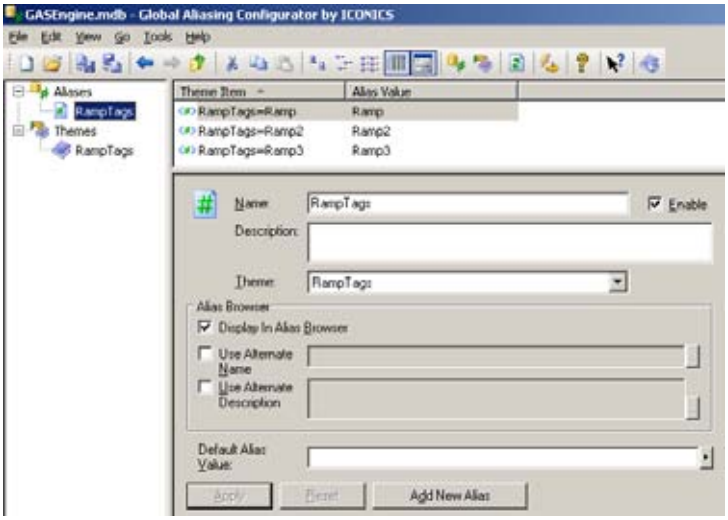

Figure 2 - Adding Alias Values

13. Go to File → Make Active to make sure this is the active configuration and then click on the "Global Refresh" button.

    NOTE: if Make Active is grayed out, then that means the configuration you are looking at is the active configuration.

Global Alias in a GraphWorX32 Display

1. Open a GraphWorX32 display by going to Start → Programs → ICONICS GENESIS32 → GraphWorX32 → GraphWorX32
2. Insert a Text Object and type in "<#RampTags#>" (without quotes) as the text of the object.

    NOTE: <#GlobalAlias#> is the syntax for global alias; <# is the delimiter of the start of the alias and #> is the delimiter for the end of the alias.

3. Insert a process point and browse to the Ramp tag in the ICONICS Simulator OPC Server. Your tag should look similar to Figure 3.

ICONICS.Simulator.1\SimulatePLC.Ramp

Figure 3 - Path of Ramp Tag

4. Replace Ramp in the tag with <#RampTags#>. Your tag should look similar to

ICONICS.Simulator.1\SimulatePLC.<#RampTags#>

Figure 4 - Ramp Tag with Global Alias

5. Add a button in the display and choose "Select GAS Theme" as the Action.
6. Click on the "Brows…" button. In the Themes window that comes up, check your Theme (it would be RampTags in this example), and then high-light it.

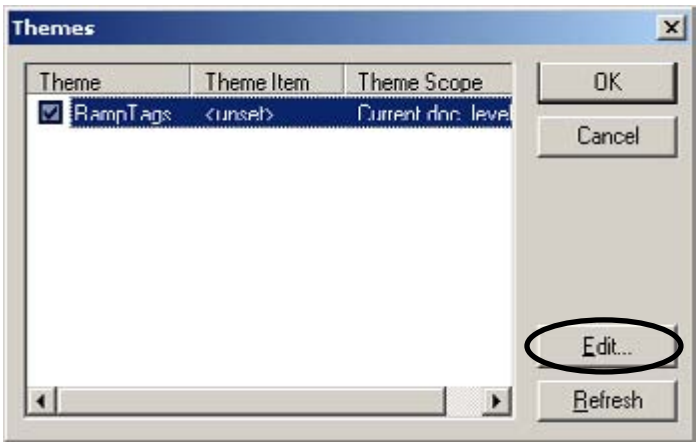

Figure 5 - Select Themes

7. Click on the "Edit…" Button. In the Theme Editor, select your first Theme value.
8. In the Theme Scope section, select Absolute and Machine in the drop down list.

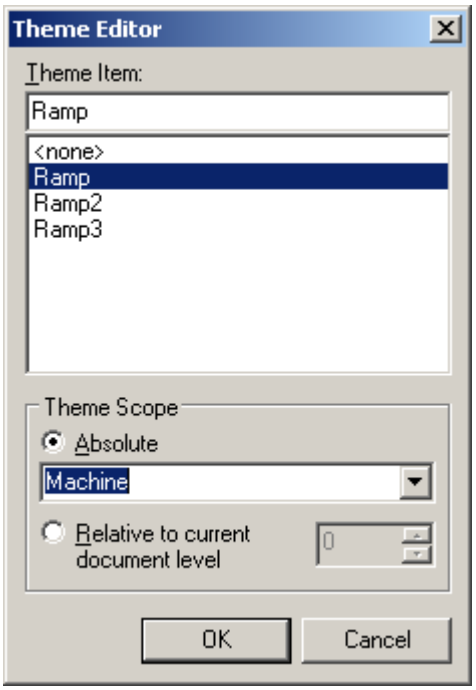

Figure 6 - Selecting Theme Value

9. Click "OK" until you are back in the GraphWorX32 working area.
10. Repeat steps 5-9 to, each time selecting a different Theme Value in the Theme Editor until you have created a button for each of the theme values.
11. Go into runtime. Your text should display Ramp and your process point should be pointing to the Ramp tag. You can mouse over the process point to look at the exact tag path to verify that it is the Ramp tag. This is because we set this first value as the default value.

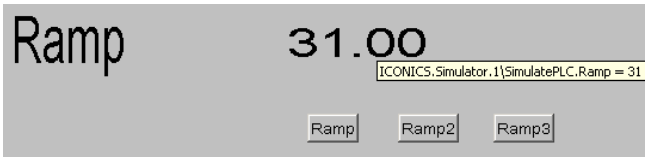

Figure 7 - Default Ramp Value

12. Click on each of the buttons now, and you should see the text value change and the process point value change. You can mouse over the process point to see the tag path being changed.

    NOTE: You will need to enable tool-tips in order to see tag path when you mouse over it.