GPIB
Getting Started Guide
for
LPCI-3488A and USB-3488A

Manual Rev. 2.01

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Recycled Paper

Advance Technologies; Automate the World.

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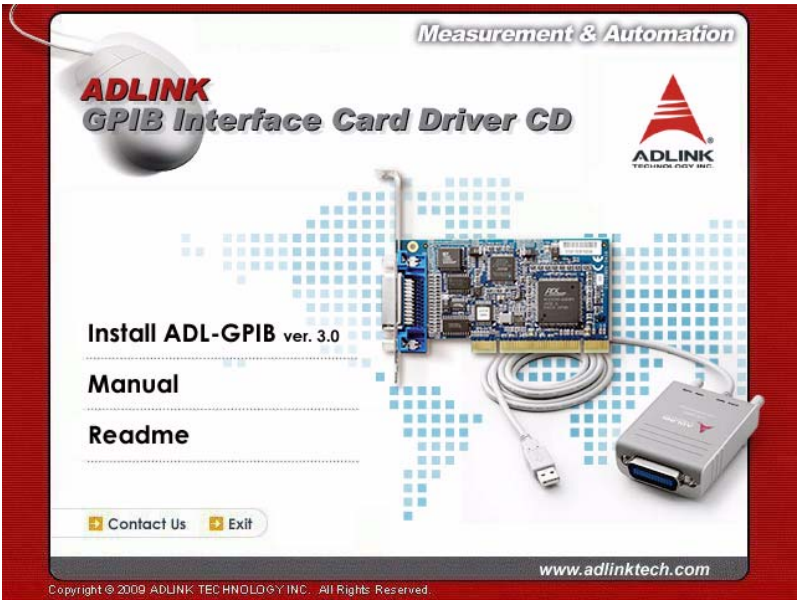
Getting Started

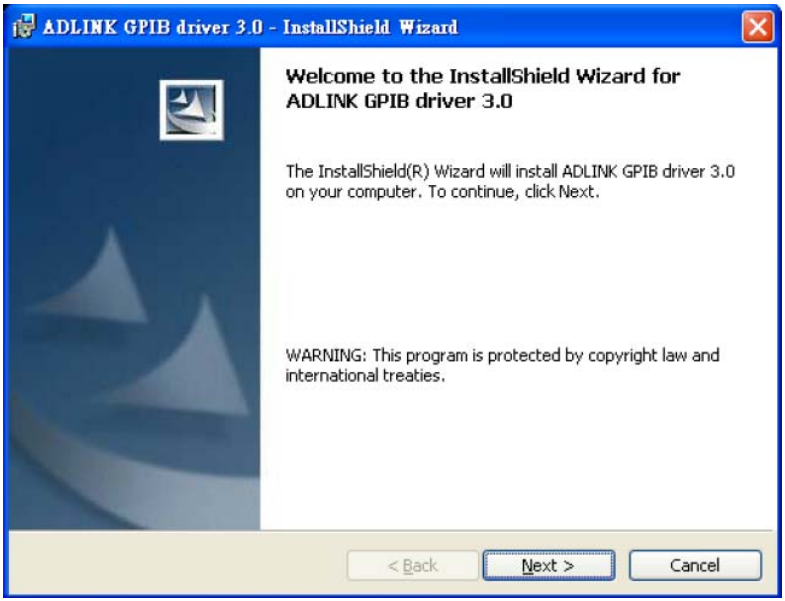
This GPIB Getting Started User's Guide is for the following ADLINK GPIB products:

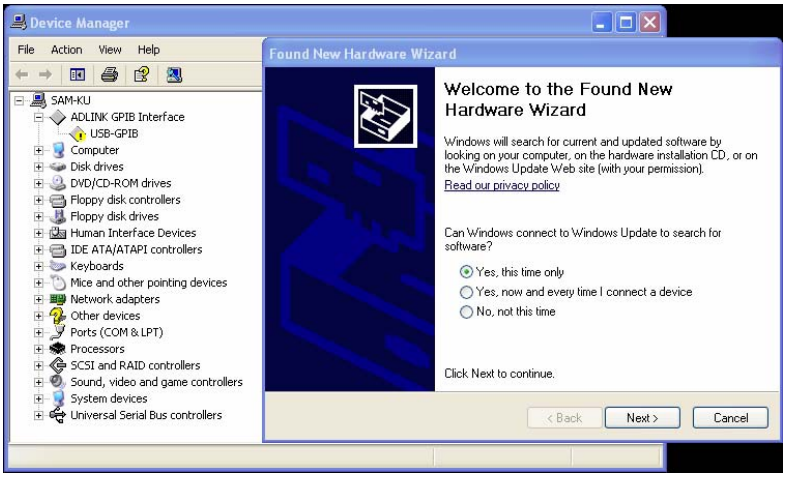
- LPCI-3488A
- USB-3488A

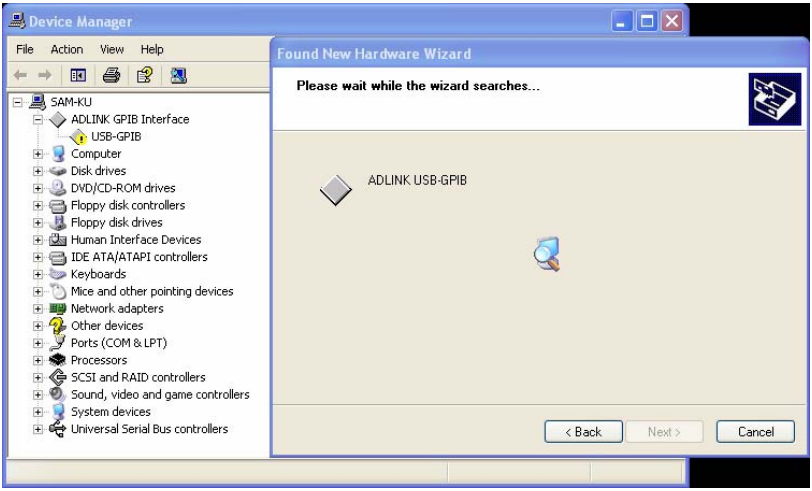
Step 1. Install the software and driver

1. Insert the ADLINK GPIB Driver CD (ADLINK provides drivers for the LPCI-3488A and USB-3488A).
2. Run **x:\Software Package\Setup.exe** to launch the setup program (x: denotes your optical disc drive). A wizard will automatically appear to guide you through the setup procedure.




ADLINK GPIB driver 3.0 - InstallShield Wizard
Welcome to the InstallShield Wizard for ADLINK GPIB driver 3.0
The InstallShield(R) Wizard will install ADLINK GPIB driver 3.0 on your computer. To continue, click Next.
WARNING: This program is protected by copyright law and international treaties.
< Back
Next >
Cancel


Device Manager
File Action View Help
SAM-KU
ADLINK GPIB Interface
USB-GPIB
Computer
Disk drives
DVD/CD-ROM drives
Floppy disk controllers
Floppy disk drives
Human Interface Devices
IDE ATA/ATAPI controllers
Keyboards
Mice and other pointing devices
Network adapters
Other devices
Ports (COM & LPT)
Processors
SCSI and RAID controllers
Sound, video and game controllers
System devices
Universal Serial Bus controllers
Found New Hardware Wizard
Welcome to the Found New Hardware Wizard
Windows will search for current and updated software by looking on your computer, on the hardware installation CD, or on the Windows Update Web site (with your permission).
Read our privacy policy
Can Windows connect to Windows Update to search for software?
Yes, this time only
Yes, now and every time I connect a device
No, not this time
Click Next to continue.
< Back
Next >
Cancel


Device Manager
File Action View Help
SAM-KU
ADLINK GPIB Interface
USB-GPIB
Computer
Disk drives
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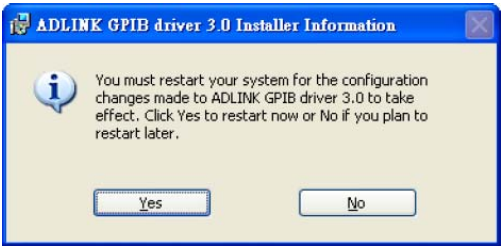
Mice and other pointing devices
Network adapters
Other devices
Ports (COM & LPT)
Processors
SCSI and RAID controllers
Sound, video and game controllers
System devices
Universal Serial Bus controllers
Found New Hardware Wizard
Please wait while the wizard searches...
ADLINK USB-GPIB
< Back
Next >
Cancel


ADLINK GPIB driver 3.0 Installer Information
You must restart your system for the configuration changes made to ADLINK GPIB driver 3.0 to take effect. Click Yes to restart now or No if you plan to restart later.
Yes
No

Step 2. Install ADLINK GPIB Products

LPCI-3488A Installation Procedures

Please follow the instructions to install the LPCI-3488A into your system.

1. Turn off the computer.
2. Turn off all accessories (printer, modem, monitor, etc.) connected to the computer.
3. Open the computer case.
4. Select a 32-bit PCI slot. PCI slots are shorter than ISA or EISA slots, and are usually white or ivory.
5. Before handling the PCI cards, discharge any static buildup on your body by touching the metal case of the computer. Hold the edge of the board and do not touch the components.
6. Position the board into the selected PCI slot.
7. Secure the card in place at the rear panel of the system.
8. Replace the computer case cover.
9. Restart the computer.

USB-3488A Installation Procedures

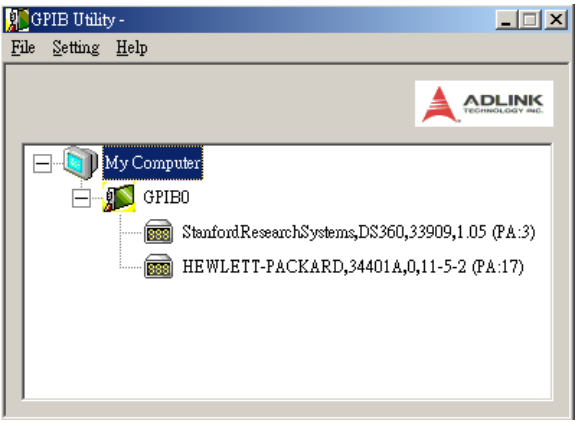
Please follow the instructions to install USB-3488A in your system.

1. Connect the USB-3488A to any USB port
2. After several seconds, the "Ready" LED turns green, the USB-3488A is ready.

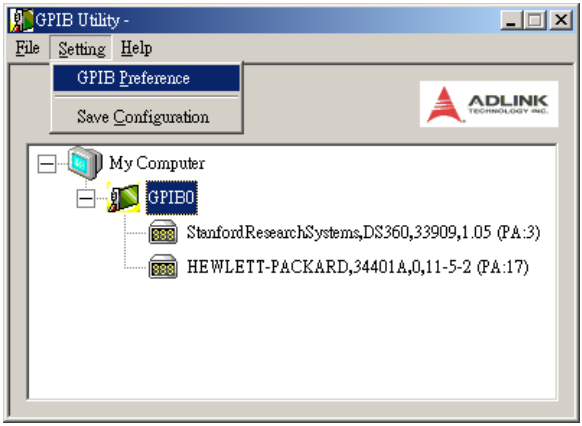
Step 3. Use the GPIB Utility to check basic functionality

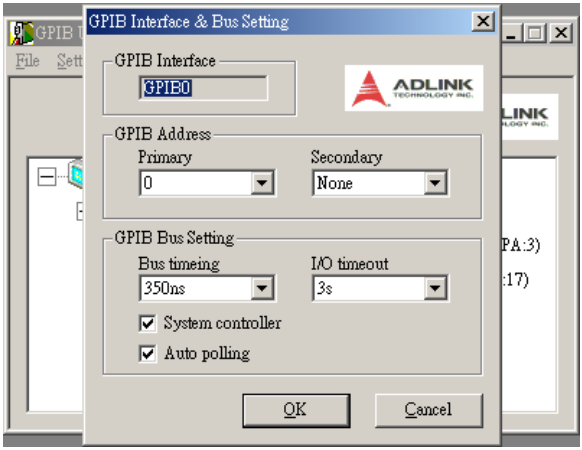
The ADL-GPIB driver package also provides an "ADLINK GPIB Utility" utility program to diagnose and verify GPIB connections. It is located on the ADL-GPIB installation directory: *C:\ADLINK\ADL-GPIB\Utility\GPIB Utility.exe*.

1. Launch the GPIB Utility.exe. A window appears to show all installed GPIB interfaces and instruments

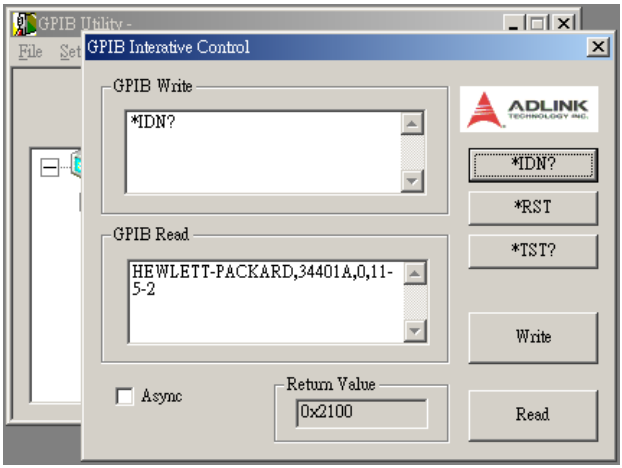


2. Click on a GPIB interface (GPIB0, GPIB1, etc.) and select "**Setting**" > "**GPIB Preference**". A "*GPIB Interface & Bus Setting*" dialog appears to enable configuration of the GPIB interface.


GPIB Utility -
File
Setting
Help
GPIB Preference
Save Configuration
ADLINK
My Computer
GPIB0
StanfordResearchSystems,DS360,33909,1.05 (PA:3)
HEWLETT-PACKARD,34401A,0,11-5-2 (PA:17)


GPIB Interface & Bus Setting
GPIB Interface
GPIB0
ADLINK
GPIB Address
Primary
0
Secondary
None
GPIB Bus Setting
Bus timeing
350ns
I/O timeout
3s
System controller
Auto polling
OK
Cancel

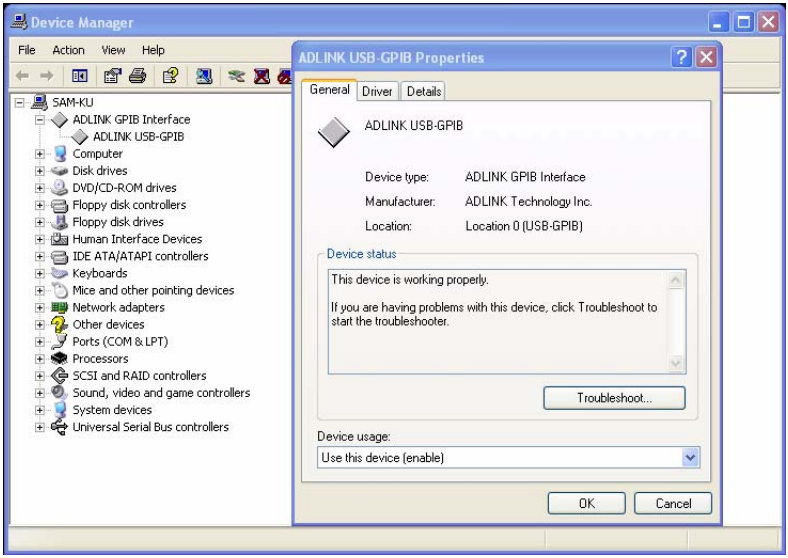
3. Double click on a connected GPIB instrument. A '"*GPIB Interactive control*" dialog appears to allow write command strings to be inputted into the GPIB instrument and read the result.



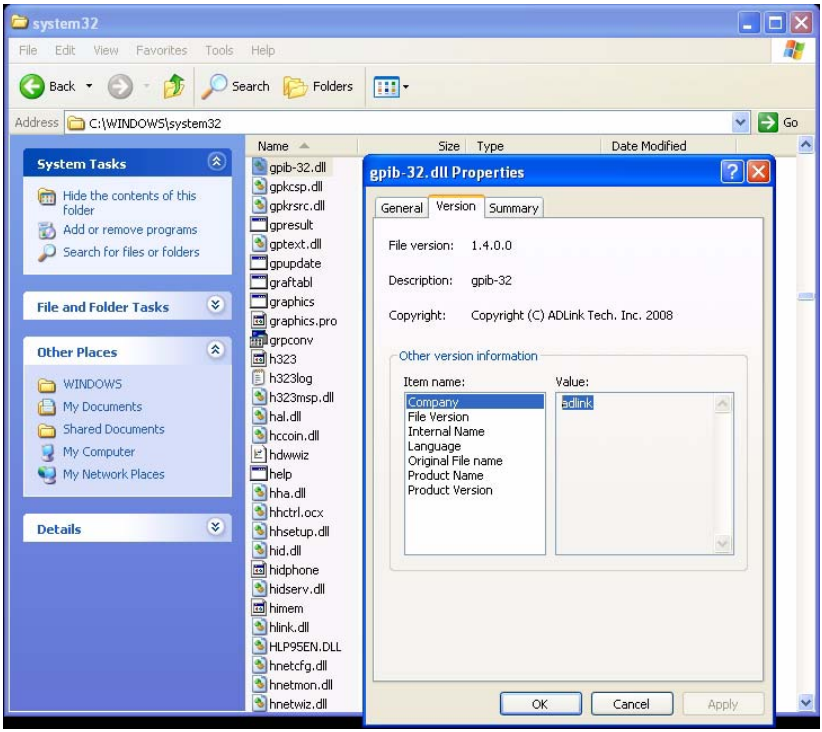
Step 4. Troubleshooting

If any problems occur when testing your ADLINK GPIB product, please check the following two things:

1. To check if ADLINK GPIB is displayed in the Windows Device Manager.



2. Check the file information of the gpib-32.dll. It should be from ADLINK

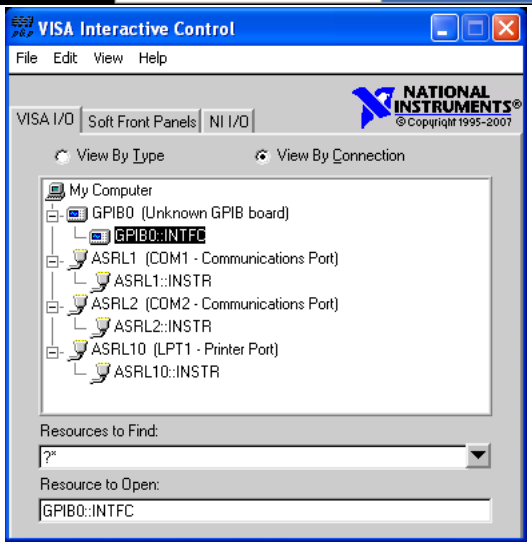


Note: If the gpib-32.dll version is correct and LPCI-3488A/USB-3488A is properly displayed in the Device Manager, please contact our technical support to get debug tool.

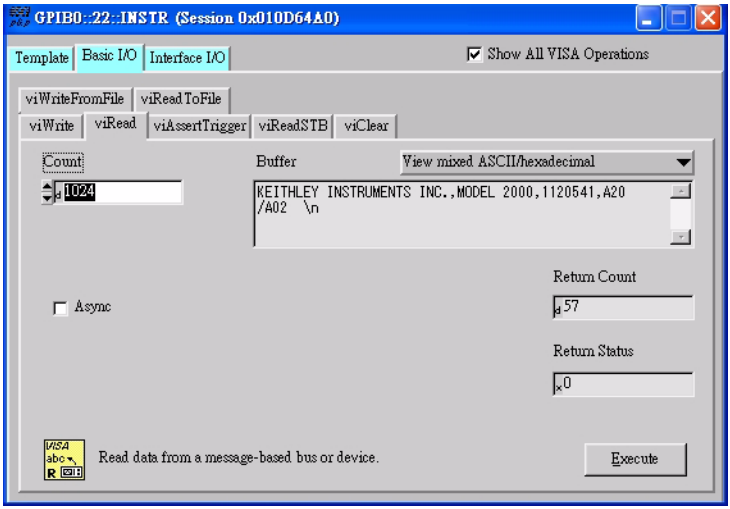
Using ADLINK GPIB Products in LabVIEW® for NI-VISA® Application Development

ADLINK GPIB products are full compatible with NI-VISA. Existing NI-VISA programs can be used with ADLINK hardware with the following steps:

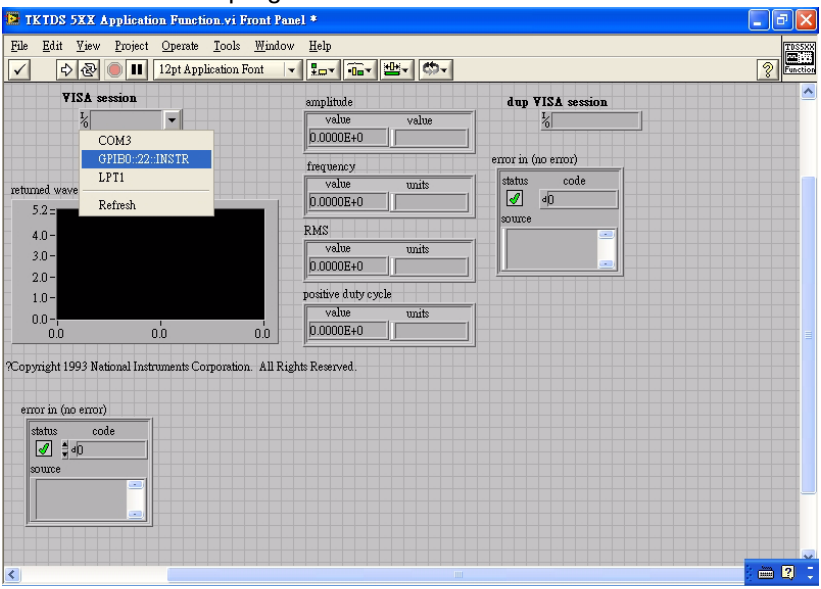
1. Install NI VISA. The ADLINK-GPIB driver is compatible with NI-VISA 2.6.1 up to 4.5 (NI VISA can be freely downloaded from the NI website).
2. Install the ADLINK GPIB driver (ADL-GPIB)
   - ▷ Obtain from the ADLINK GPIB CD
   - ▷ Download from the ADLINK website: http://www.adlinktech.com/GPIB/index.html
3. Directly use the NI VISA Interactive Control to check if the tool can detect ADLINK GPIB in the VISA I/O tab-sheet.



4. Double click the ADLINK GPIB device to launch its advanced I/O control panel. Execute *IDN? SCPI command in the viWrite panel and run viRead to retrieve the result. Below is an example showing a Keithley DMM Model 2000 detected by the ADLINK GPIB through NI-VISA:



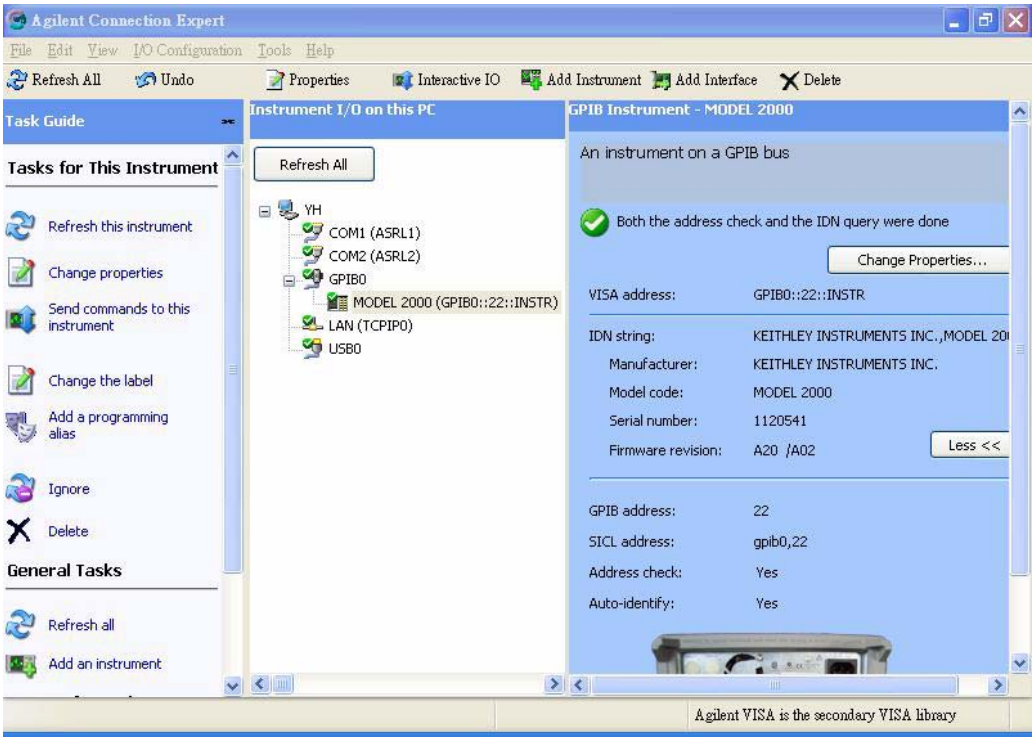
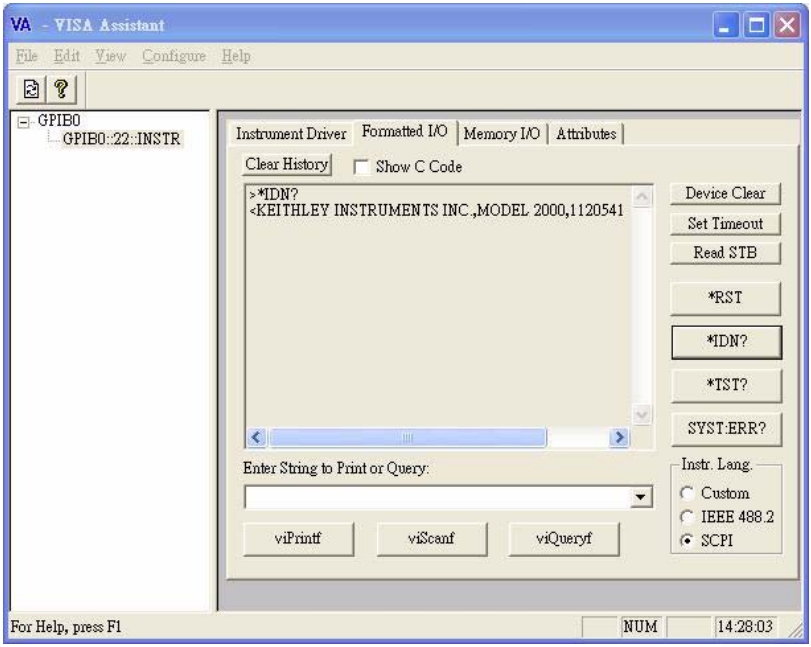
5. After performing basic tests, you can run a premade sample program provided by instrument vendor. Below is an example to control a Tektronic 540A digital scope through a VISA session.
   Existing applications under NI-VISA can also be executed through the ADLINK GPIB without needing to rewrite the program.



Using ADLINK GPIB Products in HP VEE Pro for Agilent-VISA Application Development

ADLINK GPIB products are full compatible with Agilent-VISA. Existing applications under Agilent-VISA can be used with ADLINK hardware with the following steps::

1. Install Agilent VISA. The ADLINK-GPIB driver is compatible with Agilent VISA.
2. Install the ADLINK GPIB driver (ADL-GPIB)
   - ▷ Obtain from ADLINK GPIB CD
   - ▷ Download from the ADLINK website http://www.adlinktech.com/GPIB/index.html
3. Use the Agilent Connection Expert to directly check if the tool can detect the ADLINK GPIB in the Treeview.



4. Select the device detected by the GPIB and launch the advanced VISA Assistant utility from the "Tools" menu. Execute *IDN? SCPI command in the Formatted I/O tab-sheet to retrieve the result. Below is an example showing a Keithley DMM Model 2000 detected by the ADLINK GPIB through Agilent-VISA.