



Unified Data Manager

Data Registers



APPLICATION NOTE

September 2013

Description: Guide to configuring registers in the Unified Data Manager.

OS Requirement: Windows 8 x64 (Professional or Enterprise Edition) / Windows 7 x64 (Professional or Enterprise Edition) / Windows Server 2012 x64 / Windows Server 2008 R2 x64 / Windows Vista x64 SP2 (Business, Ultimate, or Enterprise Edition) / Windows Server 2008 x64

General Requirement: GENESIS64 v 10.8

Introduction

The Unified Data Manager (UDM) enables the centralized management of commonly used Expressions, Value sets, Groups, Alarm subscriptions, Filters, Recipes, and Event triggers across GENESIS64 and BizViz products.

This document will help you understand UDM registers from the configuration point of view and will demonstrate how they are used.

In order to get a global overview of all UDM functions you can refer to other application notes about this tool or the complex UDM whitepaper.

Creating a new UDM Register

1. Launch the Unified Data Manager by selecting the Unified Data Manager provider inside the Workbench
2. Expand the tree-control in the left-hand pane, until you can see "Registers", right-click on Registers and select "+ Register"

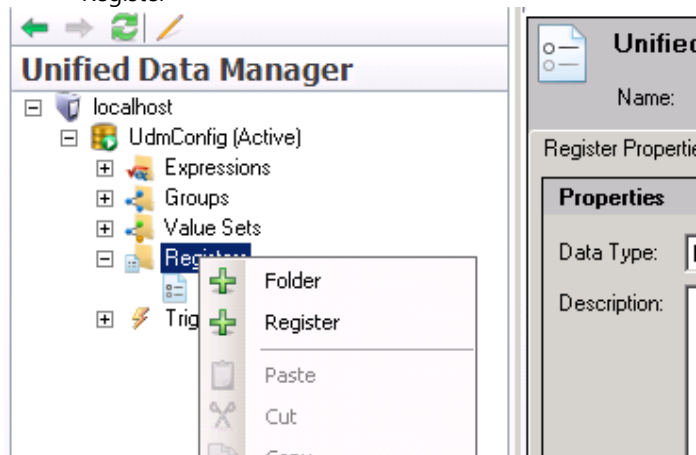


Figure 1 – Creating New Register

NOTE: You can select to create a new "Folder" instead of a new register. Folders are used to logically organize the registers.

Bridging registers

1. The default setting of a new register is for Bridging – reading and propagating Input tag to an Output tag where the two tags are not the same.

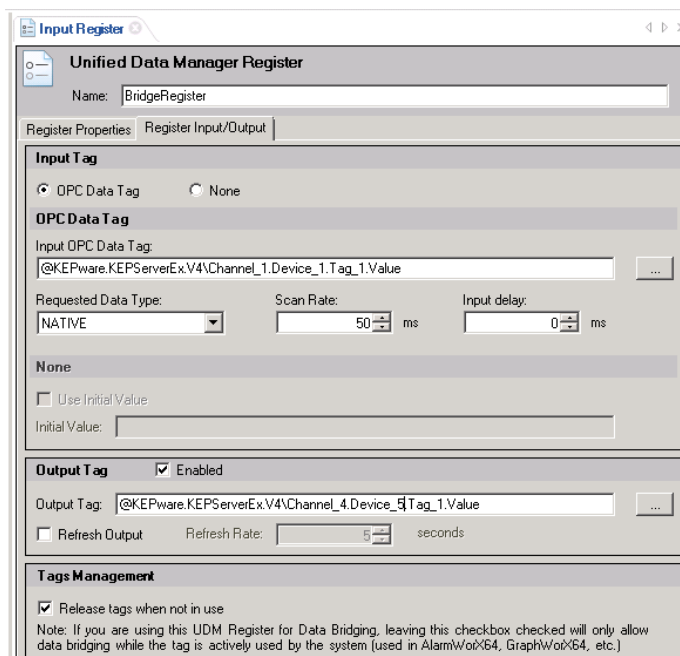


Figure 2 - Register Input / Output Tab for Bridging

2. For the purpose of Bridging you only need to select an Input OPC Point and an Output Tag. Both can be performed by clicking the "Register Input/Output" tab and clicking on the appropriate ... button, which opens ICONICS Unified Data Browser.

NOTE: Checking the "Release tags when not in use" checkbox will prevent bridging from working. This feature disconnects the Input as well as the Output tag when no client is connected to the register.

Aggregation Registers

Aggregation registers are those where the Input OPC Point is the same as Output Tag. It is usually used when you have multiple OPC servers but you want all clients to connect to only one server.



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For this use you need to disable input updates propagation on the Register properties tab.

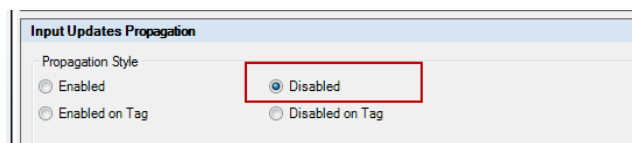


Figure 3- Register Properties Tab for Aggregation

NOTE: You can also enable/disable this feature based upon an OPC data point value.

Input registers

If not combined with an output tag, registers usually serve as holding registers or read only registers connected to another OPC point.

1. Uncheck the Output tag checkbox in the "Register Input/Output" tab.

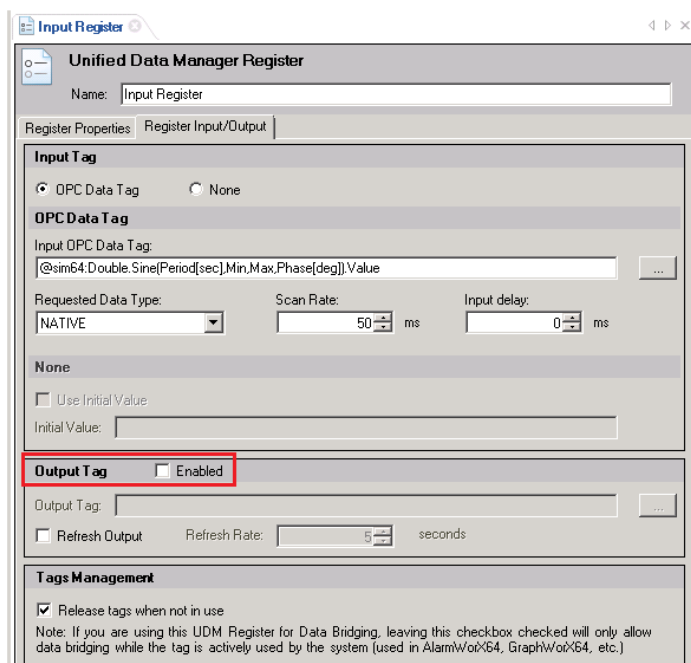


Figure 2 - Register Input /Output for Input Registers

2. Now you have a register that you can use to read the OPC point defined as the Input OPC point.
3. If you want to create a holding register select the "None" radio button. You can decide to define an Initial value.

4. Now, go under Register Properties tab and make the register Writeable.

NOTE: Making a writeable register that has an input OPC tag but no output tag is not recommended. If you enter a value in such a register, it is stored in the register but the input OPC Data Point value does not change. The entered value is propagated nowhere because there is no tag defined as the register's output.

NOTE: You can always recognize a UDM register point by the "@rgs64:" prefix in the point name.

Using UDM Registers

You can use the UDM registers in the same way as any other OPC points in your clients with the limitation described at the beginning of this document. When browsing for your registers in Unified Data Browser you should look under OPC-Servers on the left, opening "MyServer" and then "Registers".

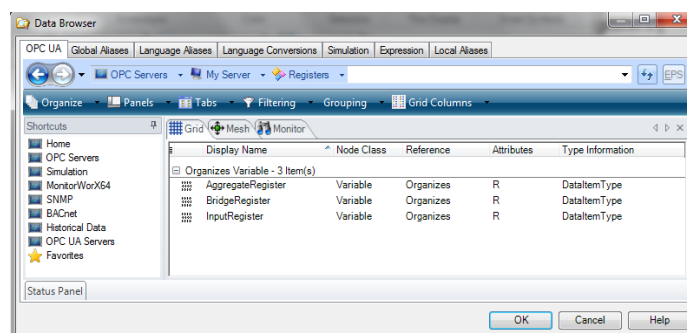


Figure 3 - Browsing for Registers

You may have noticed that there is a traffic light icon in the Unified Data Manager's toolbar. All items in the Unified Data Manager are available and work regardless the status of this light except for registers. If you want the registers to work you need to start this traffic light; if the light displayed on the Start/Stop traffic light is Green, your services have started.