

## Tech Note 600

# Using Online OPC Item Browsing in DASABCIP 4.0

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## Introduction

In version 4.0, OPC Clients of DASABCIP can browse for tags on the PLC. This functionality is implemented for ControlLogix, CompactLogix, FlexLogix, GuardLogix, PLC-5, SLC500, MicroLogix and SoftLogix processor items.

This procedure explains how to use this functionality.

## Application Versions

- DASABCIP 4.0
- Allen Bradley PLCs

## Configuring DASABCIP

Configure the DAServer to communicate with the end device you would like to browse for tags, and from which you ultimately get data. In this example a ControlLogix PLC is used.

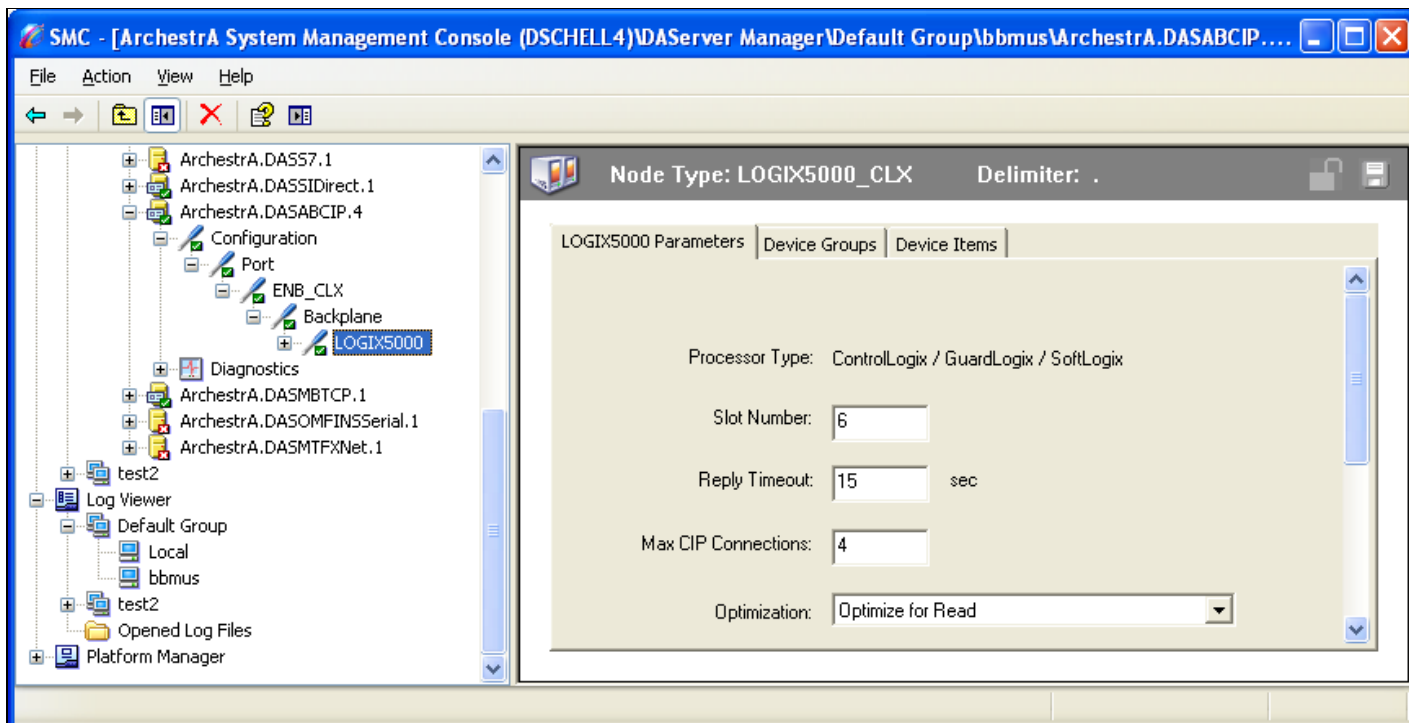


FIGURE 1: CONTROLLOGIX CONFIGURATION

## Configure the OPC Client Object

In this example a derived OPC Client Object from Wonderware Application Server is used.

1. In the IDE, create an OPC Client Object.
2. In **Deployment View**, place the OPC Client under the desired Engine.
3. Enter the server node name of the system where DASABCIP is running.
4. Browse for OPC Servers on the system, and select **ArchestraA.DASABCIP.4** in the **Server Name** field.

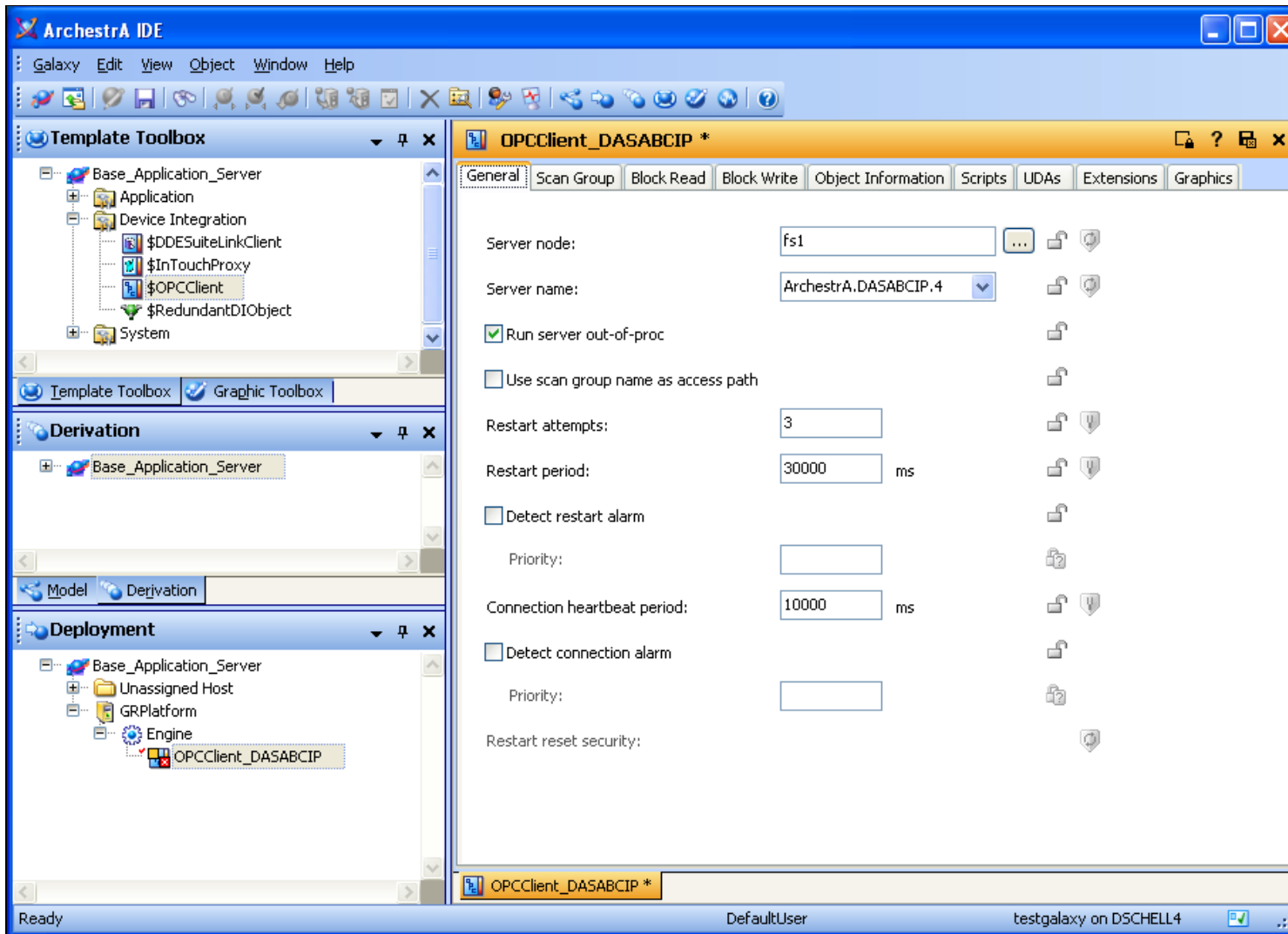


FIGURE 2: BROWSE FOR OPC SERVER ...DASABCIP.4

5. Add a scan group on the **Scan Group** tab of the OPC Client Object.

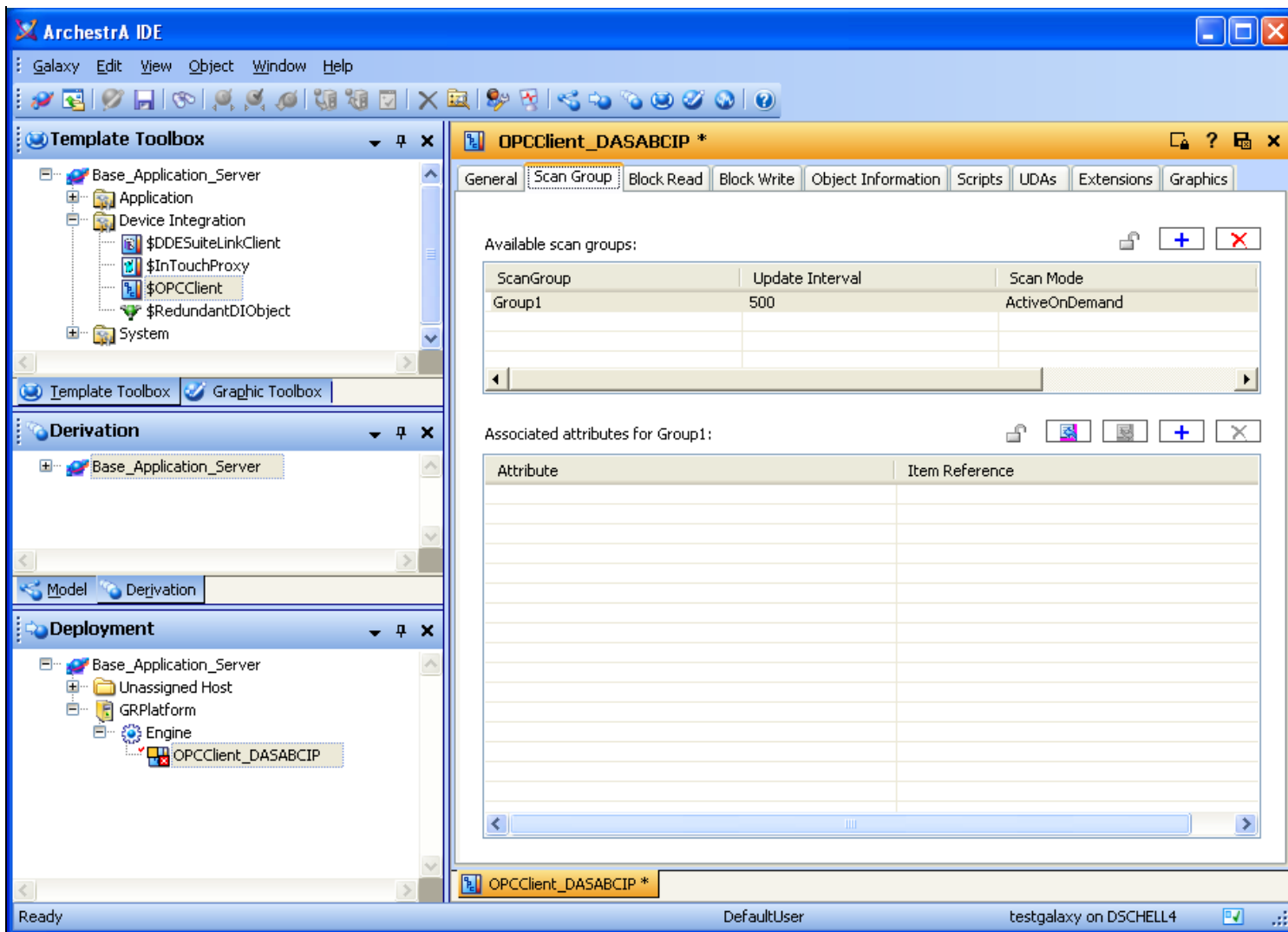


FIGURE 3: ADD SCAN GROUP

6. Select the Scan Group and add a new **Attribute** for this Scan Group. Use the **Ellipsis** button ( ... ) on the right side of the **Item Reference** field to open the OPC Item Browser window (Figure 4 below).

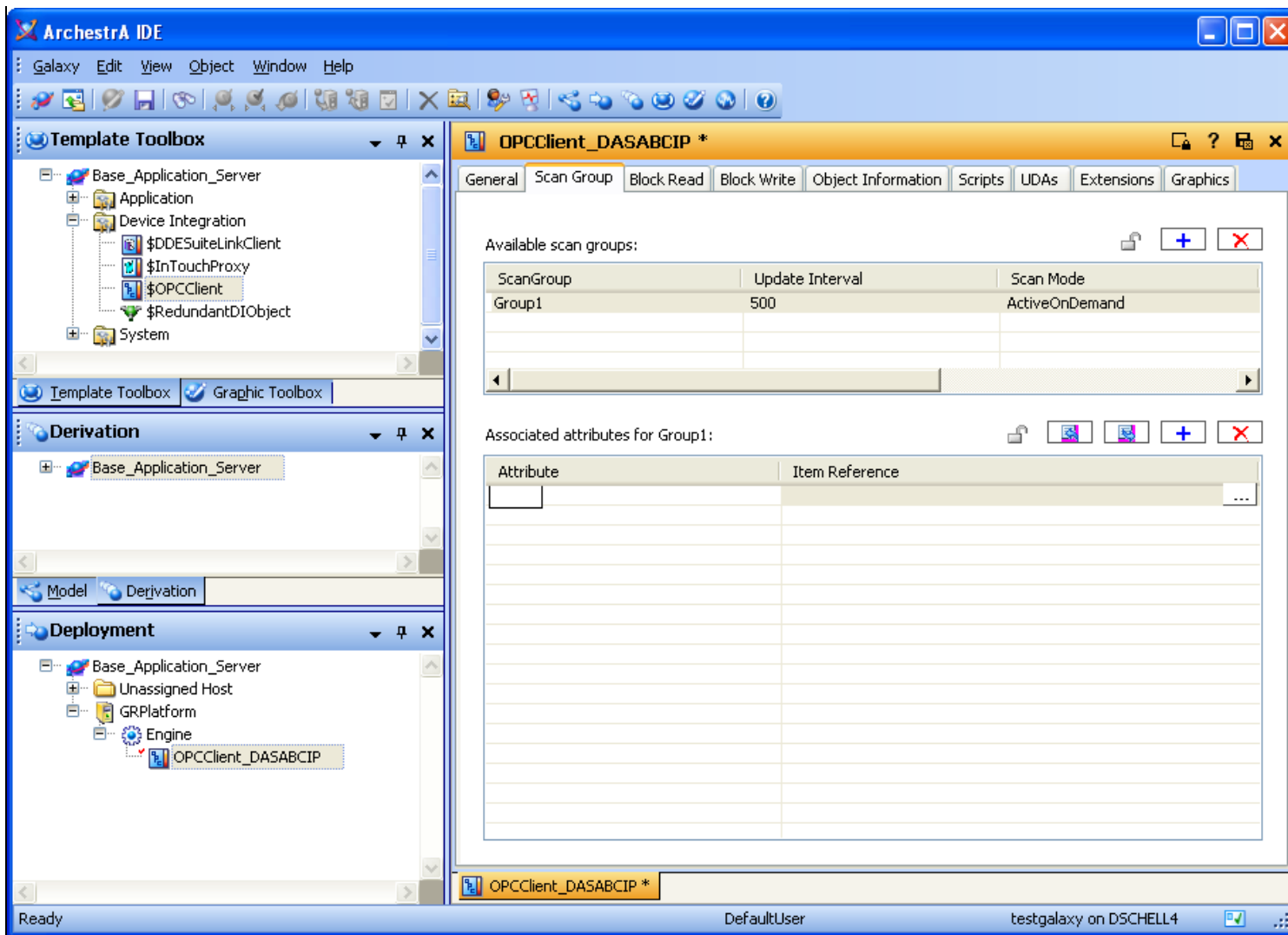
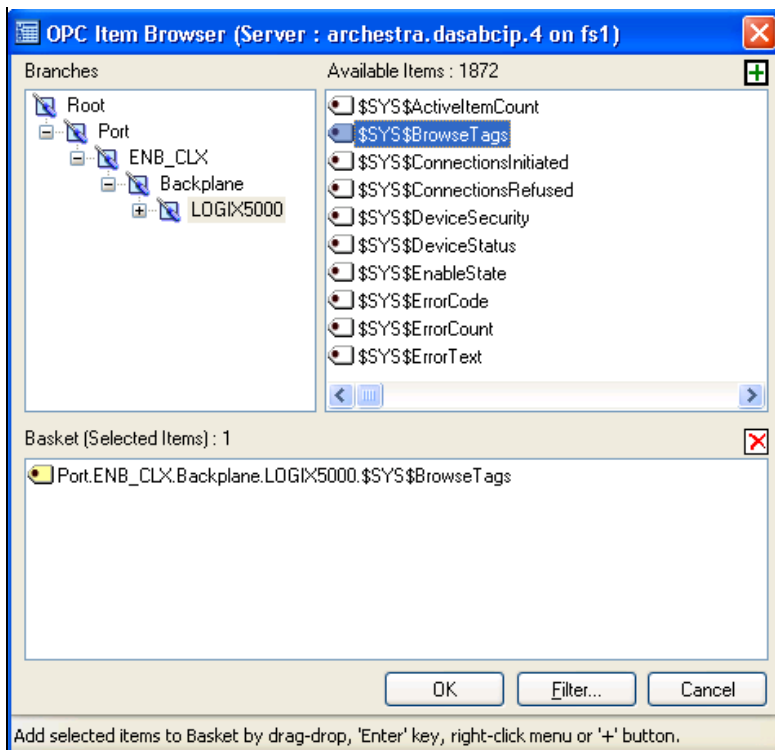


FIGURE 4: ADD A SCAN GROUP ATTRIBUTE

7. Select your PLC in the hierarchy. At this point in the procedure, only the DAServer system tags will appear in this window. Once the PLC is selected in the window on the left side, find the **\$SYS\$BrowseTags** tag on the right side and drag the tag into the **Basket** panel at the bottom.



**FIGURE 5: SELECT OPC SERVER AND \$SYS\$BROWSETAGS ITEM**

8. Click **OK**. The system tag appears in the **Attribute** list.

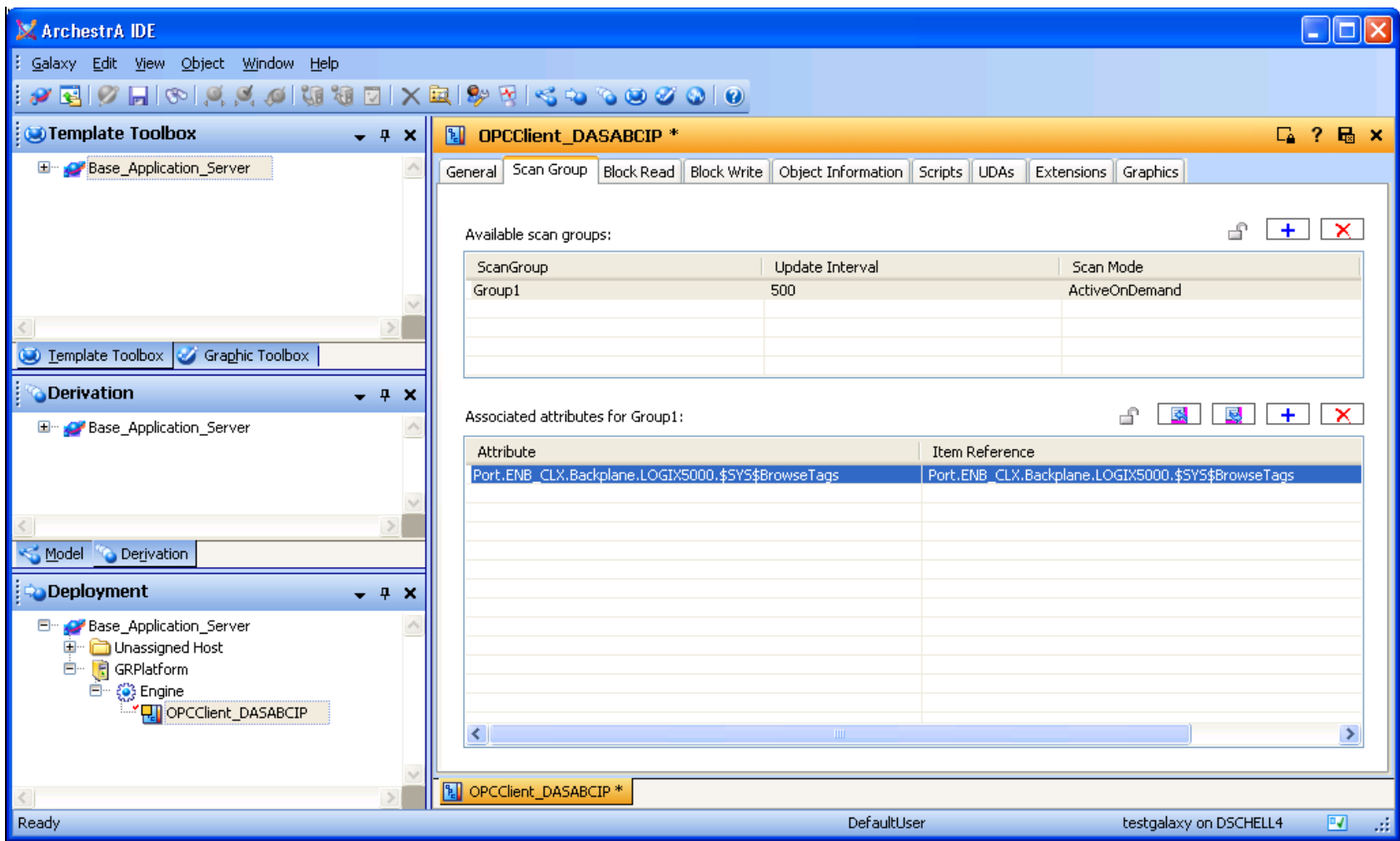


FIGURE 6: SYSTEM TAG IN ATTRIBUTE LIST

9. Save and close the OPC Client Object, and then re-open it. Click the **UDA** tab of the OPC Client Object and add a new Boolean UDA called **BrowseTags**.

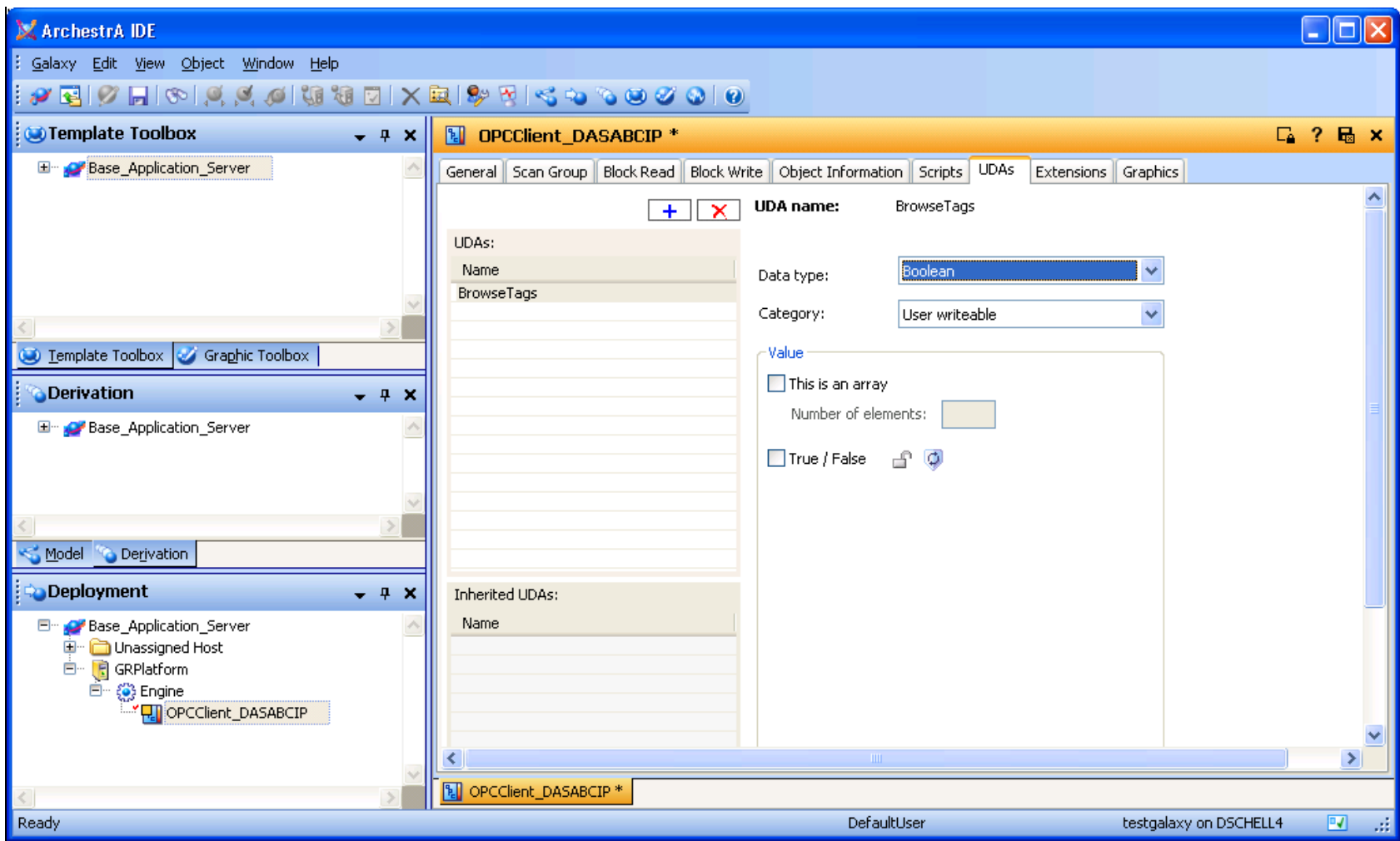


FIGURE 7: BROWSETAGS BOOLEAN UDA

10. Click the **Extensions** tab of the OPC Client Object and add an **InputOutput** extension for **BrowseTags**.

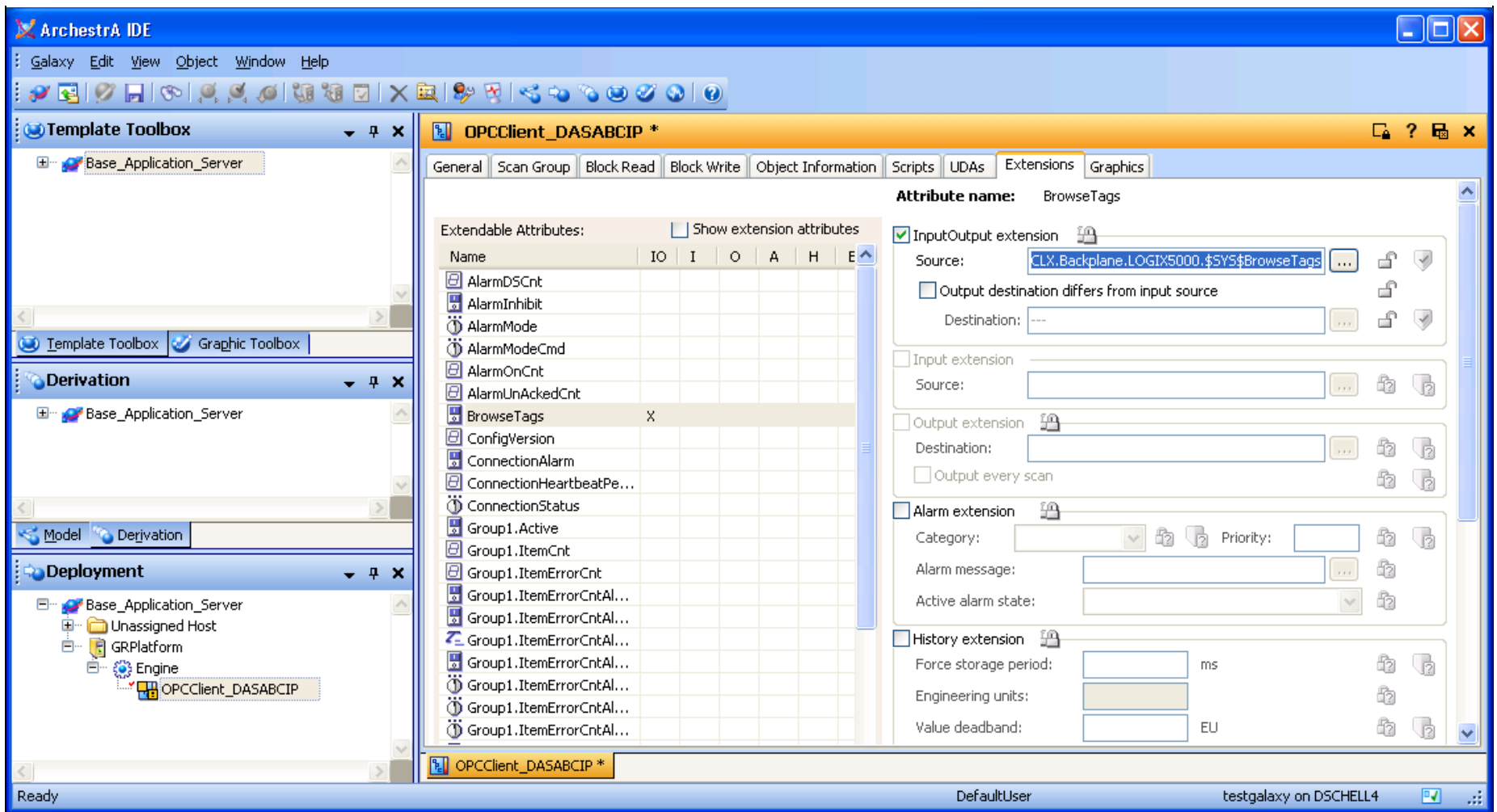


FIGURE 8: INPUTOUTPUT EXTENSION

11. Select the **\$SYS\$BrowseTags** attribute that was added to the Attribute Scan Group list for the OPC Client Object.



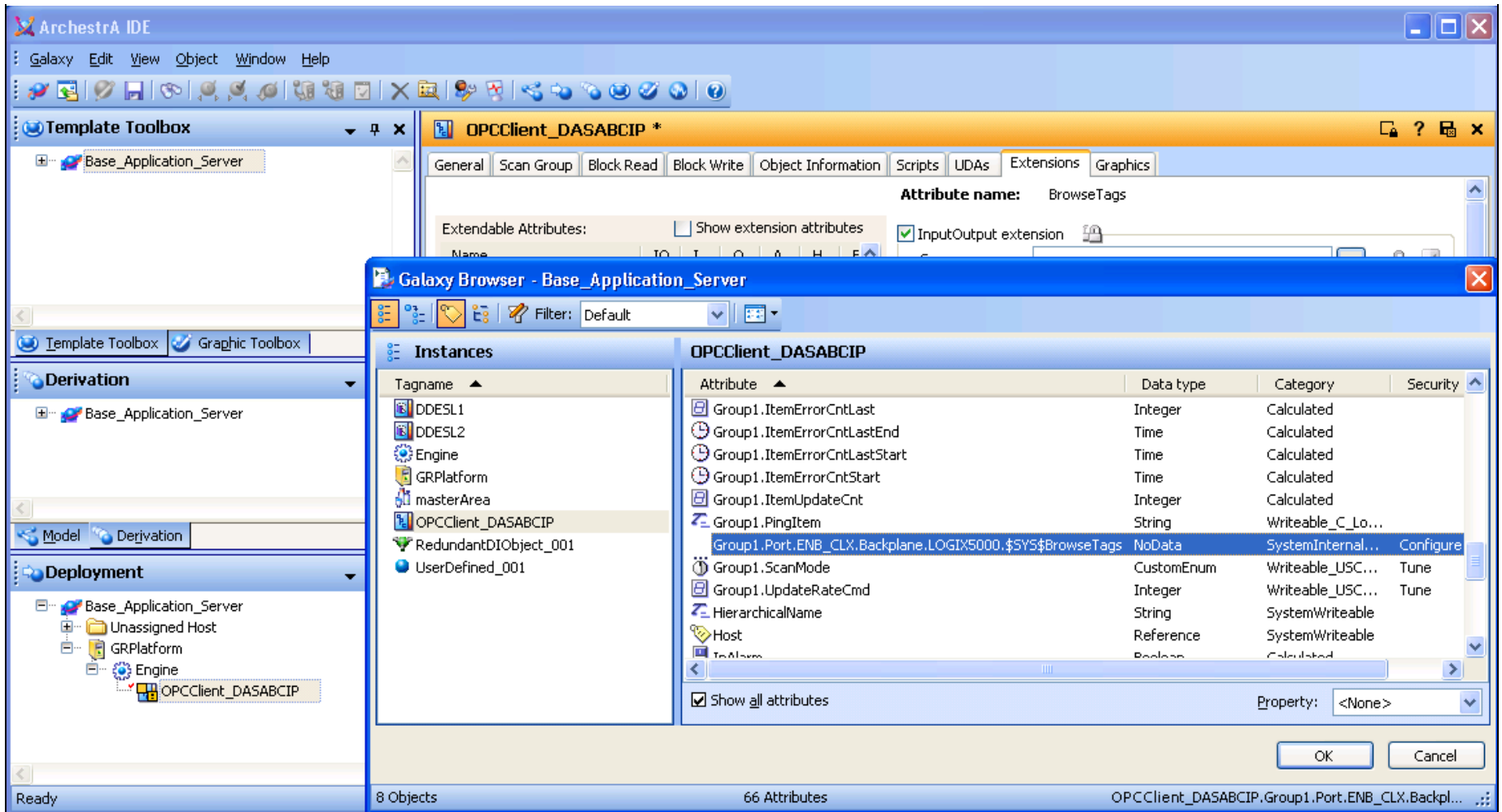


FIGURE 9: \$SYS\$BROWSETAGS SCAN GROUP ATTRIBUTE

12. Save, Close, and Check in the OPC Client Object. If the Platform and Engine that are hosting the OPC Client Object aren't deployed, deploy them.
13. Deploy the OPC Client Object.
14. Right-click the deployed OPC Client Object and select **View in Object Viewer**.

### Poke TRUE to the DASABCIP \$SYS\$BrowseTags System Tag

1. In Object Viewer find the **ConnectionStatus** attribute associated with the OPC Client Object.
2. Drag this attribute into a Watch List. Verify that the **ConnectionStatus** is connected.

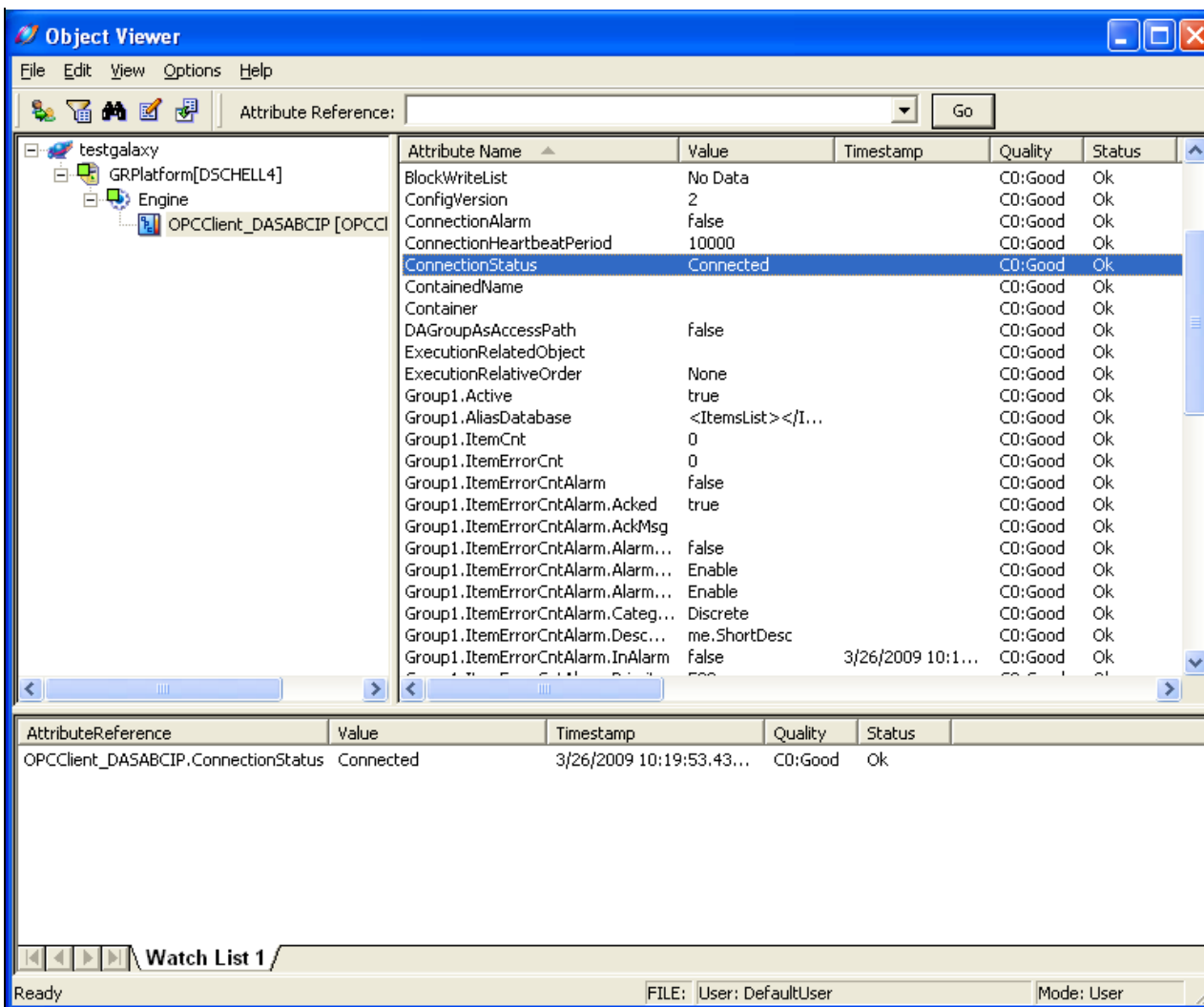


FIGURE 10: CONNECTED STATUS

If the **ConnectionStatus** Value is not **Connected**, the OPC Client is not connected to DASABCIP. Troubleshoot this issue prior to proceeding with the rest of the *Tech Note*.

- Find the UDA **BrowseTags** among the OPC Client object attribute and add it to the Watch List.

The value should be **False** with a **Good** quality.

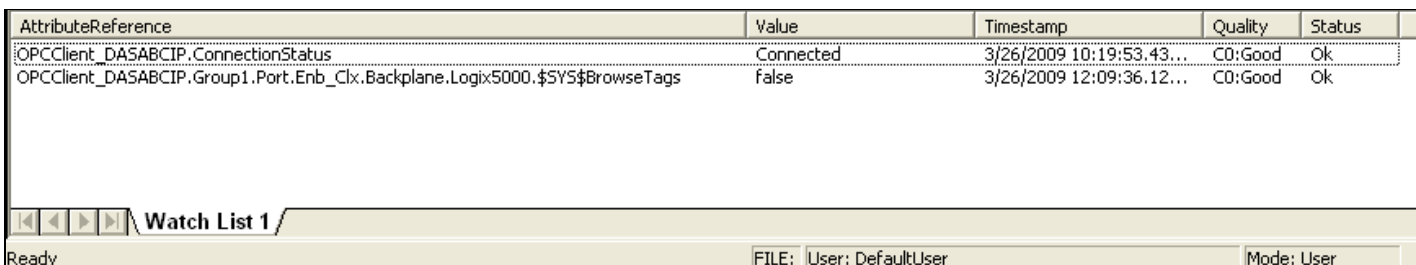


FIGURE 11: BROWSETAGS IN OBJECT VIEWER

4. Double-click the **\$SYS\$BrowseTags** attribute in the Watch List. The **Modify Boolean Value** window appears.
5. Change the value to **True**, and click **OK**.

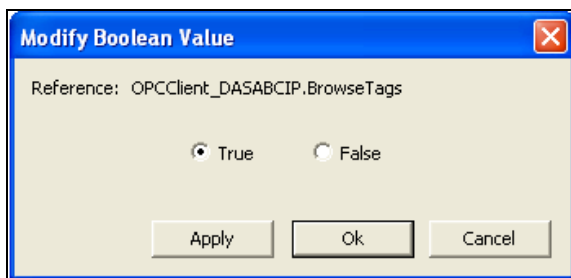


FIGURE 12: POKE A TRUE BOOLEAN VALUE

Poking a **True** to the **\$SYS\$BrowseTags** system item causes the DAServer to browse for tags on the PLC and make them available to OPC Client browsers.

However, it can take anywhere from a few seconds to minutes *after* poking a **True** value to this system tag before the tags are available in OPC Client tag browsers. The duration depends on the number of tags in the PLC program and the speed of the PLC.

6. In the IDE edit the deployed OPC Client object and select the **Scan Group** tab.
7. Add an attribute to the Scan Group and click the **Ellipsis** button. You should now be able to browse all of the tags on the PLC.

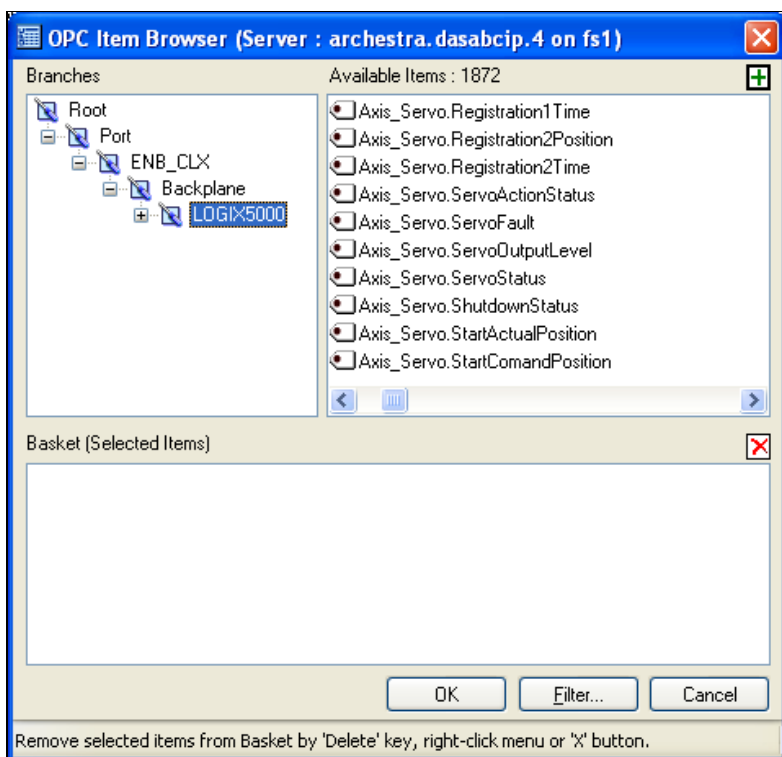


FIGURE 13: PLC TAGS

8. To add items to the attribute list highlight the desired tags, and drag-drop them to the **Basket** pane, then click **OK**.

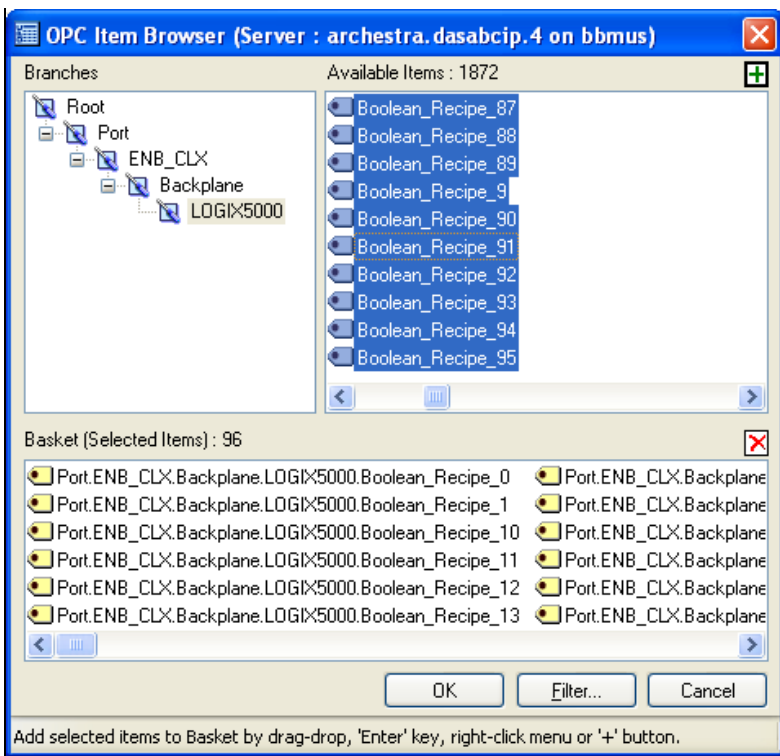


FIGURE 14: DRAG-DROP SELECTED PLC TAGS TO BASKET PANEL

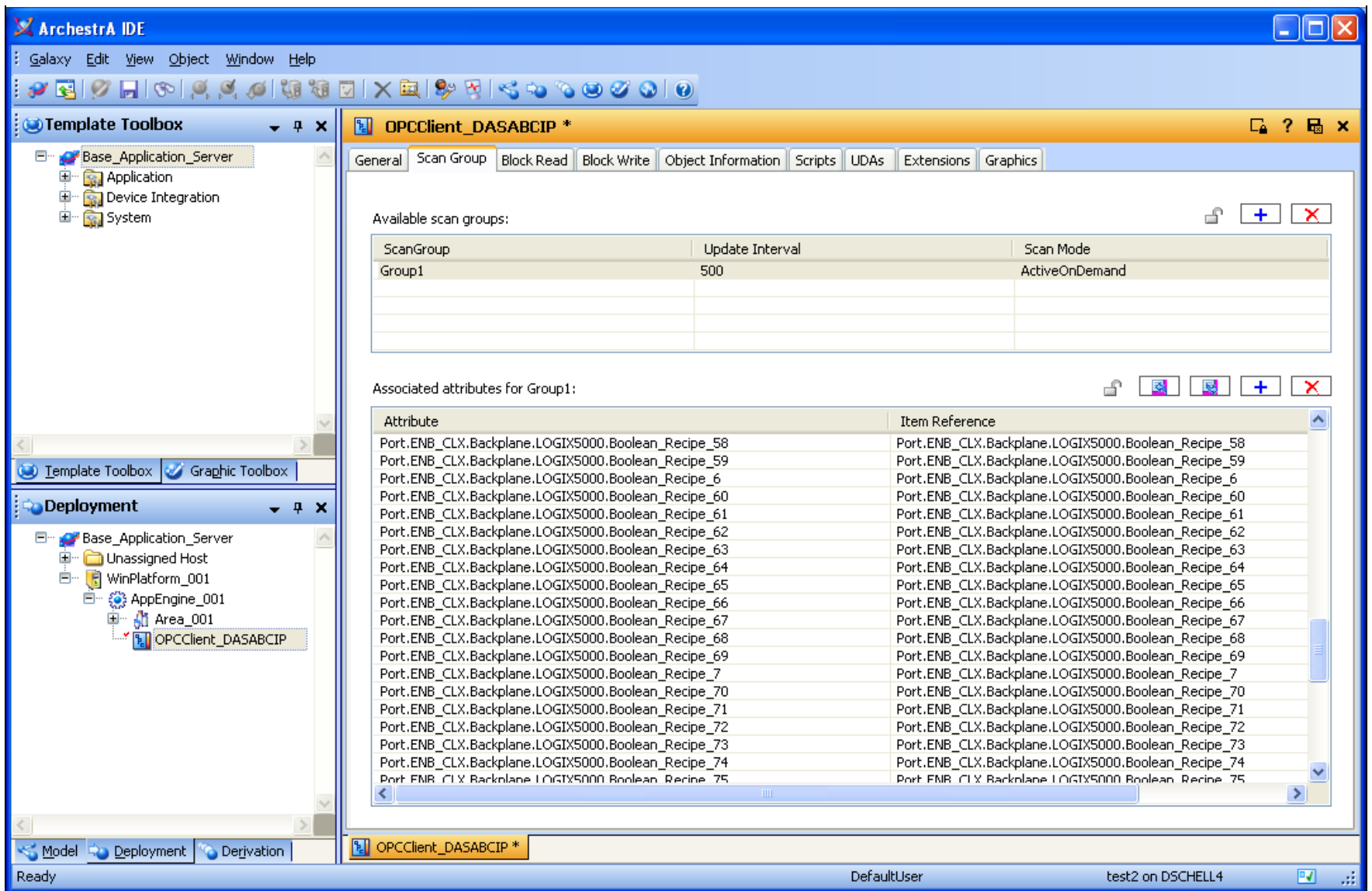


FIGURE 15: PLC TAGS IN THE IDE

After the tags are added to the list, save and close the OPC Client object. The items that were added to the attribute list are now available in the Galaxy Browser.

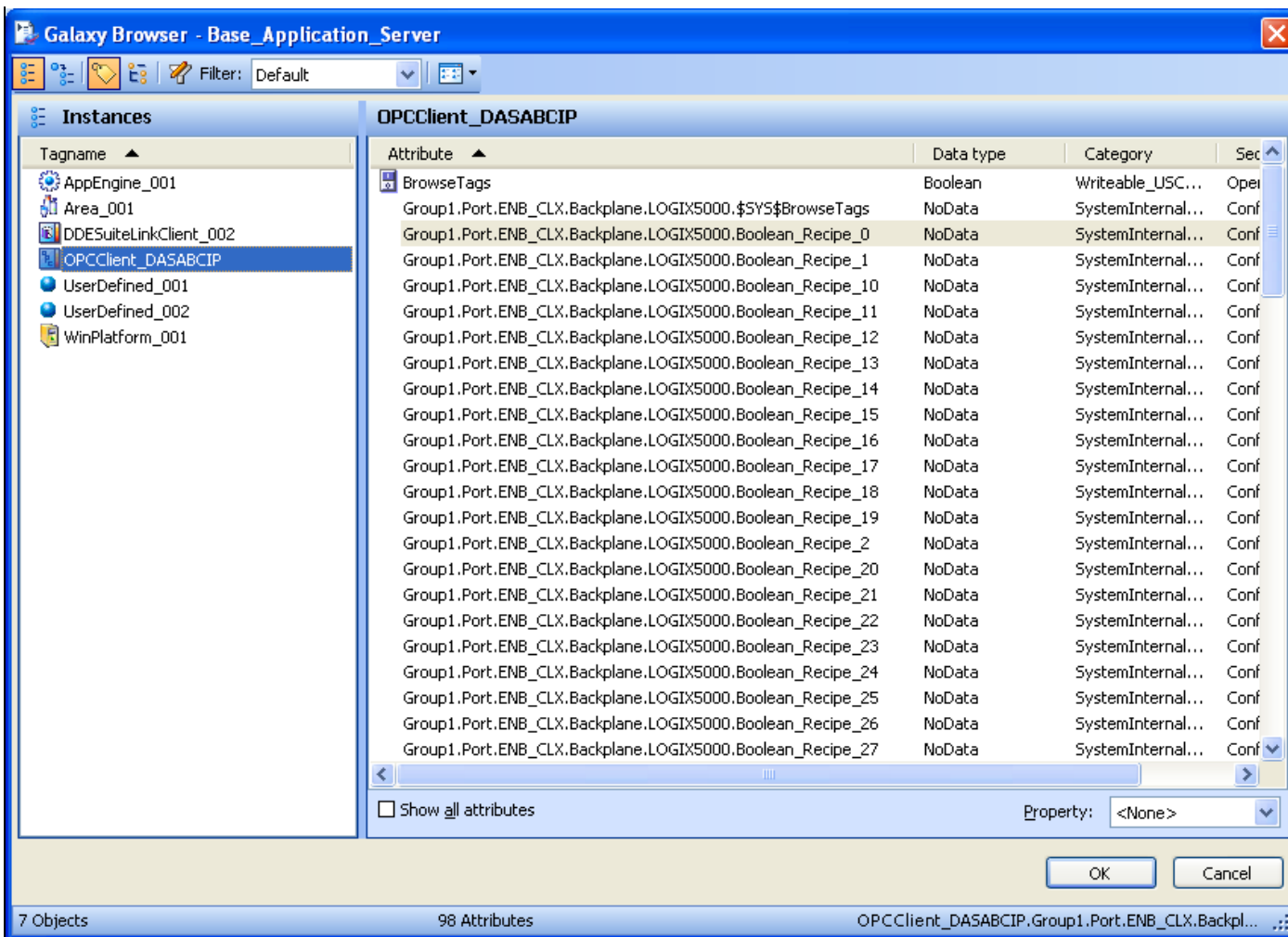


FIGURE 16: PLC TAGS IN THE GALAXY BROWSER

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