



APPLICATION NOTE:

**Establishing I/O communication between AnyBus-S EtherNet/IP
and EIPScan Test Tool**



Revision Notes

Date:	Revision:	Notes:	Responsible
2003-04-18	0.10	Document created	Joakim Wiberg
2003-07-30	0.20	Updated layout	Joakim Wiberg
2007-07-25	2.0	Revision	Thorbjörn Palm

Abbreviations

ESTT	EIPScan Test Tool
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1. System configuration overview

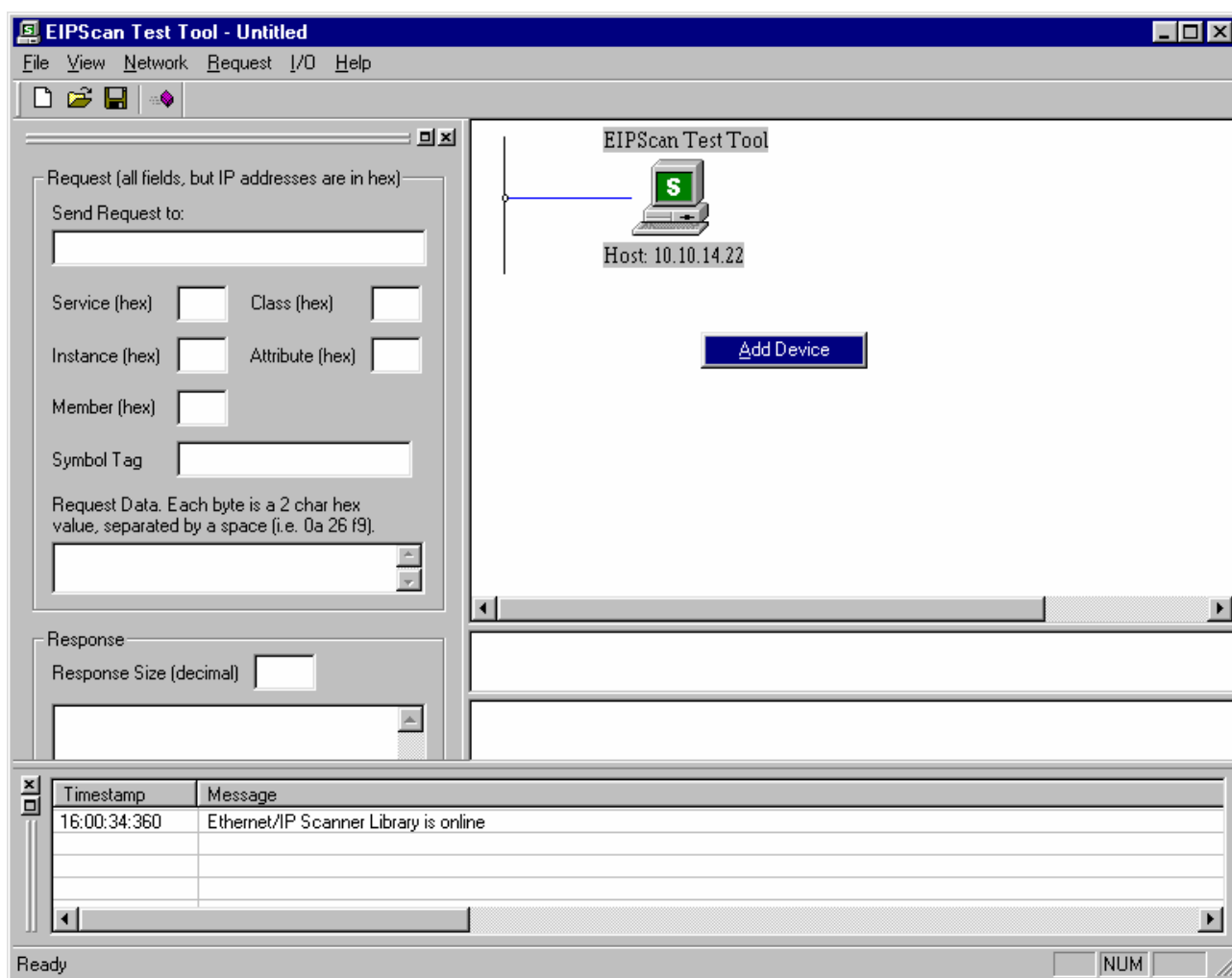
This is an example on how to configure the Anybus-S Slave module to connect with EtherNet/IP Scan Test Tool from Pyramid Solutions. It is possible to use this document as a guide on how to set up any “generic” EtherNet/IP module from HMS under EtherNet/IP Scan Test Tool, ESTT.

This application note assumes that ESTT are installed and working correct.

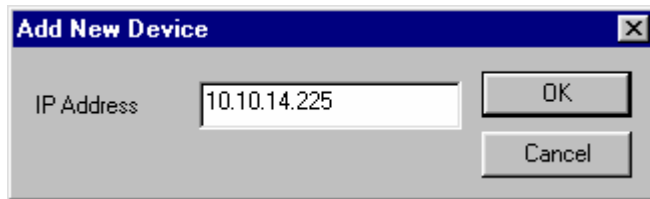
The ESTT is set up to read and write 32 bytes of I/O data from and to the Anybus-S Slave module.

2. Configure the ESTT

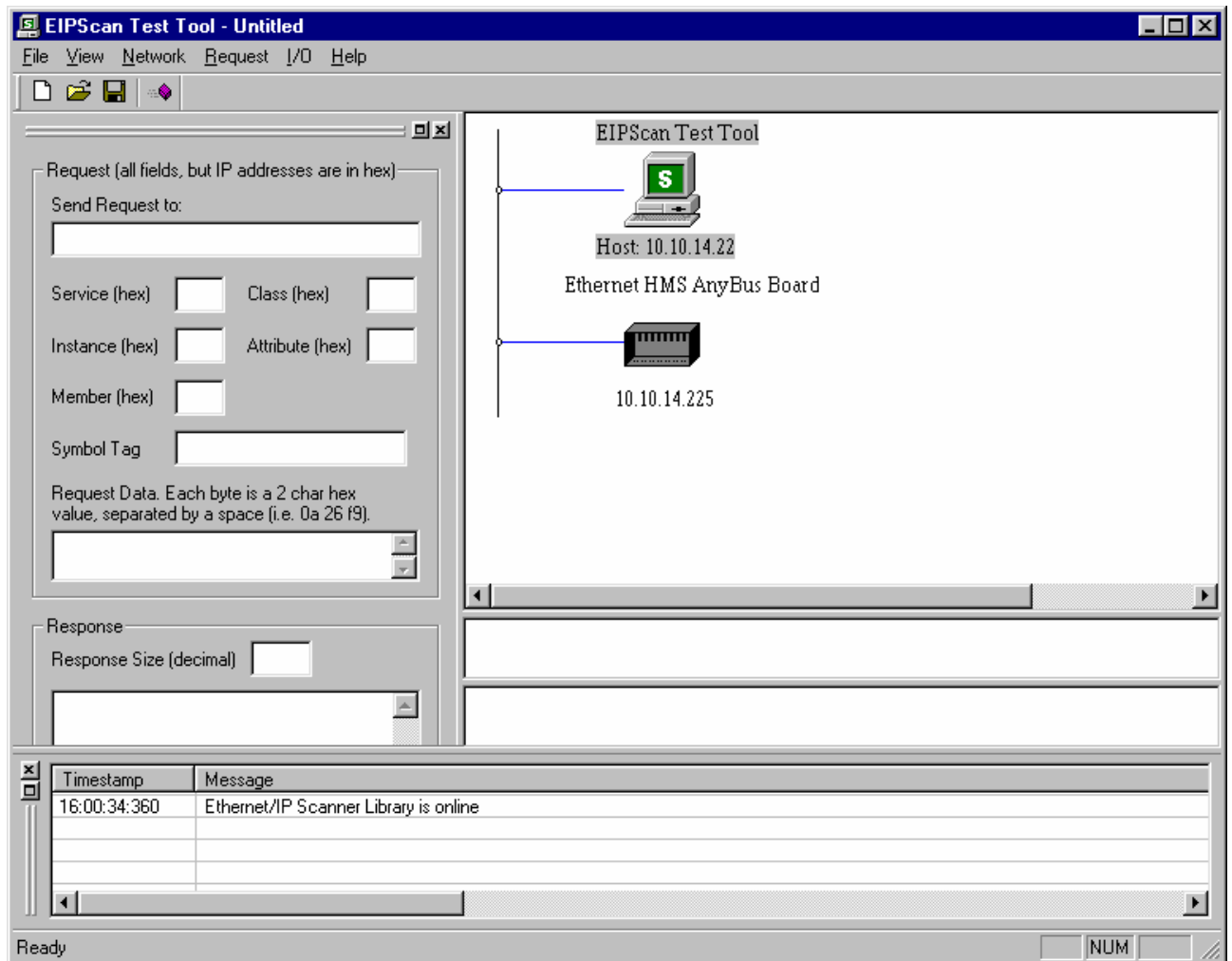
Add the Anybus-S Slave module to the configuration in the ESTT. Start by right click in the “network” area, and select “Add Device”.



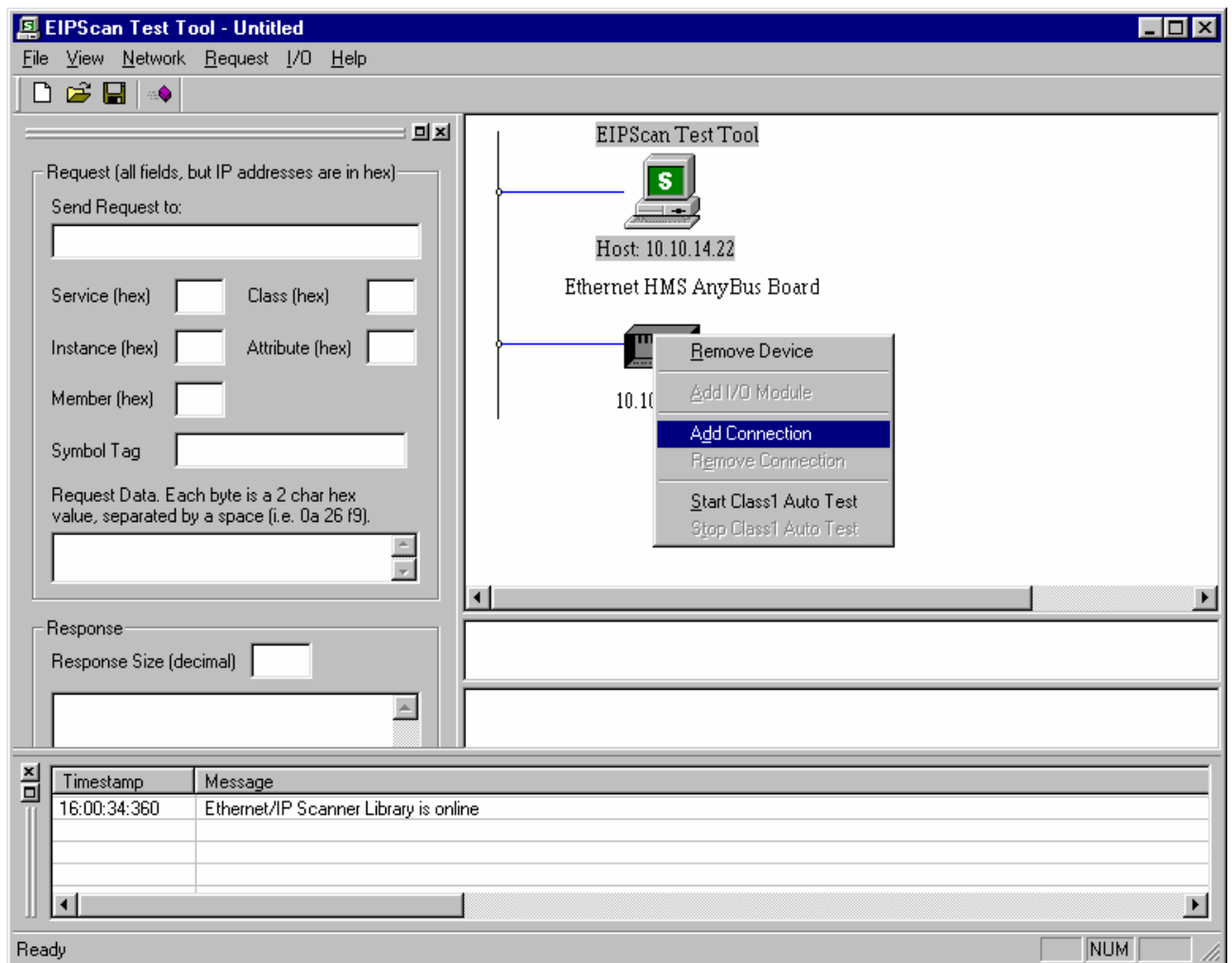
Now a dialogue window will appear. In this dialogue window the IP address of the Anybus-S Slave module shall be entered, here 10.10.14.225 is used.



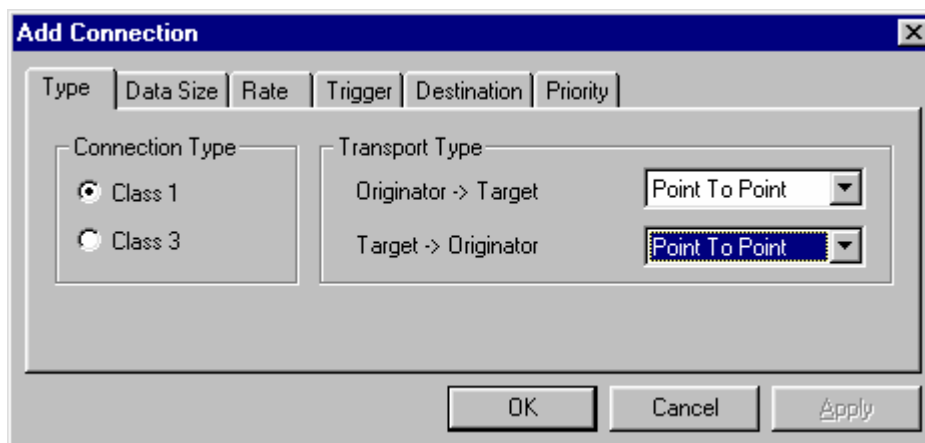
The Anybus-S Slave module will now occur in the “network” area.



Right click on the Anybus-S Slave module and select “Add Connection”.



A new dialogue window will now occur; it contains six property pages used to set up the connection. In the first page it's possible to select connection and transport type. To reduce the network load the setting for “Target -> Originator” have been changed from “Multicast” to “Point To Point”, the rest are left unchanged.



The second tile contains the data sizes; here we use 32 bytes in each direction since this is how the module was initiated.

The screenshot shows the 'Add Connection' dialog box with the 'Data Size' tab selected. The 'Type' tab is also visible. The 'Originator->Target' section has a 'Data Size' field set to 32 and a checked 'Run/Idle Header' checkbox. The 'Target->Originator' section has a 'Data Size' field set to 32 and an unchecked 'Run/Idle Header' checkbox. At the bottom are 'OK', 'Cancel', and 'Apply' buttons.

The “Rate” tile holds the RPI (requested packet interval), this is how often data will be produced and consumed (in ms).

The screenshot shows the 'Add Connection' dialog box with the 'Rate' tab selected. The 'Type' tab is also visible. The 'Packet Rate in milliseconds' section has two input fields: 'Originator -> Target' set to 100 and 'Target -> Originator' set to 100. At the bottom are 'OK', 'Cancel', and 'Apply' buttons.

In the “Trigger” tile the transport trigger and the timeout multiplier are selected. The Anybus-S Slave module only supports “Cyclic” triggers. The timeout are set to the default value of 16.

The screenshot shows the 'Add Connection' dialog box with the 'Trigger' tab selected. The 'Type' tab is also visible. The 'Transport Trigger' dropdown menu is set to 'Cyclic'. The 'Timeout Multiplier' dropdown menu is set to 16. At the bottom are 'OK', 'Cancel', and 'Apply' buttons.

The “Destination” tile is used to set up the connection points in the Anybus-S Slave module. The ESTT is to by default display the correct connection points, make sure that the connection points are

configured as below. Adjust the connection points if they do not match what is stated in the manual for the product.

The screenshot shows the 'Add Connection' dialog box with the 'Destination' tab selected. The dialog has a title bar with a close button. Below the title bar are tabs for 'Type', 'Data Size', 'Rate', 'Trigger', 'Destination', and 'Priority'. The 'Destination' tab contains the following fields:

- 'Configuration Connection Instance' with a text input field containing the letter 'E'.
- 'Originator->Target Connection Point' with a text input field containing '150'.
- 'Target->Originator Connection Point' with a text input field containing '100'.
- 'Connection Tag' with an empty text input field.

At the bottom of the dialog are three buttons: 'OK', 'Cancel', and 'Apply'.

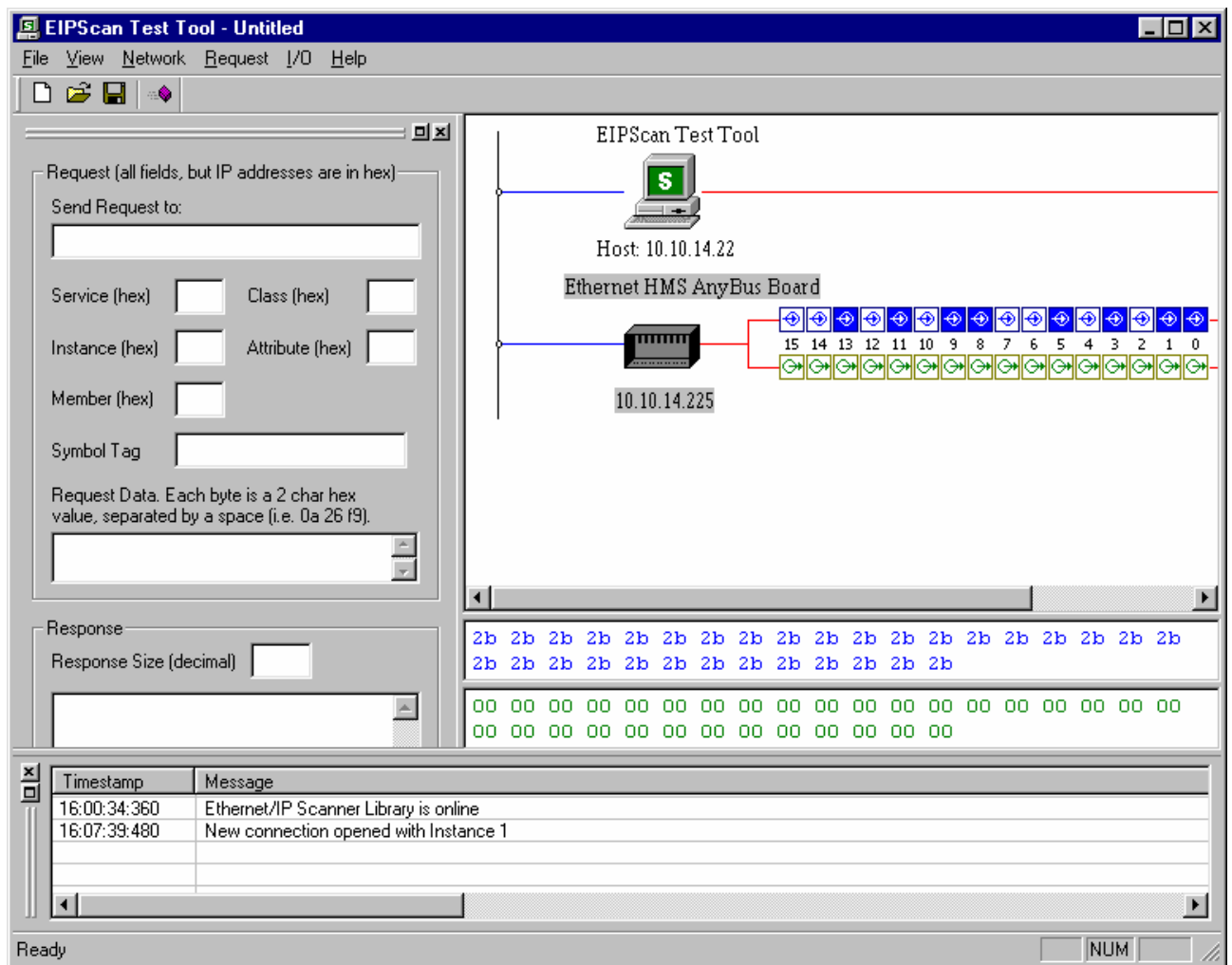
In the “Priority” tile it is possible to set the priority of the connection, for the moment the ABS only supports “Scheduled”. Now press “OK” and the connection will be opened.

The screenshot shows the 'Add Connection' dialog box with the 'Priority' tab selected. The dialog has a title bar with a close button. Below the title bar are tabs for 'Type', 'Data Size', 'Rate', 'Trigger', 'Destination', and 'Priority'. The 'Priority' tab contains the following fields:

- 'Originator -> Target' with a dropdown menu showing 'Scheduled'.
- 'Target -> Originator' with a dropdown menu showing 'Scheduled'.

At the bottom of the dialog are three buttons: 'OK', 'Cancel', and 'Apply'.

This is how the screen on the ESTT looks if the connection has been opened.



3. Links to information about networks and products

- The latest for the ABS module can be found on the HMS homepage <http://www.anybus.com>.
- The Open DeviceNet Vendor Organization has a homepage, <http://www.odva.org/>, with more information about EtherNet/IP.
- To learn more about the EIPScan Test Tool refer to the Pyramid Solutions homepage http://www.pyramid-solutions.com/Expertise_DataCom_Products_EtherNetIP_Scanner_Simulator.htm.

4. Support

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