

Technical Note

Communication Verification - GPIB

(01/12/2007)



PURPOSE

Verify that communication is established for the following products programming option (488.2 compliant, SCPI *only*): DCS - M9C & DCS – M130, DLM – M9E & DLM-M9G & DLM – M130, DHP - M9D, P series, SG, CW, SW, TW

BACKGROUND

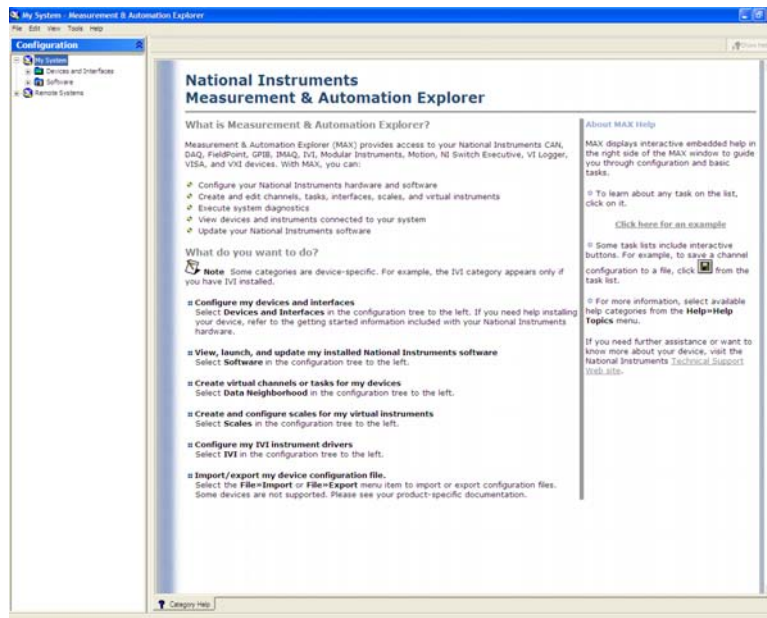
Failure to fully establish and verify communications is the most frequent cause of a power supply appearing to function improperly. If you are able to establish communications as outlined in this document, the supply is working properly. Once you've fully established communications, the supply is ready to communicate using your software. National Instruments (NI) has created drivers specifically for selected Elgar Electronics Corporation (EEC) products, and as a convenience, EEC provides these drivers and in some cases links to the NI webpage from the EEC website.

Please note these drivers are specific to the type of remote interface hardware, such as GPIB or serial or Ethernet. Be sure to download the correct driver for the type of communication hardware being used.

Please refer to the software provider for instructions and further installation and application assistance.

SETUP AND COMMUNICATION VERIFICATION

1. Set the GPIB address to 16 on the power supply using the model specific instructions in your manual.
2. Use a GPIB cable to connect the power supply to the computer and temporarily remove all other GPIB cables.
3. Turn on the power supply.
4. Start the National Instruments Measurement and Automation Explorer (MAX) application.
The following screen will appear:



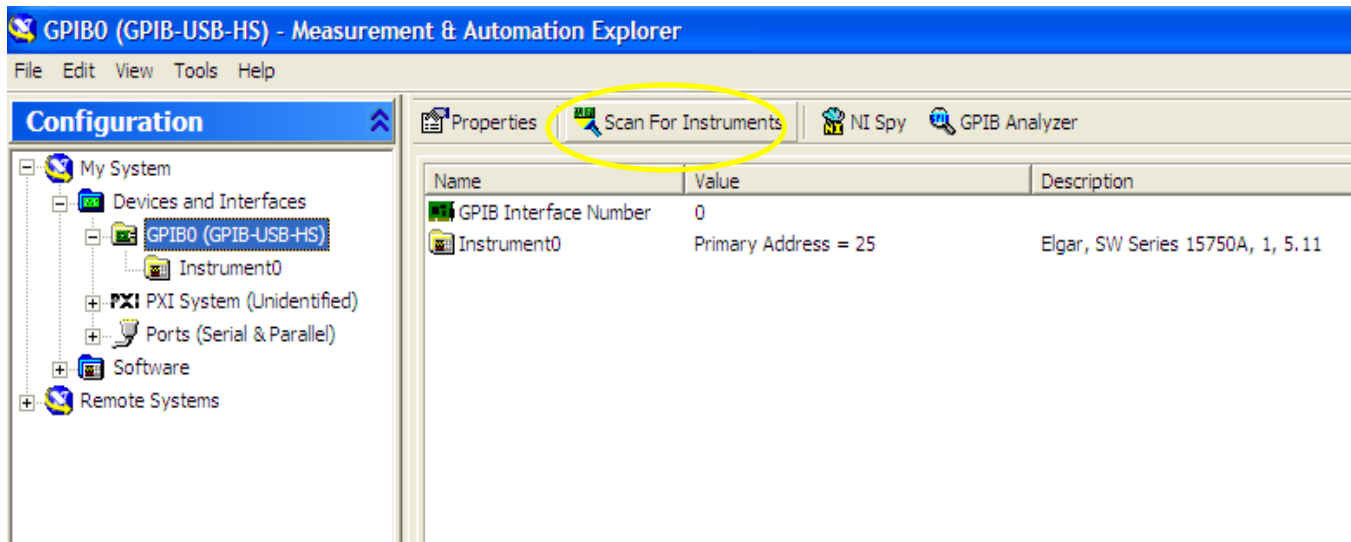
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5. In the Configuration pane:
 - a. Expand the **Devices and Interfaces** folder (click on the + symbol to its left).
The next level in the tree opens.
 - b. Expand the GPIB0 folder (click on the + symbol next to its left).
6. In the GPIB0 Measurement & Automation Explorer window tool bar:
click the **Scan For Instruments** button.



7. If you do not have any device shown, check the cable connections between the supply and the computer.
If the device appears but is not at address 16, verify the DIP switch settings on the supply
(Note: some products use a digital display and controls in place of the dip switches to set the GPIB address.)
8. In the Configuration pane, click on the **Instrument0** folder.
The Instrument0 - Measurement & Automation Explorer window appears.

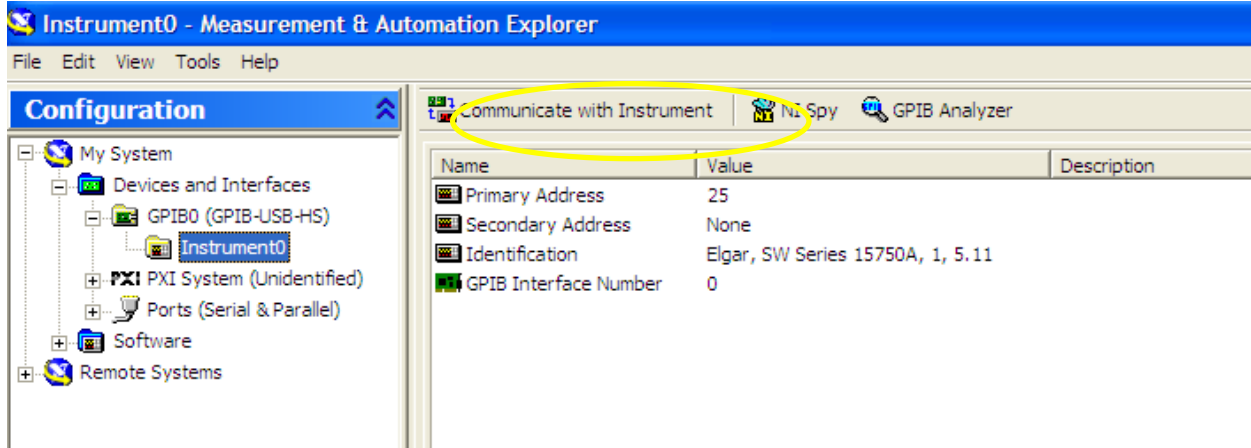
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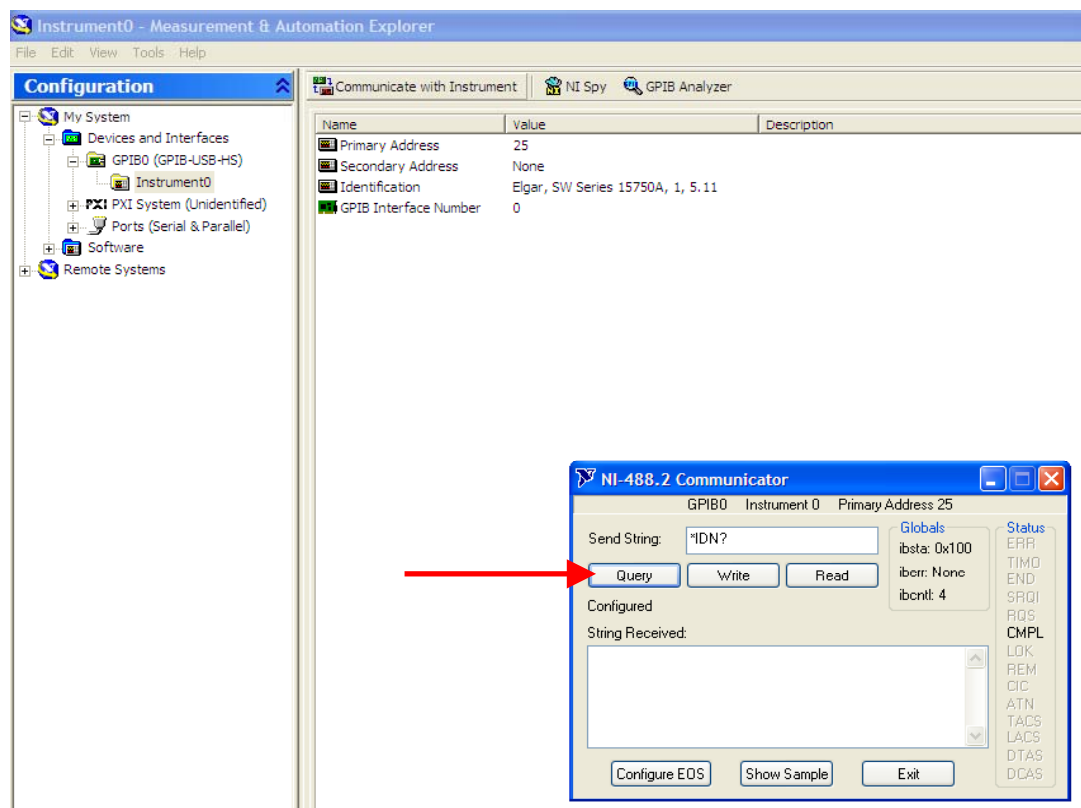
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9. In the toolbar, click the **Communicate with Instrument** button.



The NI-488.2 Communicator window appears, with the ***IDN?** Default command in the **Send String** field:



10. Click the Query button. Do NOT use the Enter key on your keyboard.

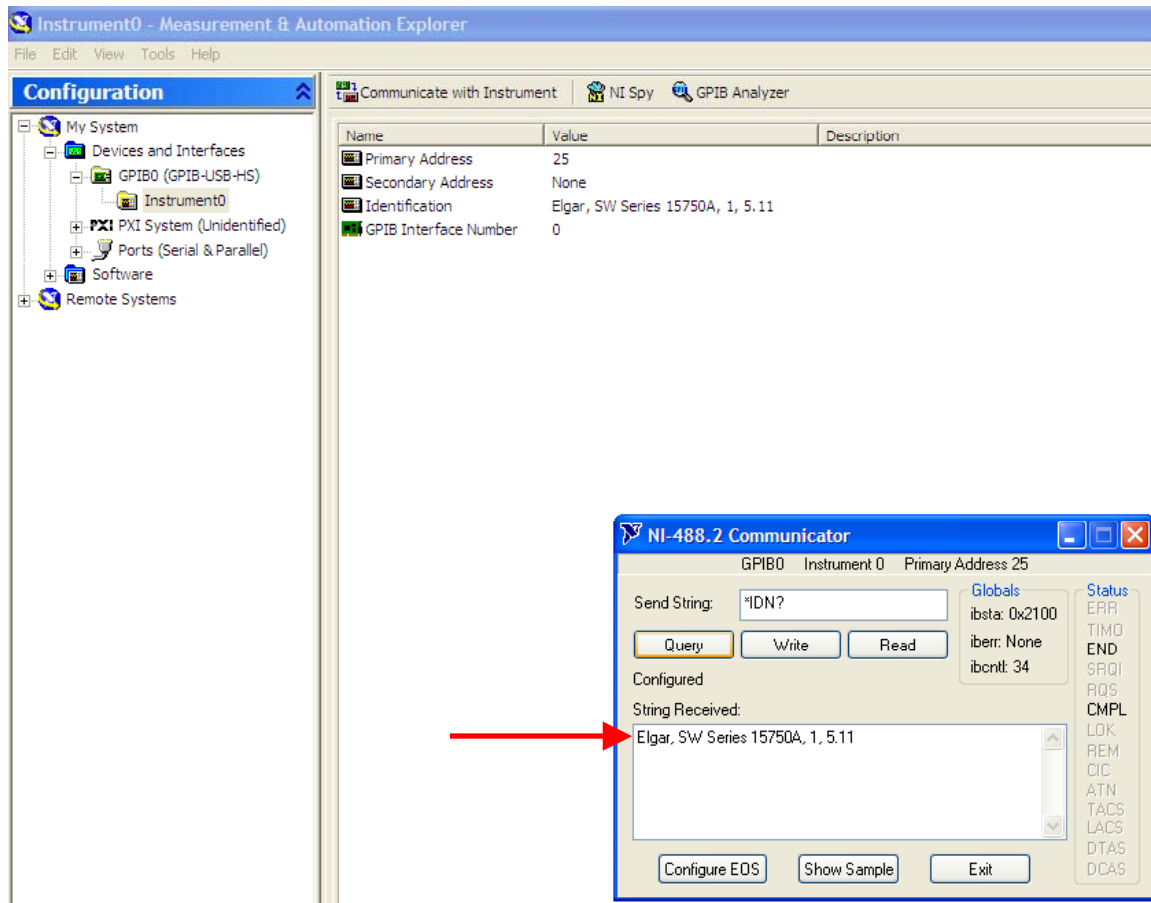
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If the communications are functioning, the device will report its identification string in the **String Received** pane of the NI-488.2 Communicator window, similar to the following:



11. If the identification string response is received, you may use this NI utility to send other commands to the supply:
 - Type a properly formed command in the **Send String** field and click the **Write** button.
 - To send commands that generate a response, click the **Query** button, and the response will appear in the String Received pane.
 - Click the **Read** button to view the last response received in the String Received pane.

If these communication setup and verification procedures do not resolve the communications issues, please contact the factory for assistance.