HP/Agilent Diode Array {8452A, 8453}
Agilent I/O Configuration
UV-Visible ChemStation

WARNING: Do not swap different models {8452A, 8453} with any given computer; a swap must be with a like model, i.e. 8452A → 8452A, <u>OR</u> 8453 → 8453.
(Swapping dissimilar models requires reconfiguration for the entire computer system)

Step 1 (Agilent I/O Configuration)

- Open Agilent IO control (though the exe is found here: "C:\Program Files\Agilent\IO Libraries\bin\iprocsvr.exe", it needs to be opened from the system tray icon).

- Right-click and select “Run IO Config”

Image 1

This will open the “Agilent IO Libraries Configuration”
(Go To Step 2)

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Step 2 (Agilent IO Libraries Configuration)

The “Agilent IO Libraries Configuration” tool should open:
(...and look like this:)

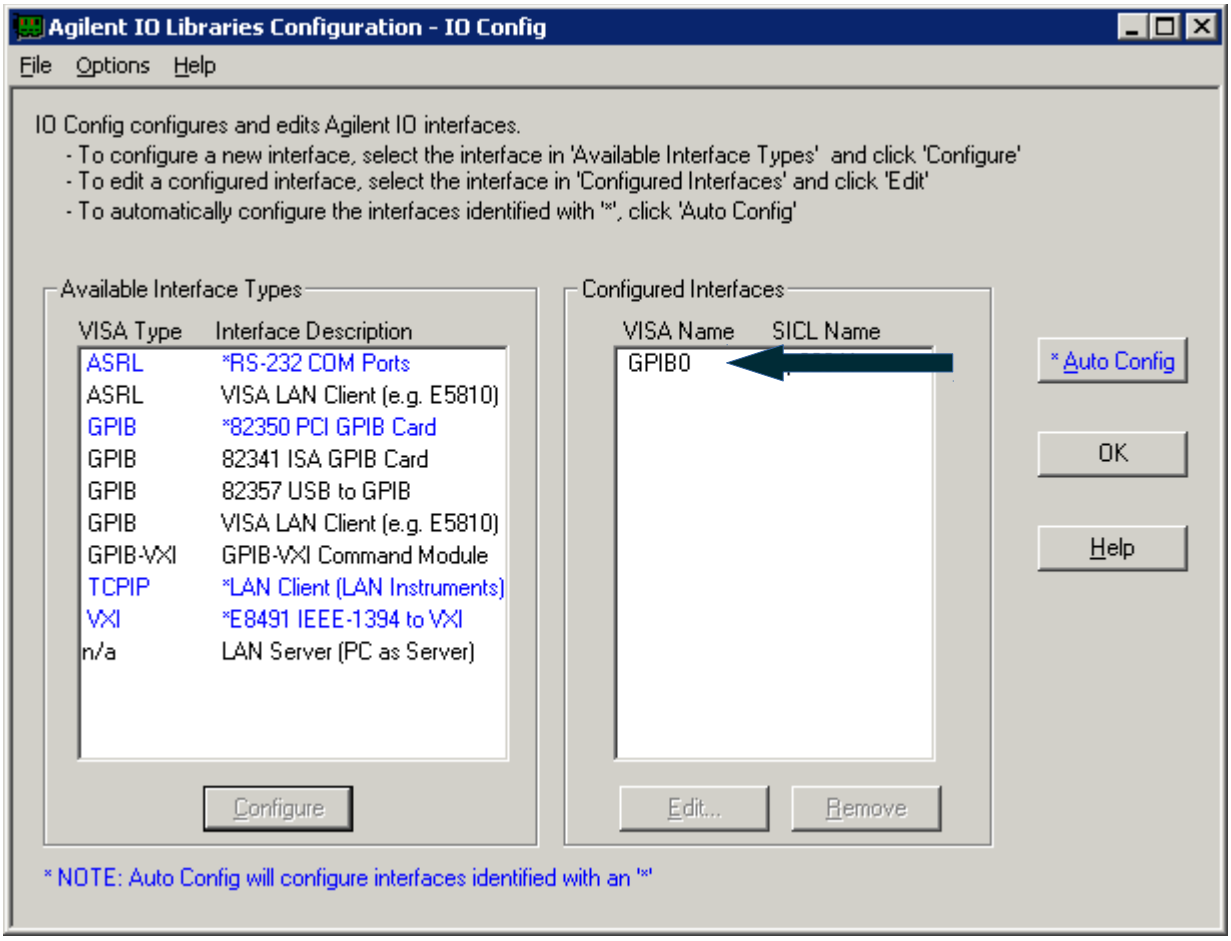

Image 2

- On the right pane for “Configured Interfaces”, double left-click the VISA Name GPIB0.
  - If there is no GPIB0 for Configured Interfaces” then click on Available Interfaces Types: “82350 PCI GPIB Card, that will then add the correct GPIB card (82350 PCI GPIB Card).
  - Note that each GPIB PCI card has it’s own unique serial number. If the GPIB PCI card has been changed out, or if the computer has been reimaged, it will be necessary to reconfigure the GPIB card with this utility (Agilent IO configuration).
- Resist the temptation to click on “*Auto Config” ← **DON’T DO IT!**
  - **(If you do this, you will end having to clean a bunch of stuff out of the Configured Interfaces)**
- *Go To Step 3*

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Step 3 (82350 PCI GPIB Card Configuration)

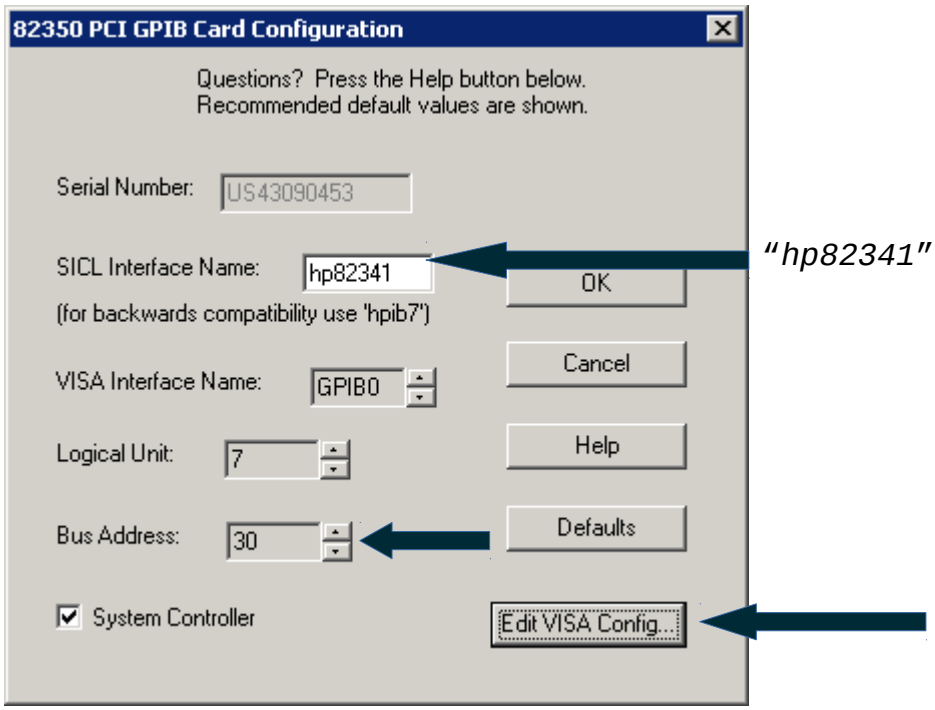

Image 3

- The SICL name may read GPIB0, this will need to be changed!
  - Change it to *"hp82341" --as pictured.*
  - IT HAS TO BE THIS WAY; NOTHING WILL WORK OTHERWISE. DON'T THINK YOU CAN OUTSMART THE SYSTEM!
- The Default for Logical Unit = 7
  - leave it at 7, or change it to 7 if need be –there should be "no-need-be", if there is, beware!
- The Default Bus Address is 21; this can be changed to 30. In fact, change it to 30 so that it is consistent among all Diode Arrays.

- Click on "Edit VISA Config"
  - this will show devices
    - this will determine if the diode array is being picked up by the GPIB card –assuming the diode array is turned on (powered on).

- *Go To Step 4*

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Step 4 (Show Devices)

(Information gathering only)

- Show Devices is to see if the GPIB card is picking up the Diode Array –assuming it is powered on.
- Make note of the interface assignment; in this example, the diode array has been assigned interface 25 [GPIB0::25]
- Interface 25 is the default for Diode Arrays
  - please note that the interface # is controlled by DIP switches on the diode arrays back panel.

Image 4

Image 5

- If there's no instrument in the device list, see image 4, then it will need to be added.
- Click on "Auto Add devices"
- Go to Step 5

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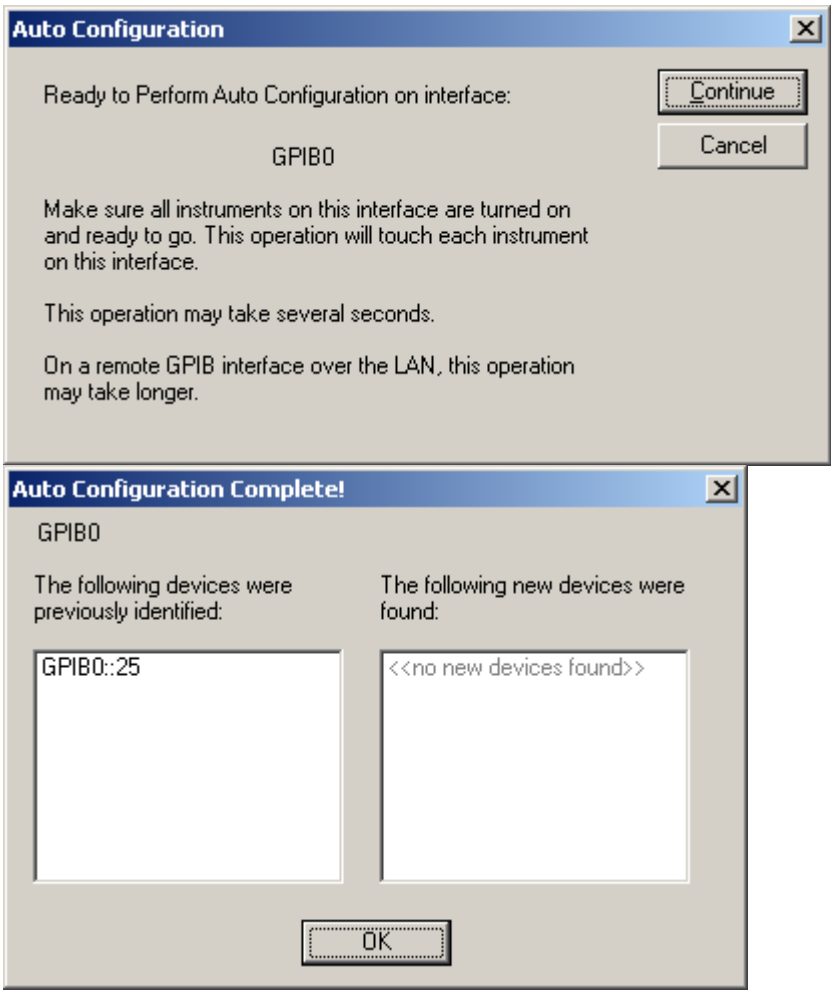
Step 5 (Auto-Configuration)



- The instrument should be picked up –assuming all of the configurations were followed through from the previous steps-- add that device by selecting it and clicking OK.

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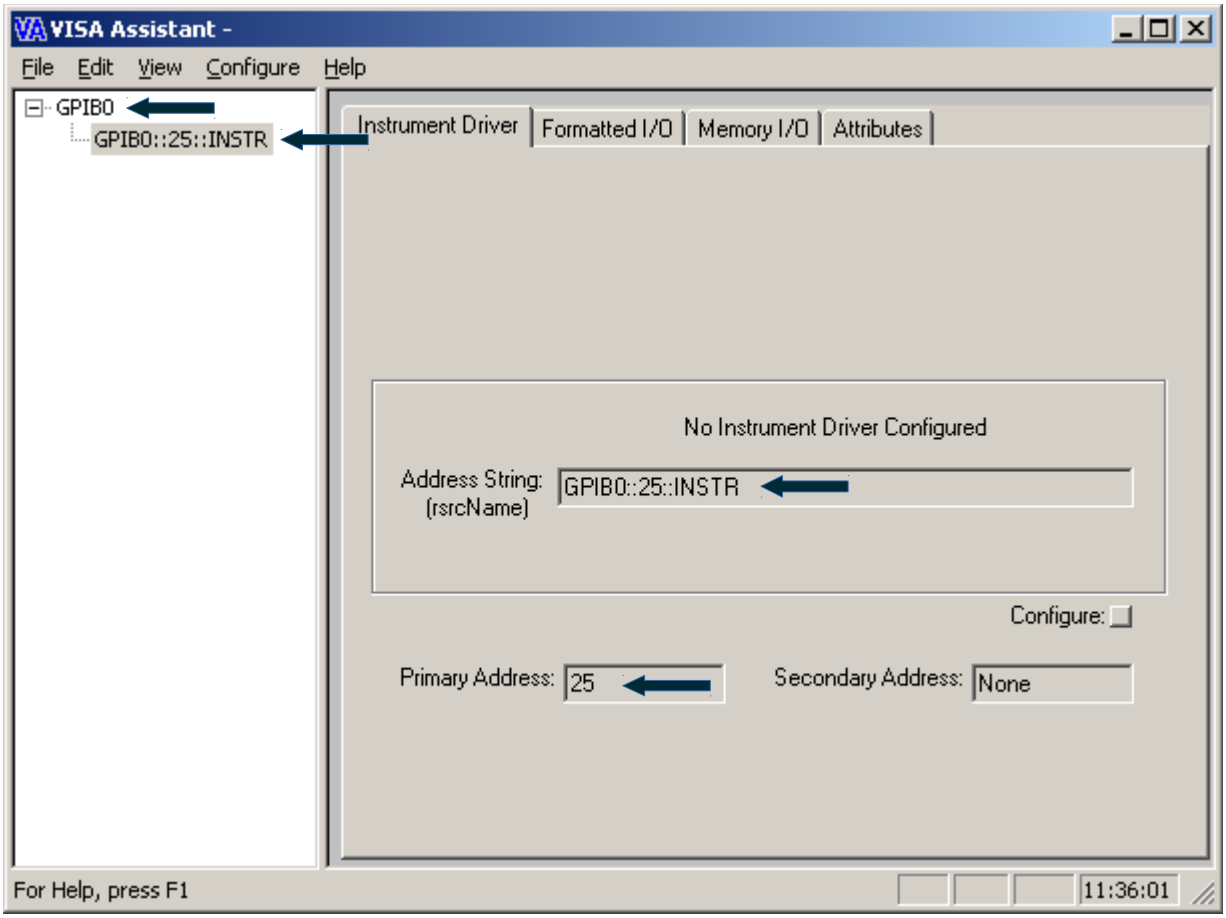
Step 6 (VISA Assistant)

(Checking that the instrument is properly registered)



- Double check the VISA Assistant configuration, by looking at what the arrows are pointing to [ ].

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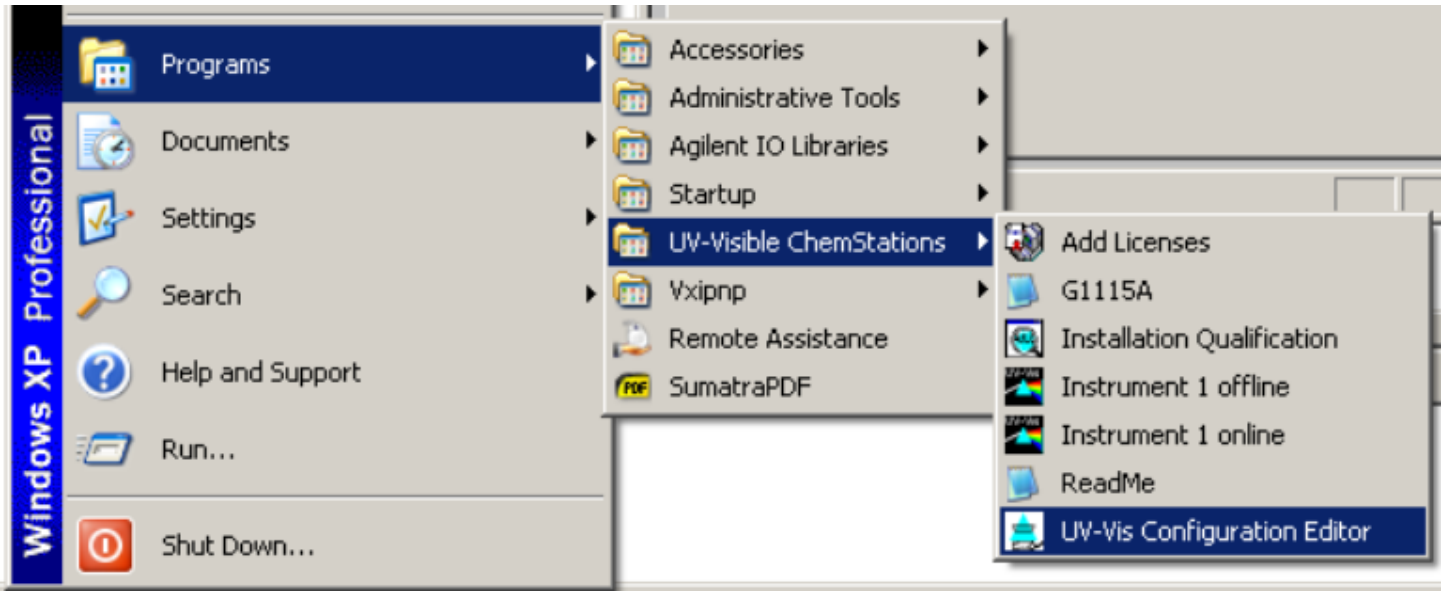
Step 7 (Open UV-VIS ChemStation)

- Open UV-Vis Configuration Editor
  - C:\HPCHEM\UVEXE\SETUP.EXE



- Go To Step 8 (A or B)
  - 8A = HP 8452A
  - 8B = Agilent 8453

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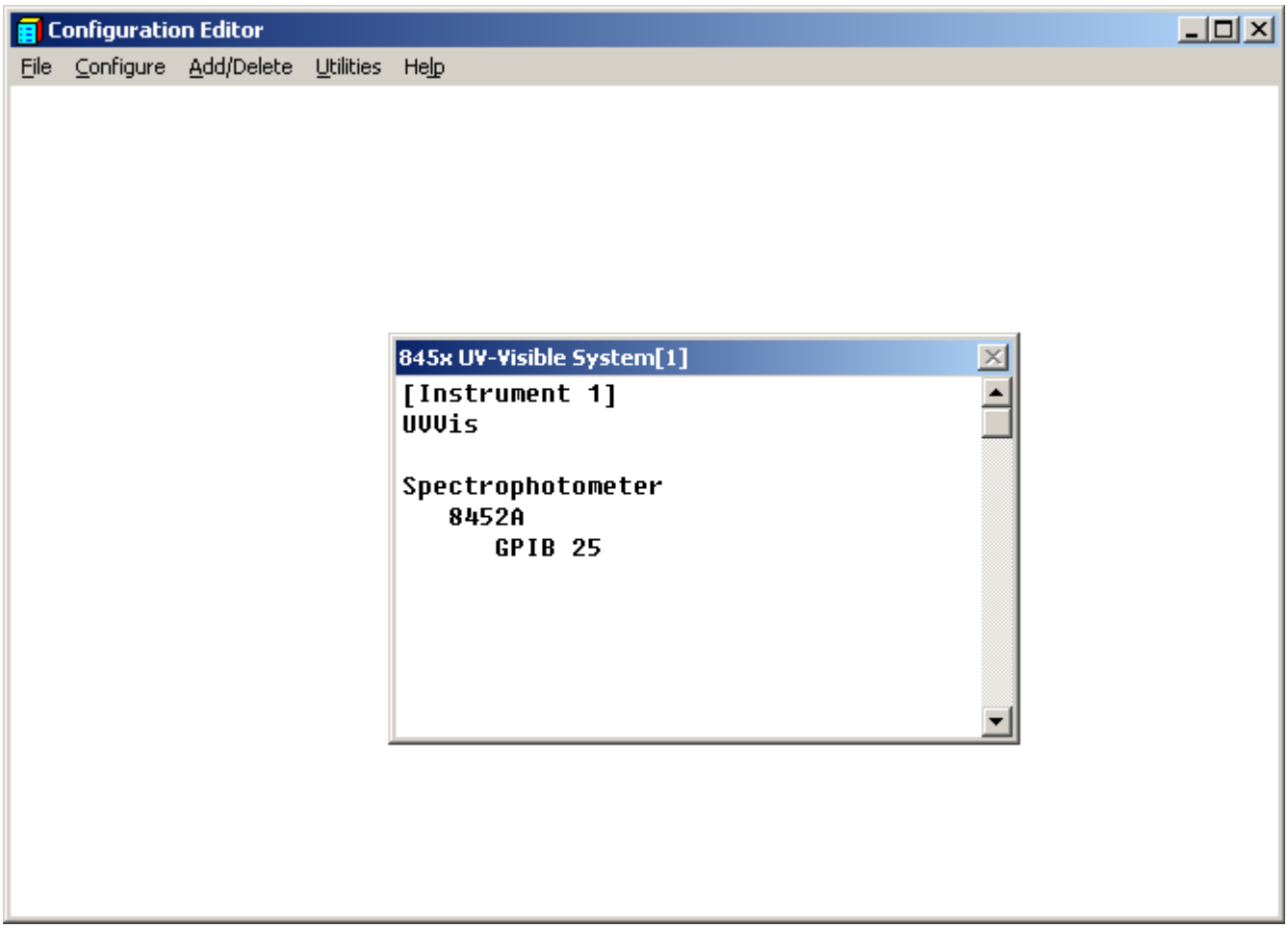
Step 8 A (Configure UV-VIS ChemStation)
8452A

- From the menu bar, click “Configure” → Instruments



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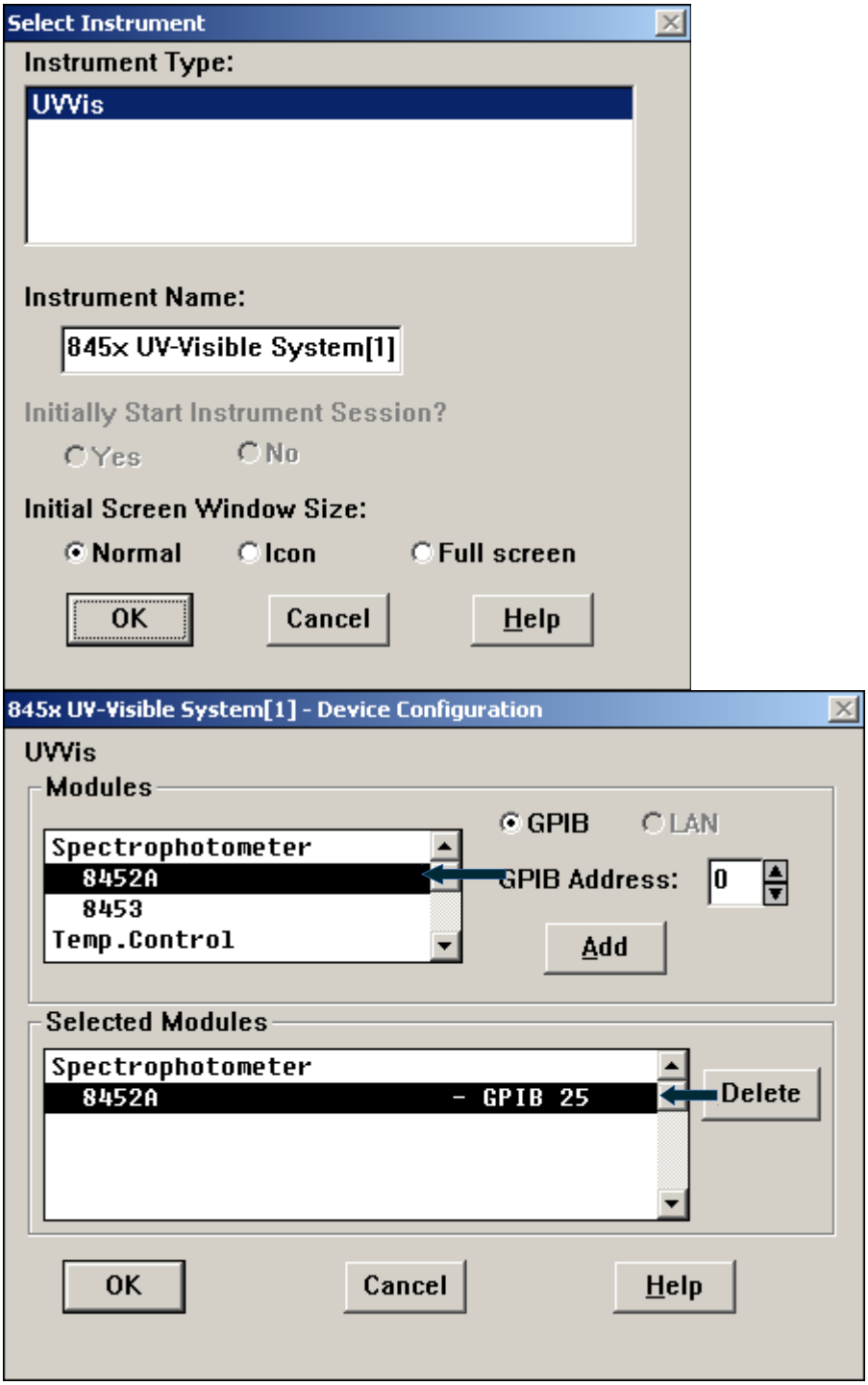

- The “Instrument Name” can be left as default “845x UV-Visible System[1]
- Double check all the settings for the 8452A (Doide Array) on GPIB Address: 25

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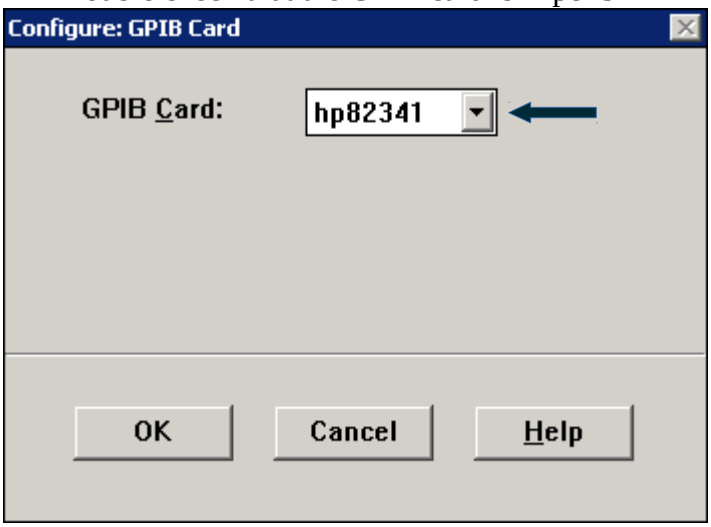
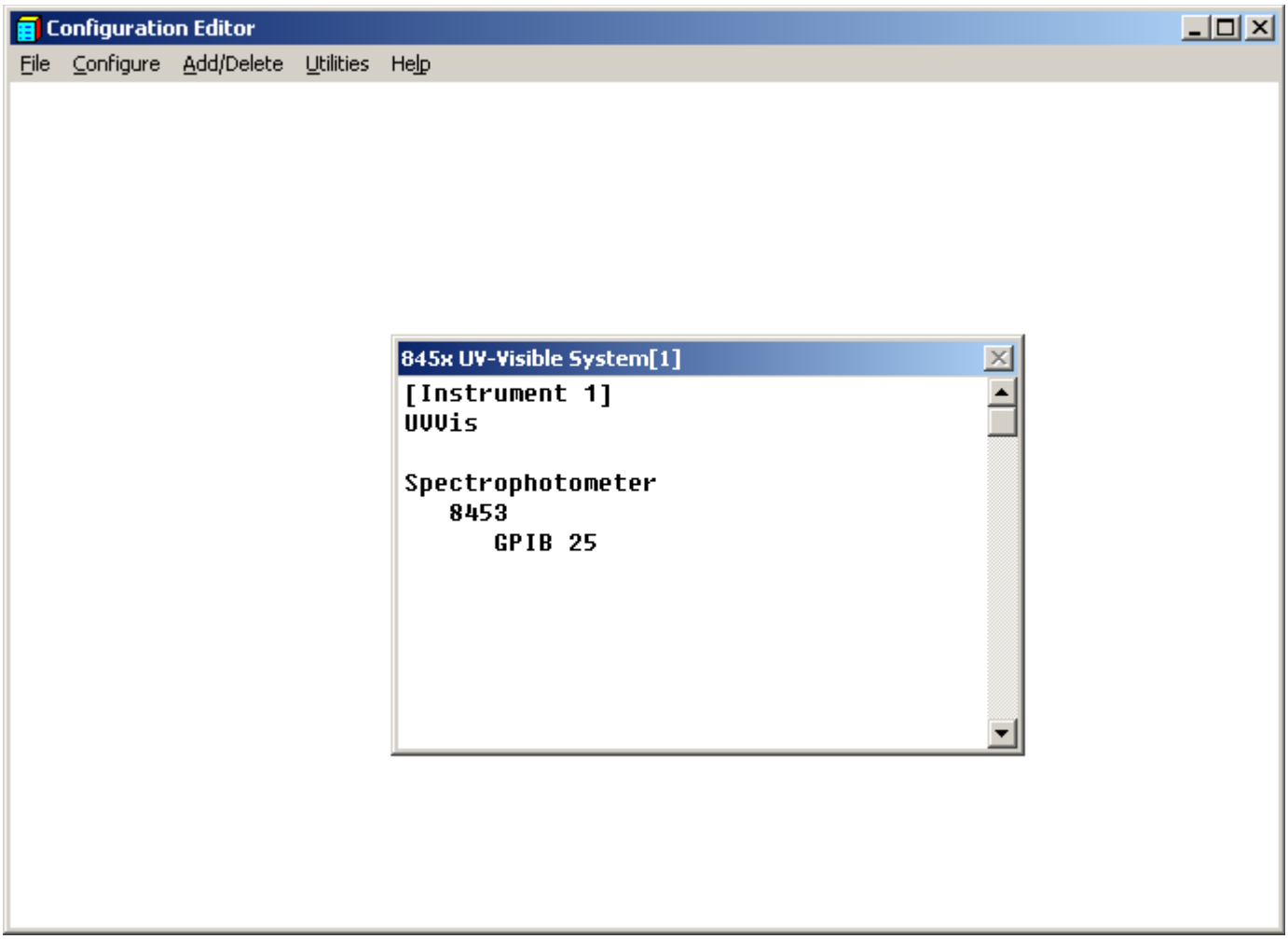
- From the menu bar, click "**Configure**" → **GPIB**
  - Double check that the GPIB card is "hp82341"



Step 8 B (Configure UV-VIS ChemStation)
8453

- From the menu bar, click "**Configure" → Instruments**



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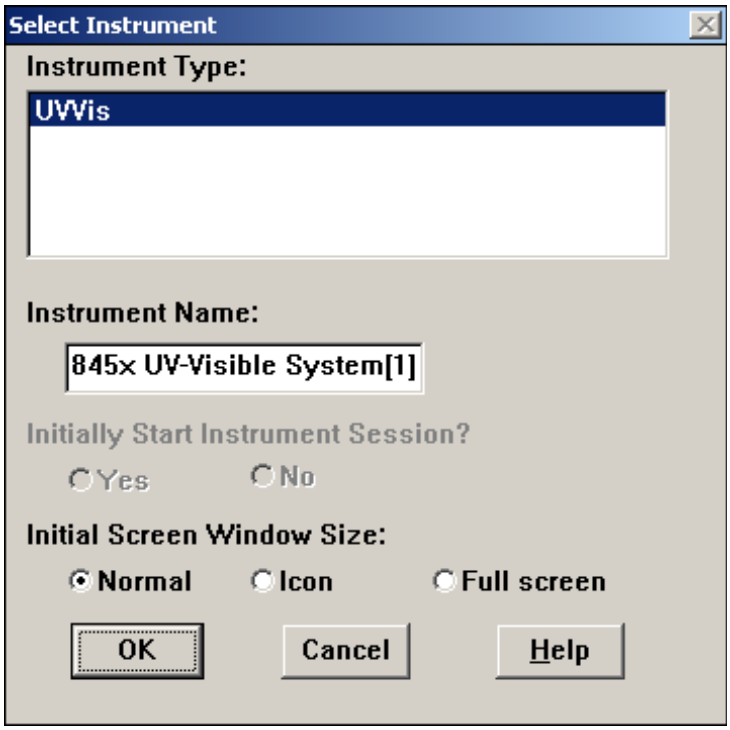
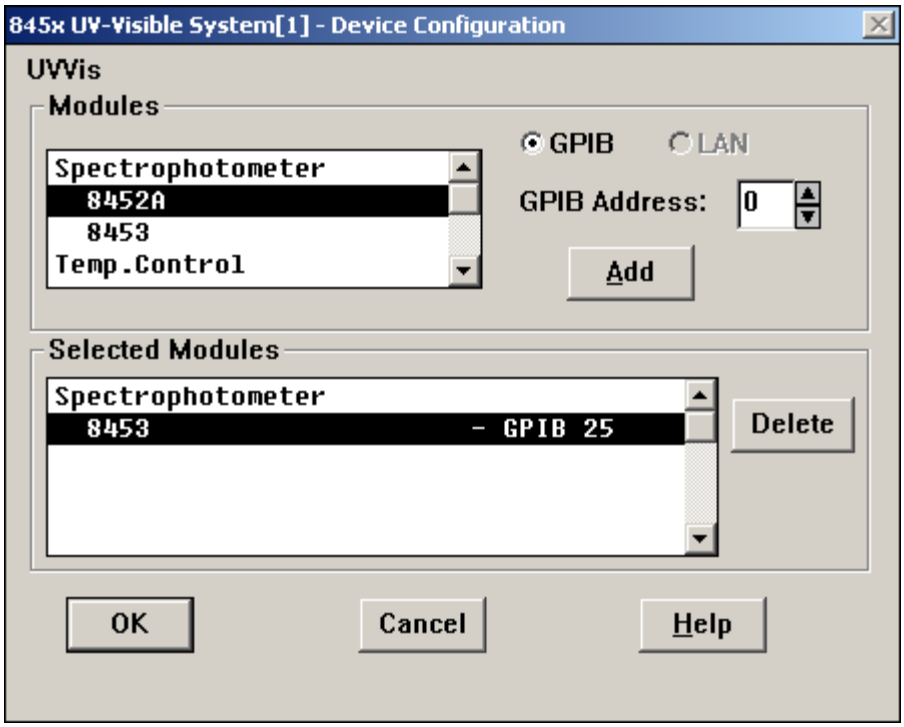


- The “Instrument Name” can be left as default “845x UV-Visible System[1]



- Double check all the settings for the 8453 (Doide Array) on GPIB Address: 25

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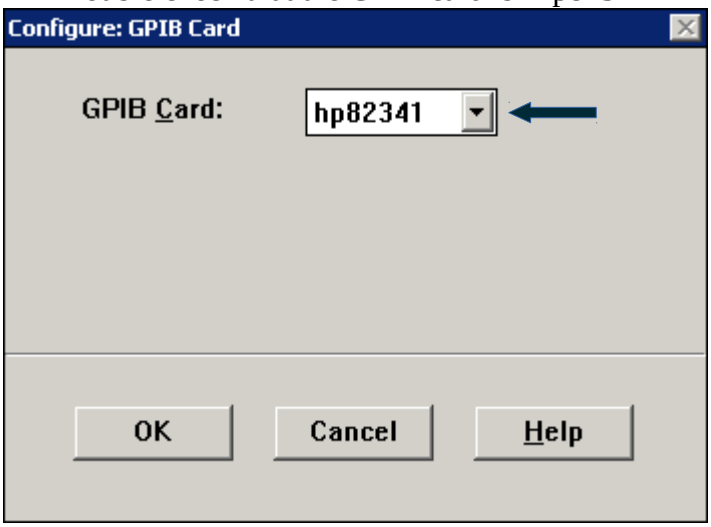
- From the menu bar, click "**Configure**" → **GPIB**
  - Double check that the GPIB card is "hp82341"



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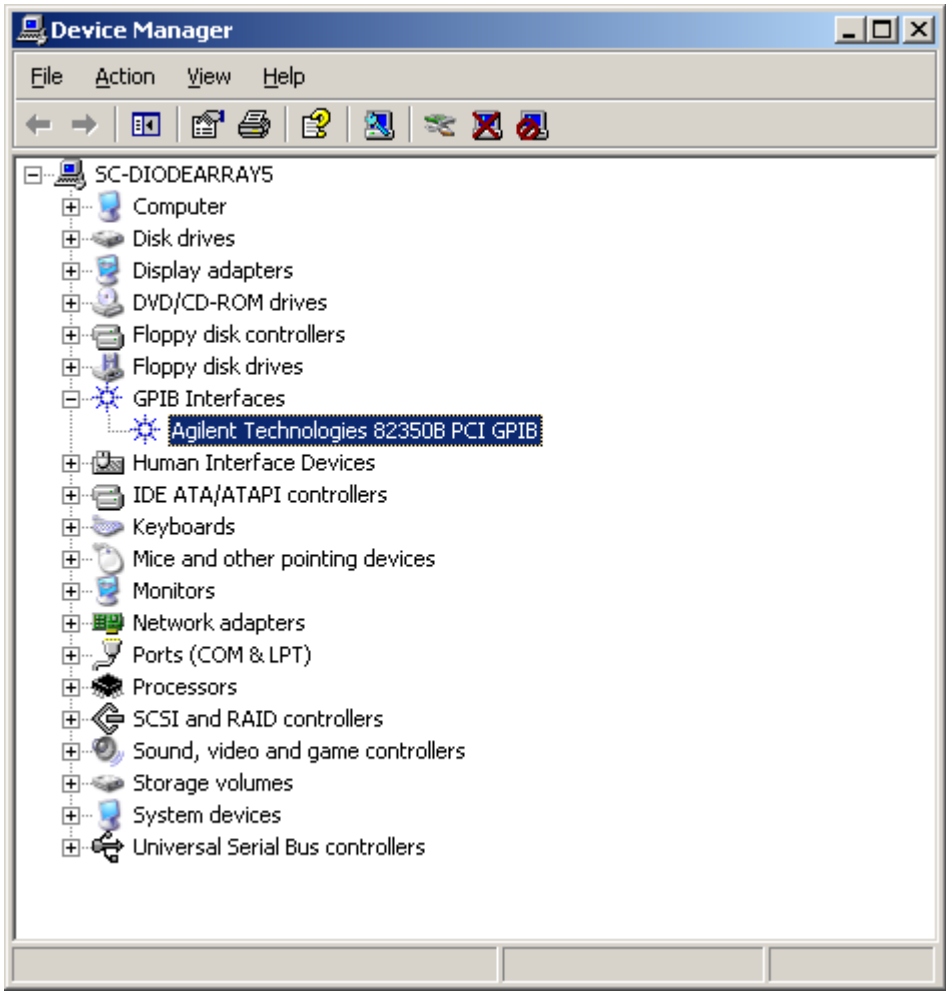
Troubleshooting

- Make sure Windows Device Manager is picking up the GPIB PCI card and that it is working properly.



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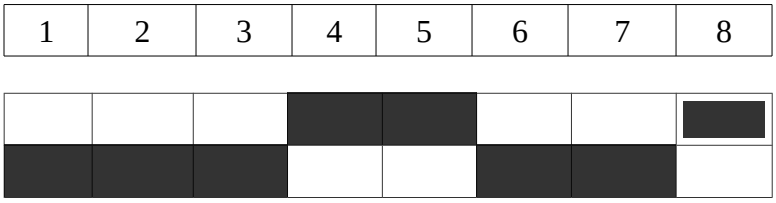
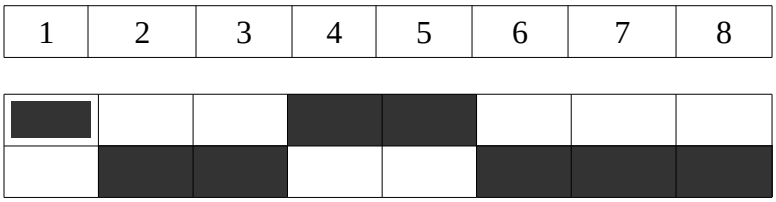
DIP Switches

(The Diode Array should be turned off if making changes to the DIP switch)

8453
DIP Switch setting for bus #25



8452A
DIP Switch setting for bus #25



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