Tech Note 834
Configuring the MBTCP DAServer (Version 2.0) to Communicate with a MODICON Bridge

Topic#: 002626
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Introduction

The MBTCP DAServer is one of Wonderware's® ArchestrA™-based products that provides connectivity to the following PLCs via a Direct Ethernet Connection:

- Quantum
- Momentum
- Premium
- Generic Modbus TCP Device

The MBTCP DAServer also provides connectivity to the following PLCs via a Modbus Bridge Device:

- Compact 984
- Micso
- Momentum
- Generic Modbus Device

This *Tech Note* provides step by step instructions for configuring a connection to a Modbus device via an ethernet bridge using the SMC (System Management Console) where the MBTCP DASServer resides.

Application Versions

- MBTCP DAServer 2.0
- InTouch® 10.1 and later

Adding a TCPIP_PORT Object

1. Open the SMC from the Start menu (**Start/Programs/Wonderware**).

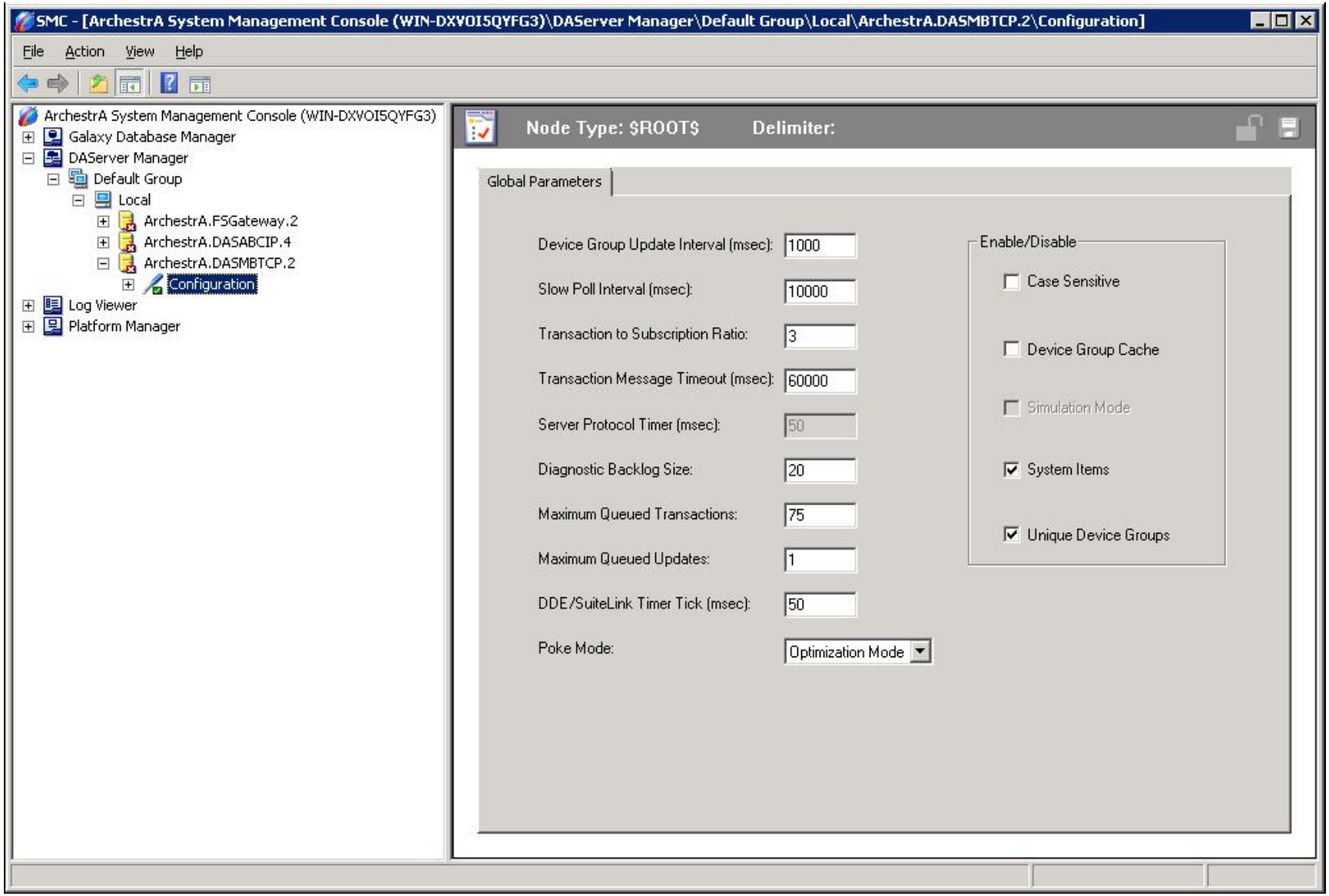

FIGURE 1: SMC

2. Expand the **ArchestrA.DASMBTCP.2** server item.
3. Right-click **Configuration** (just below Archestra.DASMBTCP.2) and select **Add TCPIP_PORT Object**.

   A new faceplate appears labeled **New_TCPIP_PORT_000 Parameters** (Figure 2 below):

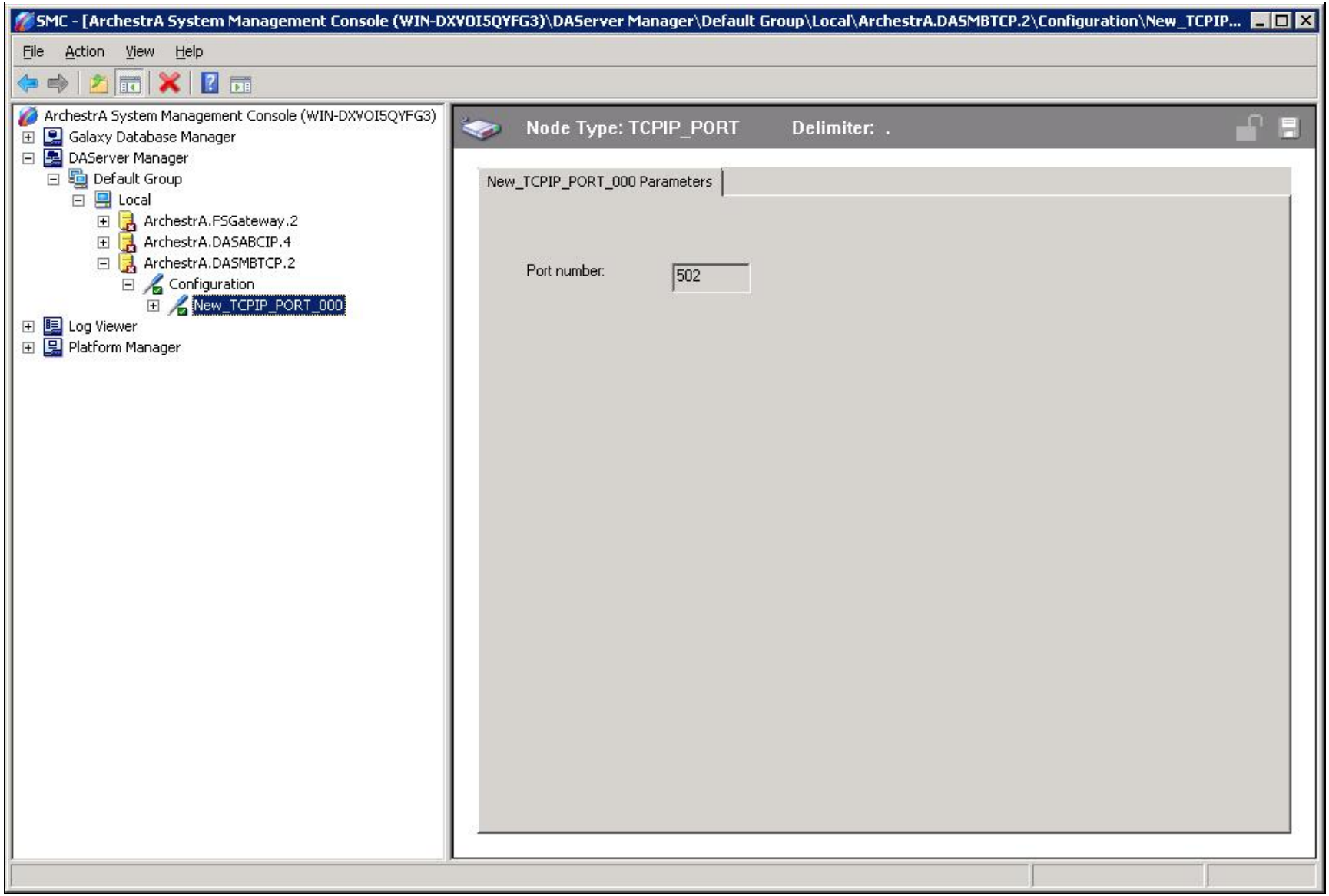

FIGURE 2: NEW_TCPIP_PORT_000 PARAMETERS

Note: You can right-click on any of the items below the **Configuration** item above and rename them to whatever you like.

Adding a "ModbusBridge" Object

1. Right-click **New_TCPIP_ Port_000** and click **Add a ModbusBridge Object**.
2. You should now see a new faceplate appear labeled **New_ModbusBridge_000** (Figure 3 below):

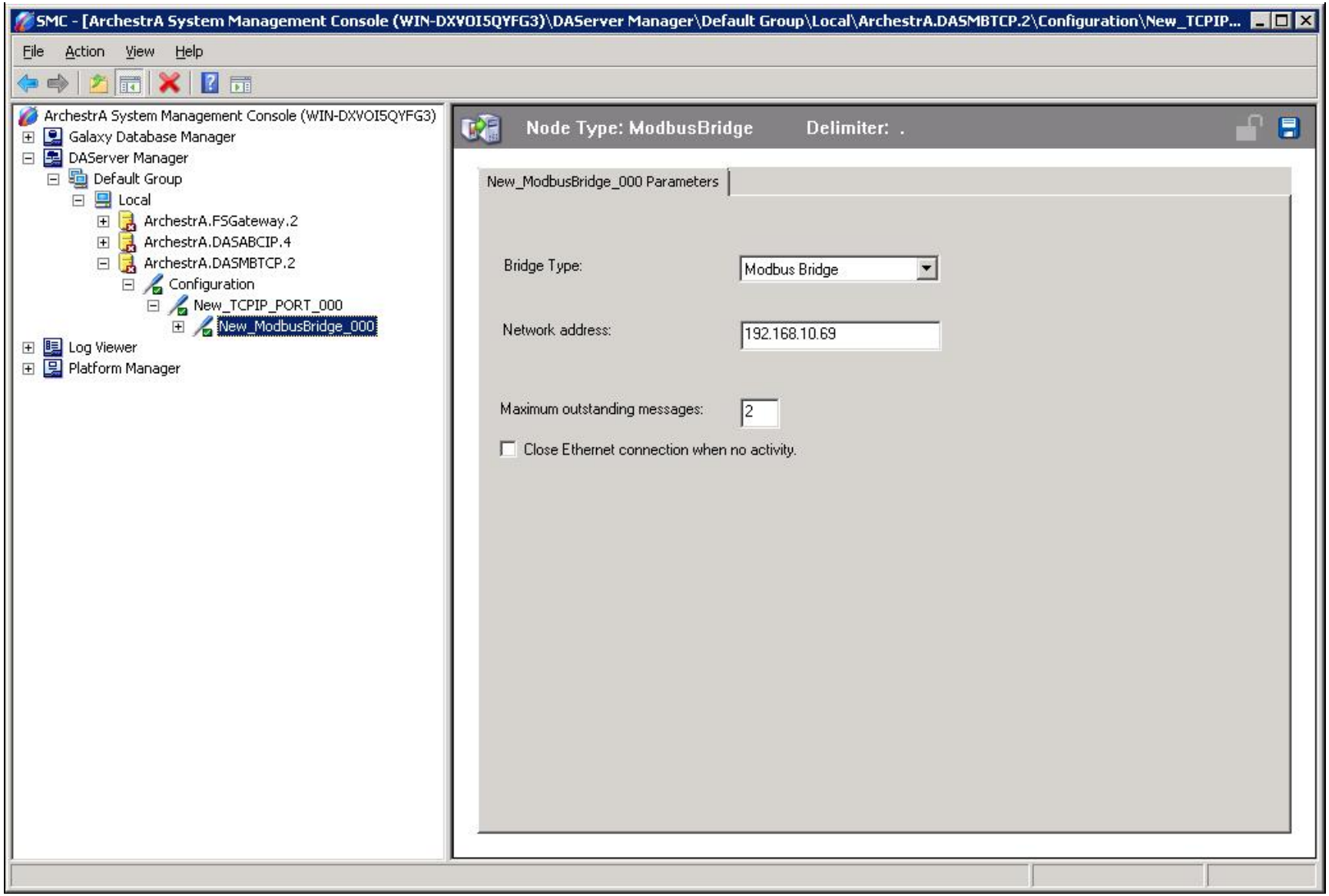

FIGURE 3: NEW MODBUSBRIDGE FACEPLATE

Note: You must provide the Network (IP) address of the device, as shown in Figure 3 above.

Adding a PLC Object

1. Right click the **New_ModbusBridge_000** icon and add a PLC device node. In Figure 4 (below), **Add ModbusPLCRS Object** is selected. It is a generic Modbus device.

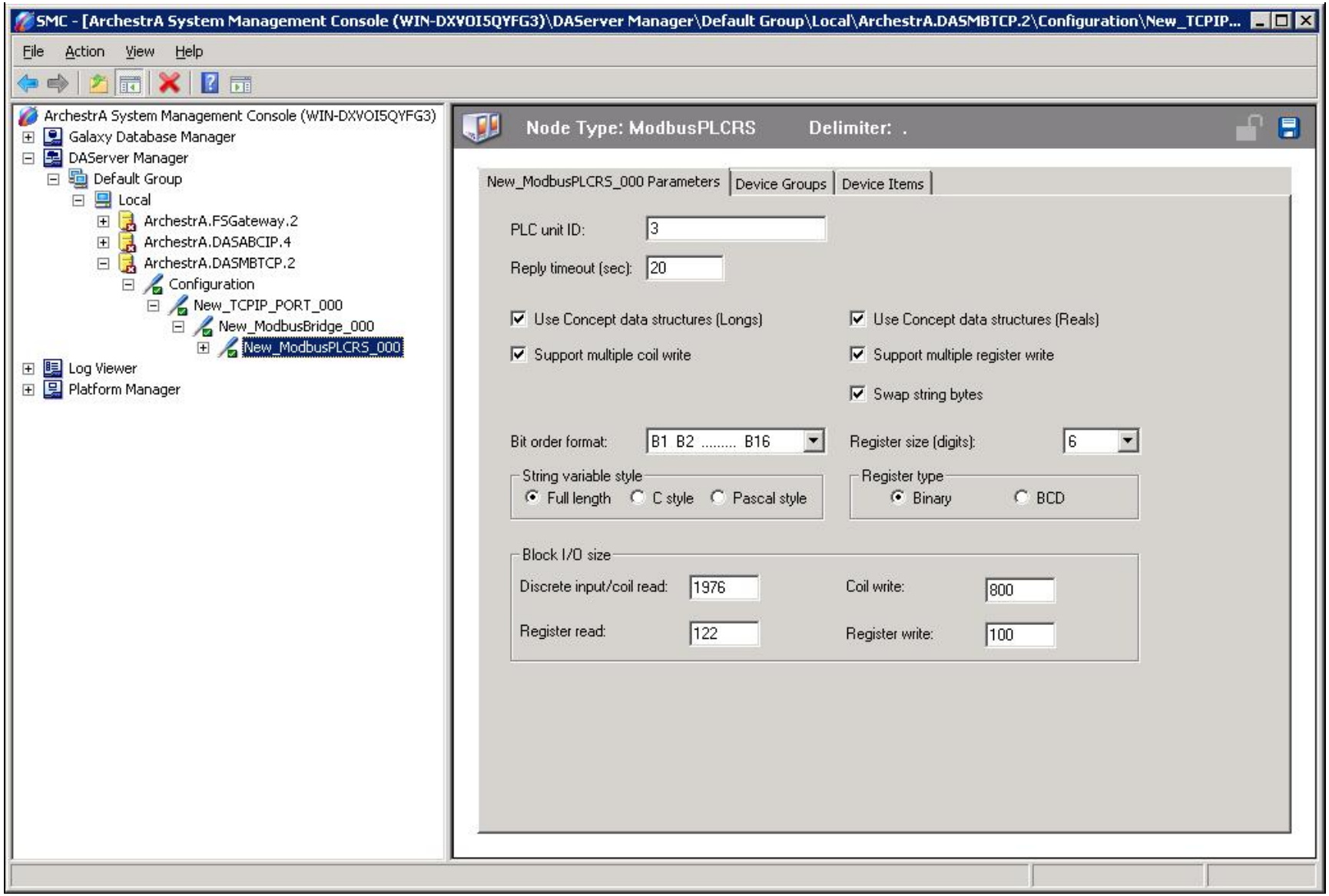

FIGURE 4: NEW_MODBUSPLCRS_000 FACEPLATE

2. Enter the **PLC unit ID** of the end device. (Figure 4 above).

Set Up a Topic Definition in the Device Group

You must set up a Topic Definition so that Suitelink/DDE clients can communicate with the MBTCP DAServer.

1. Select the **Device Groups** tab (Figure 4, above).
2. Right-click in the first row, and select **Add**. A new topic appears with a default name of **Topic_0**.
3. Change **Topic_0** to whatever you want by right-clicking on it and clicking **Rename**. In the following figure, the Topic is called **PLC3** (Figure 5 below):

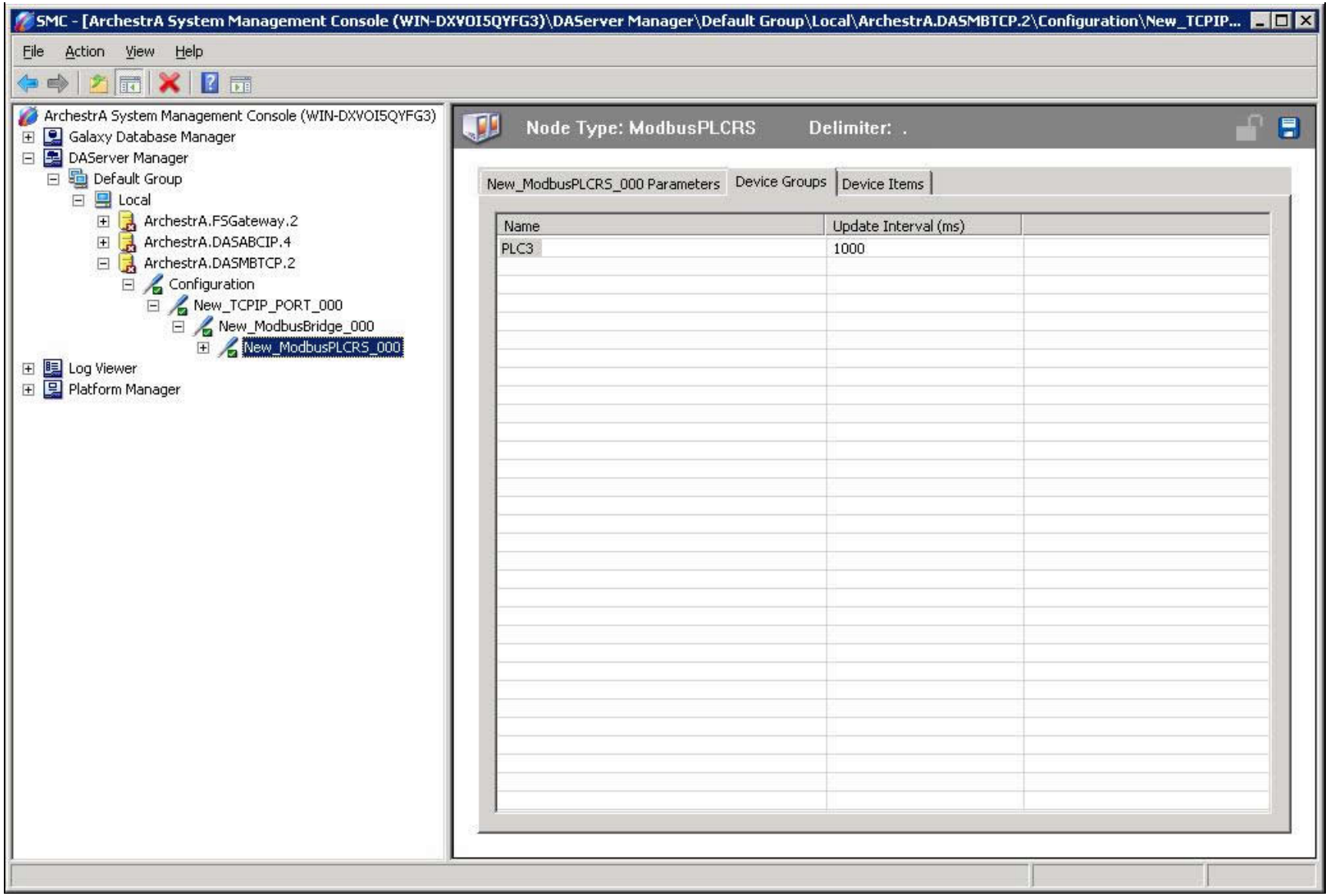

FIGURE 5: RENAME THE TOPIC

Creating a Test InTouch® Application to Communicate with the MBTCP DAServer

1. Launch InTouch WindowMaker™.
2. Click **Special / Access Names** from the top menu bar. The **Access Names** dialog box appears.
3. Click the **Add** button. The **Add Access Name** dialog box appears:

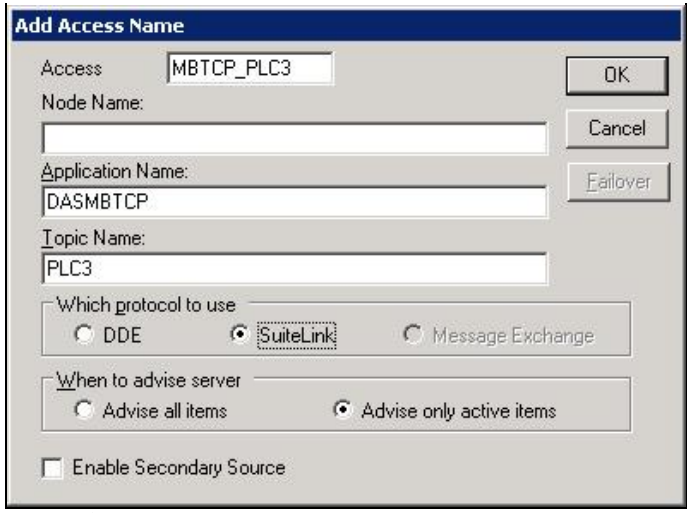

FIGURE 6: ADD ACCESS NAME

4. Type the information for the **Access** and **Application Name** field as it appears in Figure 6 (above).
5. For the topic name, type the name of the topic you renamed in the **Device Groups** tab field (Figure 5, above) of the MBTCP DAServer.
6. Click **OK** then click **Close**.
7. Click **Special/Tagname Dictionary** from the top menu bar. The **Tagname Dictionary** dialog box appears.
8. Click the **New** button and enter the following information:

   - Tagname: **r400001**
   - Type: **I/O Integer**
   - Min EU: **0**
   - Min Raw: **0**
   - Max EU: **65535**
   - Max Raw: **65535**
   - Access Name: **MBTCP_PLC**3
   - Item: **400001**

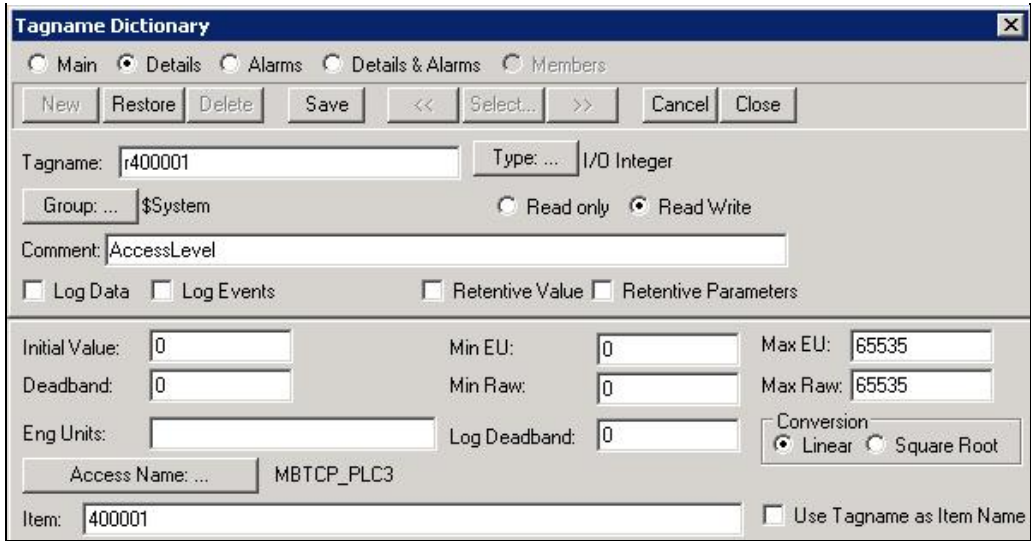

FIGURE 7: TAGNAME DICTIONARY

9. Click the **Save** button then click the **Close** button.
10. Select **File / New Window** from the top menu bar. The **Window Properties** dialog box will appear.
11. Enter a **Name** for the window then click **OK**.
12. Select the **Text** object from the **Draw Object Toolbar**.
13. Place the **Text** object on the new window then type a **#**. The screen should look similar to Figure 8 (below):

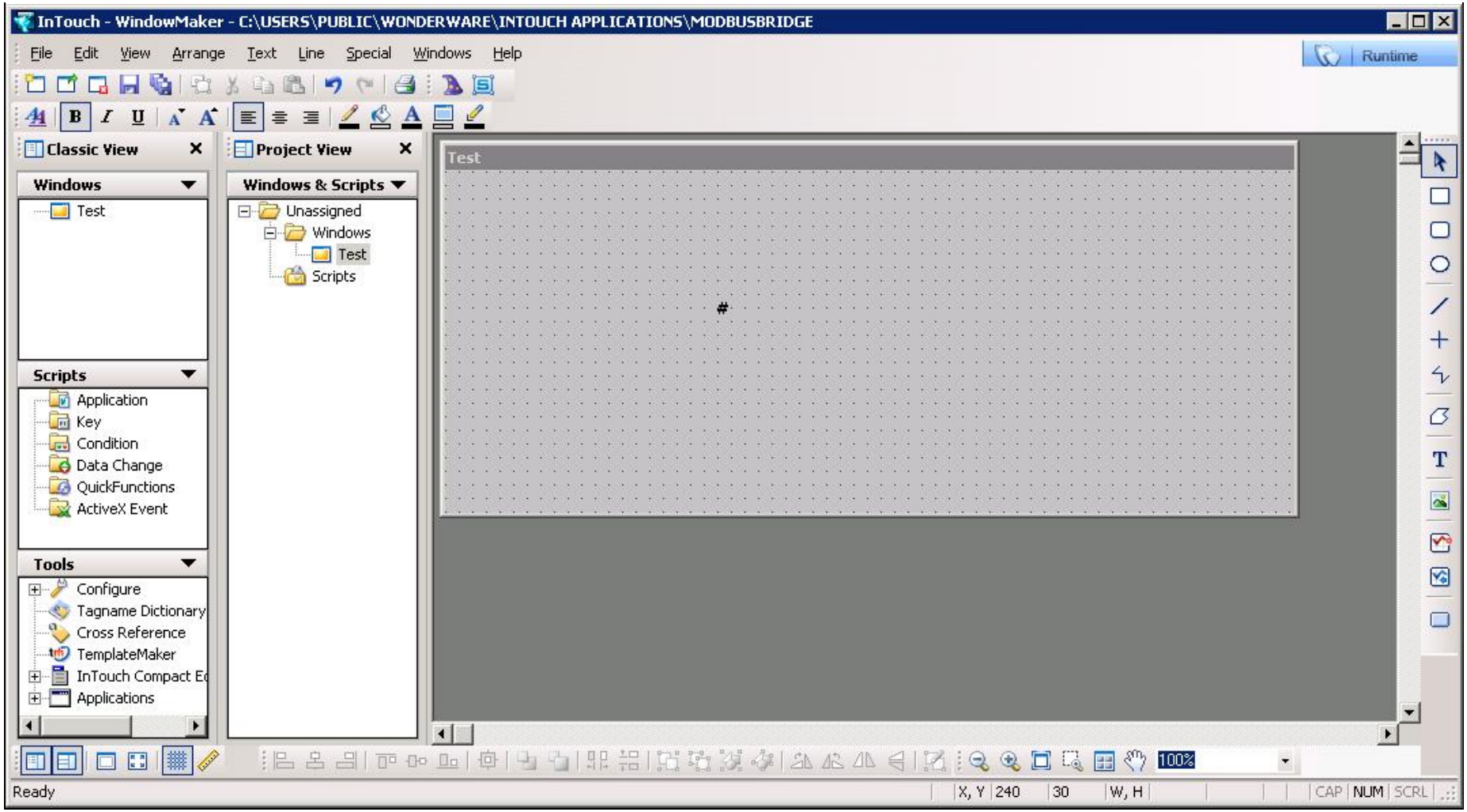

FIGURE 8: INTOUCH WINDOW

14. Double click the **#** then select **Analog** under the **Value Display** section.
15. Enter the name of the tag you created (see Figure 7) in the **Expression** box.

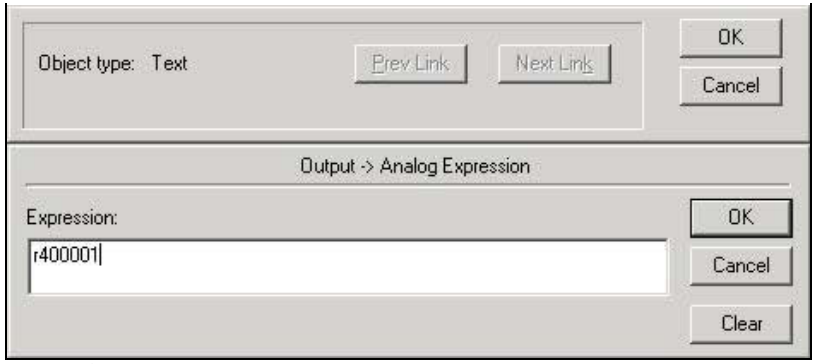

FIGURE 9: ASSIGNING AN EXPRESSION

16. Select **OK** then click **OK** again.
17. Select **File / Save Window** then click **OK**.

Testing Communication

1. From the **SMC**, right click on **ArchestrA.DASMBTCP.2** then select **Activate Server**.
2. From **Window Maker**, select **File / WindowViewer** from the top menu.
3. Make sure the window that was created in **WindowMaker** is selected, then click **OK**.
4. WindowViewer should show the value for register **400001** (Figure 10 below).

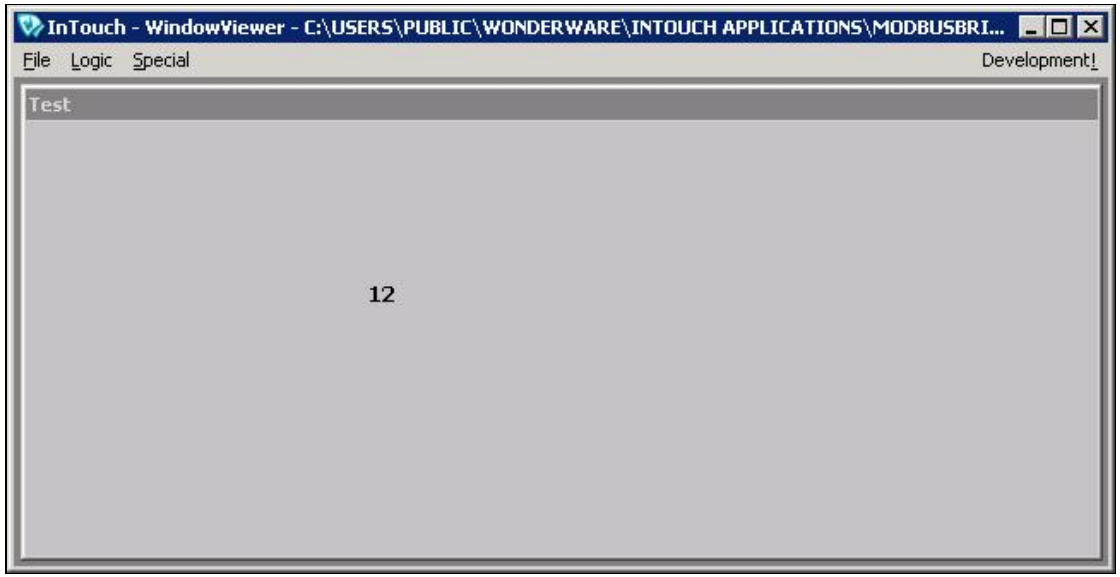

FIGURE 10: WINDOW VIEWER

You can also use **DASMBTCP Diagnostics** to view the register value:

1. Open the **SMC**.
2. Under **ArchestrA.DASMBTCP.2** click **Diagnostics / Device Groups / PLC3**

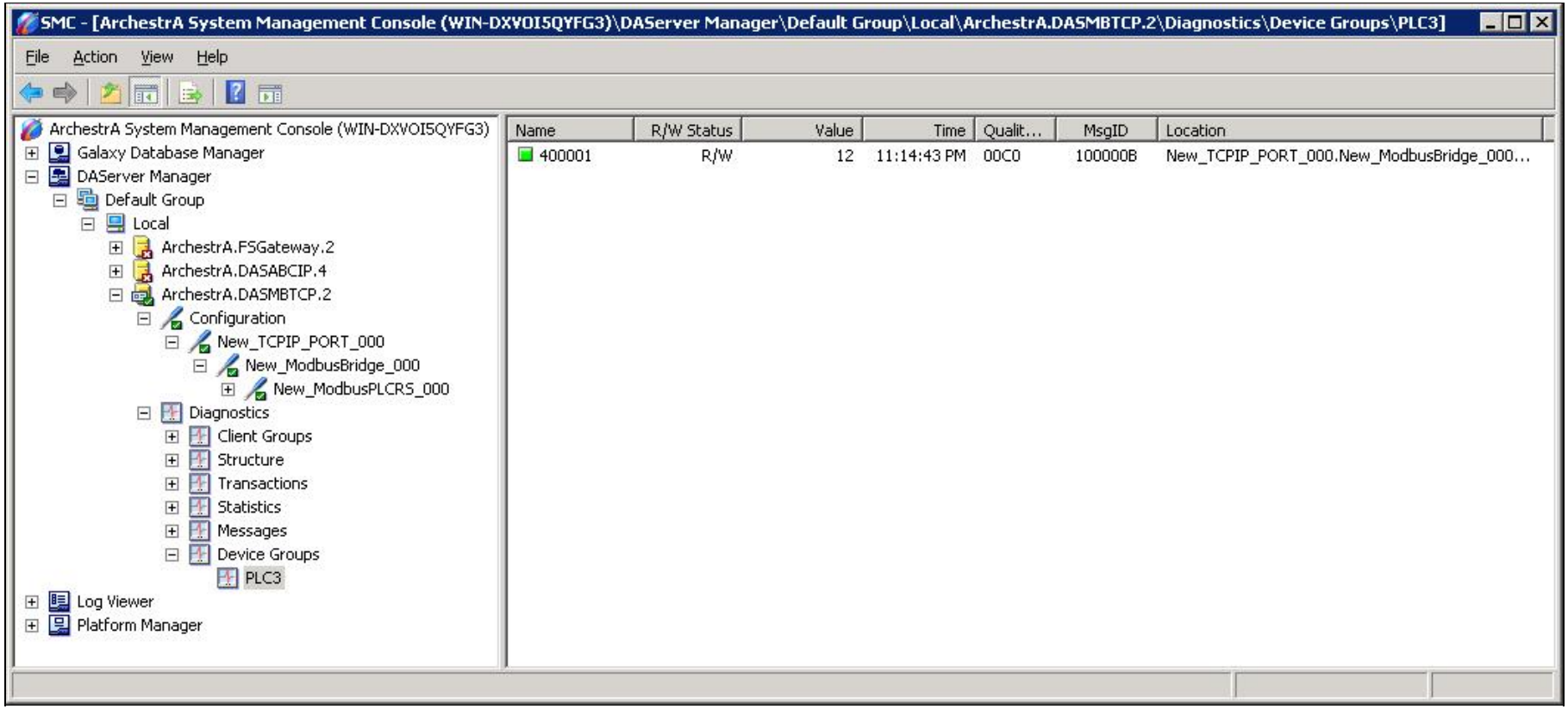

FIGURE 11: DASMBTCP DIAGNOSTICS

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