

Description: This document is a short introduction to how Global Aliasing can be used in BridgeWorX transactions and ReportWorX reports.

OS Requirement: Win XP/Server 2003/ Server 2008/Vista/Windows 7

General Requirement: BizViz must be installed; knowledge of Global Aliasing, BridgeWorX Transactions, and ReportWorX Reports would also be helpful.

Introduction

Global Aliasing is a very powerful tool that was introduced a few years ago in GENESIS32. This functionality has also been included in the BizViz FrameWorX, and can therefore be leveraged in BizViz applications as well. This includes BridgeWorX and ReportWorX. If you want to use Global Aliasing in BizViz applications, you basically have three options:

- Default Global Aliasing Themes
- Trigger-Dependent Global Aliasing
- Global Aliasing shared with other applications

In the following sections we will discuss how to use Global Aliasing (with respect to all each of the above options) in BridgeWorX and ReportWorX. Global Aliasing is basically a way to have widely reusable BridgeWorX transactions and ReportWorX reports.

Global Aliasing in BridgeWorX

Default Global Aliasing Themes

First of all, you need to create an OPC data connector that Reads from / Writes to a data source, part or all of which – see Figure 1 - is a Global Alias configured in the Global Aliasing Configurator.

NOTE: When you click the “Tag Menu” button, you can browse for Global Aliases using the ICONICS Unified Data Browser and the “Global Aliases” tab.



Figure 1 - BridgeWorX Data Source

Now, for each transaction you create in the BridgeWorX Configurator you can select a set of default Global Aliasing Themes that should be used in the transaction. In the left-hand pane of the BridgeWorX Configurator click “Configurations” and navigate to your transaction (you may want to create a new

transaction) and click the “Advanced Mode” button. Select the “Default Global Aliasing Themes” tab. Click the top button on the right-hand side (see Figure 2) and browse for your Global Aliasing Themes to specify the Theme Item that should be used in your transaction. You can add multiple items here, as many as you want to make available to end users on the Unified Web Interface. Each of these items is linked to a Global Alias and it is represented by a value resolved in runtime.

If you specify a default Global Aliasing theme, values of the corresponding Global Aliases are by default taken into account when the transaction is executed.

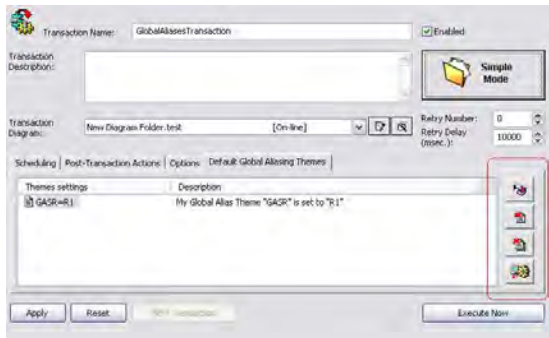


Figure 2 - Default Global Aliasing Themes

Trigger-Dependent Global Aliasing

In order to make your BridgeWorX Transactions even more reusable, you can override “Default Global Aliasing Themes” by another set of Global Aliasing Themes for each trigger configured in the transaction scheduling. As a result, the same transaction will be using different Global Aliasing Theme items when triggered by different triggers.

To configure this, navigate to your transaction in the BridgeWorX Configurator and go to the advanced options (click the “Advanced Mode” button if not already clicked). Select the “Scheduling” tab and click the “Add” button to add a trigger – see Figure 3.

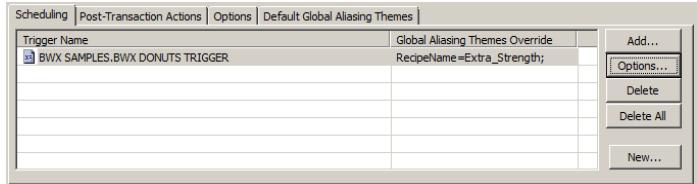


Figure 3 - Trigger Dependent Global Aliasing Themes

Note: You can use ICONICS Unified Data Manager to create e.g. Alarm Triggers. Then you can run the same transaction with different Global Aliasing setting for different alarms.

When your trigger is added, select it and click the “Options” button – see Figure 3 again. The popup dialog depicted in Figure 4 appears on the screen. Check the “Override Global Aliasing Themes with” check box and click the button on the right-hand side to add your Global Aliasing Themes (see Figure 4). When you are done, click OK.

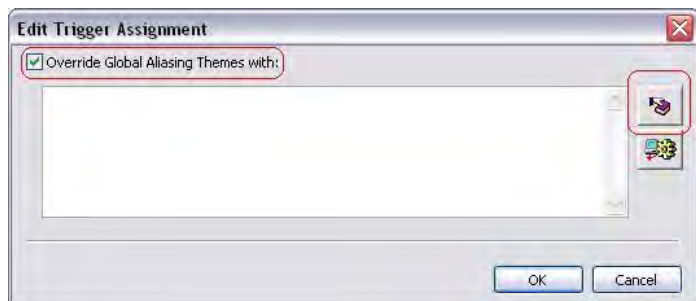


Figure 4 - Edit Trigger Assignment

You can add as many triggers and assign them to as many different sets of Global Aliasing Themes as you want – see Figure 3 for instance. Now, if your transaction is triggered by your first trigger, the first set of Global Aliasing Themes is taken into account. Similarly, if the transaction is triggered by the second trigger, the second set of Global Aliasing Themes is taken into account. In both cases the Default Global Aliasing Themes are overridden by either the first set or the second set.

Global Aliasing Shared with Other Applications

If you want your BridgeWorX transactions to use values of Global Aliases that have been changed in runtime dynamically by other applications (on the machine level), you need to delete the “Default Global Aliasing Themes” settings and/or the trigger assignment to override the Default Global Aliasing Themes for your transaction (configured in the previous sections) and make a few small changes to the DCOM settings on your Global Aliasing server machine.



Figure 5 - DCOM Configurator

Launch the DCOM Configurator by clicking on Start > Run and typing “dcomcnfg” in the command line. Navigate down the “Component Services” branch as shown in Figure 5. Locate the

“ICONICS GASEngine” item in the list, right-click it and select “Properties”. In the dialog go to the “Identity” tab and change the radio button selection from “The launching user” to “The interactive user” – see Figure 6. Do the same for the “ICONICS GASClient” item. This enables only one instance of GASClient and GASEngine to be running on the Global Aliasing server machine.



Figure 6 - DCOM Properties Identity Tab

Now, you can close the DCOM Configurator; reboot the machine, open a GraphWorX32 display and change some Global Aliasing Themes in runtime. When you execute your BridgeWorX transaction, the current Global Aliases will be taken into account also for your BridgeWorX transaction.

NOTE: GraphWorX32 is installed with the GENESIS32 Suite.

Global Aliasing in ReportWorX

Setting up ReportWorX to use Global Aliasing is very similar to the settings discussed in the previous sections for BridgeWorX. Therefore, the following paragraphs are a bit more concise, but for more details you can refer back to the “Global Aliasing in BridgeWorX” section.

Default Global Aliasing Themes

In the ReportWorX Configurator create a new report, give it a name and click the “Advanced mode” button. Select the “Global Aliasing Themes” tab and click the button circled in red in Figure 7.

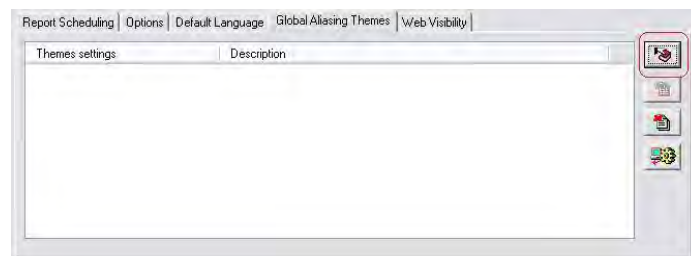


Figure 7 - ReportWorX Default Global Aliasing Themes

Select a set of Global Aliasing Theme items. Now, create a report template and use the corresponding Global Alias(es) in the template (part of or the whole path of a tag). Save the template and run the report. In the report file you will see the value(s) of data sources represented by the Global Alias(es) at the time of the report execution.

Trigger-Dependent Global Aliasing

In the same way as described for BridgeWorX you can make your report templates more re-usable if you override the default “Global Aliasing Themes” with another set of Global Aliasing Themes for each trigger (you can use multiple triggers for one report) configured in the report scheduling. Then, when the report is run it takes into account the Global Aliasing Themes corresponding to the trigger that executed the report.

In the ReportWorX Configurator, navigate to your report and in Advanced Mode view click the “Scheduling” tab. Click the “Add” button (circled in red in Figure 8) and add a trigger.

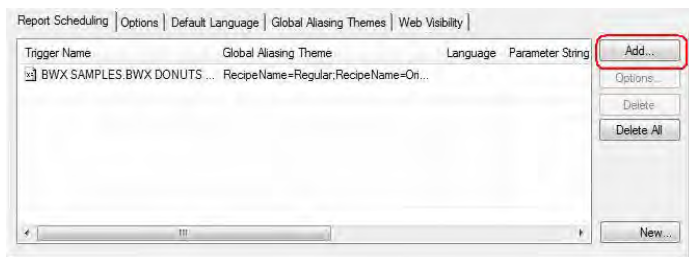


Figure 8 - Trigger Dependent Global Aliasing Themes

After it is added, select it and click the “Edit” button. Check the “Override Global Aliasing Themes with” button and add a set of Global Aliasing Theme items that should be used in your report by clicking the button on the right-hand side (circled in red) – see Figure 9.

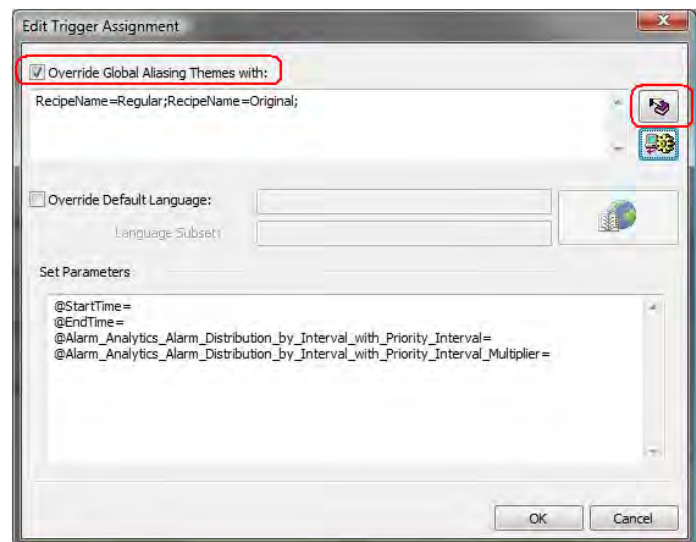


Figure 9 - Edit Trigger Assignment

You can add as many triggers and assign them to as many different sets of Global Aliasing Themes as you want – see Figure 8 for instance. Now, if your report executes due to the condition specified in trigger #1, the first set of Global Aliasing Theme items is taken into account. Similarly, if the report is triggered by the second trigger, the second set of Global Aliasing Theme items is taken into account. In both cases the Default Global Aliasing Themes is overridden by either the first set or the second set.

Global Aliasing Shared with Other Applications

If you want your ReportWorX reports to use values of Global Aliases that have been changed at the machine level in runtime dynamically by other applications (e.g. by a GraphWorX32 user), you need to delete the default “Global Aliasing Themes” settings and/or the trigger assignments to override the default Global Aliasing Themes configured for your report (see previous sections) and make a few small changes to the DCOM settings on your Global Aliasing server machine.

The DCOM settings are described in detail in the section titled “Global Aliasing Shared with Other Applications” under the “Global Aliasing in BridgeWorX” heading. Please refer to it for more details.