

Description: Guide to configuring and running the AlarmWorX32 Server

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

General Requirement: Installation of AlarmWorX32

Introduction

AlarmWorX32 manages the Alarm and Event (A/E) information of your SCADA application. In particular, the ICONICS Alarm Server generates different types of alarms when configured correctly in the Alarm Configurator.

The server is an OPC A/E Server and an OPC Data Access client. The server monitors your process data and generates alarms as a server while allowing you to access alarm tags as process points as a client.

Once you have created a configuration, you can export it as a CSV (Comma Separated Variable format) file or XML file for bulk editing of alarms or easy transport of configuration to a another computer.

This application note will walk you through the necessary steps to create an alarm configuration to generate alarms.

Configuring a Limit Alarm

1. Start the Alarm Server Configurator by going to Start → Programs → ICONICS GENESIS32 → AlarmWorX32 → Alarm Server Configurator

NOTE: If this is the first time you are using the AlarmWorX32 Server Configurator, you will already have a configuration in it.

2. Select File → New, and follow the on screen instructions to create a new Configuration file.

NOTE: For most configuration files, an MS Access database should be sufficient.

3. Once you have created your Configuration database, right-click on Alarm Configurations in the tree-control on the left-hand side, and select New → Configuration.



Figure 1 - Creating New Configuration

4. Give the configuration a name, an optional description, and check the Default (Active) Configuration option and then click n the “Apply” button.

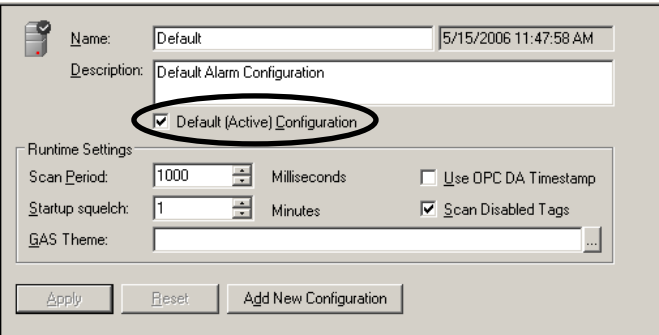


Figure 2 - Alarm Configuration Properties

5. In the tree-control on the left-hand pane, you should now see the configuration you have just created.
6. Right-click on the configuration and select New → Tag.

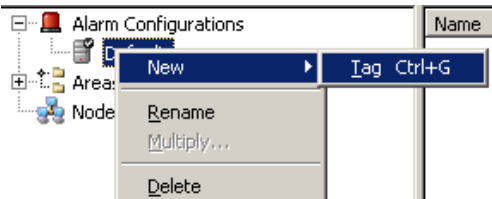


Figure 3 - Adding New Alarm Tag

7. Give the tag a name and click on  Button, select “Unified Data Browser...” to select an OPC Input tag in which you will use to generate alarms.

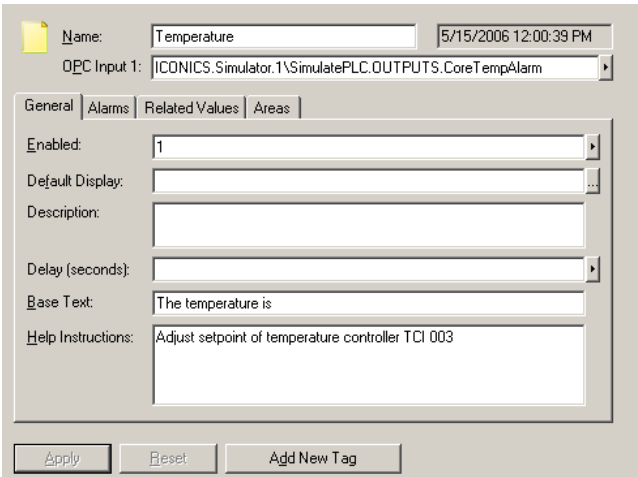


Figure 4 - Tag Properties General Tab

NOTE: Depending on the tag you have selected and how your want alarms to be generated, you will create different types of alarms. For this example, we will create a limit alarm.

8. Click on the Alarm Tab and make sure that the “Limit” button is selected.

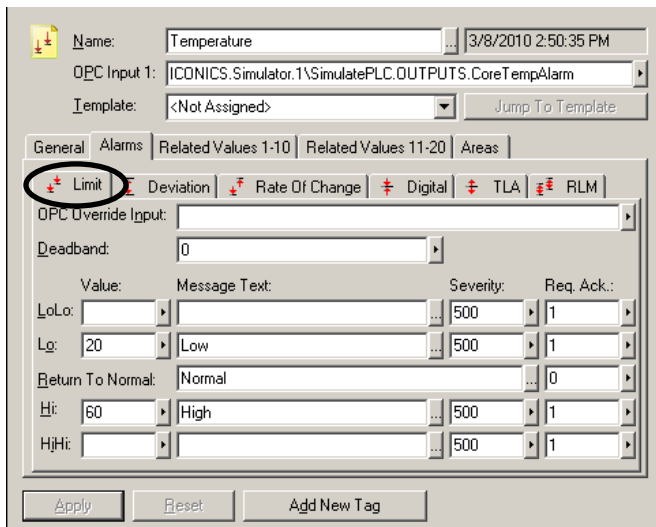


Figure 5 - Creating a Limit Alarm

9. Set the LoLo, Lo, Hi, and HiHi values to generate an alarm. Any values of your tag on or below your LoLo limit will generate a LoLo alarm; values between the LoLo and Lo limit will generate a Lo alarm; values between your Lo and Hi Limit will be consider normal; Values between your Hi and HiHi limit will gernearete a Hi Alarm; and values on or higher than the HiHi limit will gerneate a HiHi alarm.
10. You can set different severities to these limit values. The Severties are OPC define severity values that go from 0-1000.
11. You can also specify if the alarm requires an acknowledgement. A 1 in the Req Ack field means the alarm requires acknowledgement; a 0 means it does not require acknowledgement.
12. You should not be able to generate an alarm for the OPC tag you have selected.
13. You can view the alarm in the Alarm Viewer ActiveX.

NOTE: For information on how to view alarms, refer to the apploication note entitled *AlarmWorX32 Viewer – Alarm Viewer ActiveX Quick Start*.

Configuring a Digital Alarm

1. Right-click on the alarm configuration that you have created in the previous section and select New → Tag.
2. Give the Alarm a name, a description, and click on the button to bring up the Unified Data Browser to select a Digital Tag for your OPC Input 1.
3. Click on the Alarms tab and select Digital.

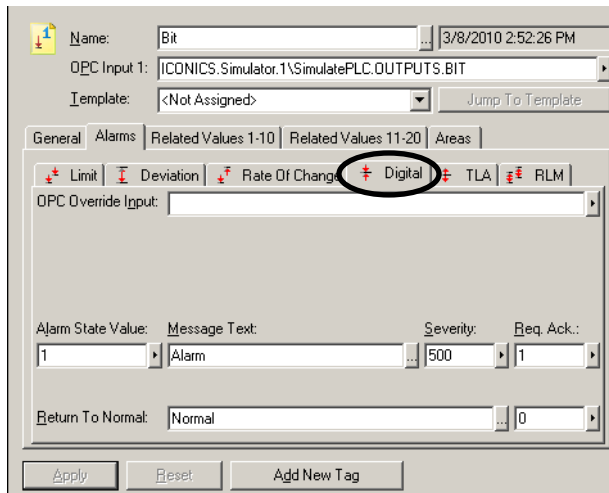


Figure 6 - Creating a Digital Alarm

4. Give the alarm state value (either 1 or 0 since this is a digital tag) and an alarm message.
5. Click on “Apply”.
6. You should now be able to change state of the digital tag you used in OPC Input 1 to generate an alarm.

Using Areas

1. You can use areas to group alarms for better organization. In the tree-control on the left-hand pane, right click on Areas, select New → Area.
2. Give your area a name and an optional description.
3. To add an alarm to the area, browse to your alarm configuration and select the alarm.
4. In the alarm properties, select the Area tab.
5. Click on the “Add” button.
6. In the Select or Enter Area name window, double click on the area that you have created in Step 2 and then click on “OK”.
7. You should see the area listed in the alarm properties.



Figure 7 - Associating an Area to an Alarm