

Checking the COM port

It is a good idea to make sure that your LabView can control the hardware handshake lines of your PC before trying to use the set of Picobus VI:s for the AVS-47B. National Instruments has provided a suitable tool for doing that.

1. Launch National's "Measurement & Automation" software. This software should have come together with your LabView.
2. Find "Devices & Interfaces / Ports". You should see at least Com1 and Lpt1.
3. Select Com1. The screen should show that the "VISA alias" of this port is Com1 and that the port is enabled.
4. Open a VISA session for this port (top left of the screen). Select the "Property Node (write)" tab. From the long list of "Attributes", select "Modem Line RTS state". Change its new value from 0 to 1 or vice versa, press the "Execute" button, and see that the current value also changes. Measure with a DVM the voltage at pin 7 of the DE9P connector of the selected COM port. Leave it in state 1. Select Modem Line DTR state and verify its operation (pin 4 of the same DE9P connector). Leave in state 0.
5. Select the "Property Node (read)" tab. Select the CTS (pin 8 of DE9) and DSR (pin 6) in turn and read their values. You can use a jumper wire for driving these inputs low and high. If you left RTS and DTR to states 1 and 0, as was instructed above, connect CTS and DSR to pins 7 or 4 in turn for changing the state of the input. Do not use an external power source, it can destroy the serial port.

If you have a 9-to-25 pin adapter (such an adapter comes with the AVS-47B) you can make the above tests also from the 25-pin D connector. The corresponding pin assignments are:

DE9	DB25	PICOBUS SIGNAL NAME
7	4 RTS	CP
8	5 CTS	DI
6	6 DSR	AL
5	7 GND	GND
4	20 DTR	DC

If this test is passed successfully, you should be able to use our Set of VI:s, where the Picobus communications is based on opening a VISA session for the selected serial port and then using the property node of this port for controlling and reading the handshake lines. If the test fails, the support staff of your local National Instruments office may be able to help.



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