

Description: Guide to setting up GenBroker for remote communications to a legacy OPC server.

OS Requirement: Windows Server 2003 x64/Vista x64/ Server 2008 x64.

General Requirement: Installation of GENESIS64.

Introduction

All GENESIS64 clients to server OPC data communications go through the FrameWorX64 server, which is an OPC UA server. Communicating through this server has many benefits; however, there will be times that you need to use the GenBroker/GenClient technology for communication.

Consider the scenario where you are running an OPC DA server on a remote machine, let's call it PC1. On PC2, you have installed GENESIS64 and you need to get data from the PC1's OPC DA server. Note that in this case the PC2 is the OPC client to the OPC server on PC1. In GENESIS64, the information needs to go through the FrameWorX server. There is backwards compatibility built into the FrameWorX server. If it detects the remote communication is to a legacy server (e.g. OPC DA, HDA, or A&E), it will switch to use the GenBroker/GenClient technology to obtain the data.

In this document, we will detail the steps necessary for you to receive data in a GENESIS64 system in the scenario described above.

Server Side Settings

On the machine where your OPC server is running, the only thing you need to do, apart from DCOM configuration, is to install GenBroker and run it. You can use e.g. the standalone GenBroker installation that can be found on any GENESIS32 v9.0 or higher versions. For OPC communication, any version of GenBroker can provide OPC data to any version of GENESIS32 or GENESIS64.

NOTE: For third party OPC server communication you can use DataWorX32 Tunneling. You can refer to the application note *DataWorX32 - OPC Tunneling*.

Client Side Settings

On the machine with GENESIS64 installed we need to do most of the work. For the most part, it works out of the box, but follow the steps below to make sure that it is setup correctly.

1. Start Workbench by going to Start → Programs → ICONICS → Workbench.
2. In the Project Explorer section of the Workbench, click the FrameWorX Configuration  button.

3. Expand localhost → Classic OPC and right-click GenBroker to select "Edit on New Tab".

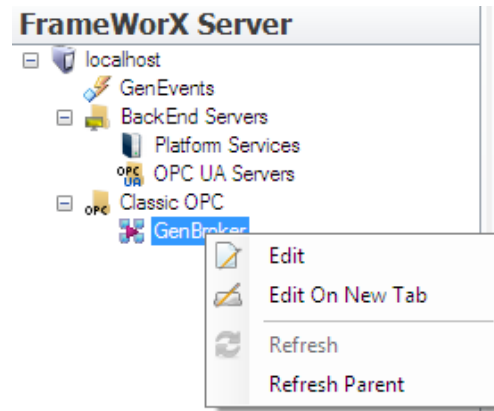


Figure 1 - FrameWorX Configuration: GenBroker

4. The GenBroker configuration should open in a new tab on the right-hand side displaying the Channels tab.
5. The default channel is **OPC over TCP/IP Direct Channels**. If you would like to use a different channel for default, you can right-click the channel and select "Set as Default". If you are not sure which channel to select as the default one, you can refer to the application note *GenBroker - Which Communications Channel is Right for You* from GENESIS32 v9.2 for more information.
6. On this tab, you can also create new channels. You generally will not need to create one. However, in some cases where there is a firewall between your GENESIS64 machine and the remote OPC server, for example, you may need to create a mediator node. In such cases, you can simply click the preferred channel of communication and enter your mediator node name or IP address.

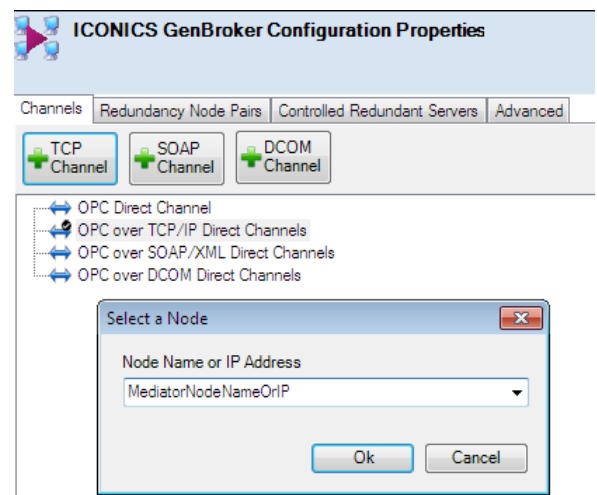


Figure 2: Mediator Node

7. With this information configured, you should be able to browse the remote OPC Server

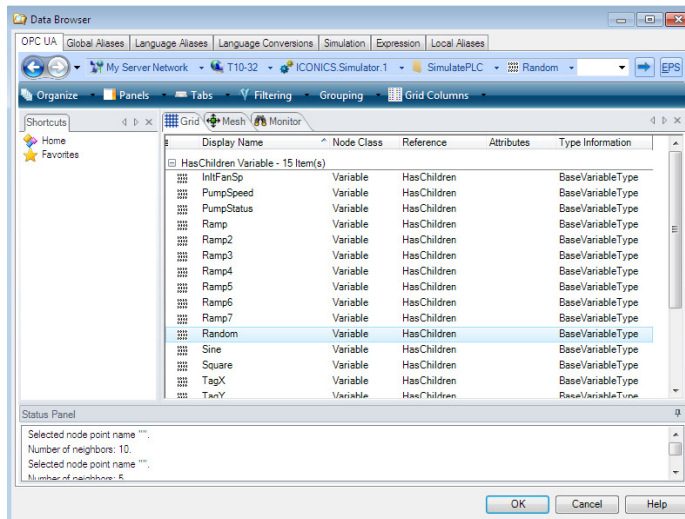


Figure 3: Browsing Remote OPC Server via GenBroker

8. With this information configured, you should be able to also get data from your remote OPC Server

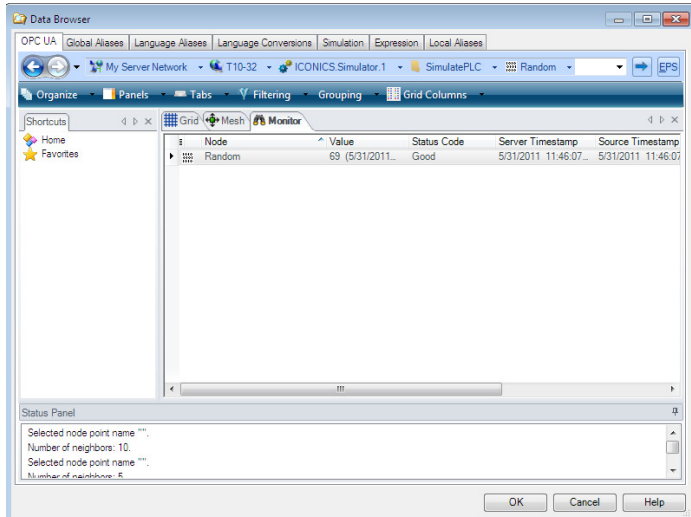


Figure 4 - Remote Tag Value in Monitor View of Data Browser

Additional GenBroker Settings

In order to provide more options for the user or project specific needs you can also use ICONICS GenBroker Configuration Properties to setup

- Redundancy Node Pairs including detailed properties
- Controlled Redundancy Servers and Controlling Point
- Advanced settings

These settings allow you to tune the OPC communication with ICONICS GenBroker/GenClient technology for the client machines. These settings are the same as they were in GENESIS32. For more information on these settings, you can refer to the various application notes available on our web site.