



Modbus OPC Server 2.x Quick Start

APPLICATIONS NOTE

January 2003

Description: Quick Start for configuring and running the Modbus OPC Server 2.x.

OS Requirement: The operating system required is Win XP/2000/NT/95/98/Me.

General Requirement:

The Modbus OPC Server allows you to configure OPC Tags which acquire process data from Modbus compliant devices.

Capabilities:

- Supports Modbus RTU and ASCII serial communications protocols.
- Max. 4 communication ports
- Supports OPC DA Specification v1.01a and v2.0
- Supports Folders and Sub-Folders for easy configuration and manageability
- Tag Multiplier let you create hundreds of tags in seconds
- Configuration Export/Import CSV (comma separated variable format) for bulk editing tag lists in for instance Text Editors or MS-EXCEL.
- OPC tags can be scaled and have ranges
- Online configuration
- Simulation capabilities.

Configure the Modbus Server

To configure the Modbus OPC Server, the following steps have to be completed.

1. Start the **Modbus Configurator**.

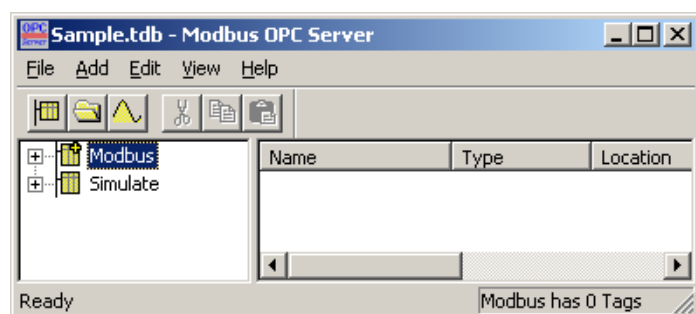


Fig.1 Modbus Configurator

2. Select **File, New** from the menu.
3. Select the **Save** button and specify **myModbus.tdb** as the name for your configuration file.
4. Select **Add, New Device...** from the menu.
5. Specify a Name for your device: **PLC**
6. Specify the Comm port to which the Modbus Device is connected.
7. Specify the Node **Address** of your Modbus Device.

In case you do not have a real Modbus device connected yet, you can select **Simulate**

The Device Type **Modbus** should be fine and you can click **OK**

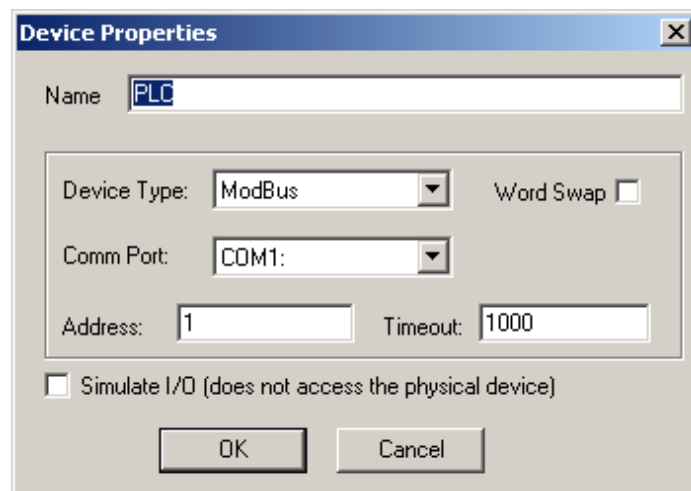


Fig.2 Relevant PC and Device related settings

8. Right mouse click on **PLC** in the left window, and select **New, Group...**

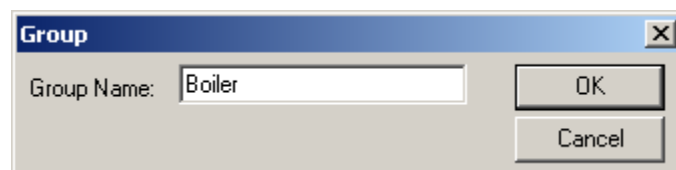


Fig.3 Logical name for a group of tags

9. Specify a name for the folder, for instance **Boiler** and select the **OK** button
10. Right mouse click on the **Boiler** group in the left window, and select **New, Data Tag...**
11. Specify a name for the tag, for instance **Temperature**
 - a. Set the Data Type to **WORD**
 - b. Specify where the **Temperature** can be found in the PLC memory. For instance **Output Register 21**

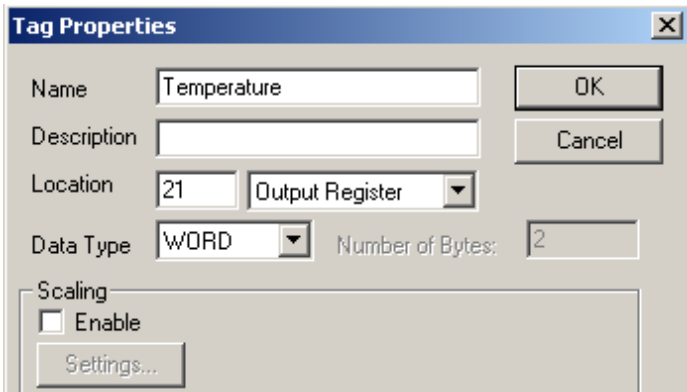


Fig.4 Settings for the Tag.

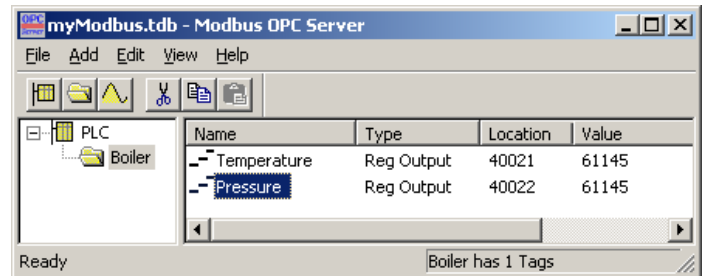


Fig. 6. Monitoring live process data

12. Select **OK**
13. Right mouse click once more on the folder **Boiler** in the left window, and select **New, Data Tag...**
14. Specify a name for the item, for instance **Pressure**
 - a. Set the Data Type to **WORD**
 - b. Specify where the **Pressure** tag can be found in the PLC memory. For instance Output Register 22.
15. Select **OK**

20. You can select **File, Exit** in order to exit the Modbus Configurator.

Any OPC Client, for instance GraphWorX32 can browse to the Modbus OPC Server and use the OPC Tag.

Comm Port Settings

16. Select from the menu, **Edit, Ports...** and specify the correct settings for the communication with your Modbus Device. These settings need to match the settings of your Modbus device!

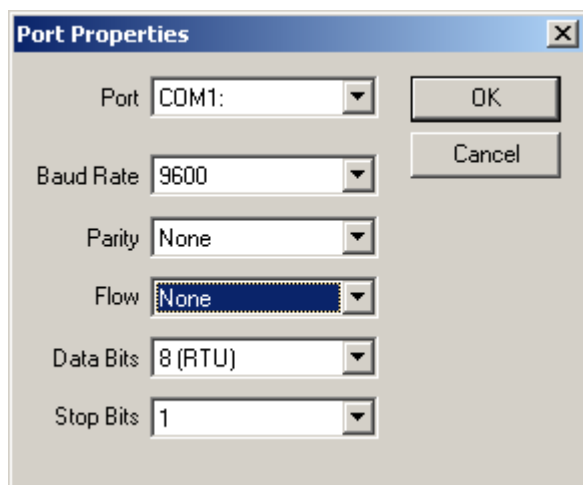


Fig. 5. Comm Port settings

17. Select **File, Save** from the menu
18. OPC Clients can now browse to the OPC Server and access the values.
19. Select View, Monitor to see live values.