Keithley Instruments:

Applications Note / Installation Guide:
ines GPIB-PCMCIA CARD in Windows 2000 and setup for TestPoint

Procedure:

1.0 Installing the drivers

1.1 Boot Windows, WITH-OUT the ines GPIB card installed into the socket.

1.2 Place the ines CD that contains the driver into the CD reader.

1.3 Now, insert the ines card, and Windows should find new hardware and load the "Found New Hardware Wizard"

1.4 Follow the "Found New Hardware Wizard: instructions through a Finish Option. This is a necessary step to open a registry key; however additional files are installed by the "Found New Hardware Wizard" that will conflict with the ines hardware installer. We will remove 3 of these files in step 1.6.

1.5 Reboot.

1.6 Remove these files listed below:

C:\WINNT\System32\drivers\iieee488.sys
C:\WINNT\ie488f3w.dll
C:\WINNT\ie488h3w.dll

1.7 Navigate to the ines CD ROM :/WIN2000/pcmcia and run setup.

1.8 Next click through the installation choosing the defaults. This should result in a successful card installation.

2.0 Changing the Base Address of the ines CARD

2.1 The ines GPIB PCMCIA card may install with a high base address number. The Base Address should be lowered to 0X1080 or lower.

2.2 From Start > Settings > Control Panel, double click Administrative Tools, then Computer Management. Select Device Manager, double click the ines GPIB icon, double ckick the ines GPIB-PCMCIA line, choose Resources, uncheck Automatic settings and move the address to a lower number. Reference Figure No. 1. below. Be sure to choose an address and IRQ number that is not in conflict with other installed hardware. Additional Note: You can use an application called System Information to check for conflicts that may not be reported by the Device Manager. Use Start > Search > For Files Or Folders to locate System Information in the Windows Directory path.

3.0 Setting up for TestPoint:

3.1 For a GPIB card installed at 0x0320 with irq=5 the TestPoint ini file entries as follows:

```
[GPIB0]
io=0x320
irq=5
dma=-1
myaddr=21
iostep=2
```

note: myaddr is the GPIB primary address of the ines PCMCIA CARD, it is NOT the address of the particular instrument/s that will be interfaced, this default address is 21.

4.0 Installation and functional verification:

4.1 From Start > Programs > ines IEEE488.2 there are two diagnostic tools, ines GPIB Diagnostics and Wali32, run both, setup for Wali32 is listed below.

4.1.1 From C:\INES4882 run the application iediag. Follow the instructions.

4.1.2 From C:\INES4882, run Wali32. For a board installed at hex 320, with IRQ 5, and an instrument installed at GPIB addr 16 the following command lines will communicate with the device. F9 to display the I/O Buffer, and F2 to execute the command lines Reference the ines HELP and Figure No. 2 below

```
init 0320,0,5,0
output 716,"*IDN?"
enter 716, #6
```

4.2 For a TestPoint verification, from C:\Testpt\Examples\ run GPIB.tst .

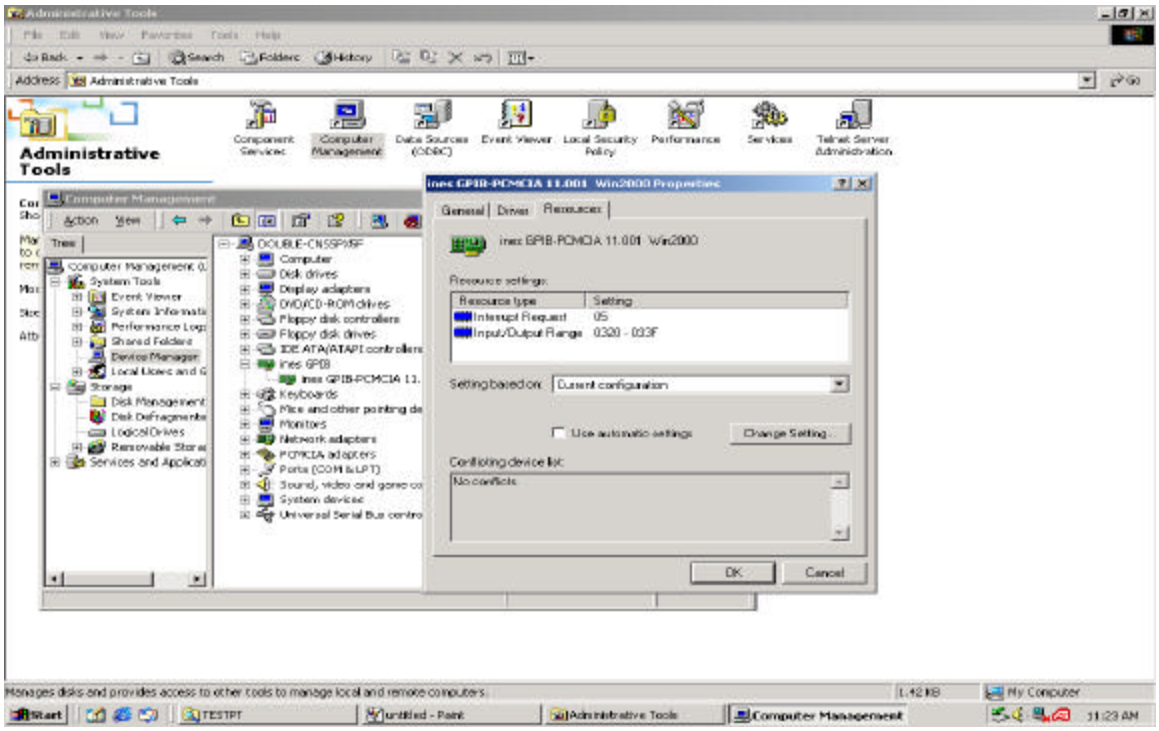

Figure No. 1: *Changing the ines GPIB-PCMCIA base address and IRQ settings.*

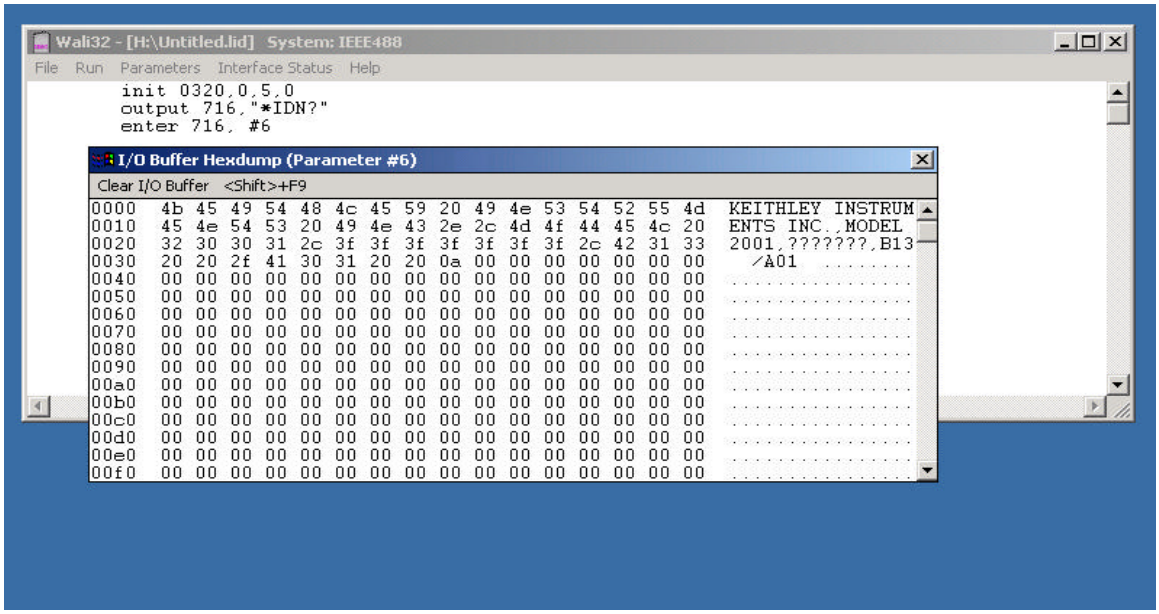

Figure No. 2: *Wali32 Functional Verification.*