

Description: Guide to the new features of the ICONICS OPC Simulator version 3.12

OS Requirement: Win 2000 Pro/Server, XP Pro, Server 2003, Server 2008, Server 2008 R2, Windows Vista, Windows 7

General Requirement: Installation of OPC Simulator v3.1 and GENESIS32 version 9.x.

Introduction

ICONICS provides a few simulation OPC servers for you to test with our other products. One of these servers is the Simulator OPC Server v3.12. This server includes many features that were not in version 2.x

Version 3.12 of the Simulator OPC Server supports XML DA tags. To view XML DA, you will need IIS 5.0 or higher installed on your machine. If IIS is not already installed, during installation, it will NOT ask if you would like to install XML-DA.

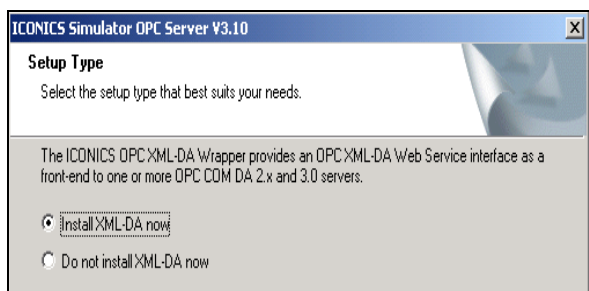


Figure 1 - Installation of XML Data with IIS Installed

NOTE: To setup OPC XML-DA, please refer the application note entitled *GENESIS32 - Using OPC-XML-DA*.

This version also includes an OPC Server diagnostic tool called OPCAdmin, which provides information about the OPC Server.

The intention of this document is not to describe these features; instead, we will describe how to setup the Simulator OPC Server for you to get simulated data.

Alarm Definitions

1. To Create an Alarm Definition, right-click on the Alarm Definitions folder.
2. You can choose to create a Limit Alarm Definition or a Digital Alarm Definition.

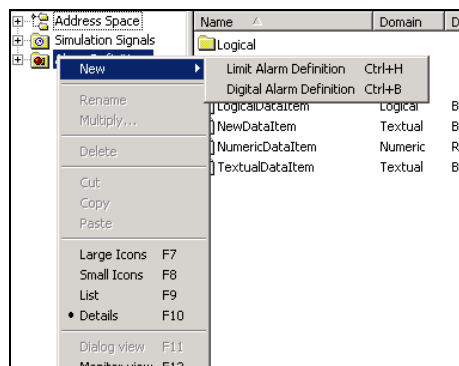


Figure 2 - Creating New Alarm Definitions

3. For a Limit Alarm Definition, specify the limits for the various alarms and corresponding messages and the alarms will go off when the criteria are met.

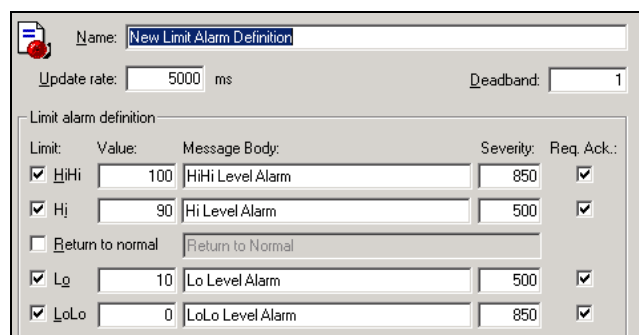


Figure 3 - Creating a Limit Alarm Definition

4. For a Digital Alarm Definition, specify when the alarm should go off and the corresponding message.

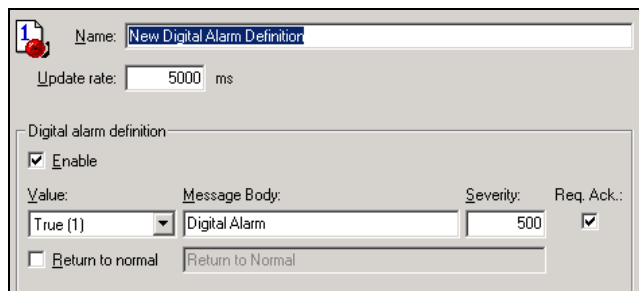


Figure 4 - Creating a Digital Alarm Definition

Adding Simulation Signals

1. Start the Simulator OPC Server by going to **Start → Programs → ICONICS Simulator OPC Server 3.12 → Simulator OPC Configurator**
2. Right-click on **Simulation Signals**. Follow the appropriate steps for creating a Numeric, Logical, or Textual simulation signal.

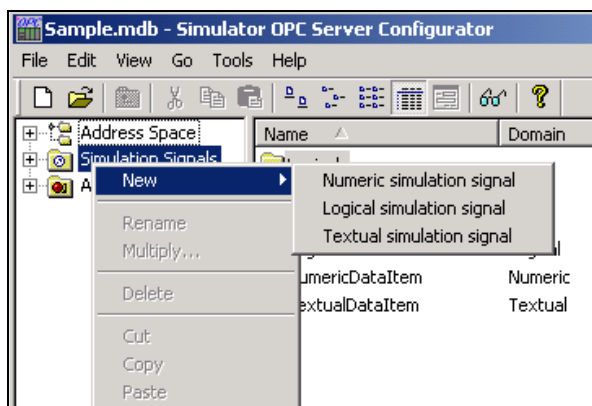


Figure 5 - Creating a new Simulation Signal

3. Numeric Simulation Signal

- a. Select Numeric simulation signal
- b. In a new Numeric Simulation Signal, you can choose from nine different types of signals and each type has eight parameters that can be set, as shown in Figure 6.

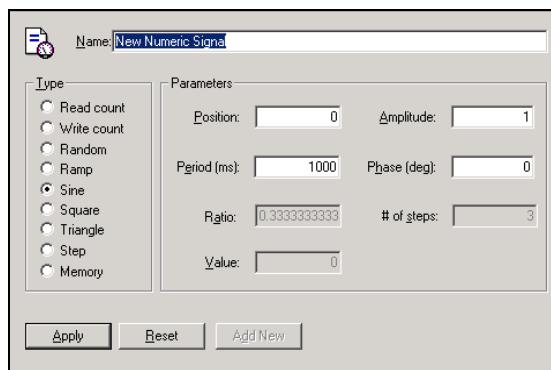


Figure 6 - Creating a new Numeric Simulation Signal

4. Logical Simulation Signal

- a. Select Logical simulation signal
- b. In a new Logical Simulation Signal, there are three types of signals and each type has three parameters that can be set, shown in Figure 7.

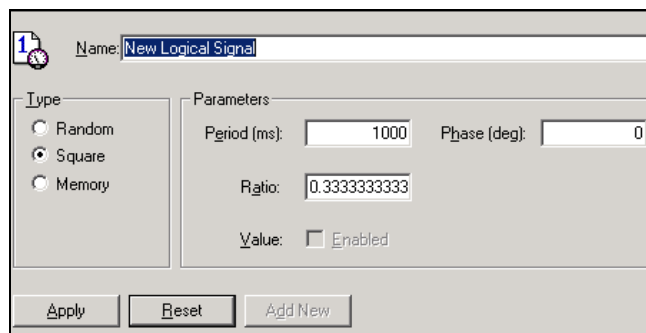


Figure 7 - Creating a new Logical Simulation Signal

5. Textual Simulation Signal

- a. Select Textual simulation signal
- b. In a Textual Simulation Signal, there are three types of signals to choose from and each signal has six parameters that can be set, as shown in Fig. 5.

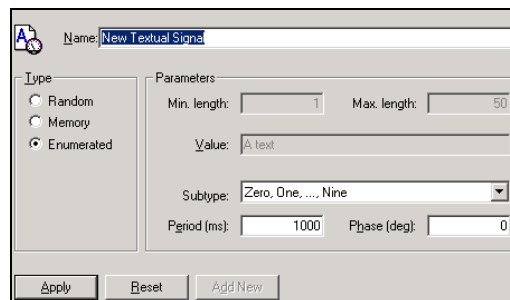


Figure 8 - Creating a new Textual Simulation Signal

Address Space

The Address Space is where you create new DA tags or select existing ones.

- Right-click on the Address Space folder to create a new DA tag or select an existing one.
- Select **New → Data Item**.

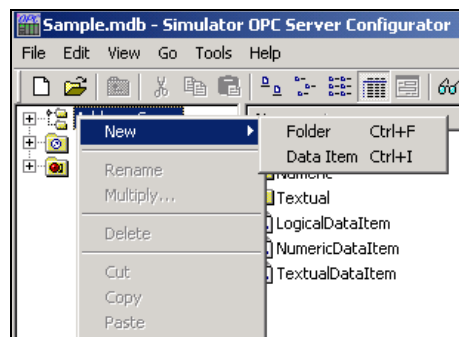


Figure 9 - Creating an OPC DA Tag

- When creating a new data item, you can select between three types of data signals: a Numeric data signal, a Logical data signal, or a Textual data signal.

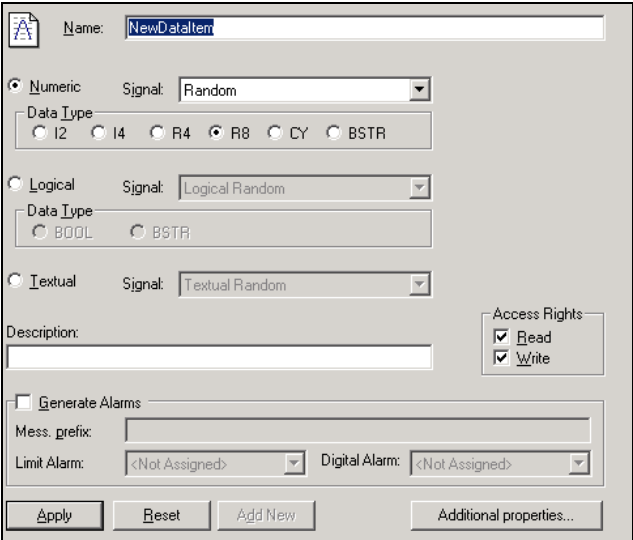


Figure 10 - Creating a New Data Item

- You must then select a signal that you have created in the Simulation Signal section. Depending which type of signal you have chosen, it will populate a different drop down with that type of signals in it.
- For each data signal, you can choose the type of simulation signal to associate with it.
- You can give read and write permissions to this address space by checking the respective checkboxes in Access Rights. You must check both boxes if you want both read and write access to the address space.

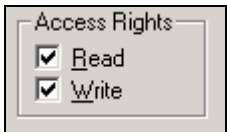


Figure 11 - Address Space Access Rights

- You can choose to generate alarms by checking the Generate Alarms check box at the bottom and specifying the desired Alarm Definition created in the Alarm Definition section.

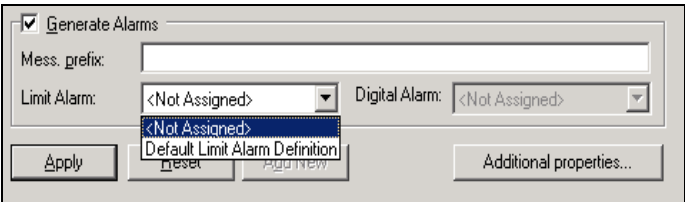


Figure 12 - Generating Alarms

NOTE: You can view these alarms from Alarm Viewer by subscribing to this OPC Simulator Server.

Multiply Tags

- To multiply tags, right click on any data items and choose **Multiply** from the pop-up menu.
- In the dialog that opens, you can specify the starting number, the numerical places, the number of tags to create and the base text.

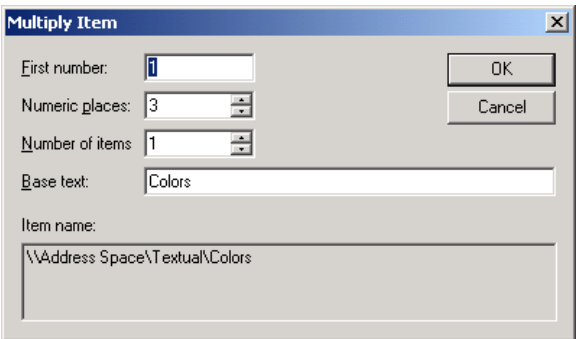



Figure 13 - Multiply Tags

Monitoring Tags

Click on the  icon from the toolbar to open the monitor pane at the bottom to monitor tags. This allows you to see all tags with live data.