

Integration Objects'

OPC DA Test Client

OPC DA Explorer
Version 1.4 Rev.4

QUICK USER GUIDE

Integration Objects' OPC Data Access Explorer Quick User Guide Version 1.4 Rev.4
Published February 2018
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ABOUT THIS USER GUIDE

This guide is a step by step guide that lists the main steps on how to install, use and remove the OPC DA Explorer.

INSTALLATION PRE-REQUISITES

In order to properly run the OPC DA Explorer, you should install these software components on the target system:

- Microsoft .NET Framework (Microsoft .NET Framework Version 2.0 or later Redistributable Package)
- OPC Core Components which consist of all shared OPC modules including the DCOM proxy/stub libraries, the OPC Server Enumerator, .NET wrappers, etc.

INSTALLING OPC DA EXPLORER

Execute the « IntegrationObjects'OPCDAExplorer_1.4.4 » program on your machine using an administrator account. The installation wizard will take you through the different steps.

To start the OPC DA Explorer, you need to follow the below steps:

1. Go to **Start => Programs => Integration Objects => OPC Explorer => OPC Data Access Explorer => OPC DA Explorer**.
2. Start the OPC DA Explorer using an administrator account.

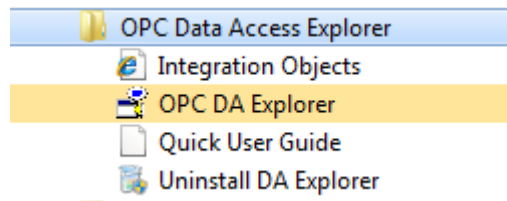


Figure 1: OPC DA Explorer Start Menu



If you are using the portable edition of the OPC DA Explorer, you will not need to go through the installation program to use the software.

CONNECTING TO AN OPC SERVER

To connect to an OPC DA server, select:

- **OPC Server**, then **Connect to server** in the Menu Bar
- Or use the **Connect to server** button in the Toolbar.

A dialog screen will appear:

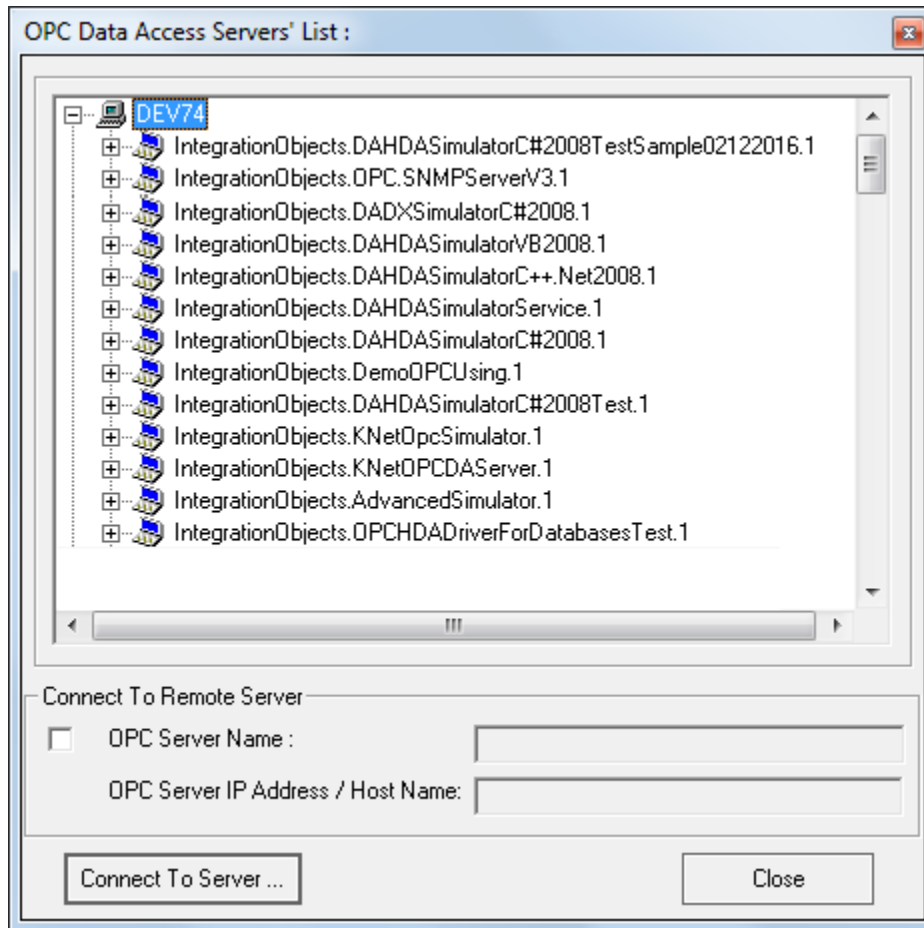


Figure 2: Connect to OPC DA Server

There are two options for adding a new OPC DA server connection.

The first option:

1. Double-click the OPC server you wish to connect to.

Second Option:

1. Type the server ProgID in the **OPC Server Name** Text Box.
2. Type the IP Address or the name of the host that contains the server in the **Host Name** Text Box.
3. Click **Connect To Server**.

The new connection will be added and the target server will be added to the connected server list.

ADDING AN OPC GROUP

To add a new group to a connected OPC server, you can click on the server and select the **Add group** menu item.

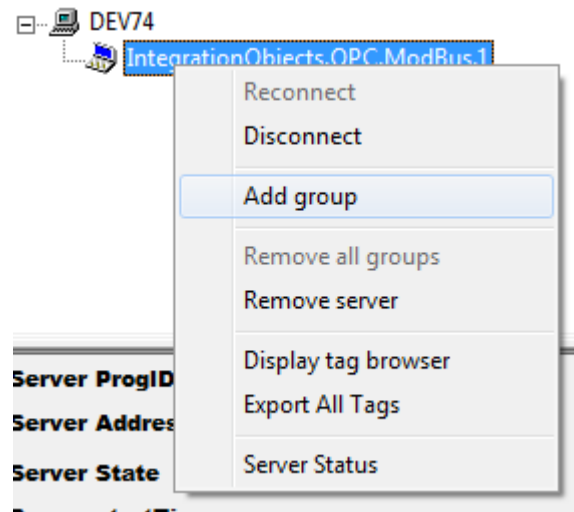


Figure 3: Add Group Menu Item

The dialog screen below will then appear:

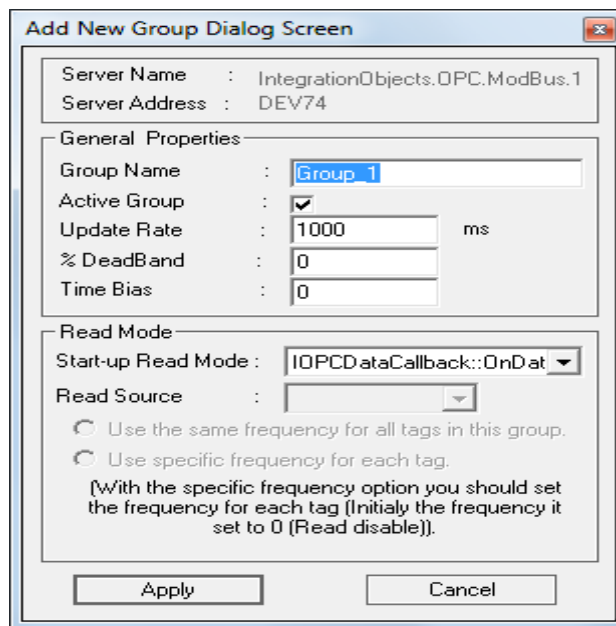


Figure 4: Add New OPC Group

Group Name: The name must be unique among the other groups already created in the same OPC Server.

Active Group: Leave *unchecked* if the group is to be created as *inactive* and *Checked* if the group is to be created as *active*.

Update Rate: The client specifies the fastest rate at which item's data changes from this group may be sent by the server. Using 0 indicates that the server should use its fastest practical rate. The rate is specified in milliseconds.

%DeadBand: The percent change in an item value that will cause a notification of this change to a client. A 0.0 value indicates all changes.

Time Bias: The purpose of the TimeBias is to indicate the time zone in which the data was collected. Use a value of 0 if you wish the group to use the default system TimeBias.

Start-up Read Mode: This parameter indicates the read mode to be launched for the group. We find 3 Read modes:

- **IOPCDataCallback::OnDataChange** (For OPC DA version 2.05)
- **Synchronous:** allows a client to perform synchronous read operations to a server. There are two types:
 - Read Source:** - DEVICE: Reading data from Device.
 - CACHE: Reading data from Cache.
- **Async I/O 2.0:** allows a client to perform asynchronous read operations to a server (For OPC DA version 2.05).
 - Two types are available:
 - Read Source:** - DEVICE: Reading data from Device.
 - CACHE: Reading data from Cache.

If you choose the Synchronous or the Async I/O 2.0 read mode, the DA Explorer allows the ability to launch the read operation with the same frequency (Update Rate) for all tags existing on the group or to configure the read with a specific frequency for each tag on the group.

If you want to start the read operation with the same frequency for all tags, you should check the box (as seen below) and set the loop frequency.

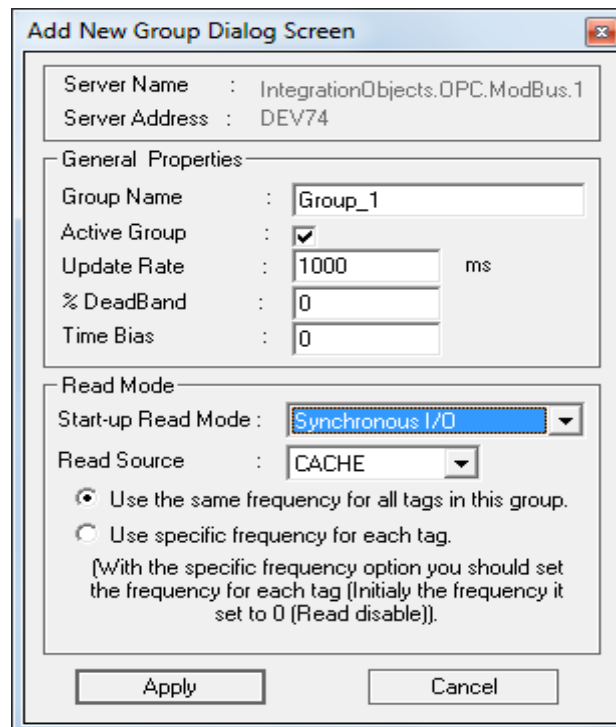


Figure 5: Use Same Frequency

To start the read operation with a specific frequency for each tag, you should check the bottom check box (The Update Rate Edit Box will be disabled) and set the related frequency for the tags that you are interested in.

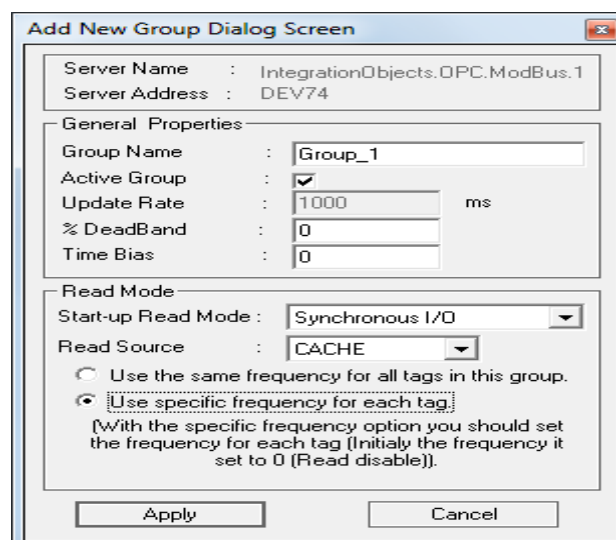


Figure 6: Set Specific Frequencies

Initially, all tag read frequencies are set to 0 (Read Disabled).

To configure the read frequency for the desired tag, you should right click on it and choose **Item Read Frequency** from the displayed menu. A dialog will appear

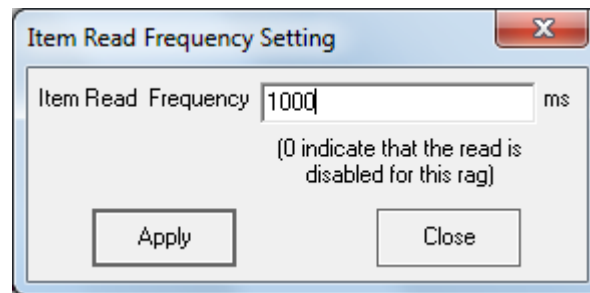


Figure 7: Item Read Frequency Setting

ADDING OPC ITEMS TO A GROUP

To add one or more items to a group, you can right click on the desired group and then select the **Add Items** menu item.

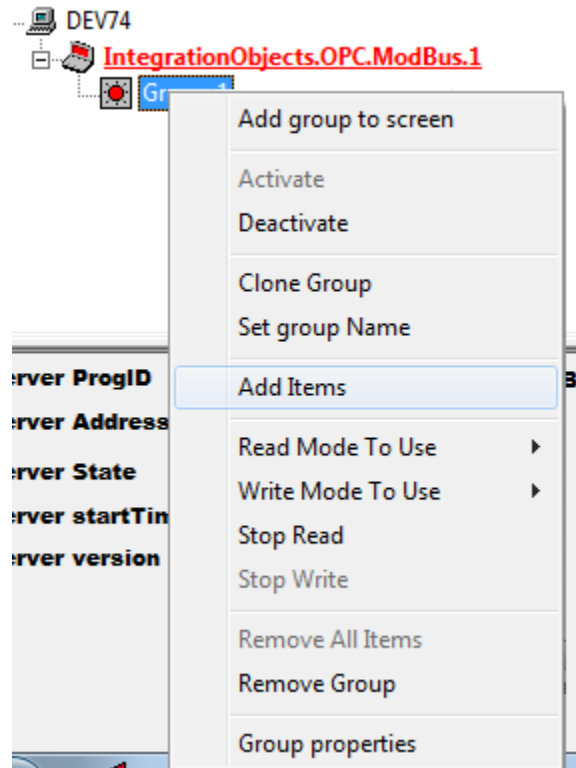


Figure 8: Add Items Menu Item

A dialog screen will appear:

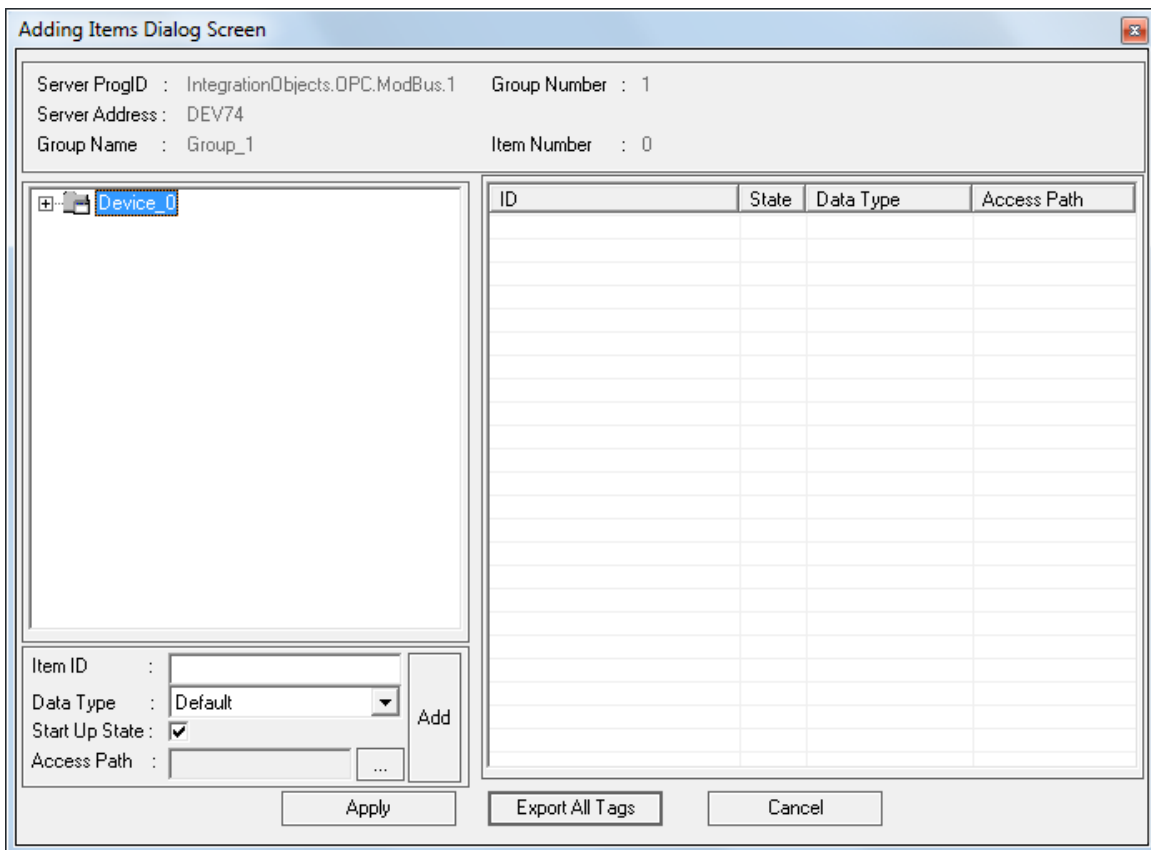


Figure 9: Add Items to a Group

- The top section shows the related server and group properties.
- The left-top section shows a browse tree where you can search for items.
- The left-bottom section shows the properties to attribute to the item (Active/Inactive, AccessPath, DataType).
- The right section shows the items you have chosen.
 - **Item ID:** the item name
 - **Item State:** the state of the added item.
 - **Item Data Type:** the data type of the added item
 - **Access Path:** the access path of the added item.

The example described below will be based on the following server address space:

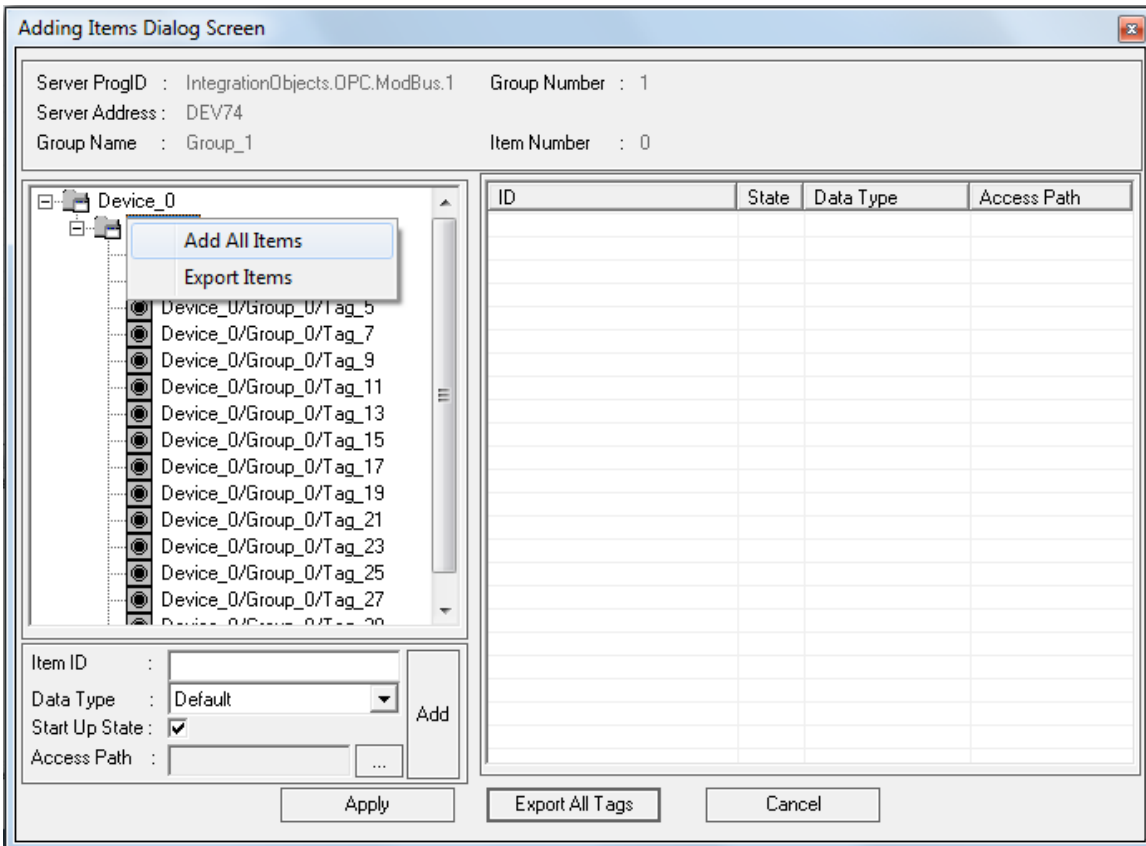


Figure 11 : Add All Branch OPC Items

All items will be added to the list box.

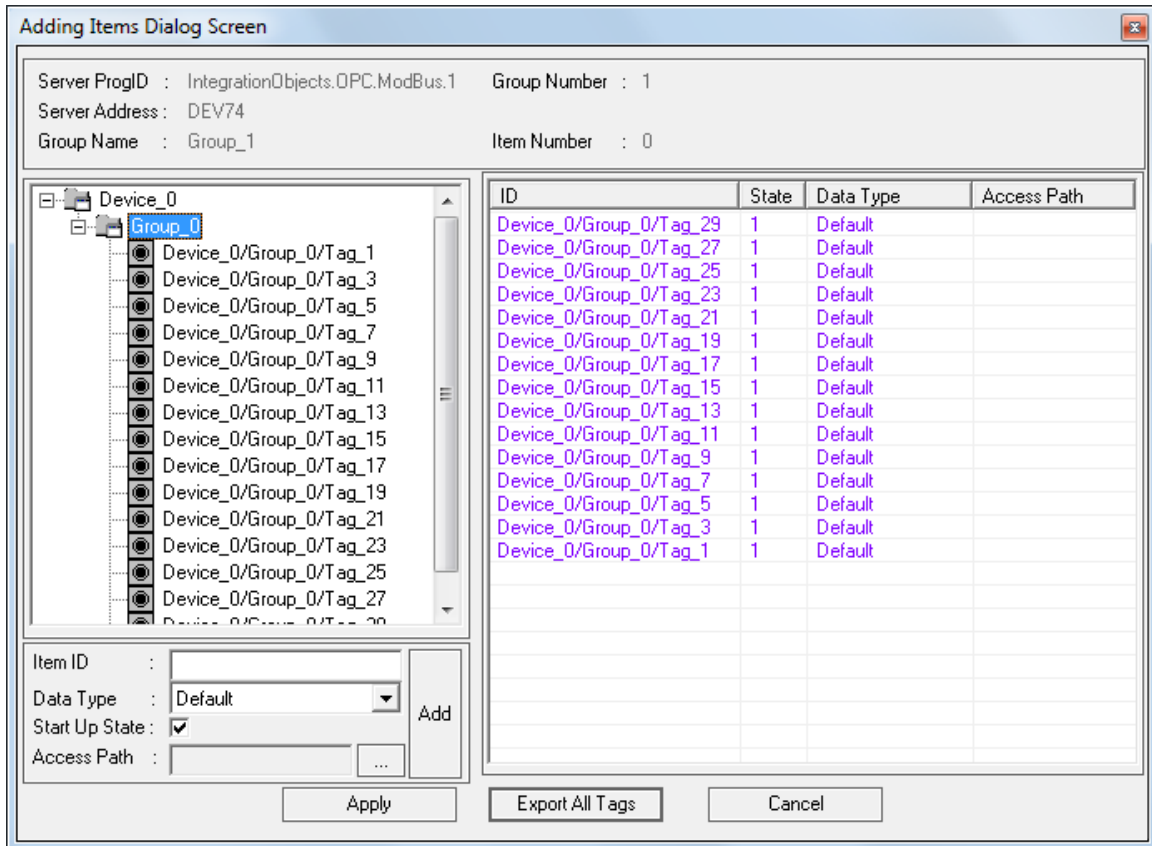


Figure 12: All OPC Items Added

- If an ItemID does not exist in the browse tree, you can manually type the ItemID in the ItemID text box then click the **Add** button.

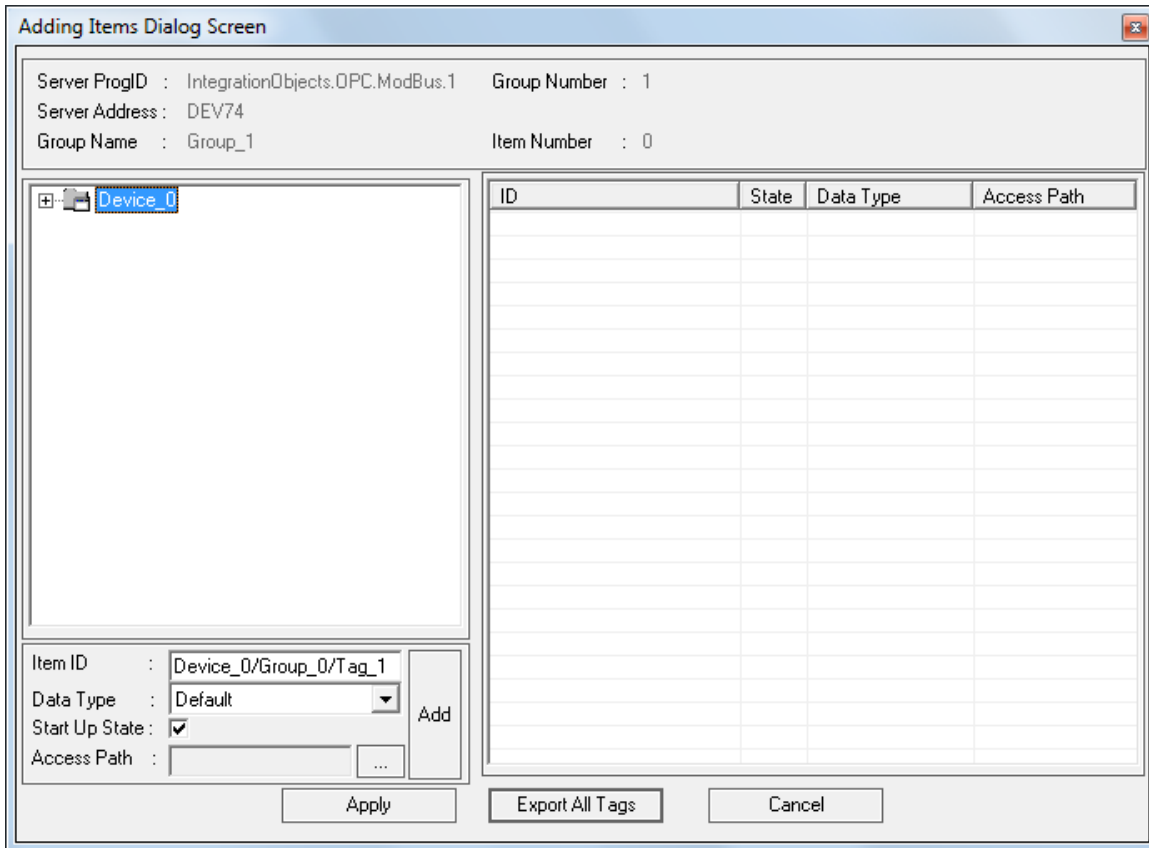


Figure 13: Manually Add OPC Item

The edited ItemID will be added to the list box.

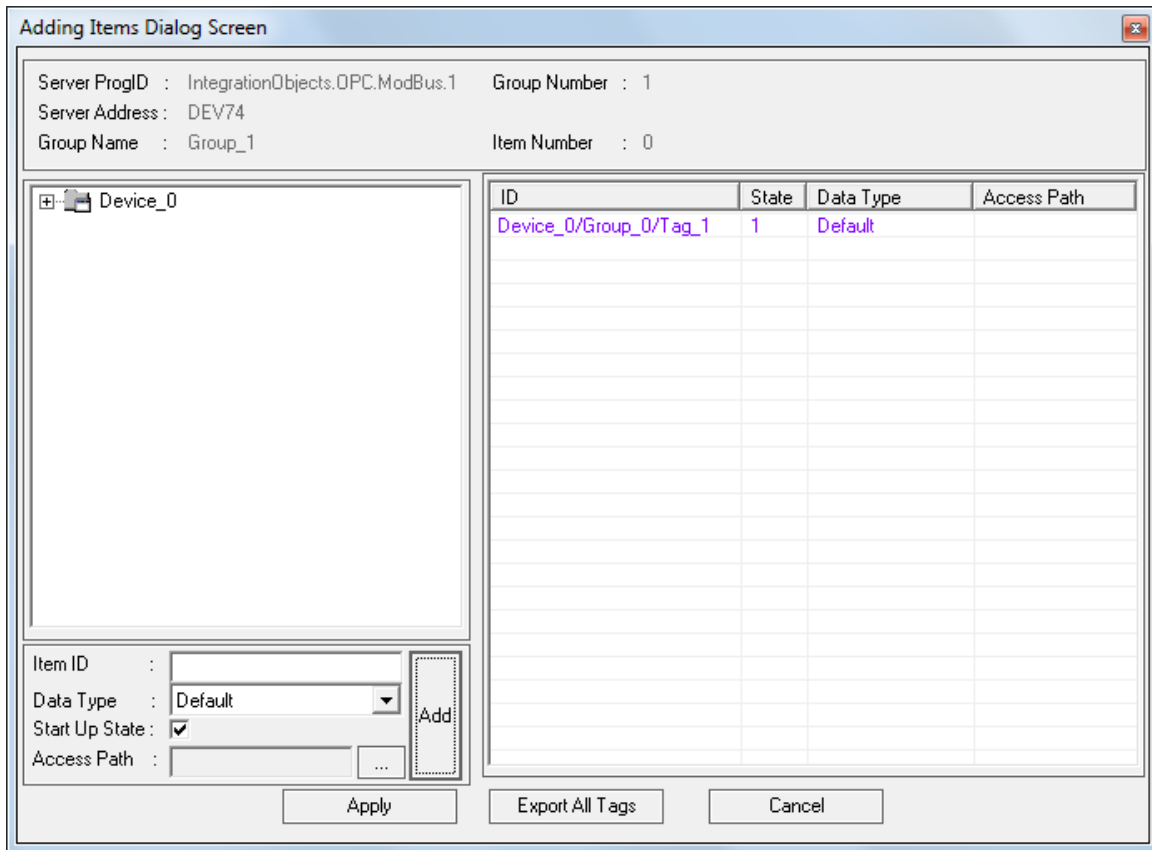


Figure 14: OPC Item Manually Added

WRITING ITEM VALUE

Whenever you want to write an item value using the DA Explorer, you should first start a Write operation (In case the group write is stopped). Then, you can click on the desired item and select the **Write Item Value** menu item.

A dialog screen will appear:

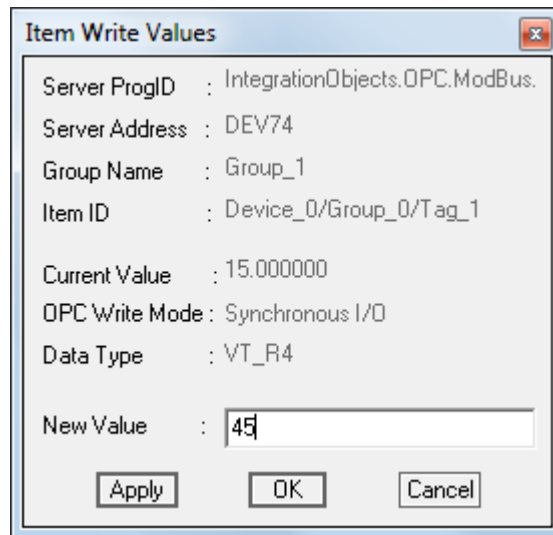


Figure 15: Item Write Value

- Current value** : The current value for this item.
- OPC Write Mode** : The current write mode for the related group.
- New Value** : You can enter in this text box the new value to be written.

REMOVING OPC DA EXPLORER

To uninstall the OPC DA Explorer, you need to follow the steps below:

1. Click the “Uninstall DA Explorer” shortcut available in the start menu, as shown in the figure below:

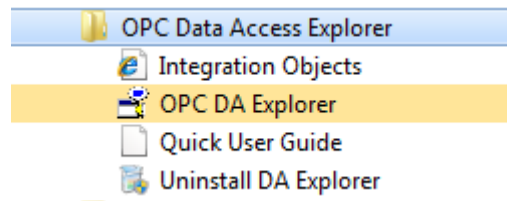


Figure 16: Uninstall Shortcut in the Start Menu

The following dialog box will appear:

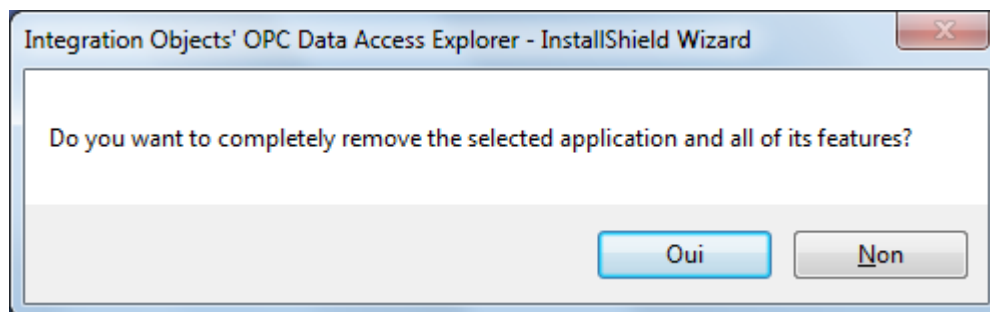
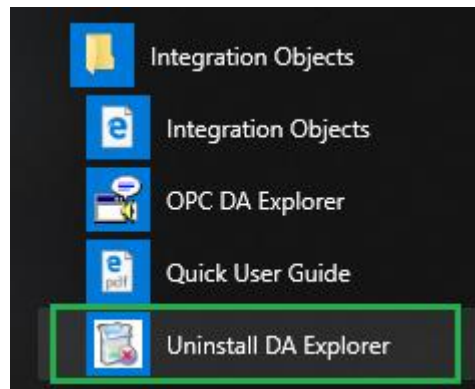


Figure 17: Uninstall the OPC DA Explorer

2. Click the **Yes** button to start uninstalling.
3. The wizard will then take you through the removal steps. At the end, click **Finish** when the un-installation is complete.



If you are using the windows 10, windows server 2012 or windows server 2016 operating system, the uninstaller needs to be run from the start menu as shown below.

**Figure 18: Windows 10 Startup Menu Uninstall Shortcut**

The OPC DA Explorer can also be manually removed as follows:

1. Go to the **Control Panel**.
2. Click **Programs and Features**
3. In the **Programs and Features** dialog screen, select **Integration Objects' OPC Data Access Explorer**.
4. Click **Uninstall** then **OK**.



If you are using the portable edition of the OPC DA Explorer, you will only need to manually delete the DA Explorer executable from the machine.

For additional information on this guide, questions or problems to report, please contact:

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