## Using TRTest to verify GPIB board communication

First verify that the instrument is configured for GPIB communication and that it is connected to the GPIB bus. Many instruments will display the GPIB address they use when they boot up. To make changes, the GPIB address used by the instrument is configured with the front panel push buttons of the instrument. For instruments that have both RS-232 and GPIB interfaces, make sure the GPIB interface is the one that is enabled.

The screen shot below shows that the \*IDN? command is sent to an instrument that is configured to use address 16. The \*IDN? command tells the instrument to identify itself. Choose the S function to send data to an address.

```
C:\PROGRA~1\CEC488\trtest.exe
CEC488 Interactive Utility, v2.0.
                                              Copyright(C) 1997 CEC.
  Main functions
                         Configuration
                                                 Inquiry
       Initialize
Send
                         P)
ST)
SI)
SO)
                             SetPort
SetTimeout
SetInputEOS
SetOutputEOS
BoardSelect
                                                        BoardPresent?
                                                 ĹPŚ
                                                        ListenerPresent?
       Enter
                                                        Feature?
       Spo 11
Ppo 11
                                                 SRQ> SRQ?
                         B>
D>
        Transmit
                               DmaChanne 1
       Receive
        Tarray
       Rarray
  Q)
       Quit
  Choose a function: s
GPIB address: 16
Data: *IDN?
  Status: 0
  Hit Enter to continue...
```

Next choose the E function to read data from an address. The screen below shows that we've requested up to 256 bytes of data from an instrument at address 16. The response shows the actual number of bytes is 56.

```
C:\PROGRA~1\CEC488\trtest.exe
                                                                                                     CEC488 Interactive Utility, v2.0.
                                                Copyright(C) 1997 CEC.
   Main functions
                          Configuration
                                                   Inquiry
                               SetPort
SetTimeout
SetInputEOS
SetOutputEOS
BoardSelect
        Initialize
Send
                                                  BP)
LP)
F)
                                                          BoardPresent?
                          (Ť2
(12
(02
                                                         ListenerPresent? Feature?
        Enter
                                                  SRQ> SRQ?
        Spo 11
        Ppoll
Transmit
Receive
                          D)
                               DmaChanne 1
        Tarray
       Rarray
   Q)
        Quit
  Choose a function: e
GPIB address: 16
Maxlen: 256
  Len: 56
Data: KEITHLEY INSTRUMENTS INC., MODEL 2700,0786204,806
   Status: 0
   Hit Enter to continue...
```