

**Reference Guide**

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# **OpenEnterprise Tag Browser Reference Guide (V2.83)**

**Remote Automation Solutions**

Website: [www.EmersonProcess.com/Remote](http://www.EmersonProcess.com/Remote)



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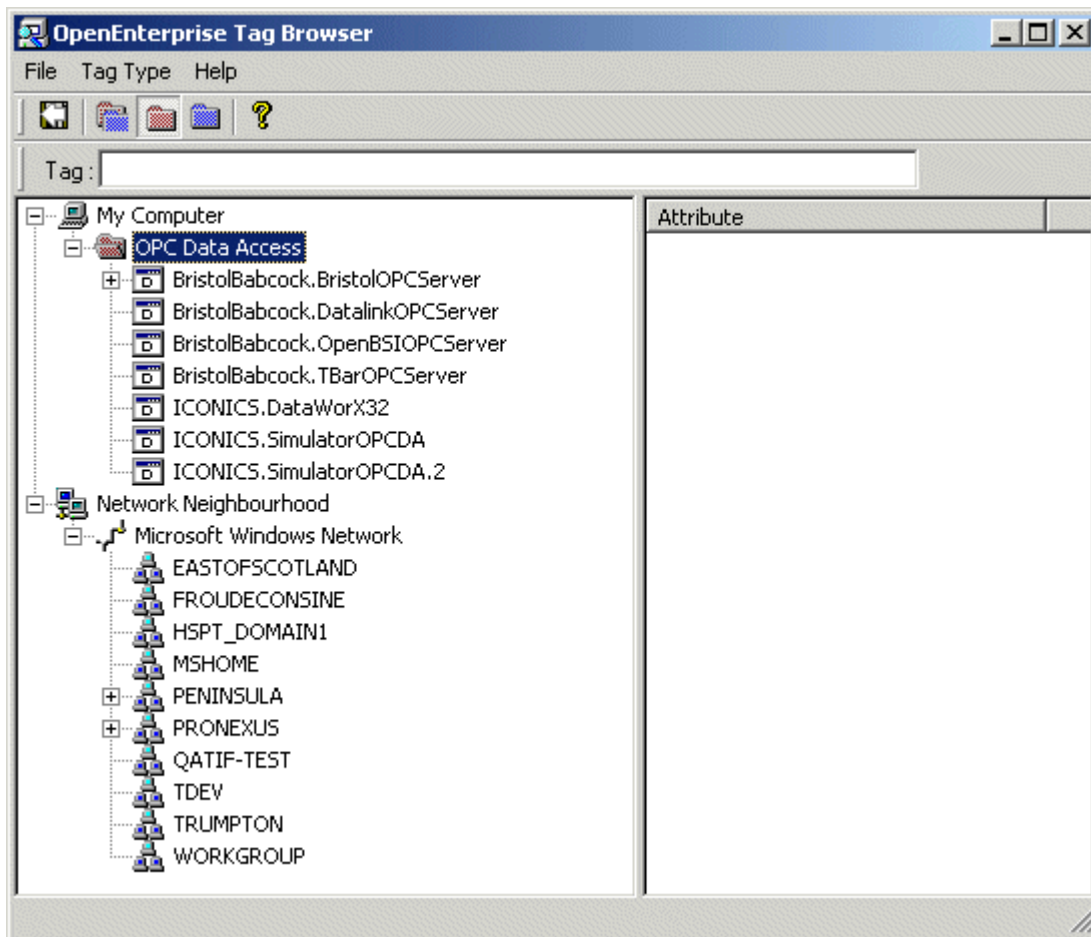
# 1 Bristol OPC Tag Browser

The Bristol OpenEnterprise Tag Browser enables the user to browse and select OPC tags from OPC Servers for inclusion as pen process points in OpenEnterprise Trend Views. It is also used to select tags for inclusion in the database when using the OPC Client RDI configuration tool.

When accessing the Tag Browser from the Trend View component, both OPC Data Access and OPC Historical Data Access servers are displayed by default. When accessing it from the OPC Client RDI configuration tool, the OPC Data Access server alone is displayed by default. However, it is possible to invoke either server from the User Interface.

## 1.1 User Interface

The image below displays the Tag Browser interface when invoked from a Trend View.



### 1.1.1 File Menu

The File Menu contains a command to Exit the Tag Browser. If this option is chosen, any tag deposited in the *Tag:* field will not be exported back to the calling application.

### 1.1.2 Tag Type Menu


There are three options on this menu which control the display of OPC servers in the Left Pane of the User Interface.

1. All
2. Data Access
3. Historical Access


### 1.1.3 Tag Field

When an attribute has been selected from the Right Pane, the tag string is placed in the *Tag:* field at the top of the window, ready for export to the calling client application.


### 1.1.4 All

Selection of the *All* option from the *Tag Type* menu, or the  icon on the Toolbar causes the Tag Browser User Interface to display both the OPC Data Access and OPC Historical Data Access servers in the Left Pane.

### 1.1.5 Data Access

Selection of the *Data Access* option from the *Tag Type* menu, or the  icon on the Toolbar causes the Tag Browser User Interface to display only the OPC Data Access server, which provides tags sourced from the NW3000realanalog and NW3000digital tables.

### 1.1.6 Historical Data Access

Selection of the *Historical Data Access* option from the *Tag Type* menu, or the  icon on the Toolbar causes the Tag Browser User Interface to display only the OPC Historical Data Access server, which provides tags sourced from the historical logging tables.

### 1.1.7 Help Menu

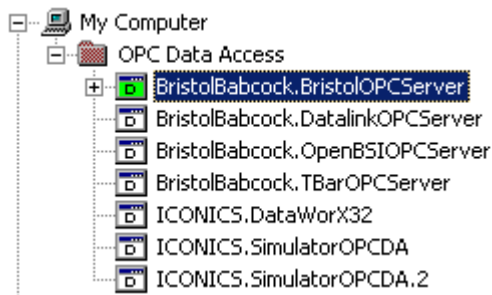
This menu provides access to this help file as well as the 'About' dialog, which provides OpenEnterprise version and contact details.

### 1.1.8 Exit Arrow

When a tag has been selected, selection of this button closes the Tag Browser interface and returns the user back to the calling application, which will be either the Trend View or the OPC Client RDI. The tag string in the *Tag:* field of the Tag Browser will be exported to the calling application.

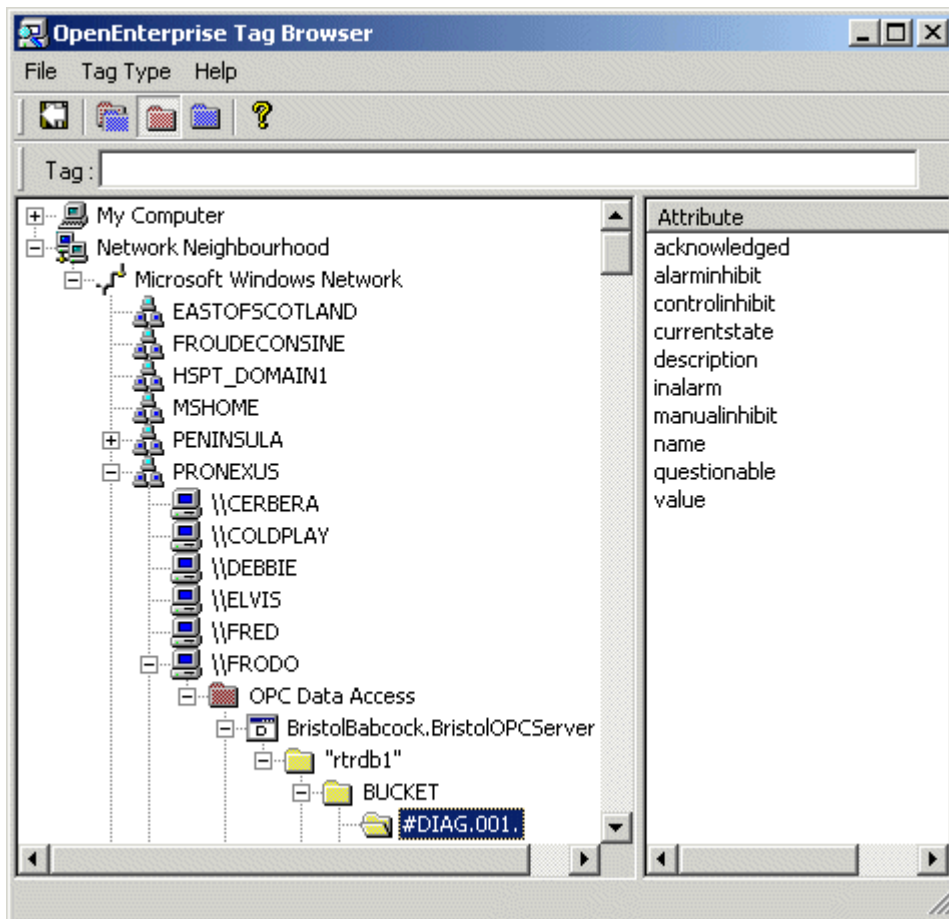
### 1.1.9 Left Pane

The Tree Pane on the left of the Tag browser displays the realtime and historical OPC Servers running on the local computer. To select a realtime tag, click on the 'OPC Data Access' folder, to select a historical tag select the 'OPC Historical Data Access' folder. When either of the OPC Servers is selected, it will turn green, indicating that the tag browser is receiving tags from the the relevant OPC Server, and a tick will appear to the left of it, showing that nodes exist underneath it.



The tree can then be opened out further to enable the selection of an individual tag.

Browsing for OPC Servers working on other computers over the Network is possible by clicking the 'Network' node. This opens up to reveal the Windows Network Domains available, in the same way as the Windows Explorer displays 'My Network Places'. It is possible to drill down the Network hierarchies to find computers that have OPC Servers available, and, providing that you have the necessary COM security privileges, to browse each remote OPC Server for tags.



### 1.1.10 Right Pane

When any OPC Group node of the tree in the Left Pane is opened, the Right Pane will display the tags that are available from that Group.

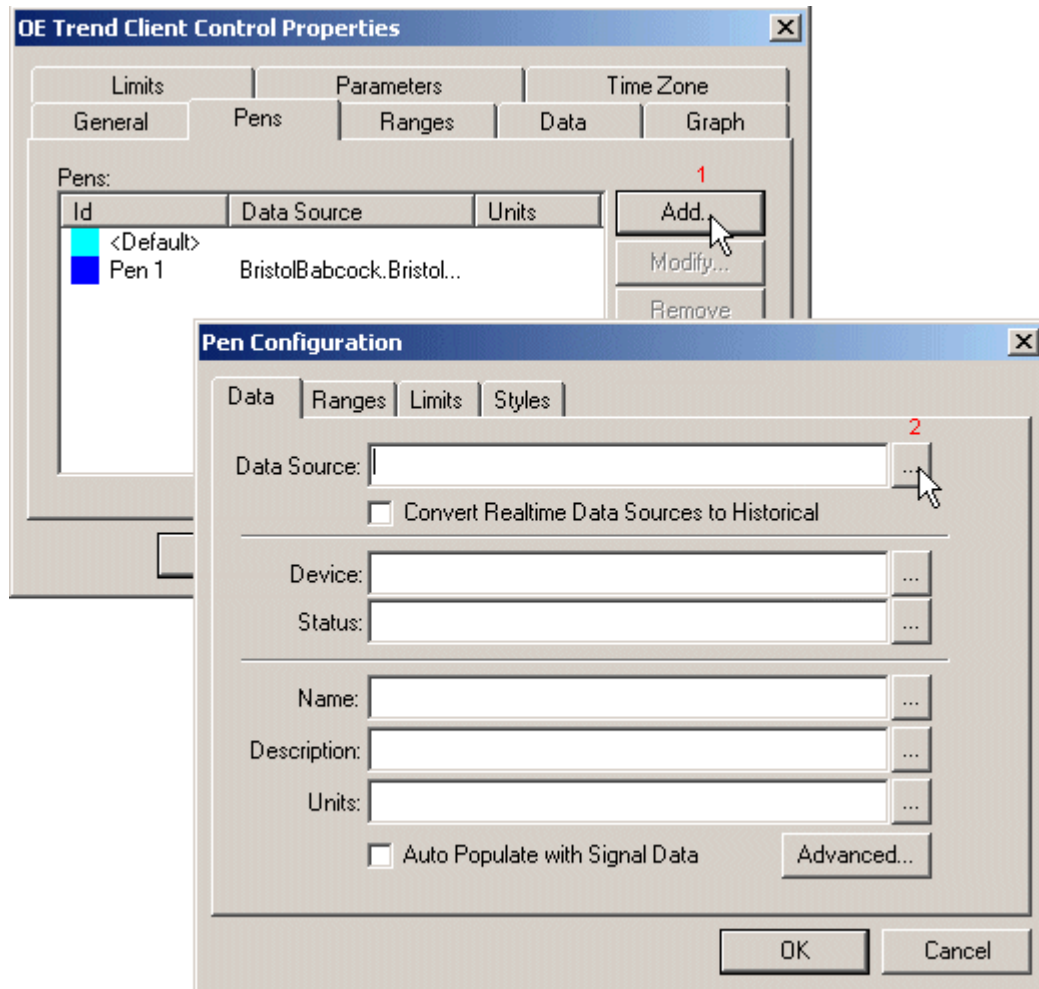
## 1.2 Invoking the Tag Browser

The Tag Browser is a Server component that does not run by itself, but is only invoked by its Clients. These clients are: -

1. The Trend View (in configuration mode)
2. The OPC Client RDI configuration tool.

### 1.2.1 From the Trend View Client

The Tag Browser can be invoked from the Pen Configuration page of the Trend View client. First, the Trend View must be placed into Configure mode, by selecting **Ctrl** and **m** together on the computer keyboard, or **File>Mode>Configure** from the OEDesktop menu bar, or the **Configure** menu if you are using the Trend View container. Then right click on the Trend View to select the Properties context menu, and its Property pages will appear. Select the Pens page, and then either the **[Add]** button (for a new pen), or the **[Modify]** button to change an existing pen. Finally, select the small Browse button to the right of the *Data Source*: field to invoke the Tag Browser.



### 1.2.2 From the OPC Client RDI Configuration Tool

The Tag Browser can be invoked in two different ways from the OPC Client RDI tool:-

1. From the **[Browse]** buttons on the OPC Server dialog or the OPC Item dialog of the OPC Client RDI Configuration Tool, as shown in the examples below.
2. From the *Get Tags* context menu or the button on the Main Configuration dialog.

1.2.2.1 Browse Buttons

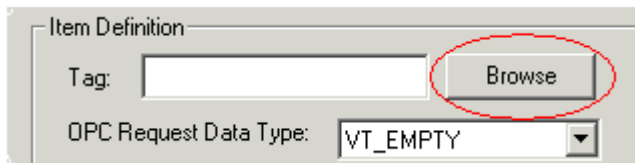
1.2.2.1.1 OPC Server Dialog

When this browse button is selected from the OPC Server dialog, the Tag Browser is invoked, displaying all OPC Servers available. It returns the selected OPC Server Prog ID to the configuration tool.



1.2.2.1.2 OPC Item Dialog

When the browse button indicated in the example below is selected, the Tag Browser is invoked with the relevant OPC Server selected. The OPC Server can then be browsed to return a single tag to the Tag: field for the OPC Item.



1.2.2.2 Get Tags Command

The Tag Browser is also invoked when the Get Tags context menu item is selected from any Server, Device or Group node, as shown in the example below.



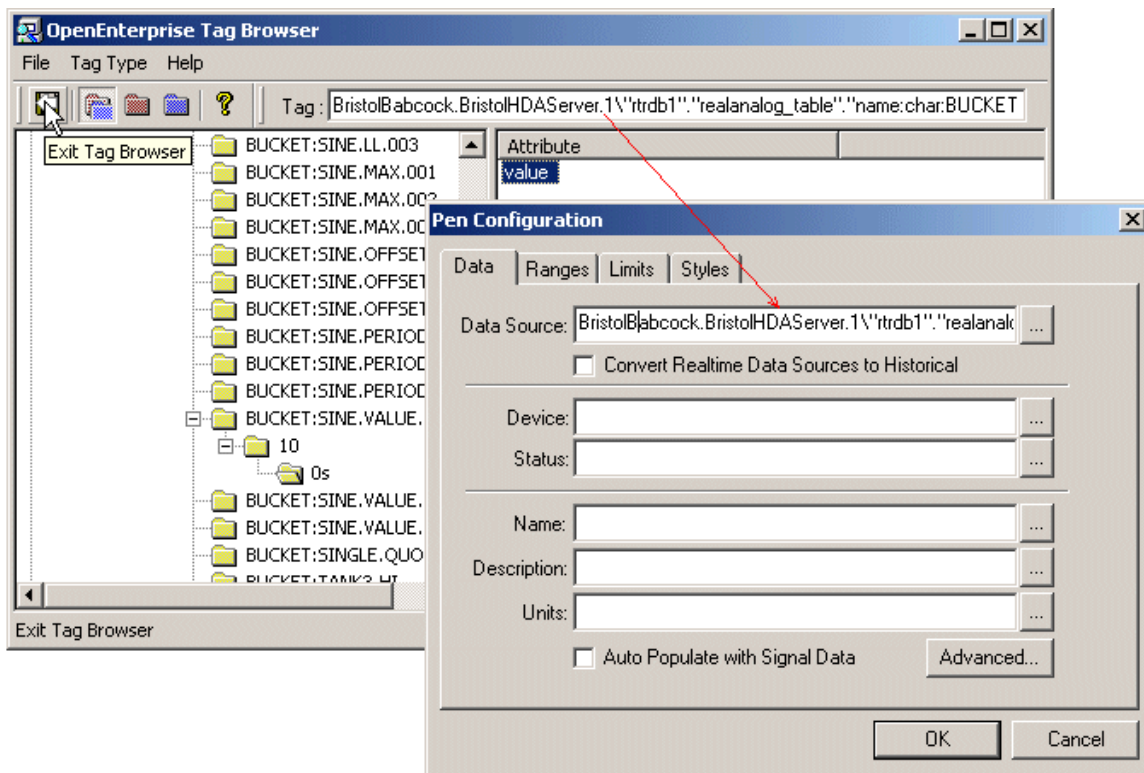
There is also a Get Tags button on the OPC Client RDI configuration tool interface that performs the same operation when a valid object is selected from the left or right pane of the tool. For detailed information on how the Tag Browser imports multiple tags into the OPC Client RDI configuration tool, please refer to its own help file.

1.2.3 Importing Tags back into the Client

The Tag Browser imports tags slightly differently depending on whether it is the Trend View, or the OPC Client RDI Configuration tool that calls it.

1.2.3.1 To a Trend View

Below is an example of a tag being imported from the Tag Browser into a Trend View Client.



To import a tag to the Trend View:-

- From the Pen Configuration Data page select the browse button ([...]) next to the Data Source field.
- The Tag Browser is opened and the tag is selected.
- The Tag string is automatically placed into the *Tag:* field of the Tag Browser.
- Finally, the white arrow on the Tag Browser toolbar with the *Exit Tag Browser* tooltip is selected.
- The selected tag is then exported back into the *Data Source* field of the calling Trend Client, and the Tag Browser closes.

**Note:**

The Trend View property pages are disabled whilst the Tag Browser is open. Any attempt to access them before closing the Tag Browser may cause the computer to appear to 'hang'.

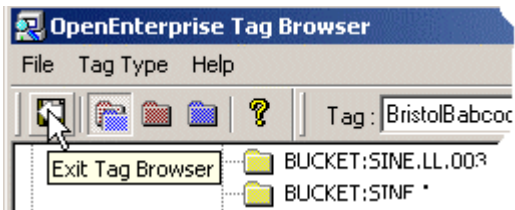
**1.2.3.2 To the OPC Client RDI Config**

The Tag Browser uses two methods to return tags to the OPC Client RDI, depending on the context in which it is called

**1.2.3.2.1 White Arrow on Toolbar**

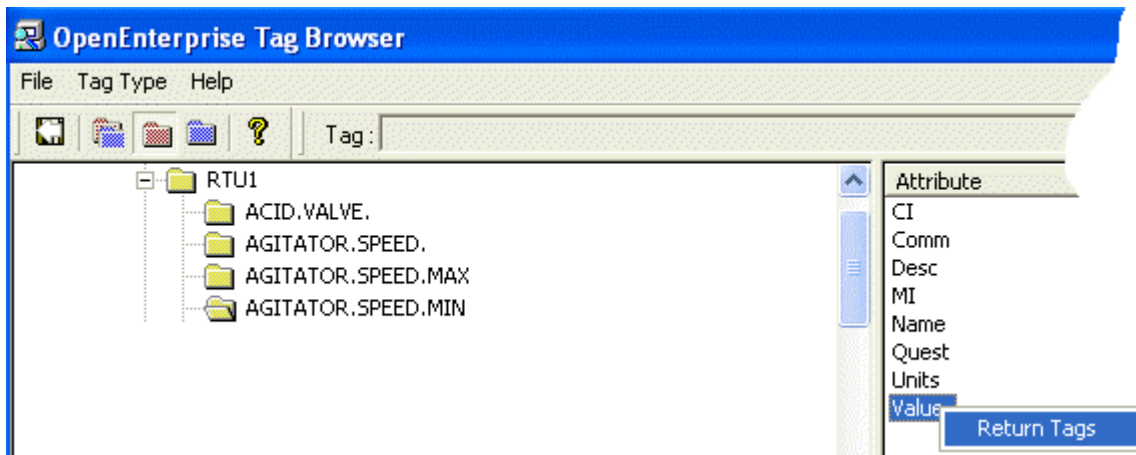
If the Tag Browser was called from the Browse button on the OPC Server or OPC Item dialogs, the selected Server object or tag is returned to the client when the white arrow on the toolbar is selected, as shown in the example below. This is the same as when returning tags to the Trend View.





1.2.3.2.2 Return Tags Context Menu

If the Tag Browser was called from the *Get Tags* context menu, or button, the Tag Browser employs a *Return Tags* context menu, which appears on any node in the left pane of the Tag Browser, or any actual tags selected from the right pane. This is shown in the example below.



For detailed information on how multiple or single tags are returned to the OPC Client RDI configuration tool, please refer to its own help file.

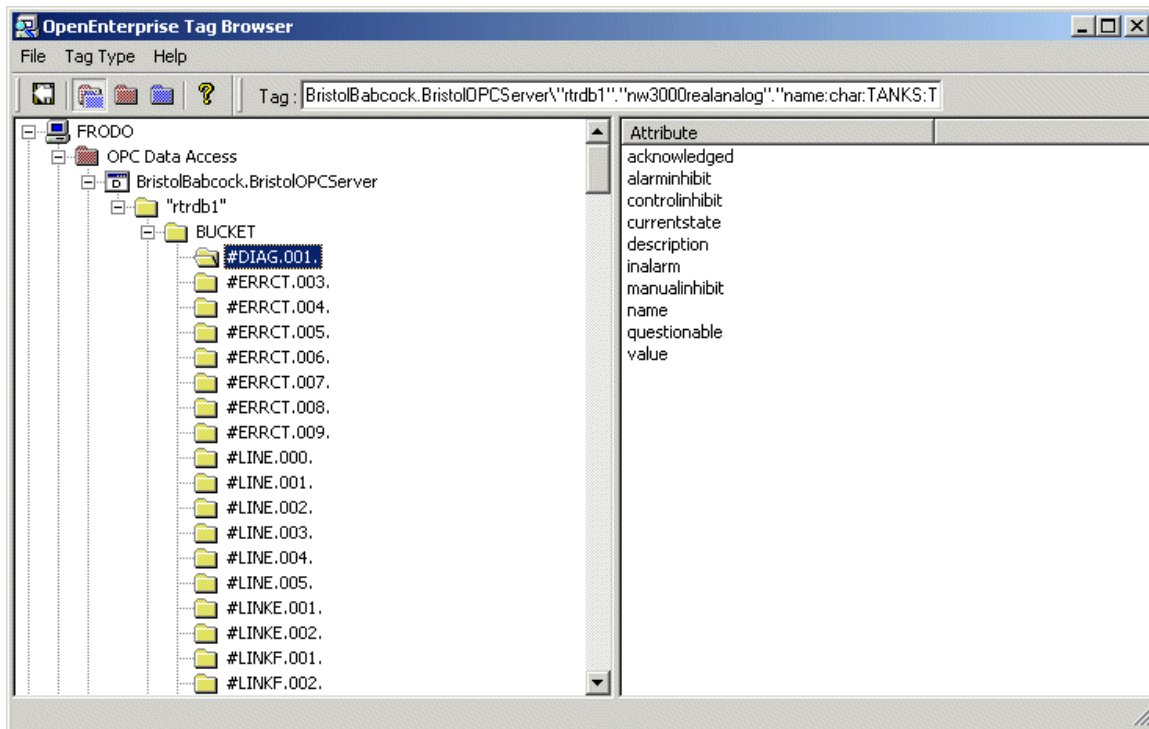
1.3 OPC Server Tree Structures

The Tag Browser displays the hierarchy for the Realtime OPC Server (the BristolOPCServer) and the Historical OPC Server (the BristolHDAServer) differently, since they are structured differently.

- 1. Realtime OPC Server tree structure
- 2. Historical OPC Server tree structure

1.3.1 Realtime OPC Server

The image below displays the Tag Browser interface with the OPC Data Access Folder opened.



**1.3.1.1 General Interface Features**

For an explanation of the general details of the Tag Browser's User Interface, see the User Interface topic.

**1.3.1.2 Realtime Tag Tree**

The realtime OPC Server stores its tag data in a slightly different hierarchical structure to the historical OPC Server. Here is a numbered list of this hierarchy from the top down.

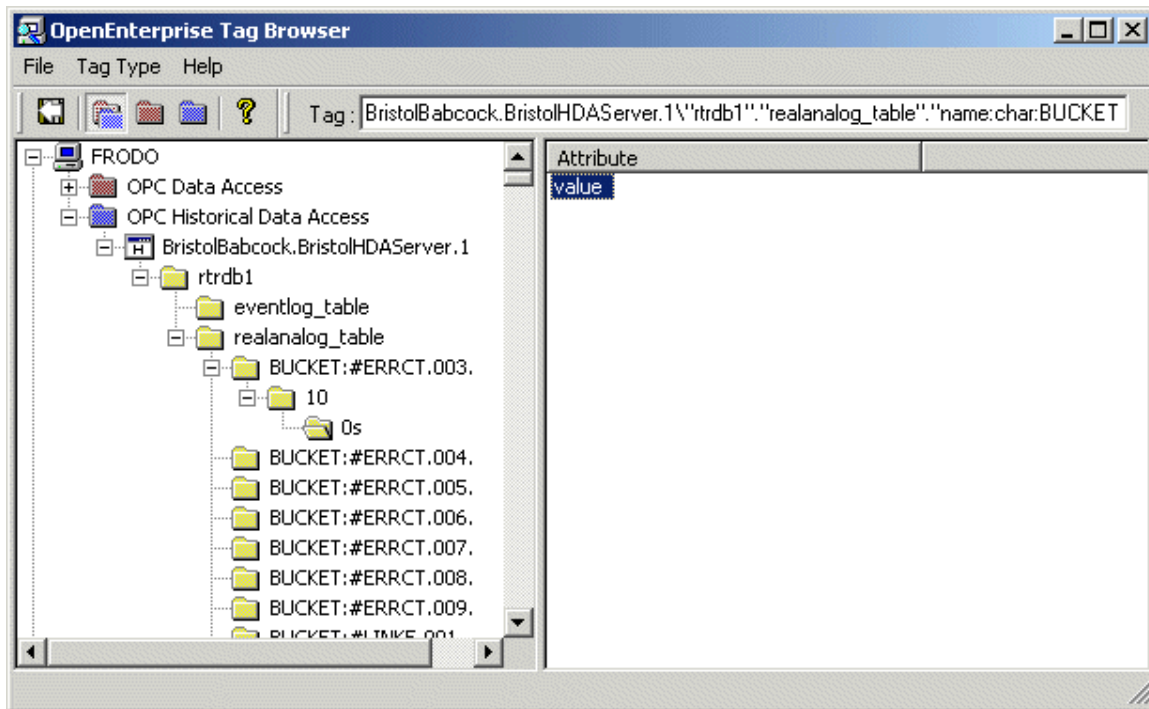
1. The first branch is the same as the historical Server branch (i.e the database - here 'rtrdb1').
2. The next branch consists of the NW3000 devices that have been configured for Data Collection.
3. Finally, from each 'Device' branch come the signal branches, which complete the hierarchy.

**1.3.1.3 Tag Attributes**

When the signal branch has been selected, an individual attribute can be selected from the available attributes in the right pane. The tag string is built and placed in the *Tag:* field, ready to be exported back to the Trend.

**1.3.2 Historical OPC Server**

The image below displays the Tag Browser interface with the OPC Historical Data Access Folder opened.



**1.3.2.1 General Interface Features**

For an explanation of the general details of the Tag Browser's User Interface, see the User Interface topic.

**1.3.2.2 Historical Tag Tree**

The historical OPC Server stores its tag data in a slightly different hierarchical structure to the realtime OPC Server. Here is a numbered list of this hierarchy from the top down.

1. The first branch is the database to which the OPC server is connected (in this case 'rtrdb1').
2. Next, the tables which are the source for historical logging are displayed.
3. Next comes the names of the signals from these tables which are being logged by the Historian.
4. The next branch in the tree reveals the Logging Group number, (also known as a Historical Stream) . In the example, this is 10.
5. The final branch reveals the dataset to which the signal belongs. Only the 0s, or raw dataset has been configured for the Logging Group in the example. Other compressed datasets may exist for the Logging Group, but there will always be only one raw dataset for each Logging Group.

**1.3.2.3 Tag Attributes**

When the dataset branch has been selected, the attributes of the signal which are being logged by the historian are displayed in the right pane. Any single attribute can be selected for inclusion in the Trend View. The tag string is built and placed in the *Tag:* field, ready to be imported back to the Trend.

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