

Using Iconics GraphWorX with Hach's OPC Servers

Introduction

GraphWorX is the graphical interface portion of Genesis32. This document describes how to create an Iconics GraphWorX display screen, and how to connect it to a Hach OPC (OLE for Process Control) Server.

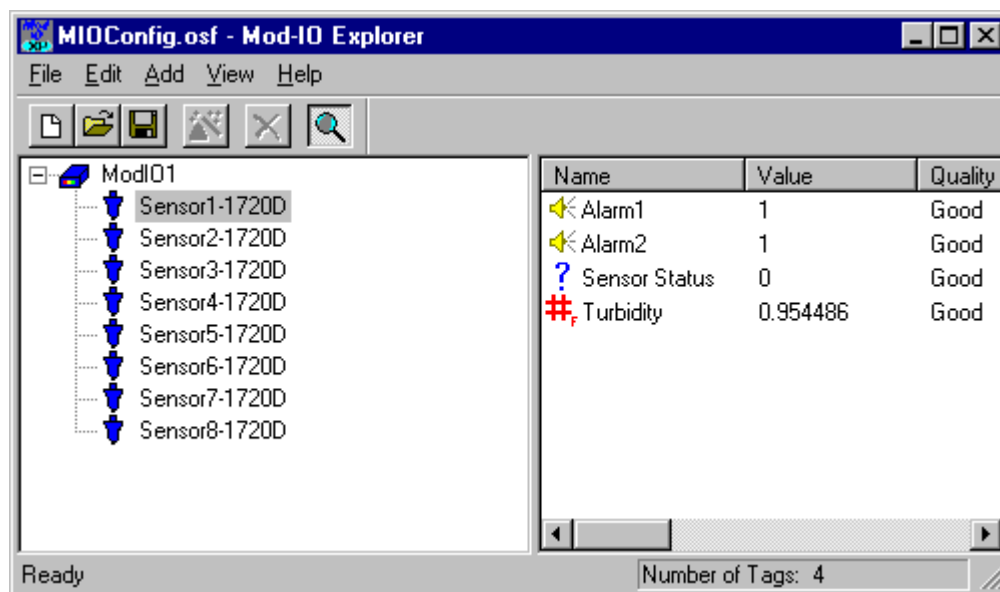
System Requirements

- Pentium 166 MHz or faster processor with CD ROM Drive
- Windows® 95, 98, NT 4.0 or higher (NT recommended)
- At least one Hach OPC Server (such as MOD I/O Explorer)
- Iconics Genesis32 Enterprise Edition (Both GraphWorX32 and TrendWorX32 required)

Configuring an OPC Server

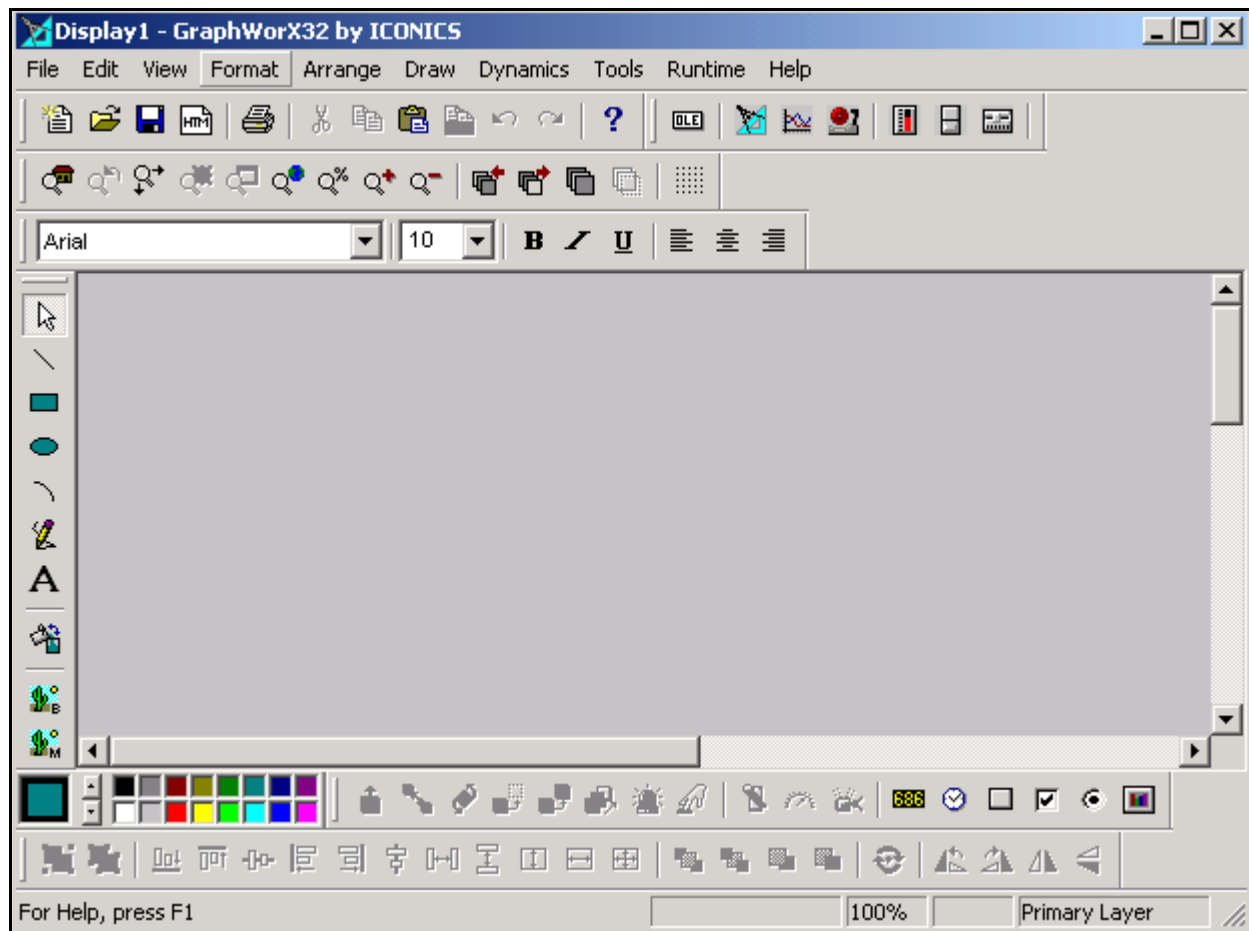
Hach provides a full suite of OPC Servers for various process instrument lines. These are analogous to print drivers included with Windows printers. Before running Genesis32, configure the MOD I/O Explorer OPC Server as follows:

1. Click Start > Programs > Hach > MOD I/O Explorer.
2. Search for devices by clicking the magic wand toolbar button.
3. After all devices have been discovered, click File > Save. For more information, see the help file for the particular OPC server. A configured MOD I/O Explorer OPC Server is shown below.



Starting GraphWorX

1. Start GraphWorX by clicking the Windows Start button, followed by Programs > Iconics Genesis32 > GraphWorX32 > GraphWorX32. A blank design screen appears:



Configuring GraphWorX32



1. Click on the Process Point icon (shown to the left) in the Dynamics Tool bar at the bottom of the GraphWorX window.
2. Click on the design space in the GraphWorX32 window. The following dialog box will appear:

The screenshot shows the 'Property Inspector' dialog box with the 'PPT/DE' tab selected. The dialog is divided into several sections:

- Data Source:** Includes a checkbox for 'Drag/Drop Data Source' and a text field. To the right are buttons for 'OPC Tags...' and 'Tags Menu...'.
- Point Type:** A group box containing:
 - ☒ Update
 - ☐ Data Entry
 - ☐ Confirm
 - ☐ Keypad
- Data Type:** A dropdown menu set to 'DOUBLE'.
- Format:** A dropdown menu set to 'xxxxx.xx'.
- Initial Value:** A checkbox labeled 'Initial Value:' followed by a text field containing '0'.
- Input Range:** A checkbox labeled 'Input Range'. Below it are 'Low:' and 'High:' labels, each followed by a text field and an 'OPC ...' button.
- States:** A button labeled 'States...'.
- Object Name:** A text field.
- Description:** A text field with a small icon button to its right.
- Custom Data:** A text field with a small icon button to its right and a 'Custom...' button.

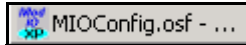
At the bottom of the dialog are four buttons: 'OK', 'Cancel', 'Apply', and 'Help'.

3. Click on the OPC Tags button to open the OPC Universal Tag Browser.

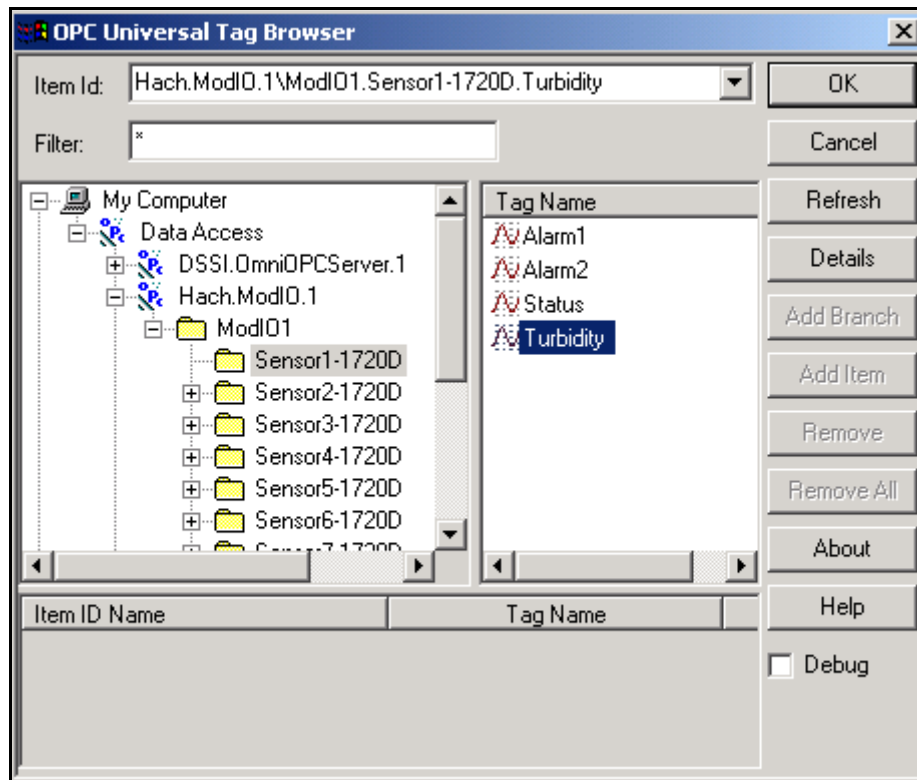
Application Note 109

- Expand the tree on the left list box by clicking on My Computer > Data Access > Hach.ModIO1 > ModIO1 > Sensor1-1720D.

Note: Clicking on the item (Sensor1-1720D) will launch the OPC server. This icon will appear on the task bar (usually located at the bottom of the screen).



- Click on the sensor value in the right-hand list box (Turbidity in this example) then click OK.



- Click on the down arrow next to the Format box and change the format to be x.xxx (lower case x required). Click OK.

The screenshot shows the 'Property Inspector' dialog box with the 'PPT/DE' tab selected. The 'Data Source' field contains 'Hach.ModIO.1\ModIO1.Sensor1-1720D.Turb'. The 'Point Type' section has 'Update' checked. The 'Data Type' is set to 'DOUBLE' and the 'Format' is set to 'x.xxx'. The 'Input Range' section shows 'Low' and 'High' values both set to '-3.402E+38'. The 'Object Name', 'Description', and 'Custom Data' fields are empty. The 'OK', 'Cancel', 'Apply', and 'Help' buttons are at the bottom.

Property Inspector

Text PPT/DE

Data Source: ☐ Drag/Drop Data Source
Hach.ModIO.1\ModIO1.Sensor1-1720D.Turb OPC Tags...
Tags Menu...

Point Type

☒ Update
☐ Data Entry
☐ Confirm
☐ Keypad

Data Type: DOUBLE
Format: x.xxx
☐ Initial Value: 0

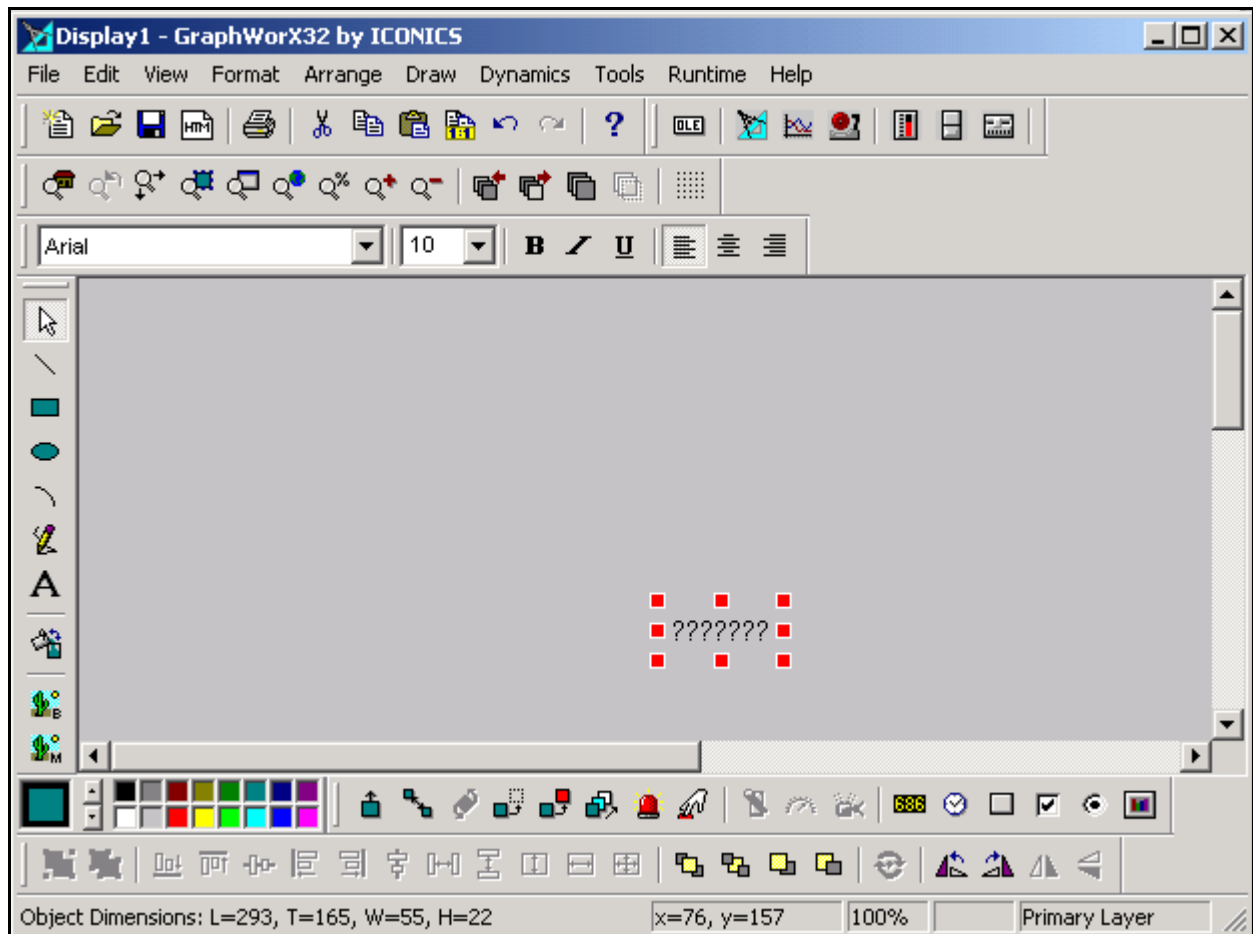
☐ Input Range
Low: -3.402E+38 OPC ...
High: 3.402E+38 OPC ...
States...

Object Name:
Description:
Custom Data: Custom...

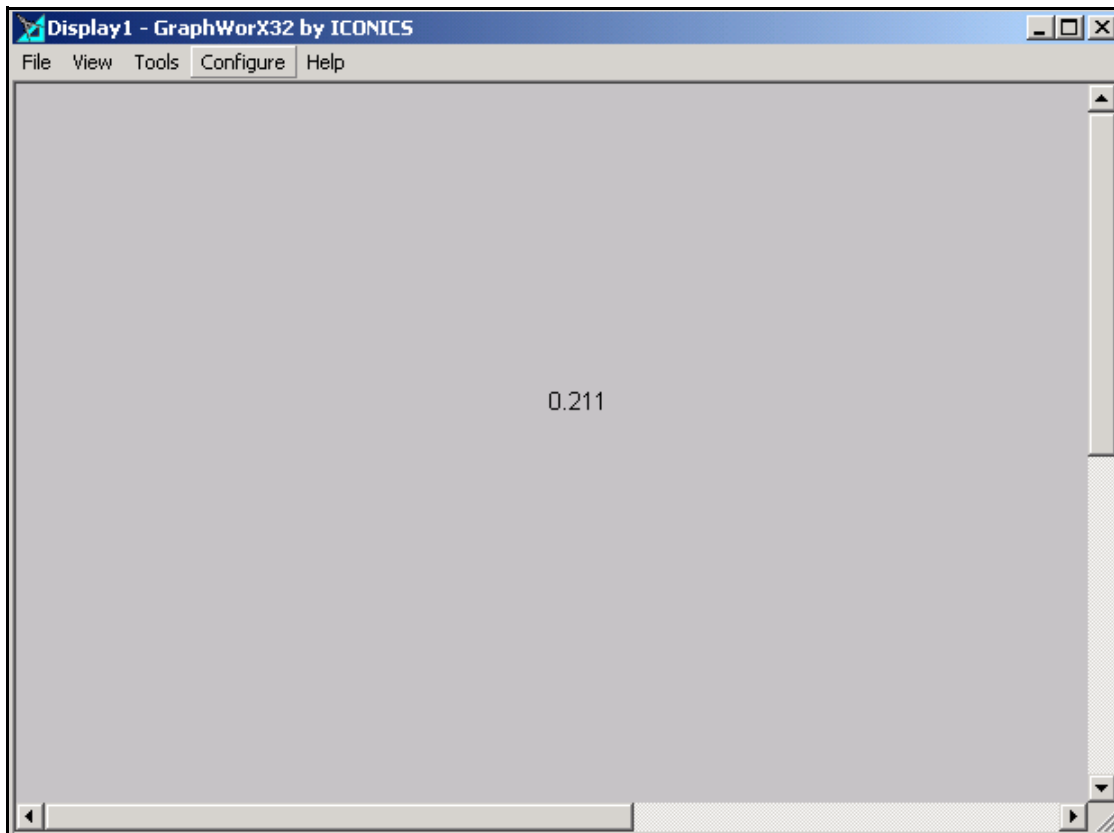
OK Cancel Apply Help

Application Note 109

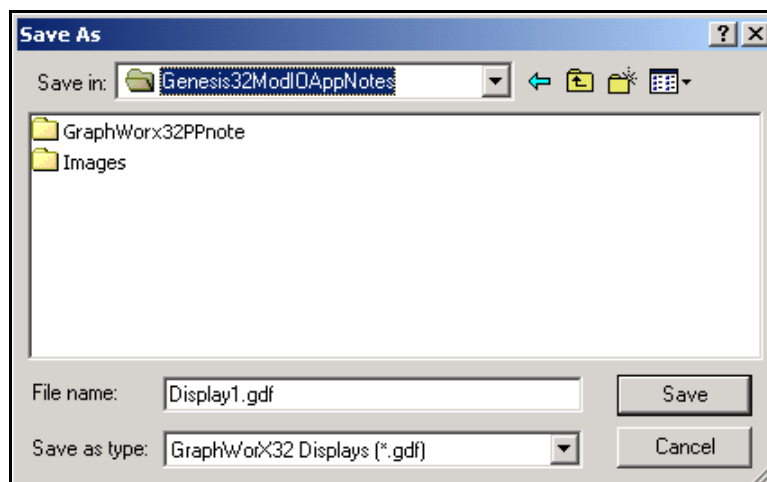
7. The GraphWorX design window now has a Process Point which is displayed as a row of question marks surrounded by squares as shown below.



8. Click on the Runtime menu to switch from Configure mode to Runtime mode. Live data is now displayed on the screen.



9. Click Configure to return to the GraphWorX configuration screen.
10. Save the GraphWorX by clicking File>Save from the menu bar.



Insert additional text and graphics (rectangles, ovals, lines, etc.) using the toolbar on the left side of the configuration window.

For more information, visit our AquaTrend® Technical Information site at:

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