(HACH)® *Application Note 103*

Using Wonderware® InTouch™ with the Hach MOD I/O PLC/DCS Interface

Introduction

This document details the connection of Hach's MOD I/O PLC/DCS Interface to Wonderware InTouch using the Modicon Modbus® driver. The MOD I/O must be attached directly to the computer running InTouch via an RS232 cable.
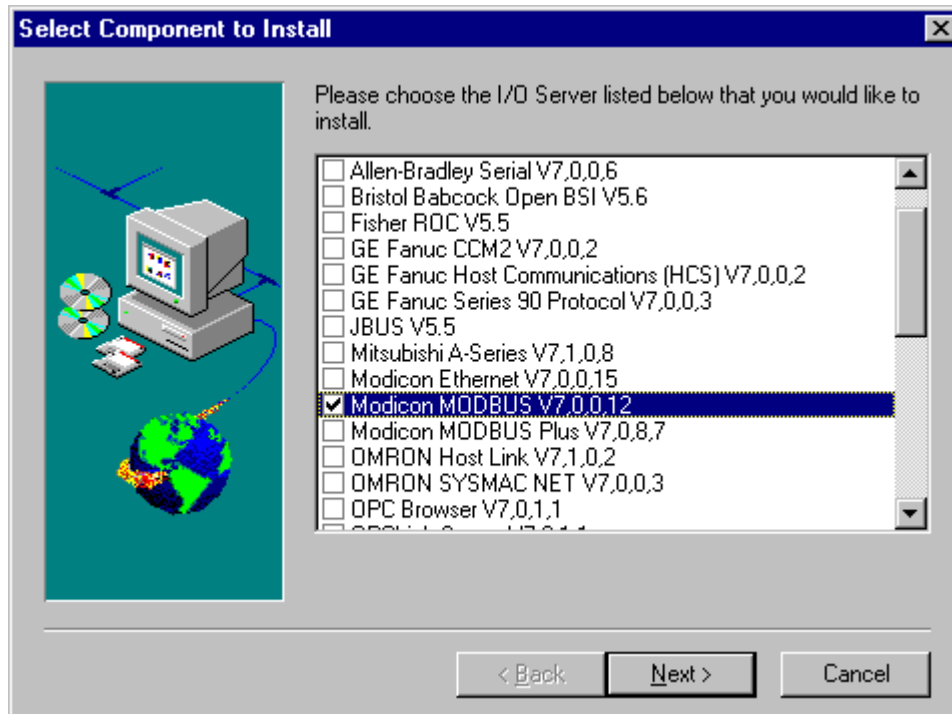
System Requirements

- IBM PC Pentium 166 MHz or faster processor with CD ROM Drive

- Windows 95 or 98, NT 4.0 or higher

- At least one serial (RS232) port for attaching the MOD I/O

- MOD I/O PLC/DCS Interface (Hach Cat. No. 57100-00 or 57100-02)

- Wonderware InTouch

- Wonderware Modicon Modbus driver

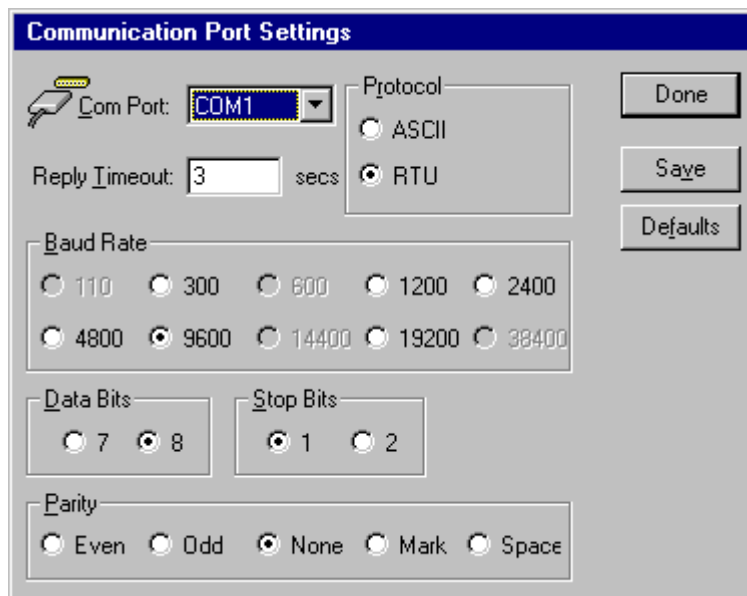### Installing the Hach Mod-IO Module PLC/DCS Interface

1. Attach one end of the 9-pin cable (included with the MOD I/O) to the RS232 port located on the back of the MOD I/O Module.

2. Attach the opposite end of the cable to the computer serial port (typically marked COM1 or COM2) on the PC.

3. Plug the adapter into the power jack on the MOD I/O and then into an appropriate electrical socket.

4. Refer to the Hach MOD I/O manual (Cat. No. 57100-18) for further details on installing and configuring the MOD I/O, and for MOD I/O register configuration information.

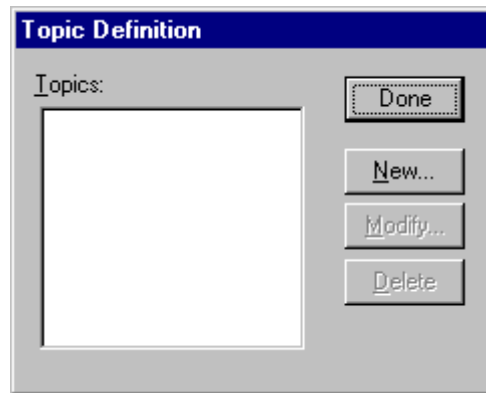**Installing and Configuring the Modbus Driver**

1. Install the Modicon MODBUS driver from the I/O Servers CD. Version 7,0,0,12 was used in this example.
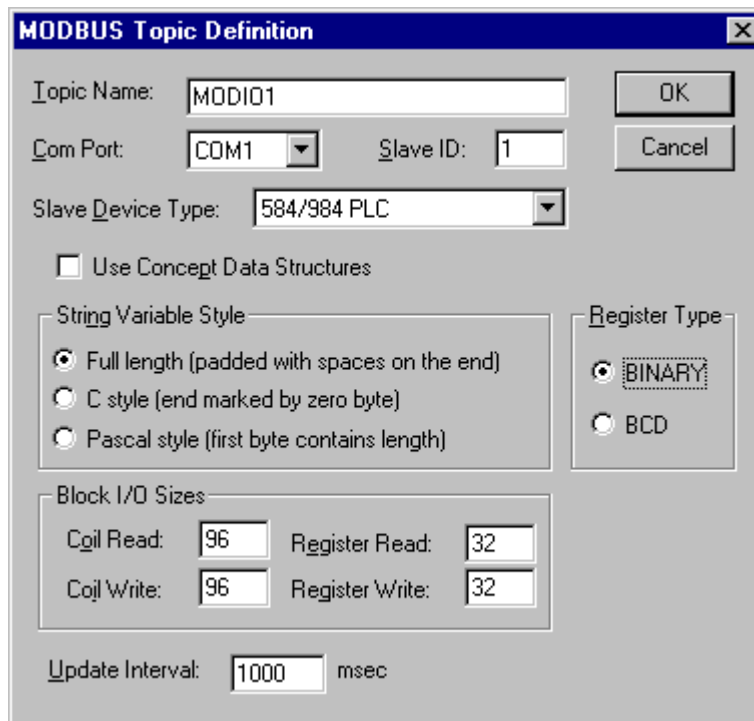

2. Start the Modbus driver by selecting Start, Programs, Wonderware FactorySuite, IO Servers, Modicon MODBUS.

3. Select Configure, COM Port Settings...

4. Select the desired COM port (defaults to COM1). After making sure the settings match the dialog box shown below, click Done.
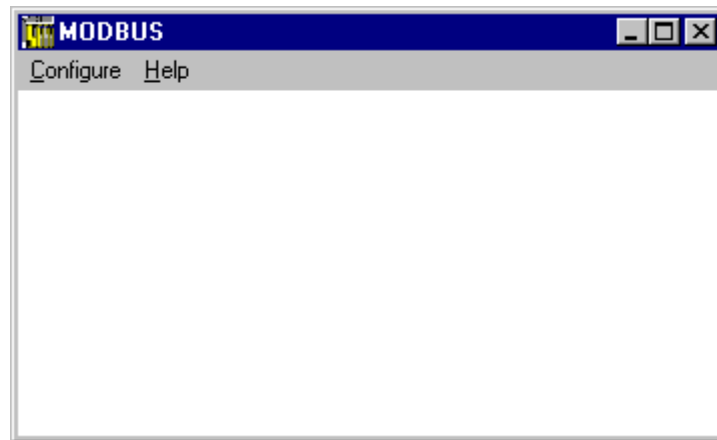
5. Select Configure, Topic Definition, followed by New...

6. Enter MODIO1 as the Topic Name.

7. For the Com Port, select the same port as defined in step 4 (defaults to COM1).

8. Enter the Slave ID. It must match the address of the MOD I/O (defaults to 1).

9. Enter the following Block I/O sizes.

- Coil Read: 96

- Register Read: 32

- Coil Write: 96

- Register Write: 32

10. If desired, define multiple MOD I/Os at this time by creating topics MODIO2, MODIO3, etc. with different Com Ports. Click OK.
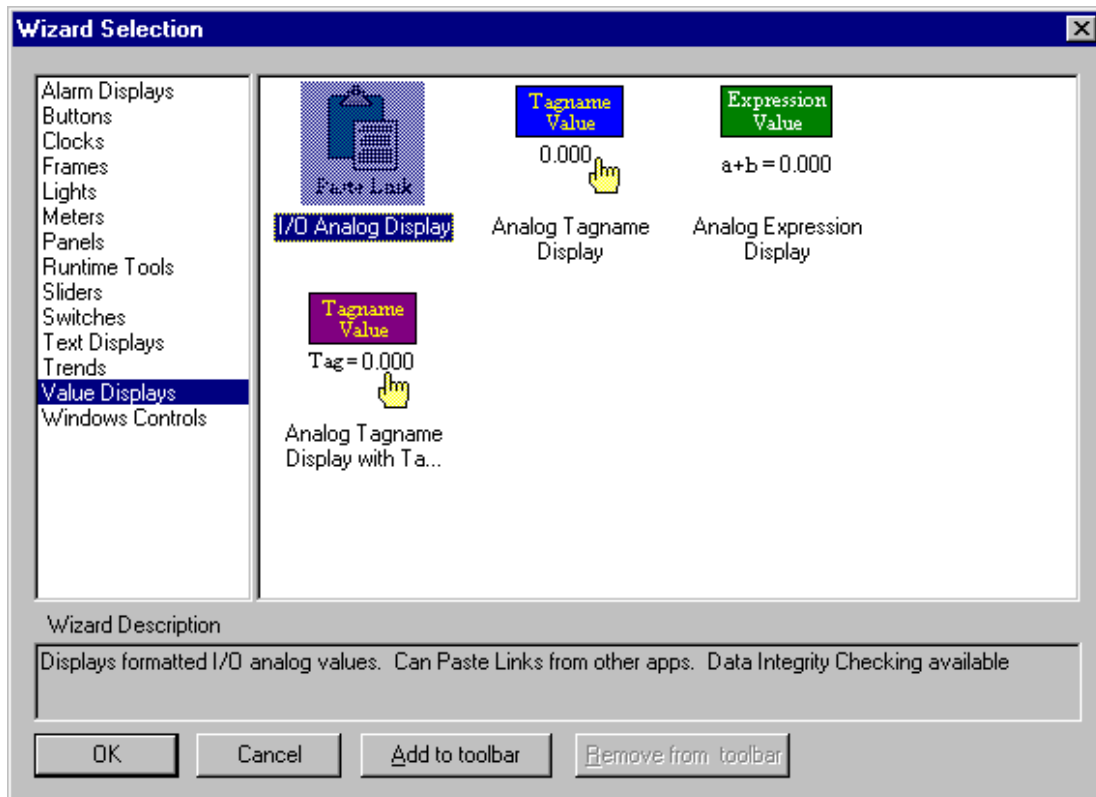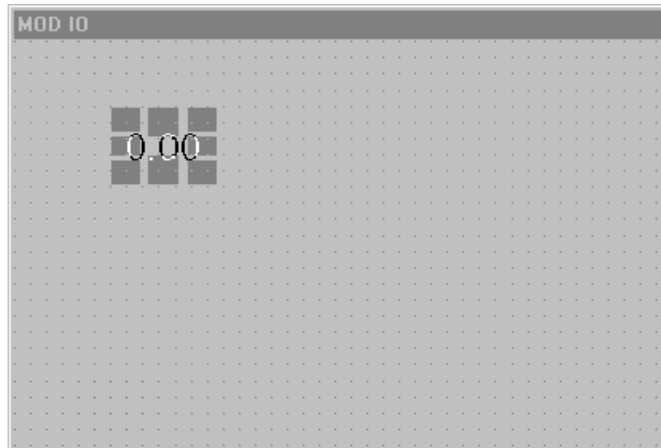
11. Minimize the Modicon MODBUS driver.

Configuring InTouch

1. Start InTouch by selecting Start, Programs, Wonderware FactorySuite, InTouch.

2. Create a new project by selecting File, New. After naming the project, double click the new project name to start Window Maker.

3. Create a new window by selecting File, New Window.

4. Add a measurement by clicking the purple wizard button.

5. Choose Value Displays, I/O Analog Display, followed by OK.

6. Click in the window to place the display.

7. Double click the I/O Analog Display (displayed as "0.00").

- For the Application, enter MODBUS.

- For the Topic, enter MODIO1.

- For the Item, enter 31001 F

Note: The specific modbus register selected for display is 31001F. Refer to the Hach MOD I/O Manual (Cat. No. 57100-18) for MOD I/O register configuration information. The trailing F indicates that this is a floating point (real) number.

- For the Tagname, enter Sensor1Meas1

- For the Number Format, enter 0.000

Click OK.

8. Add appropriate labels, graphics, etc. Run the configuration by clicking Runtime! A sample data screen is shown below.

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

http://www.aquatrend.com