

Displaying The Windows of the 2001

Under normal usage of the 2001, a user would use the :SENSE:DATA? to return a reading from the 2001. Using this command only returns the data in the primary window. It does not return the units nor does it return any of the information from the secondary display. If a programmer chooses to return the data from the secondary window, he or she would have to program the 2001 to measure the very specific parameters. For example, if the 2001 is set for DC volts and the next button was pushed, the display may look as follows:

```
+064.8283  mVDC
+000.405  mVAC          +060.15      Hz
```

In this case, only the value +64.8283E-03 would be returned to the computer.

To return the entire display, the command :DISPLAY:WINDOW1:DATA? is sent to the 2001 to return the first window display and :DISPLAY:WINDOW2:DATA? is sent to return the second window display. As shown in the example program below, both windows can be returned:

```
If meter_enabled Then
  cmd$=":DISPLAY:WINDOW1:DATA?"
  Call Send(GPIBAddress,cmd$,status%)
  If status% = 0 Then
    Call Enter(displ$, 21, 1%, GPIBAddress, status%)
    If status% = 0 Then
      cmd$=":DISPLAY:WINDOW2:DATA?"
      Call Send(GPIBAddress,cmd$,status%)
      If status% = 0 Then
        Call Enter(displ2$, 33, 1%, GPIBAddress, status%)
        If status% = 0 Then
          Print displ$
          Print displ2$
        End If
      End If
    End If
  End If
End If
End if
```

Please note in each Call Enter commands the values 21 and 33. The top window of the 2001 can display 20 characters and the bottom window can display 32 characters. When the window string is returned to the host computer, all 20 and 32 characters are returned along with an additional line feed (LF) character. Thus, to properly transfer the entire window string, 21 and 33 characters must be returned, otherwise, an error condition will occur. When both window strings have been transferred, the information can be displayed on the CRT or an application program can separately parse the information for the numerical data only for future use.

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