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Technical Note

Verification of communications through the AN-X2-AB-DHRIO when configured with DH+ Bridge Firmware

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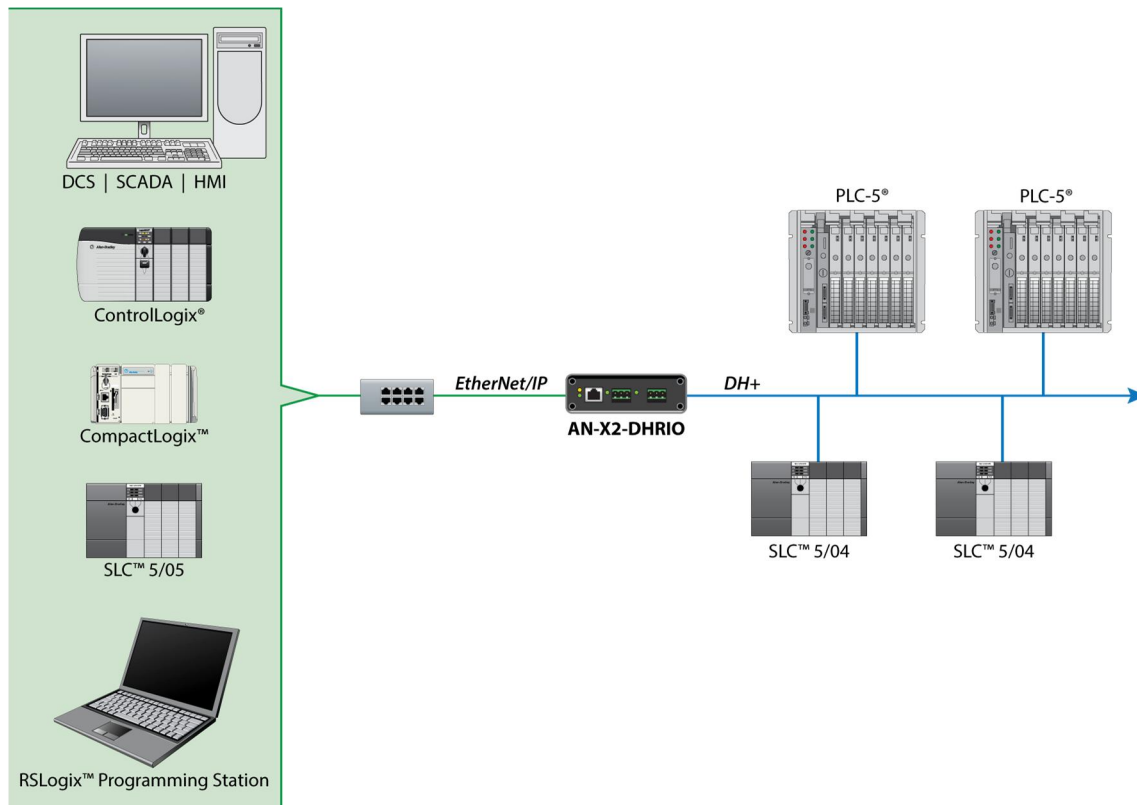
June 15, 2013

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DH+ Bridge Applications

This firmware enables EtherNet/IP based controllers or computers running an OPC Server with an EtherNet/IP driver to communicate with devices on a DH+ network. Typical uses include HMI, SCADA, Processor to Processor Messaging, and the use of RSLogix® 5 and RSLogix® 500 programming software to the processors on the DH+ network.

This TechNote shows how to verify communications through the AN-X2 gateway when running the DH+ bridge FW using the RSLinx Data Monitor and the Rockwell OPC Test Client.



NOTE: All communications must originate on the EtherNet/IP network. Message instructions that originate from a PLC5 or SLC processor on a DH+ network cannot be routed through the gateway. All message instructions must originate from processors or OPC Servers on the EtherNet/IP network.

This TechNote is only applicable in situations where RSLinx Classic is installed on a PC, and has an OEM or higher activation.

Verification

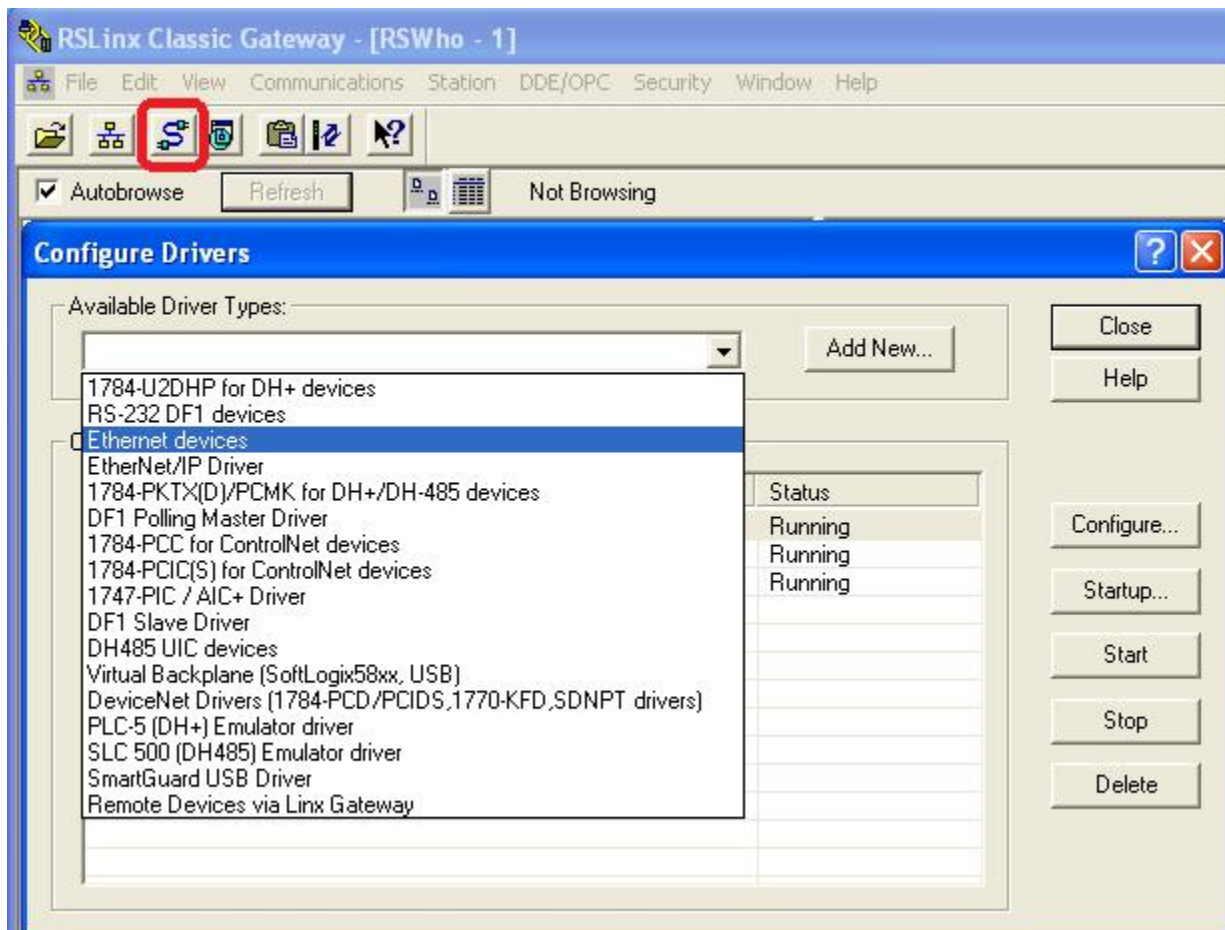
Step 1:

If the EDS file has not been registered on the computer that is currently being used than do so. (The EDS file can be found on the CD that came with the product in the AB/DHP directory.) To register the file use the EDS Hardware Installation Tool (Start -> Programs-> Rockwell Software-> Tools)

Step 2:

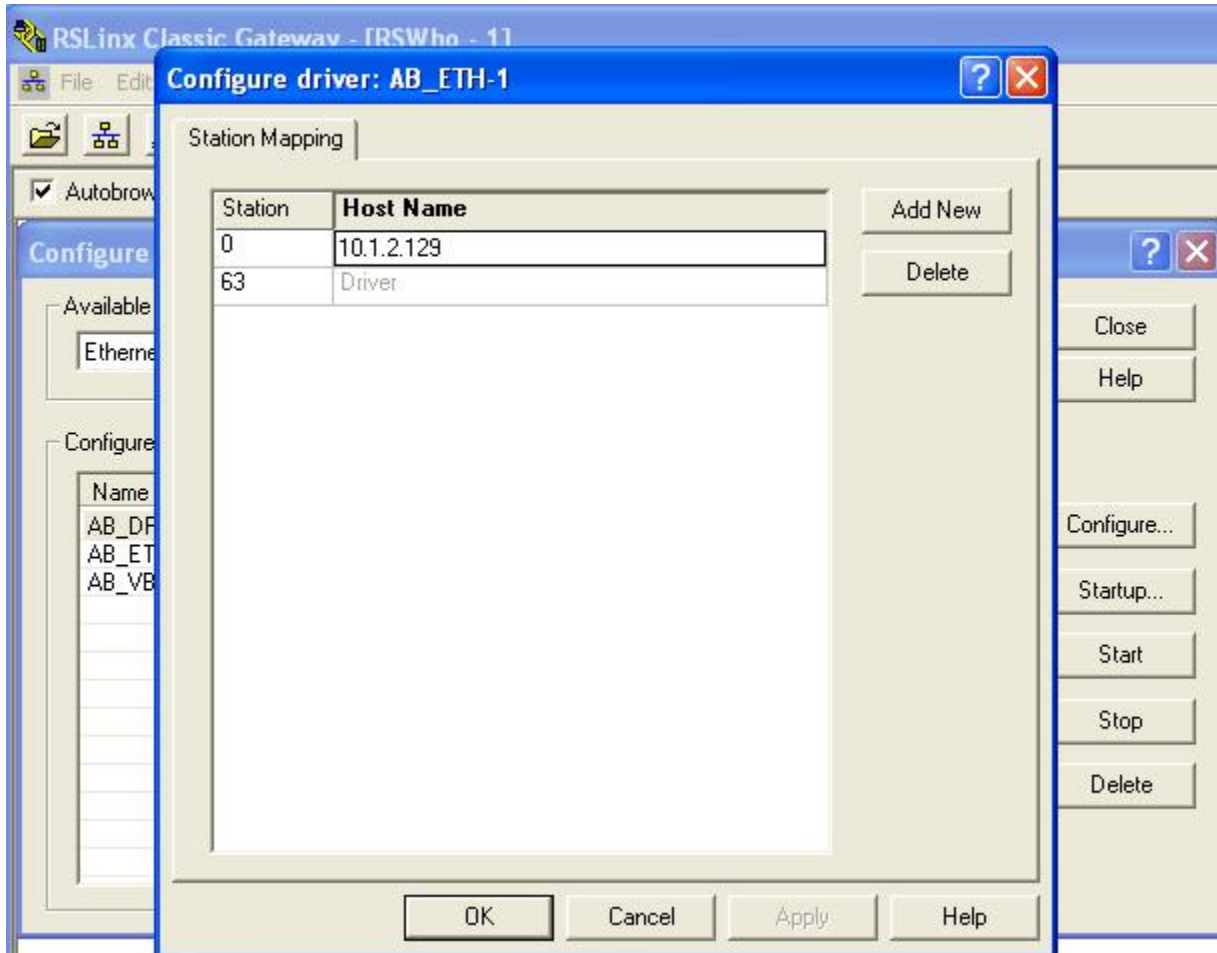
Launch RSLinx Classic:

- Click on the Driver button
- Select Ethernet devices driver
- Click the Add New button



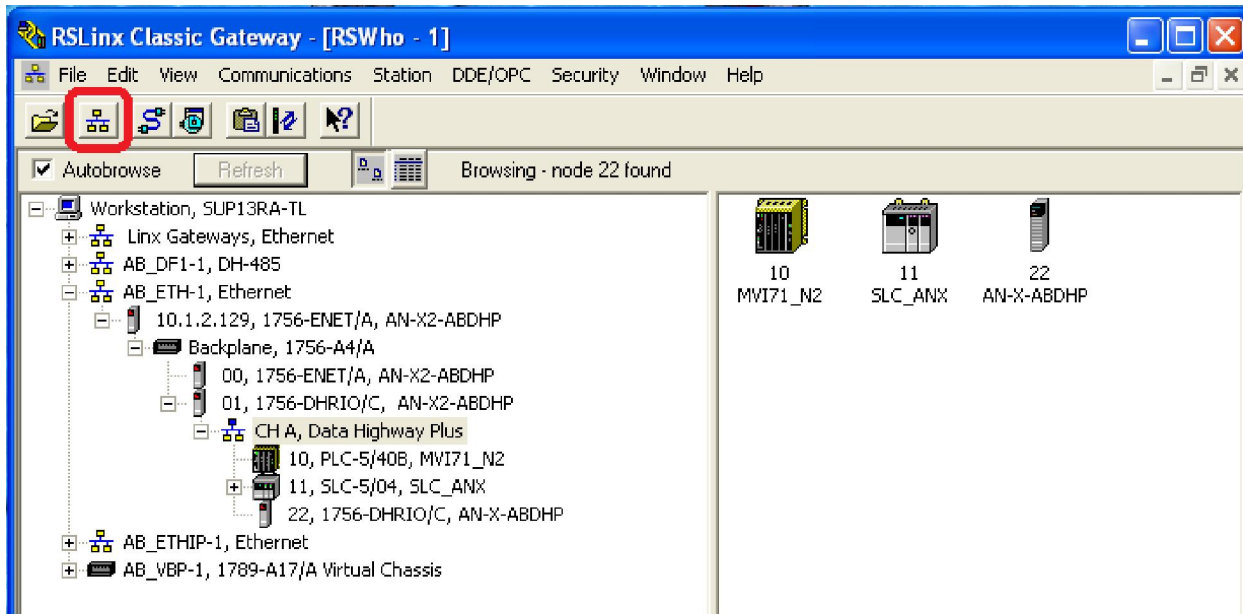
Change the name of the Ethernet Devices driver or accept the default and click OK

Input the IP Address of the AN-X2 Gateway and then click the OK button

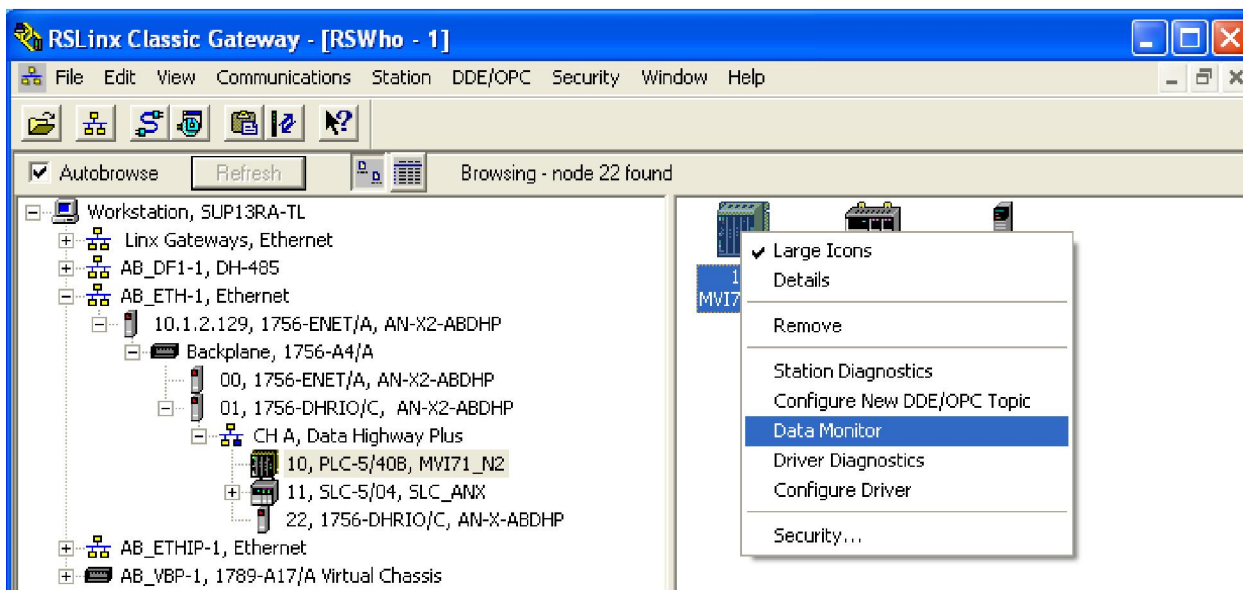


Step 3

Open the RSWho browser and browse through the emulated ControlLogix Hardware Gateway. Verify that all devices on the DH+ network appear.



Right Click on a processor and select Data Monitor



Select one or more Data Files to view current values

The screenshot shows the RSLinx Classic Gateway interface. A 'Data Table Monitor: SUP13RA...' window is open, displaying a table of data files. Below it, a 'PLC-5/40B (5): Data File F20' window is open, showing a grid of values for data file F20. The status bar at the bottom indicates 'Status: Active' and 'Selection: F20:0'.

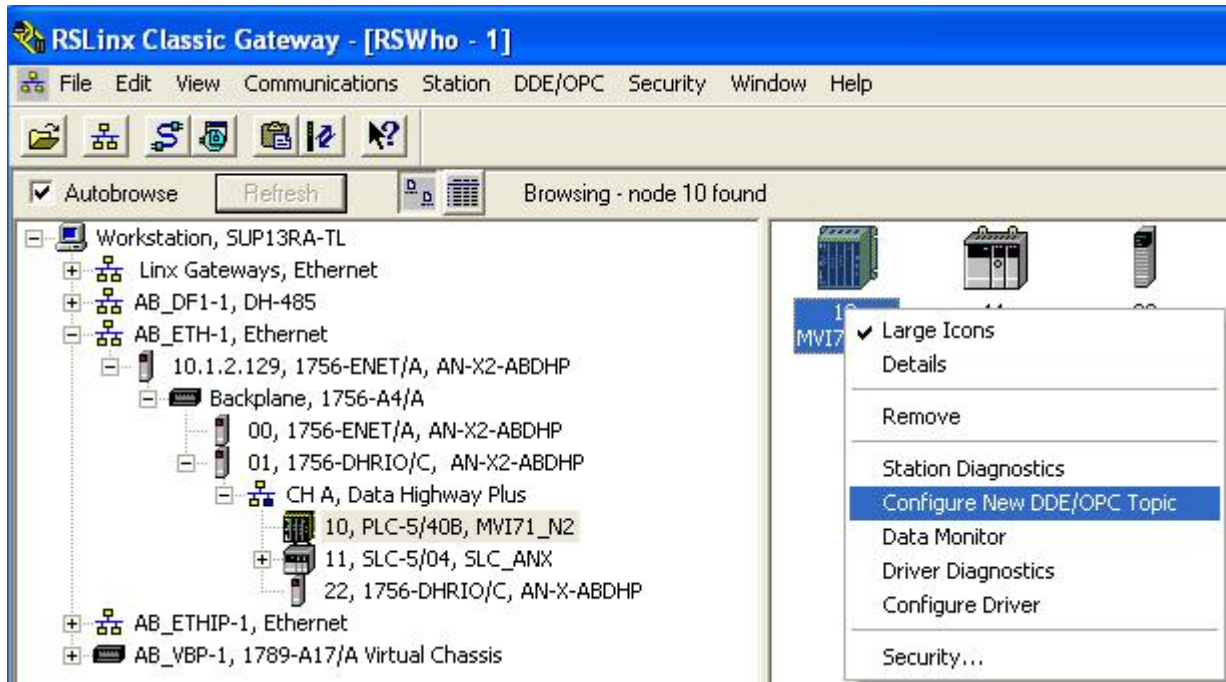
File	Type	Elements	Length
O0	Output	128	256
I1	Input	128	256
S2	Status	128	256
B3	Binary	10	20
T4	Timer	10	60
C5	Counter	4	24
R6	Control	6	36
N7	Integer	1000	2000
F8	Float	1	4
N9	Integer	60	120
N10	Integer	2	4
B11	Binary	60	120
B12	Binary	60	120
F20	Float	300	1200
F21	Float	300	1200

	0	1	2	3	4	5	6	7	8	9
F20:0	1	2	3	4	5	6	7	8	9	10
F20:10	11	12	13	14	15	16	17	18	19	20
F20:20	21	22	23	24	25	26	27	28	29	30
F20:30	31	32	33	34	35	36	37	38	39	40
F20:40	41	42	43	44	45	46	47	48	49	50
F20:50	51	52	53	54	55	56	57	58	59	60
F20:60	61	62	63	64	65	66	67	68	69	70
F20:70	71	72	73	74	75	76	77	78	79	80
F20:80	81	82	83	84	85	86	87	88	89	90

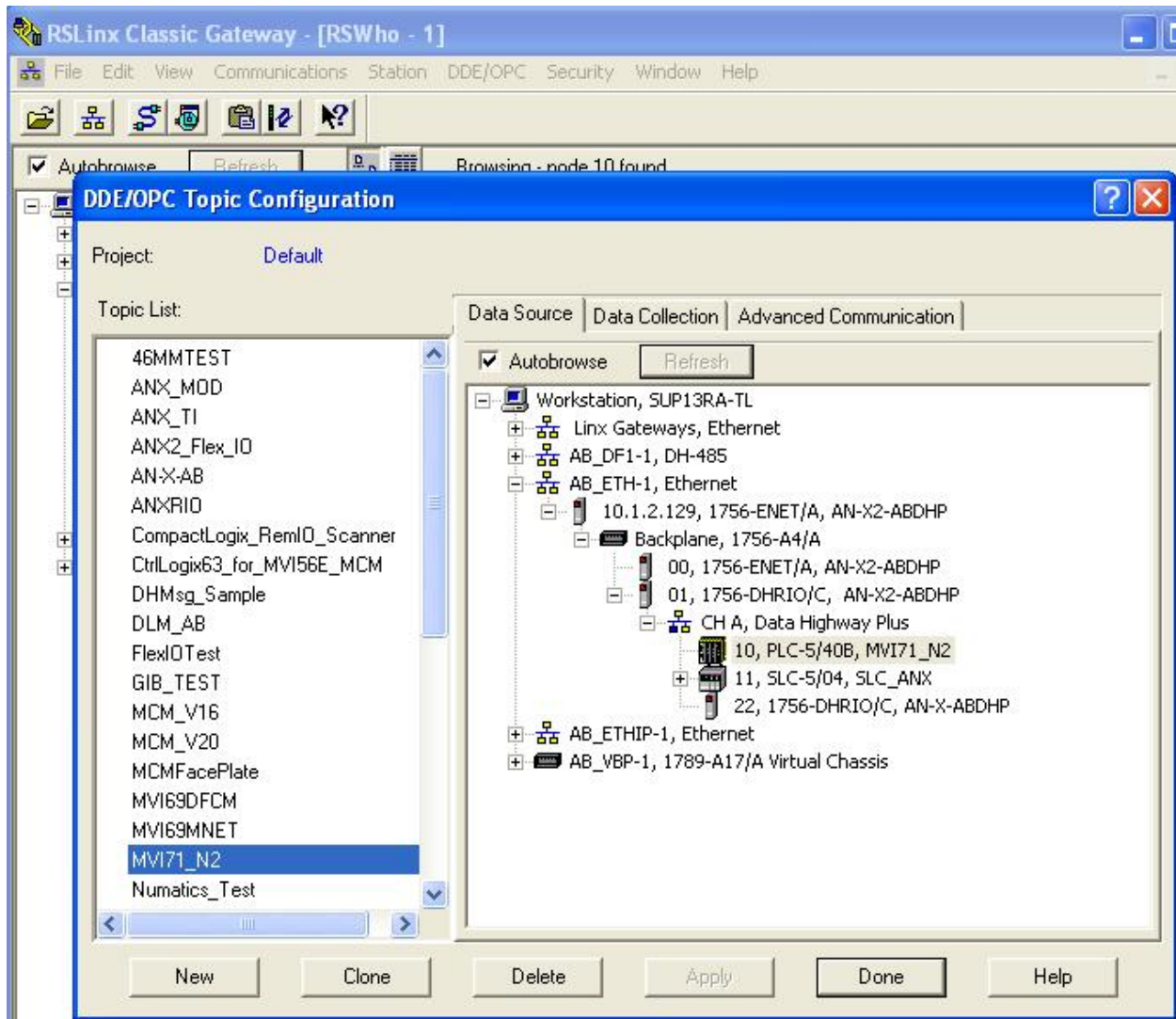
Step 4

Using OPC Test Client to read / write values:

In RSWho right click on a processor and select Configure New DDE/OPC Topic



Press the Enter key and click the Done Button

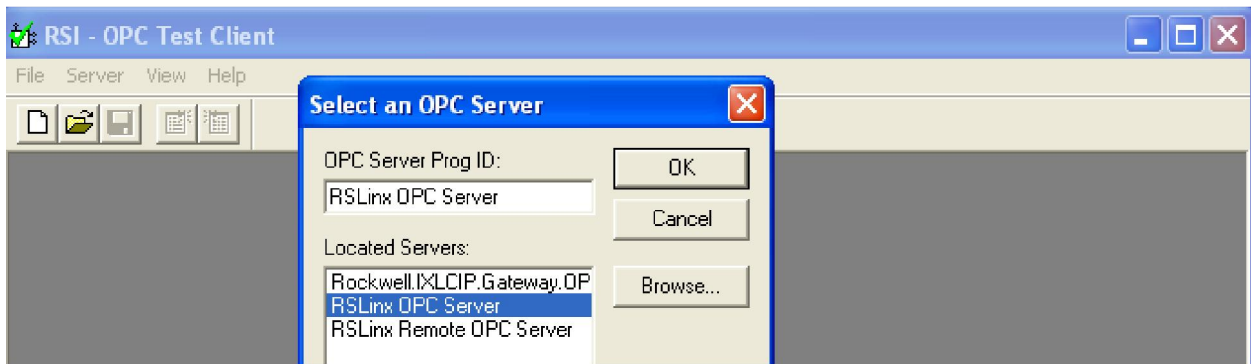


Launch the OPC Test Client

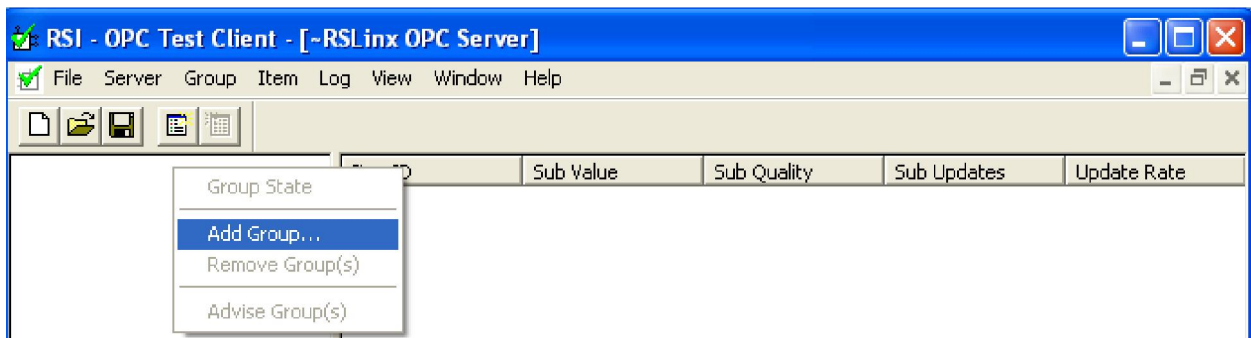
- Start -> Programs -> Rockwell Software -> RSLinx -> Tools-> OPC Test Client
- Select Connect under the Server Menu



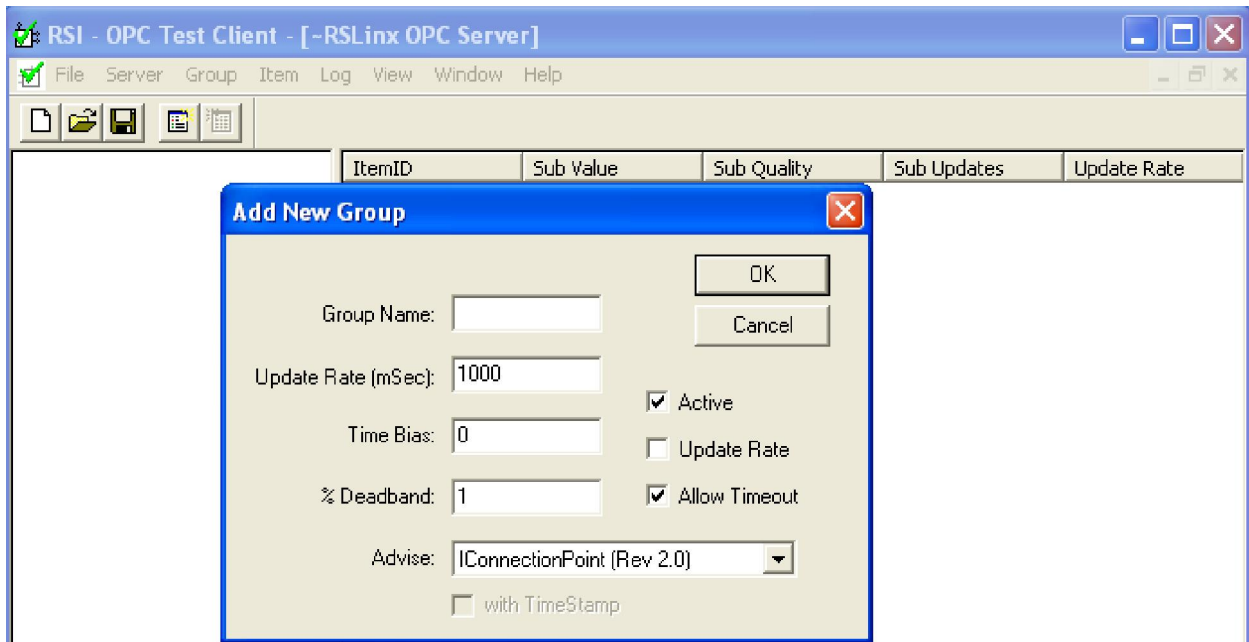
Select RSLinx OPC Server and click the OK button



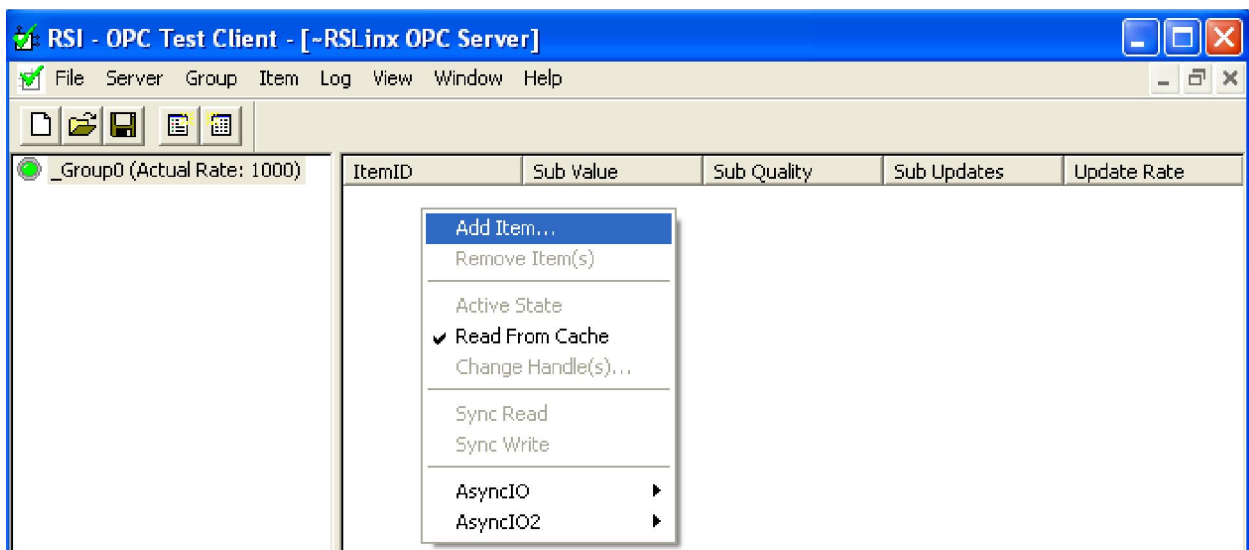
Right Click in the left window and select Add Group



Click OK



Right click in the right pane and select Add Item

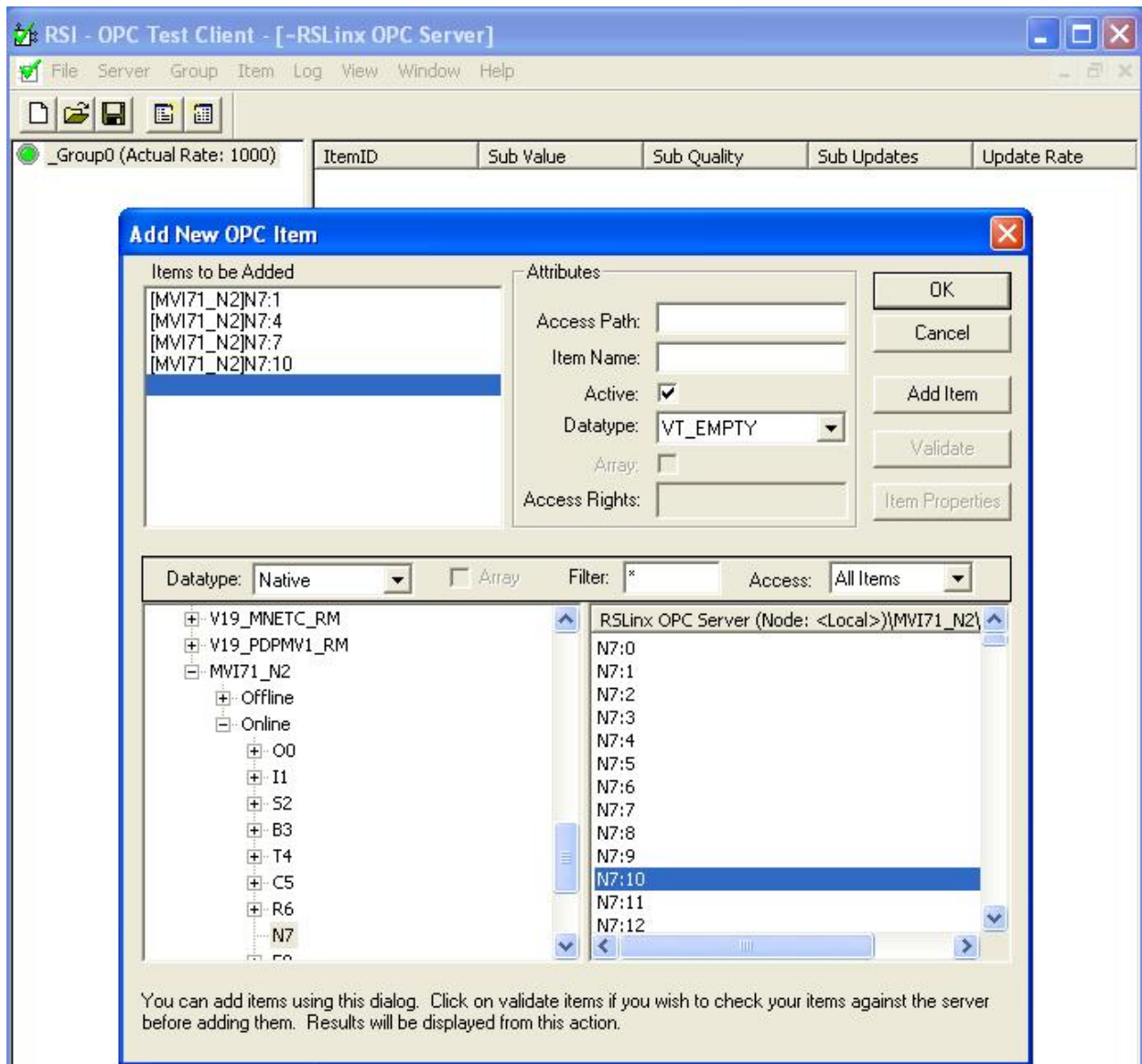


In the lower left pane expand RSLinx OPC Server

Expand the topic that was mapped to a processor above

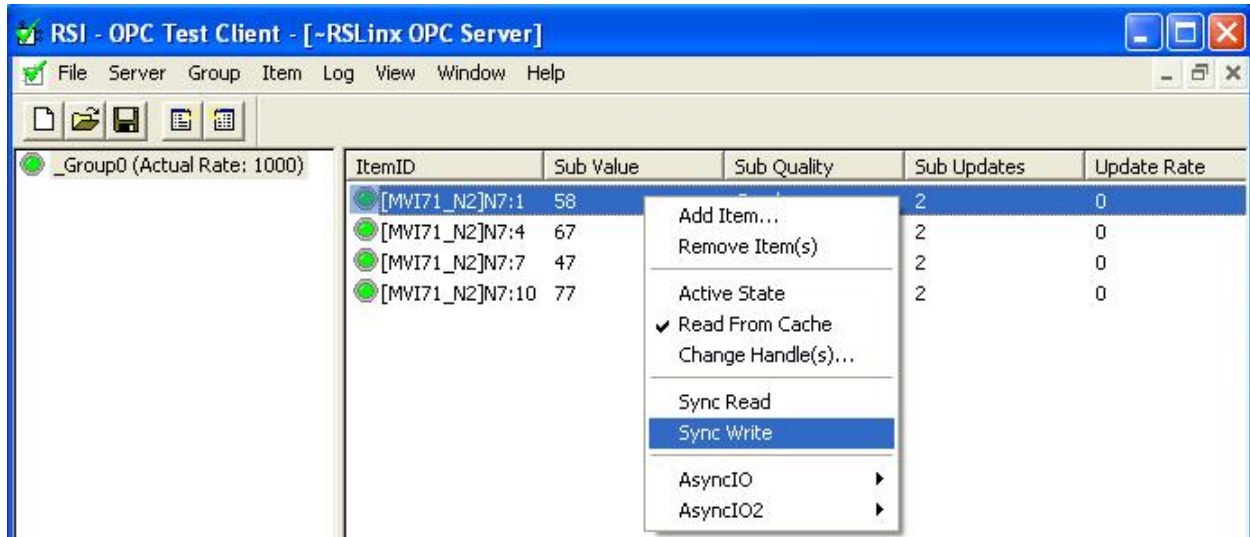
Expand Online

Expand a Data File and double click on some of the element names in the lower right window



Click OK

Right Click on a tag and select Sync Read or Sync Write to force an update on a given tag



Conclusion

This document explains how to use the RSLinx Data Monitor and the OPC Test Client to verify communications to devices on a DH+ network attached to the AN-X2-AB-DHRIO gateway running the DH Plus bridge firmware. If you need additional information, please contact your regional Support center.

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