Application Note 104

Using Wonderware® InTouch™ with Hach's OPC Servers

Introduction

This document details the connection of Hach OPC (OLE for Process Control) Servers to Wonderware InTouch using the Wonderware OPCLink driver. OPCLink acts as a translator between OPC and the proprietary format used by Wonderware drivers.

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)
- Wonderware InTouch Version 7.0 or higher
- Wonderware OPCLink Driver

What is OPC?

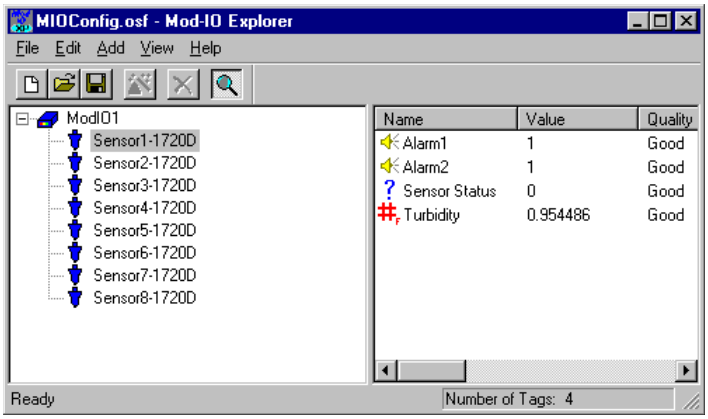
OPC is a specification that defines the communication between two software applications and is specific to the process control industry. Created by manufacturers and users of process control equipment, the OPC specification is managed by the OPC Foundation (www.opcfoundation.org). OPC allows clients (such as SCADA packages) and servers (such as Hach's OPC Explorers) to communicate using common names without complicated setup procedures. OPC is similar to the DDE (Dynamic Data Exchange) specification, but much more robust and reliable.

Configuring an OPC Server

Hach provides a full suite of OPC Servers for various process instrument lines. Before running the OPCLink driver and InTouch, configure the OPC Server (the MOD I/O Explorer OPC Server in this example) as follows:

1. Click Start, Programs, Hach, MOD I/O Explorer.
2. Search for devices by clicking the magic wand toolbar button.

3. Once 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.



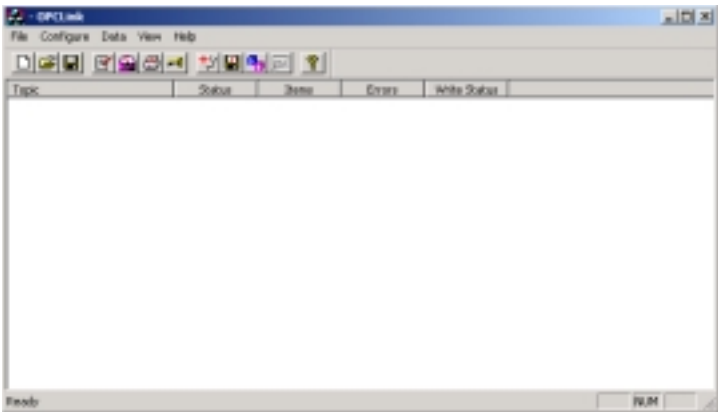
Installing OPCLink

OPCLink is a Wonderware driver that converts OPC to the proprietary driver format used by Wonderware. Install OPCLink from the Wonderware I/O Servers CD or from the Wonderware website (www.wonderware.com).

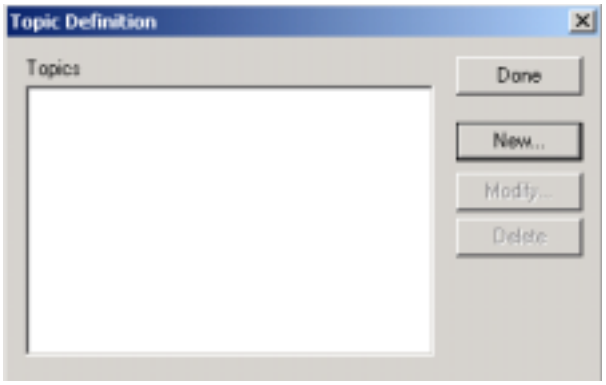
Configuring OPCLink

1. From the Start menu, select Programs, Wonderware FactorySuite, IO Servers, OPCLink.

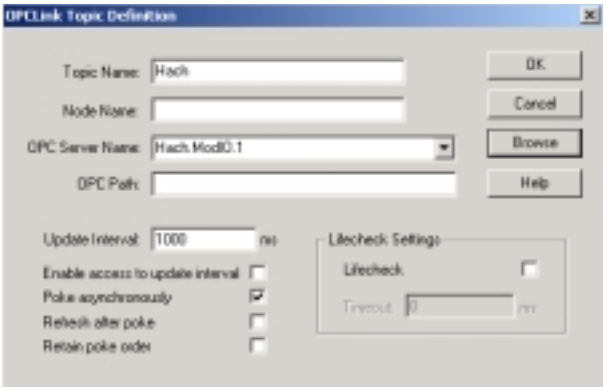
2. Select File, New to create a new file. Select Configure, Topic Definition to create a topic.



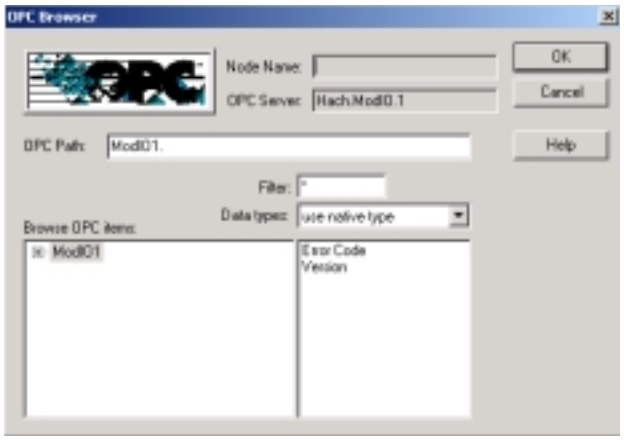
3. Click on New... Enter the Topic Name (**Hach** for this example).



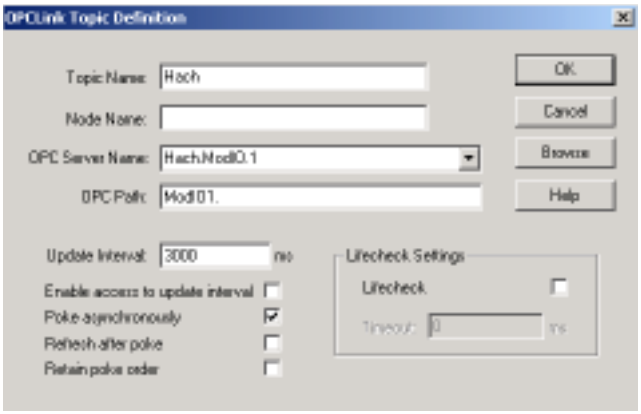
4. Click on the OPC Server Name drop down menu and select **Hach.ModIO.1**.



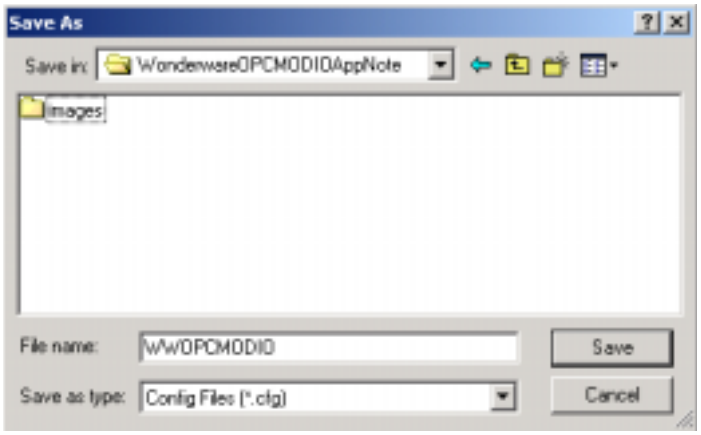
5. Click on the Browse button, then click OK. This will enter an OPC Path of ModIO1.



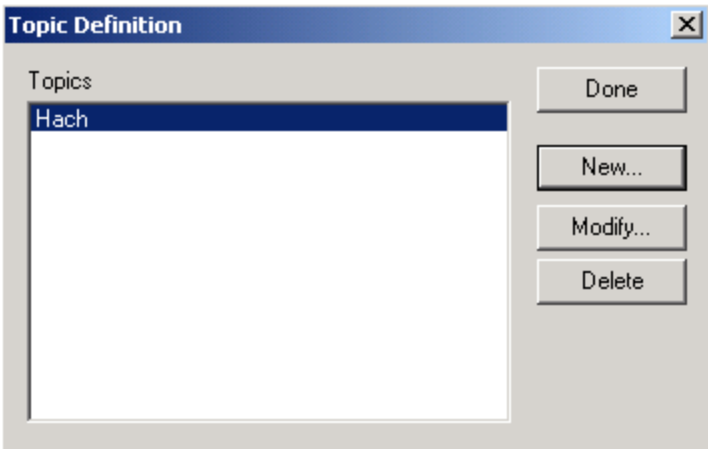
6. Enter an Update Interval of 3000 milliseconds (3 seconds) and click OK.



7. Select a Folder and file name for the configuration and click Save.



8. Click Done and minimize the OPCLink window.

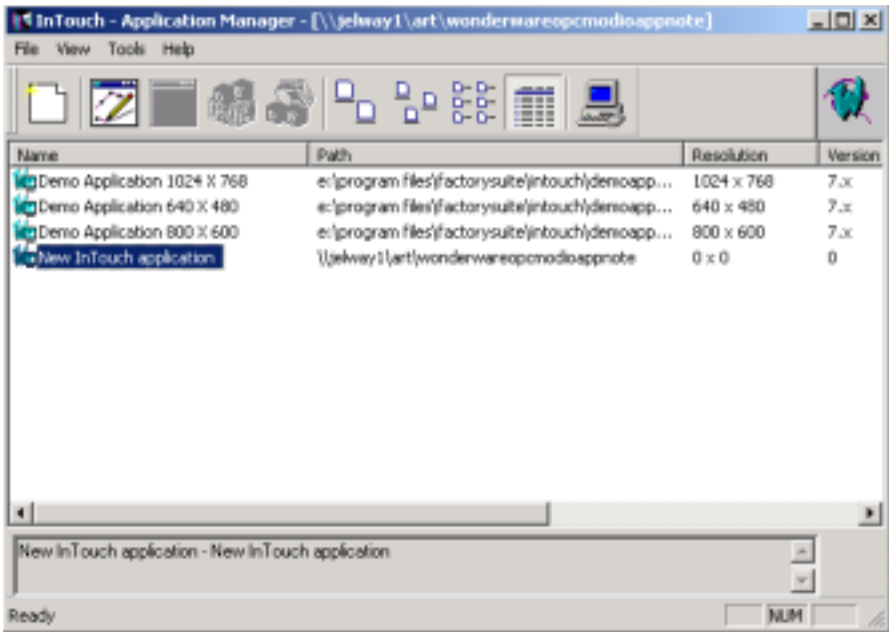


Configuring InTouch WindowMaker

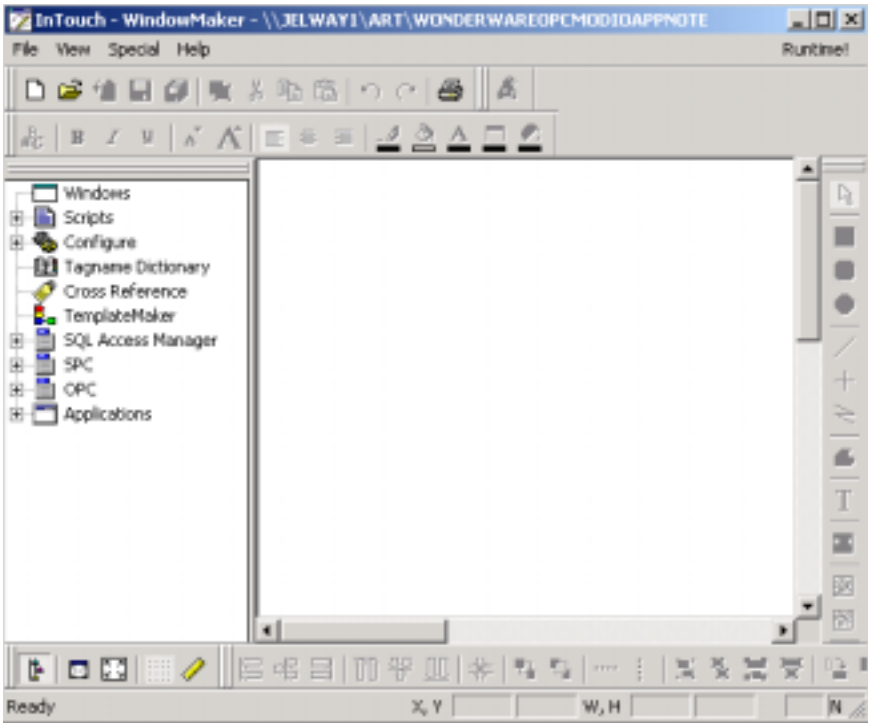
1. From the Start menu, select Programs, Wonderware FactorySuite, InTouch. The InTouch Application Manager will appear.

2. From the InTouch Application Manager, Select File, New. Follow the Wizard prompts for creating a new application.

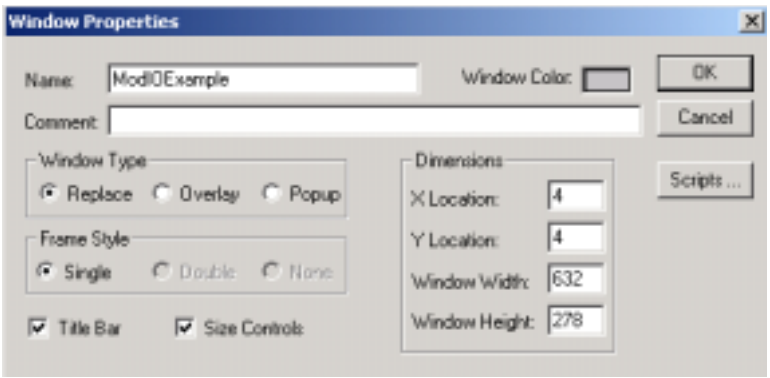
3. Double click on the name of your application (New InTouch application in this example).



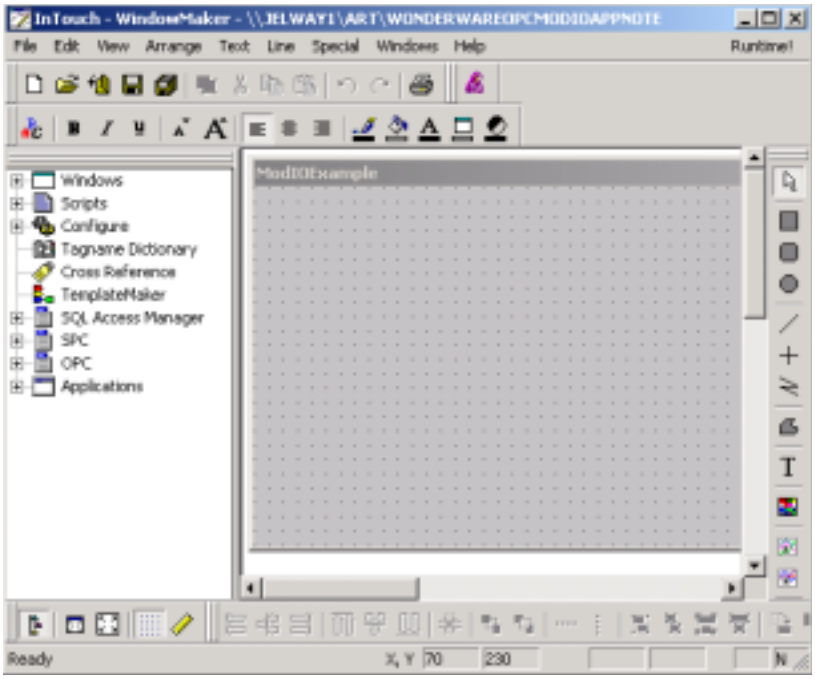
The InTouch WindowMaker application will appear:



4. Select File, New Window from the menu bar. The Window Properties dialog box will appear. Enter the ModIOExample as the Name.

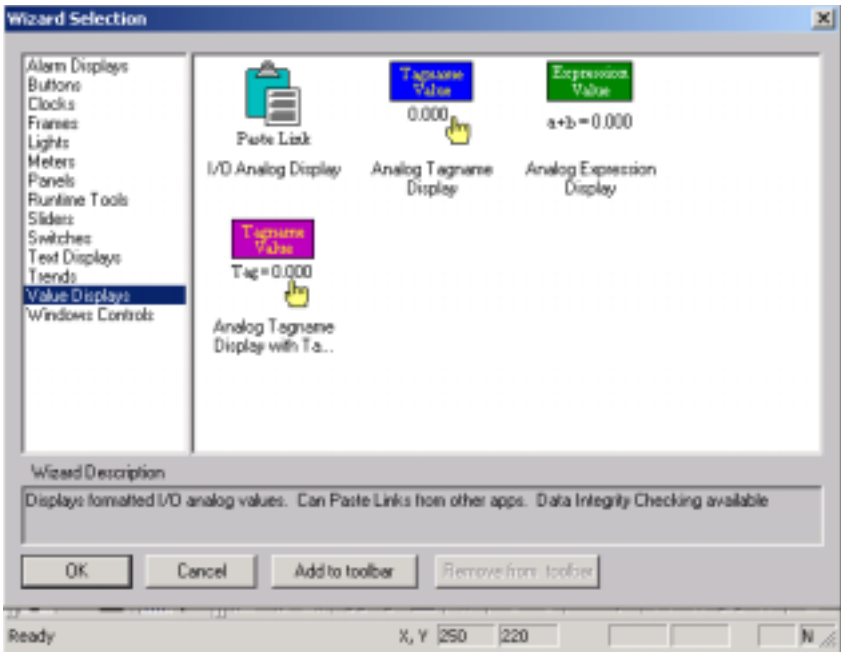


5. Click OK.

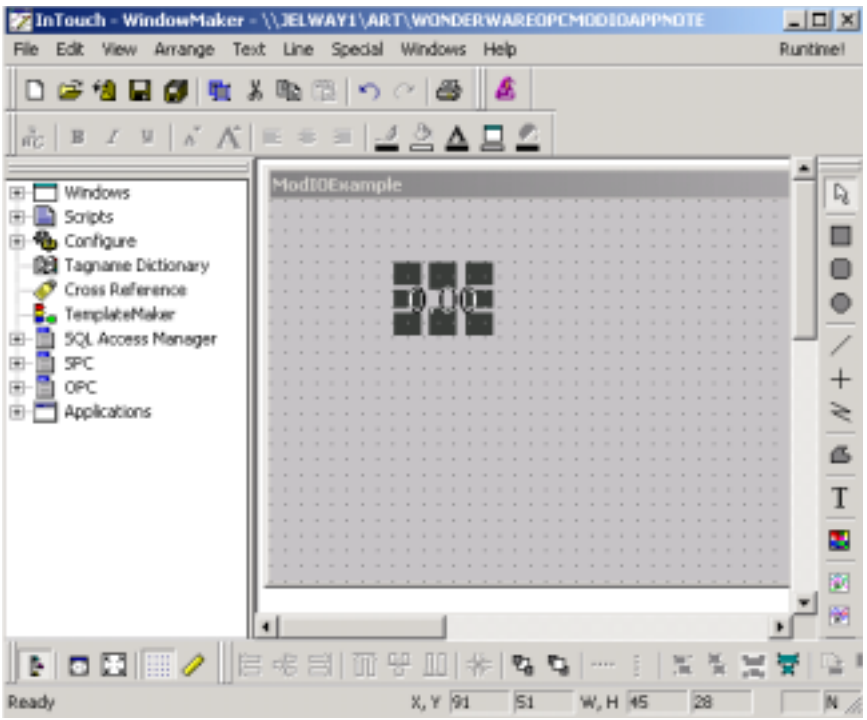


6. Click on the Wizard button in the Tool bar to start the wizard selection.

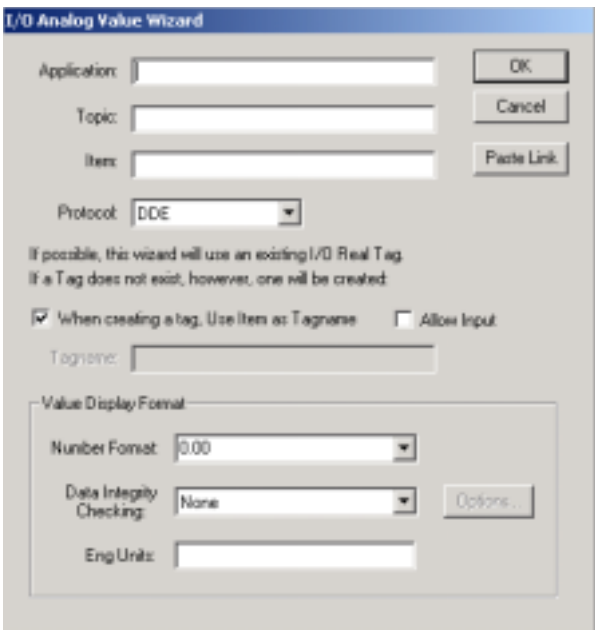
7. Click on Value Displays in the left hand list box. Double click on the Paste Link icon.



8. Click the left mouse button to place the I/O Analog Display Wizard on the design panel.

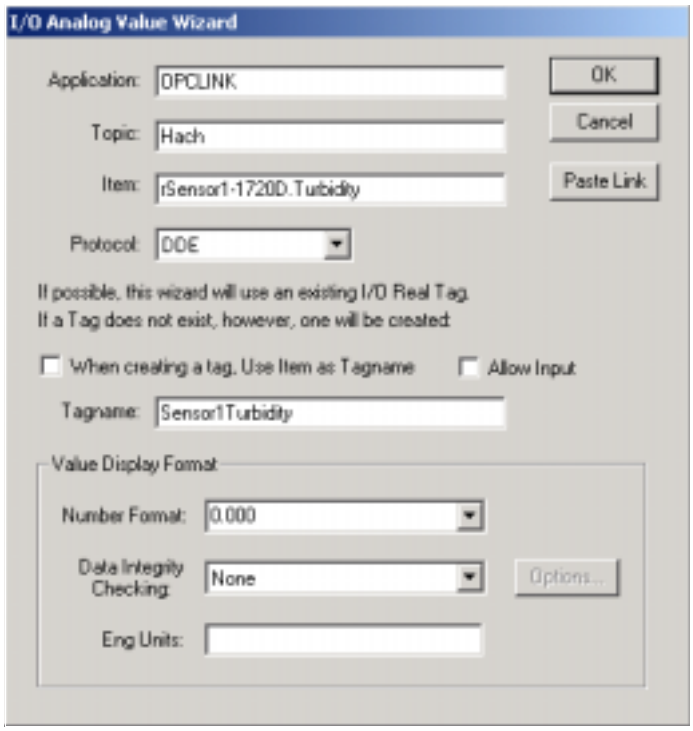


9. Double click the 0.00 on the design panel to open the I/O Analog Value Wizard. The following screen appears:

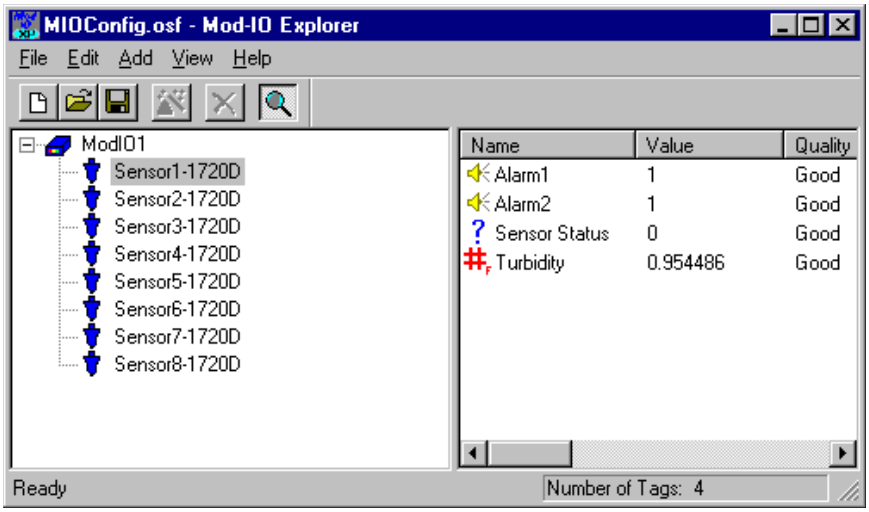


10. Enter **OPCLink** for the Application, **Hach** for the Topic, and **rSensor1-1720D.Turbidity** for the Item. Note the small "r" preceding the Item. This instructs InTouch to display the value as a real number.

11. Uncheck the "When creating a tag, Use Item as the Tagname" box and enter **Sensor1Turbidity** as the tag name. Select 0.000 for the Number Format and click OK.

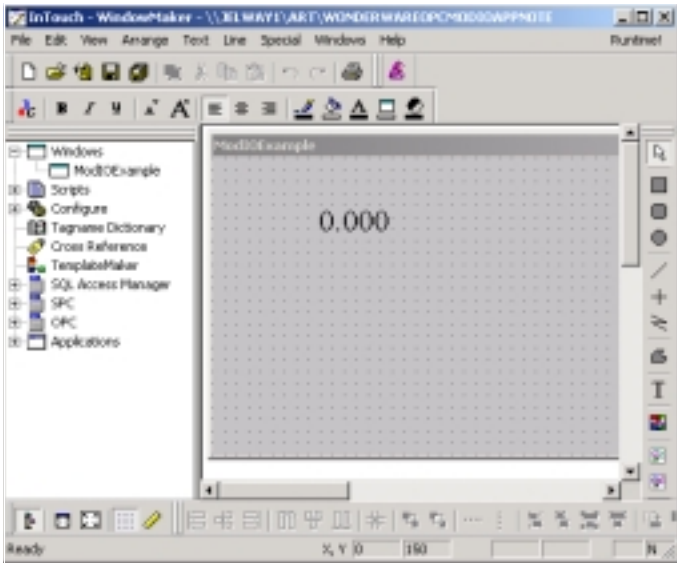


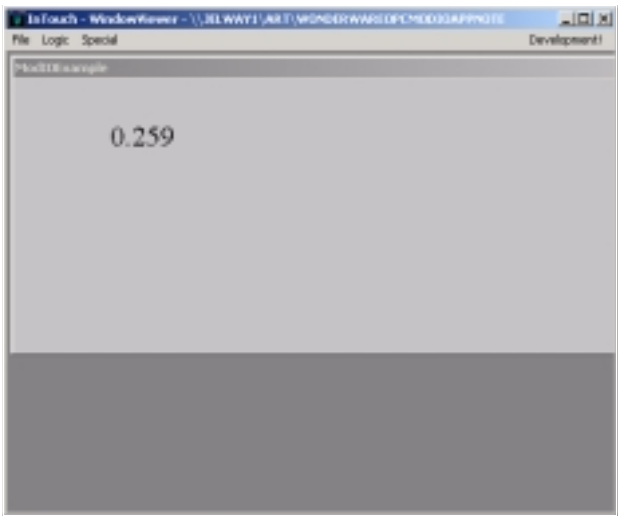
12. Other items names can be found in the MOD I/O Explorer. For example, item **rSensor2-1720D.Turbidity** would access data from 1720D Turbidity Sensor 2.



Running InTouch WindowViewer

Click the Runtime! button in the upper right hand corner of WindowMaker to launch WindowViewer. The real time turbidity value will now be displayed.





Note: *If InTouch is running in the two hour demo mode and the system times out, real time data cannot be viewed. To view the real time data, save the window, close all Wonderware programs, then re-open OPCLink and InTouch.*

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

http://www.aquatrend.com

FOR TECHNICAL ASSISTANCE, PRICE INFORMATION AND ORDERING:
In the U.S.A. – **Call toll-free 800-227-4224**
Outside the U.S.A. – **Contact the HACH office or distributor serving you.**
On the Worldwide Web – **www.hach.com**; E-mail – **techhelp@hach.com**

HACH COMPANY
WORLD HEADQUARTERS
Telephone: (970) 669-3050
FAX: (970) 669-2932

dd/dp 8/00 1ed