

CCD Spectrometer Software Installation Manual

For advanced super-users only!!!

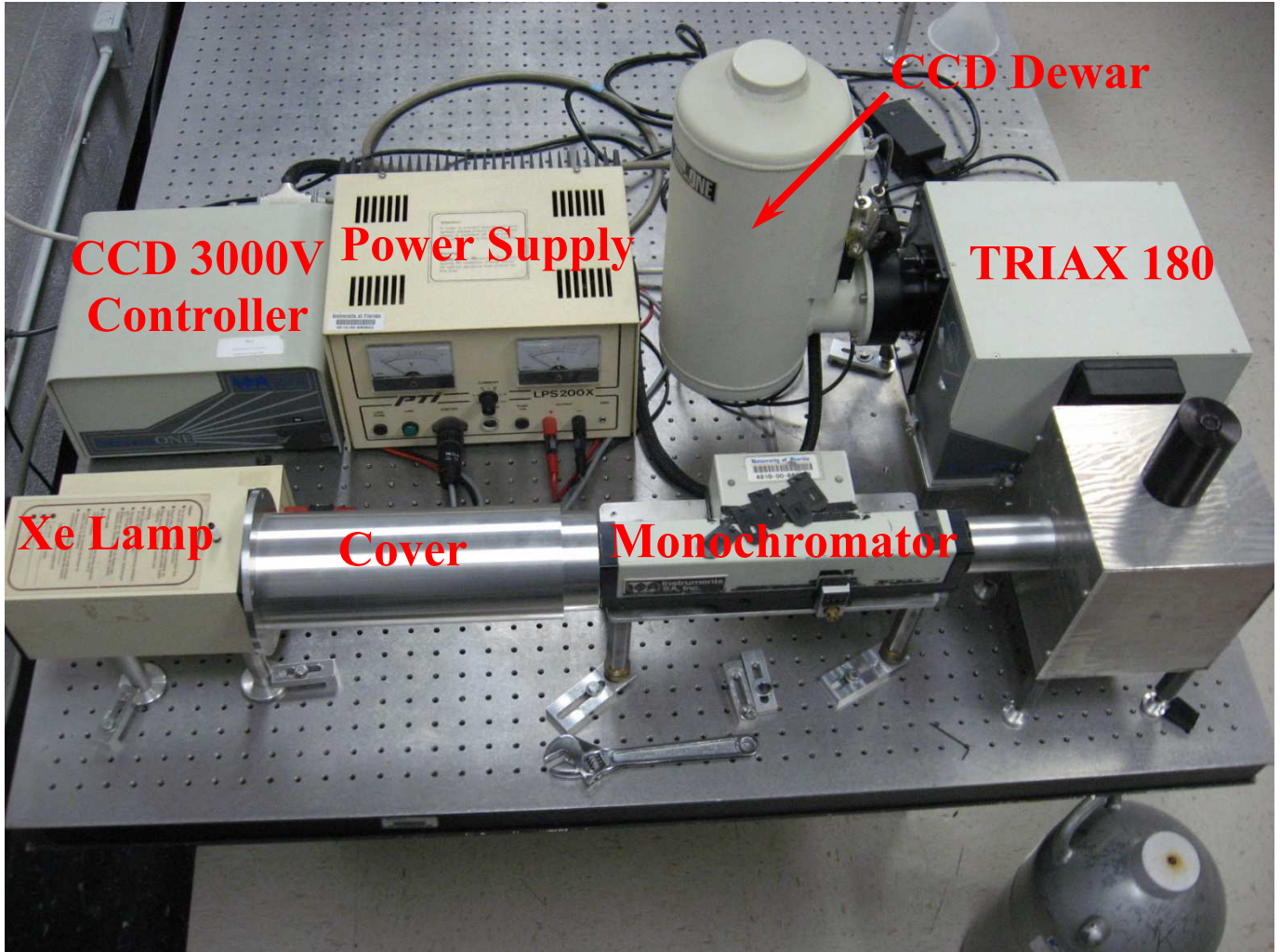
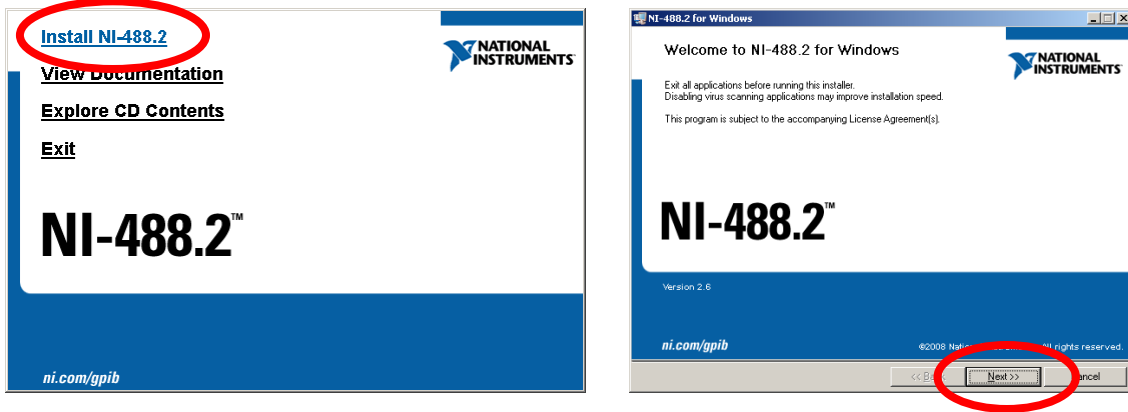


Table of Contents

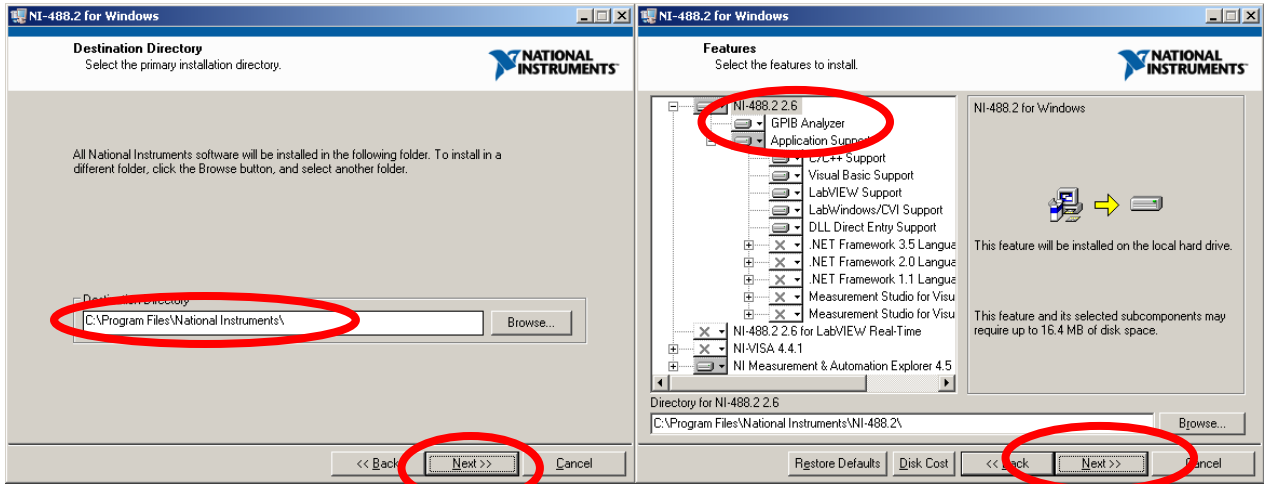
1. GPIB Card Driver Installation	Page 2
2. SpectraMax Installation	Page 3
3. Hardware Configuration and Control Software Installation	Page 5
4. Installing G64 CCD Chip Information	Page 6
5. Initialization File (mono1.ini) Modification	Page 10
6. APPENDIX: Downloading Software for CCD	Page 11

GPIB Card Driver Installation

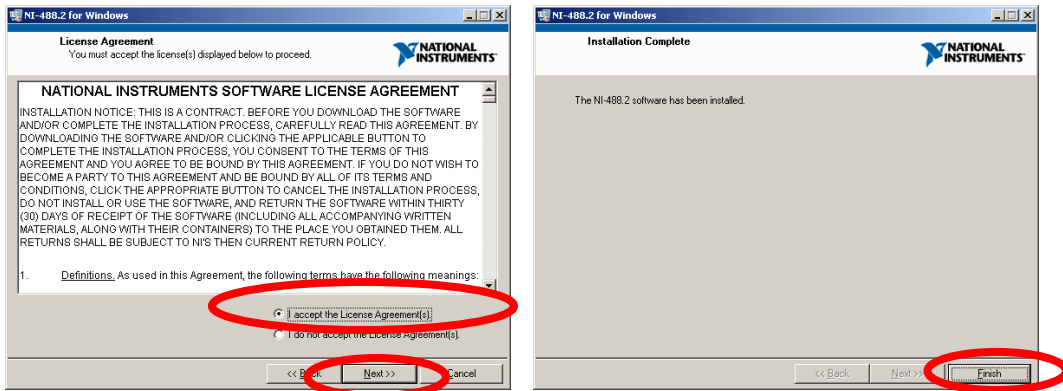
1. Move to E:\Admin\NI. Double click on ni488226.exe file. Follow instructions.
Download the driver from www.ni.com if necessary.
2. Click on “Install NI-488.2”. Click on “Next”



3. Choose the default location (C:\Program Files\National Instruments\) unless necessary. Click Next. Choose software options (**Include GPIB Analyzer). Click Next.

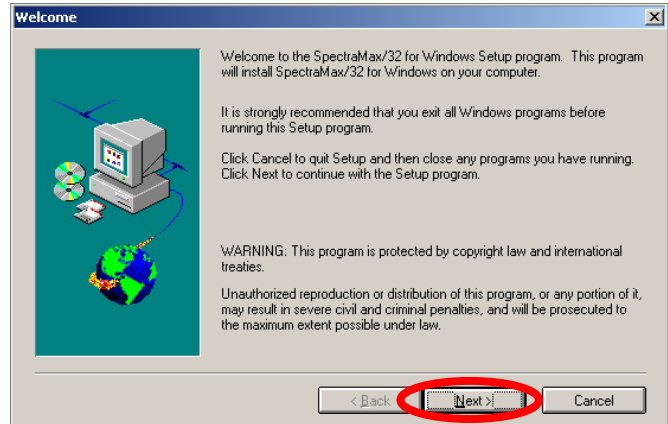


4. Accept the License Agreement. Click Next. Finish installation. Reboot the computer.
Driver will be installed automatically.

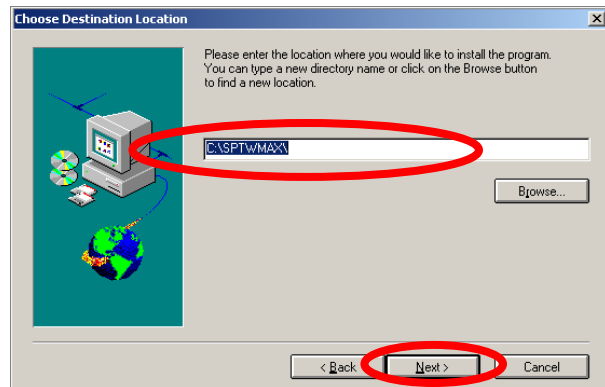
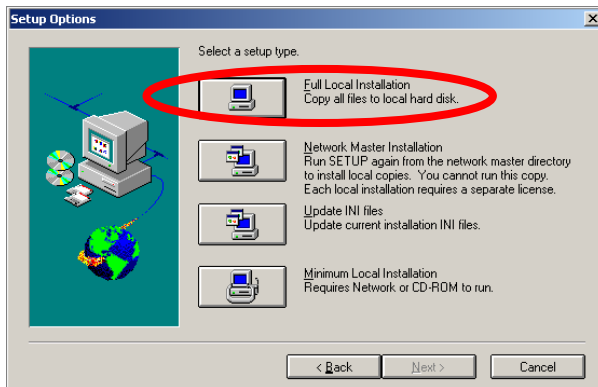


SpectraMax Installation

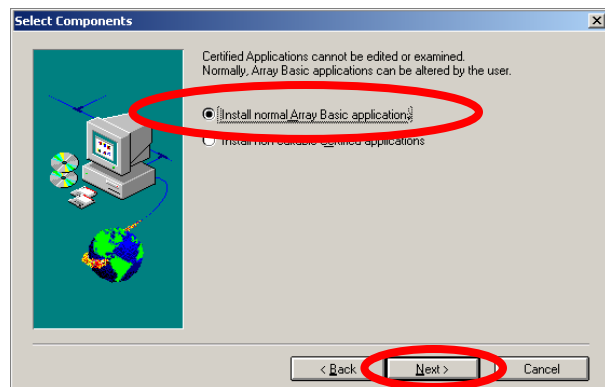
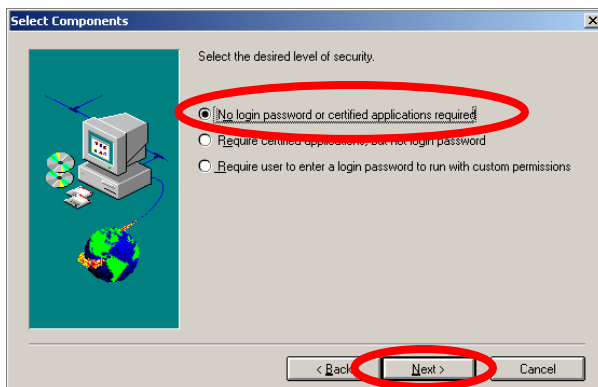
1. Insert SpectraMax v3.2 CD-ROM and choose “Install SpectraMax V3.2. Click Next.



2. Choose “Full local installation. Select default location (C:\SPTWMAX\) unless necessary.

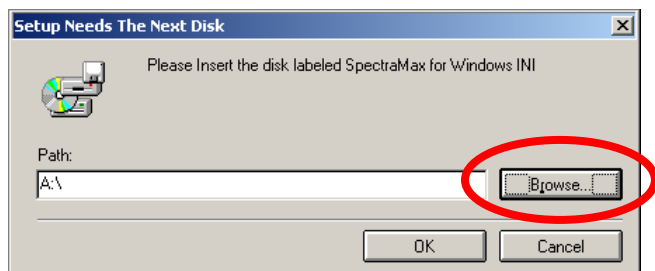


3. Select “No login password”, Click on Next.
Select “Normal Array Basic Applications” Click on Next

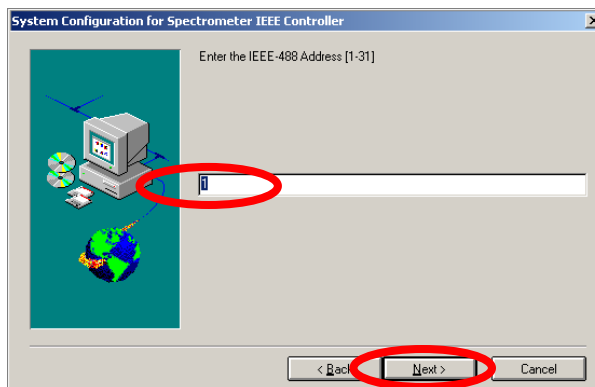
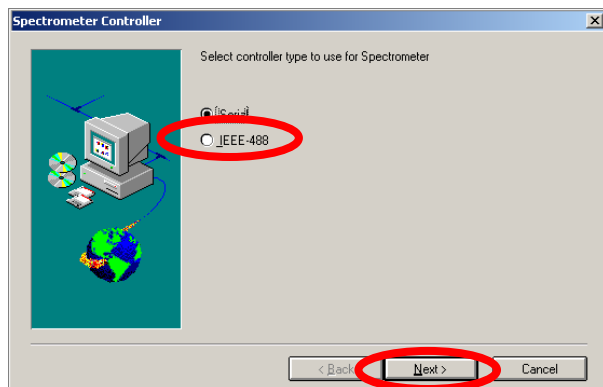


4. Skip ODBC installation if Microsoft Office is installed.
If not installed, install ODBC.

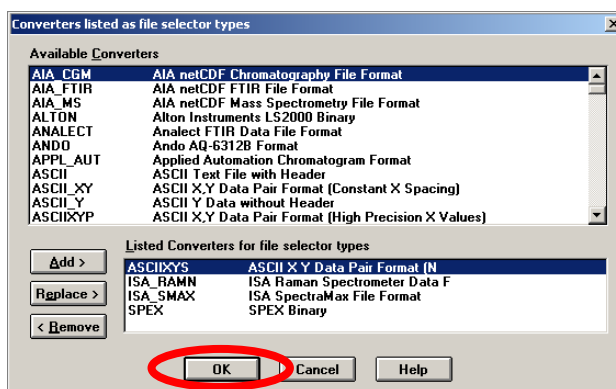
5. When it asks for “SpectraMax for Windows INI”, browse to E:\Admin\Smconfig.



6. Choose IEEE-488. Enter “1” for IEEE-488 Address.



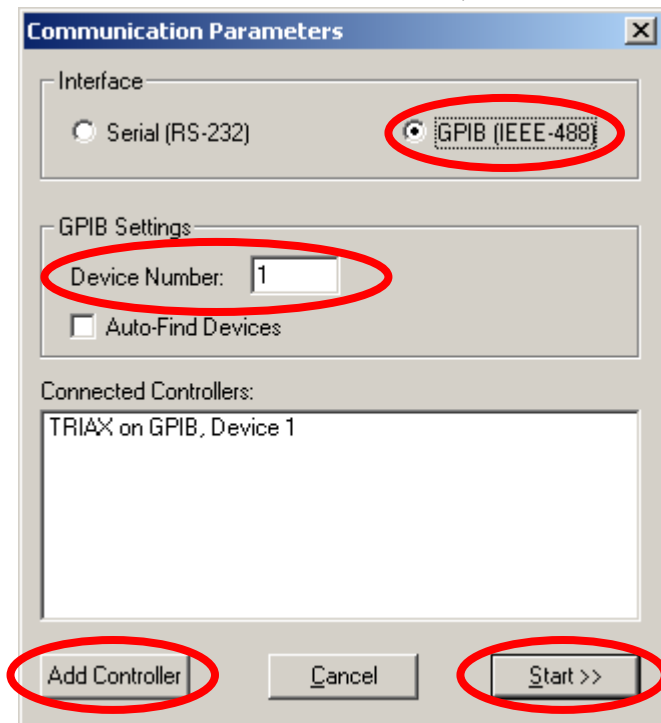
7. Do not type password. Click on OK. Add converters if necessary. Otherwise, click on OK.



8. Follow instructions. Finish installation. Reboot the computer.

Hardware Configuration and Control Software Installation

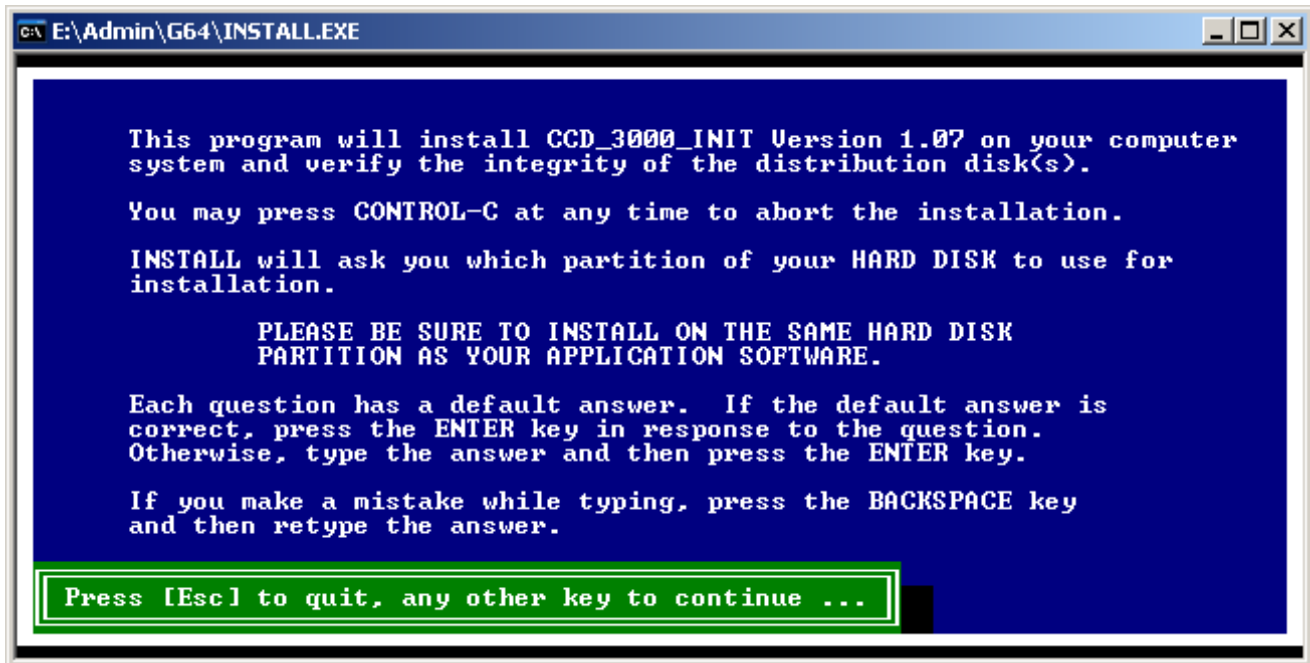
1. Move to E:\Admin\HWConfig\ Double click on Setup.exe. Follow the instruction to complete.
The file can be downloaded from HORIBA JOBIN YVON web site (www.jobinyvon.com).
Find instruction in APPENDIX
2. Turn on the CCD controller and TRIAX 180.
3. In the start menu, choose “Hardware configuration and control.”
Choose GPIB (IEEE-488). Enter “1” for Device Number. Click on “Add Controller”
After TRIAX is added, enter “5” for Device Number. Click on “Add Controller”
After CCD Controller is added, click on Start.



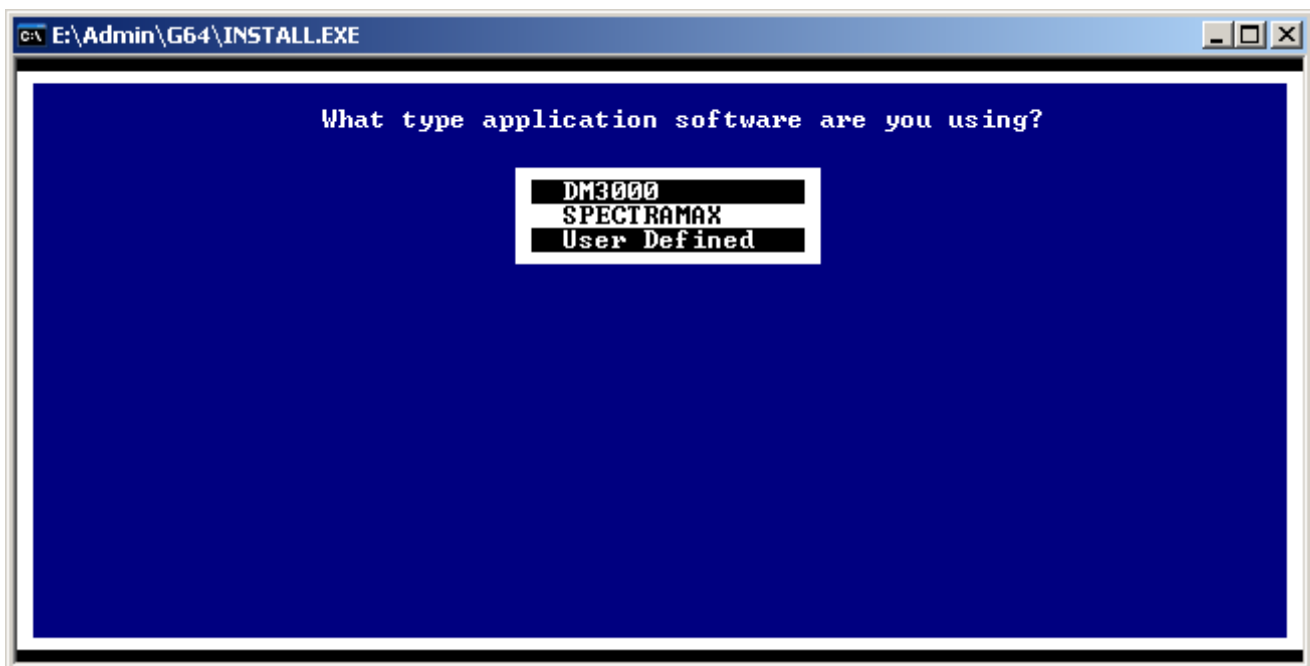
4. Exit the program.

Installing G64 CCD Chip Information

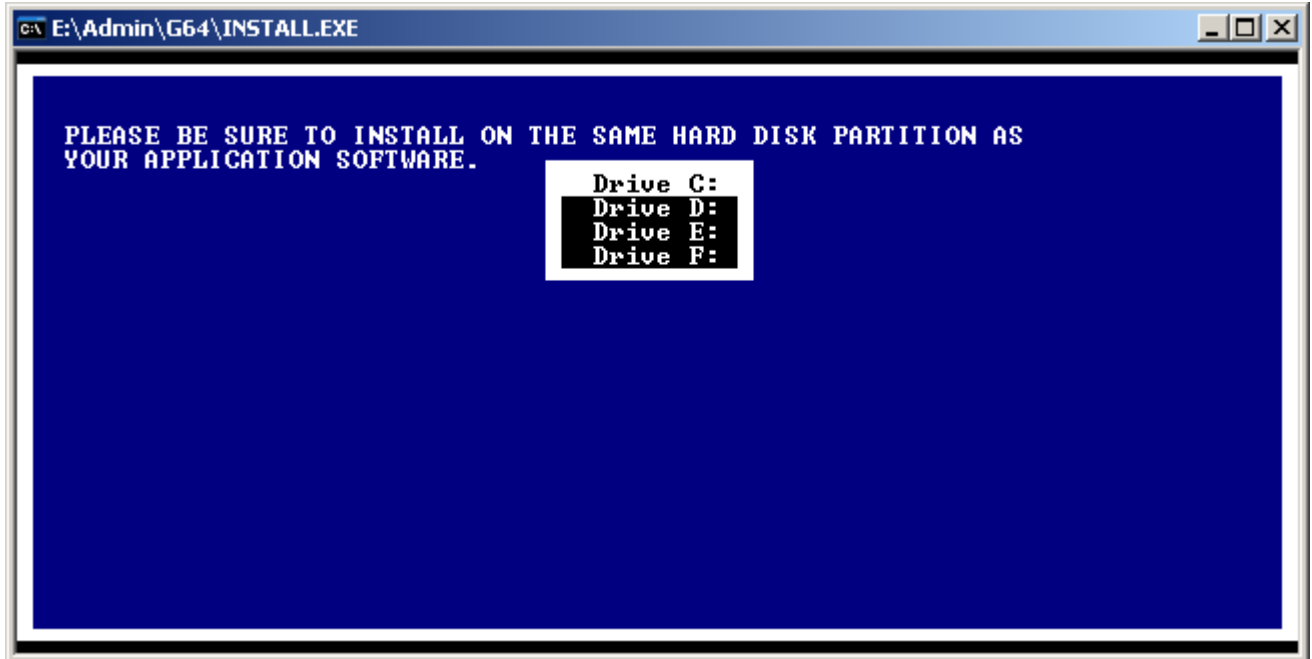
1. Move to E:\Admin\G64\ Copy the files to a USB drive or burn a CD-ROM.
The files need to be in the root directory of a disk (i.e. D:\ or E:\ etc).
**Do not copy them on C:\
2. Double click on install.exe. Hit any key except for “ESC” key.



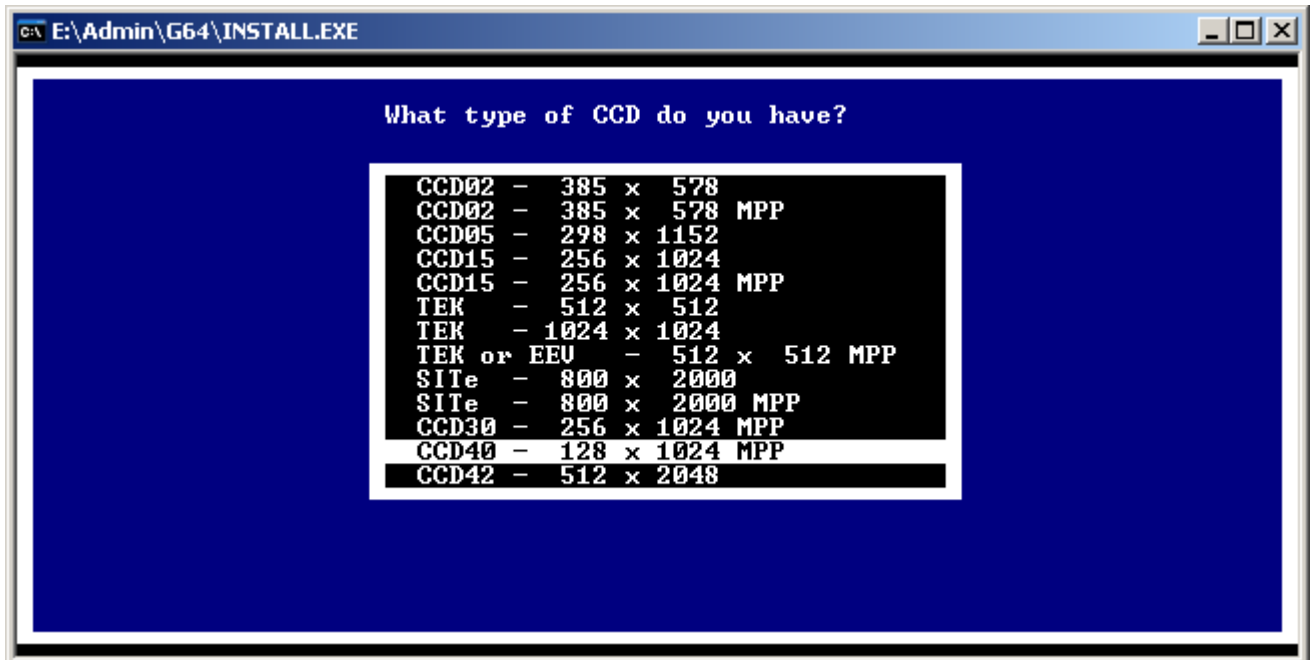
3. Choose “SPECTRAMAX”



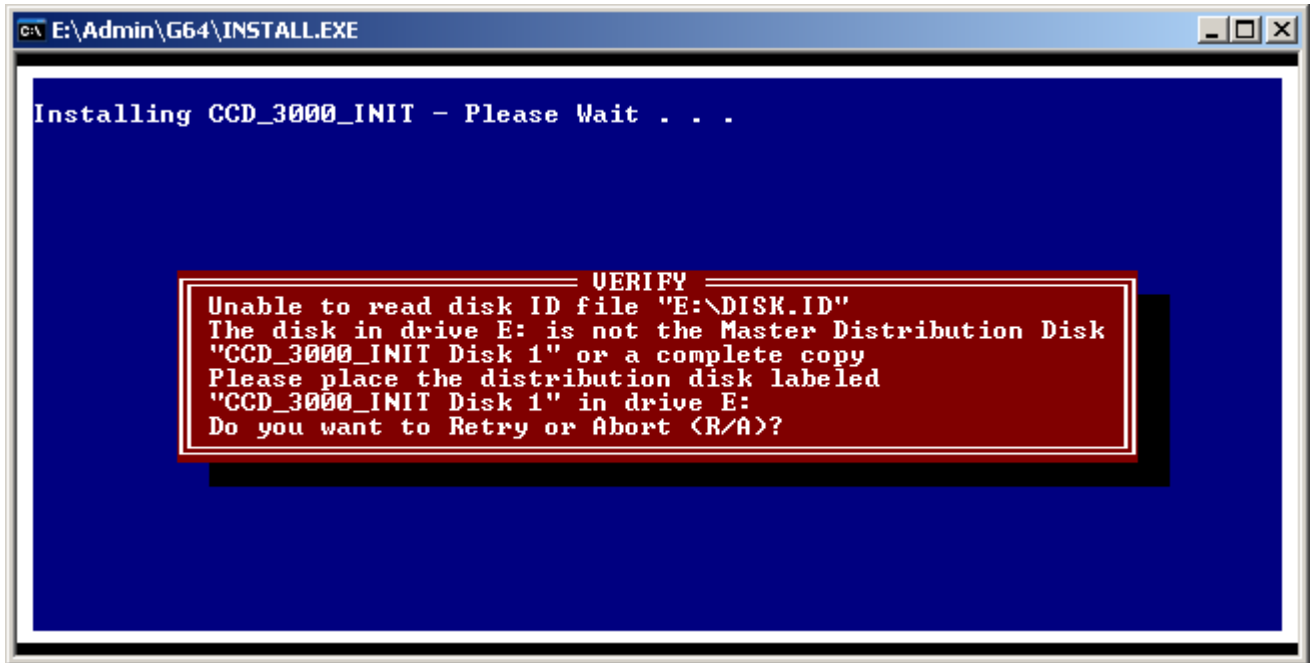
4. Choose "Drive C:"



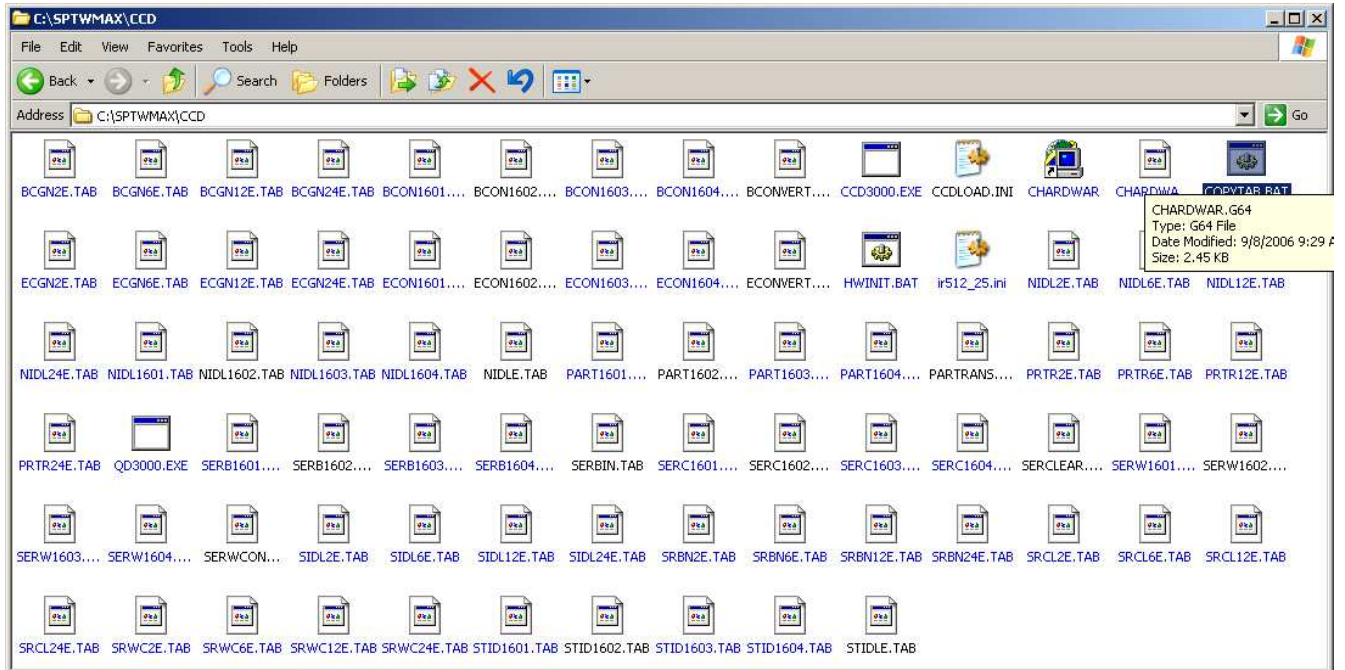
5. Choose "CCD40 – 128 x 1024 MPP. Files will be copied and exit the program.



6. If you get the following message, go back to step 1 and make sure you copied the files in the root directory of a device (USB drive, CD-ROM, floppy drive, ZIP, a hard drive, or whatever).



7. Move to C:\GEMAPPS\DRIVERS\CCD\ Copy the contents to C:\SPTWMAX\CCD\
Execute "COPYTAB.BAT" Reboot the computer.



8. Double Click on “Instrument Control Center”
Click on Yes for all and let it initialize.



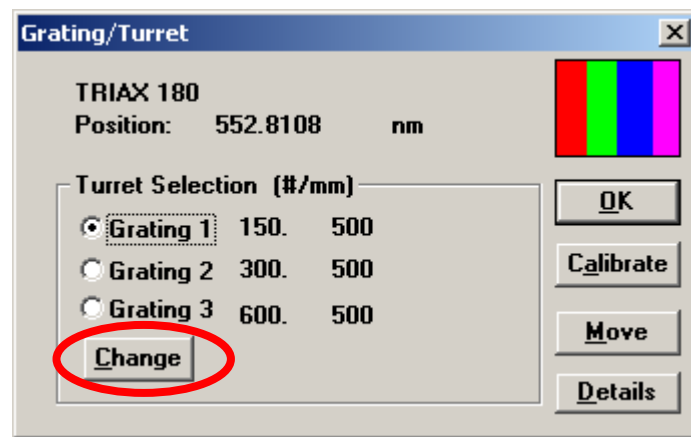
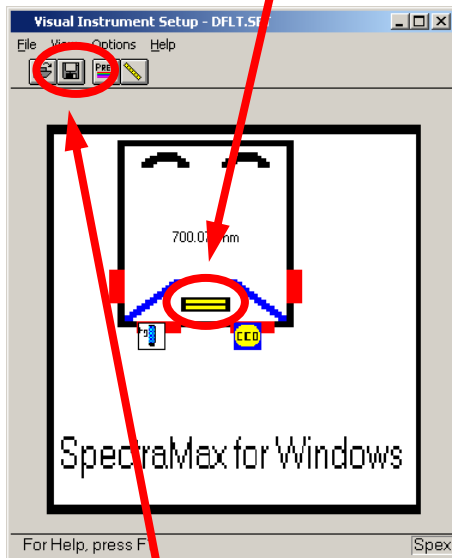
9. Open “Experiment Window” by clicking on the icon.
Click on the RTD button. Let it initialize.



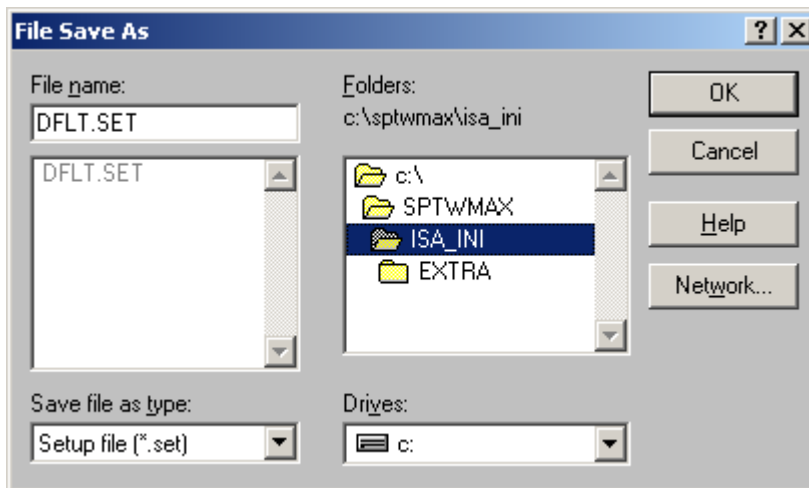
10. Go back to “Instrument Control Center” and click on Visual Instrument Setup button.



11. Click on the Grating/Turret icon. Click on Change to set the gratings to 150, 300, and 600.



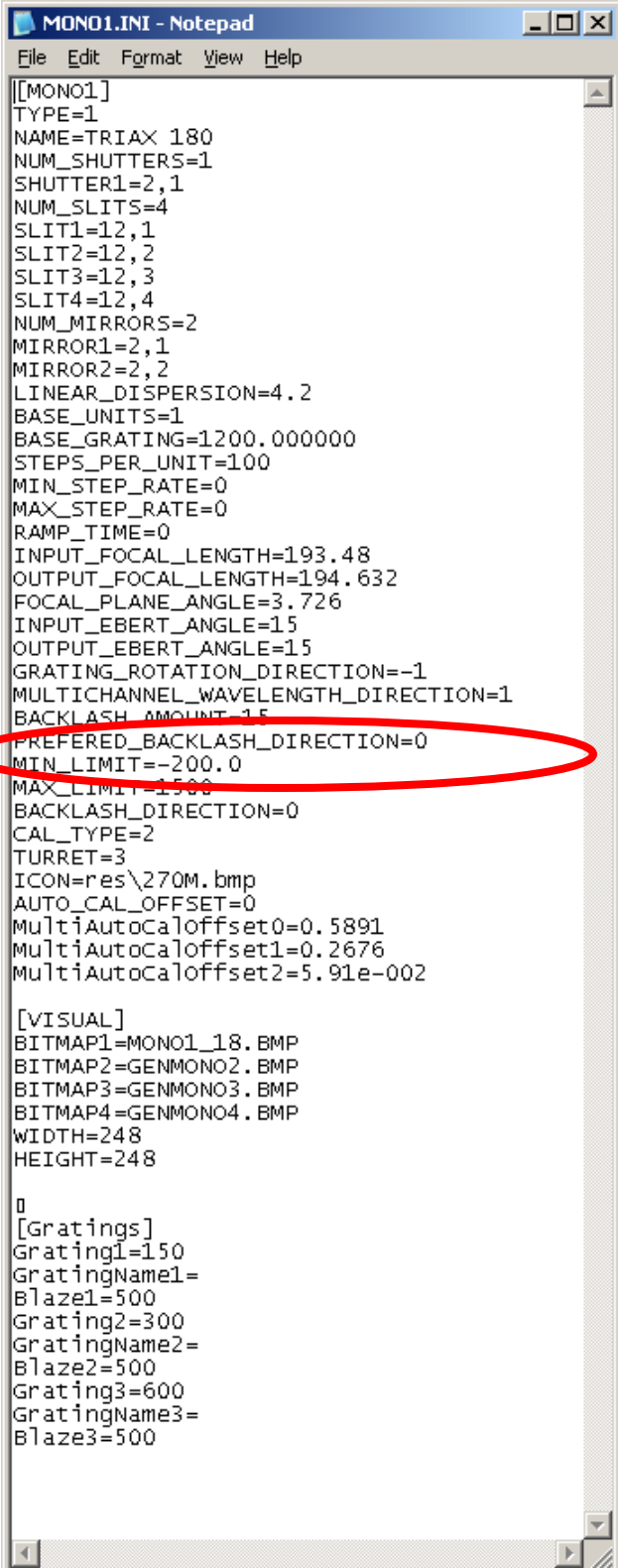
12. Click on the save icon to save DFLT.SET. Choose C:\SPTWMAX\ISA_INI\ directory.



13. Exit the program. Turn off CCD controller and TRIAX. Reboot the computer.

Initialization file (Mono1.ini) modification

1. Move to C:\SPTWMAX\ISA_INI\ Open “mono1.ini” with the Notepad application.
2. Locate the entry “MULTICHANNEL_WAVELENGTH_DIRECTION”
If the value is “-1”, correct it to be “1”
Save the file.
3. Proceed to TRIAX Calibration section of CCD Spectrometer Optimization Manual.



```
[MONO1]
TYPE=1
NAME=TRIAx 180
NUM_SHUTTERS=1
SHUTTER1=2,1
NUM_SLITS=4
SLIT1=12,1
SLIT2=12,2
SLIT3=12,3
SLIT4=12,4
NUM_MIRRORS=2
MIRROR1=2,1
MIRROR2=2,2
LINEAR_DISPERSION=4.2
BASE_UNITS=1
BASE_GRATING=1200.000000
STEPS_PER_UNIT=100
MIN_STEP_RATE=0
MAX_STEP_RATE=0
RAMP_TIME=0
INPUT_FOCAL_LENGTH=193.48
OUTPUT_FOCAL_LENGTH=194.632
FOCAL_PLANE_ANGLE=3.726
INPUT_EBERT_ANGLE=15
OUTPUT_EBERT_ANGLE=15
GRATING_ROTATION_DIRECTION=-1
MULTICHANNEL_WAVELENGTH_DIRECTION=1
BACKLASH_AMOUNT=15
PREFERRED_BACKLASH_DIRECTION=0
MIN_LIMIT=-200.0
MAX_LIMIT=1500
BACKLASH_DIRECTION=0
CAL_TYPE=2
TURRET=3
ICON=res\270M.bmp
AUTO_CAL_OFFSET=0
MultiAutoCalOffset0=0.5891
MultiAutoCalOffset1=0.2676
MultiAutoCalOffset2=5.91e-002

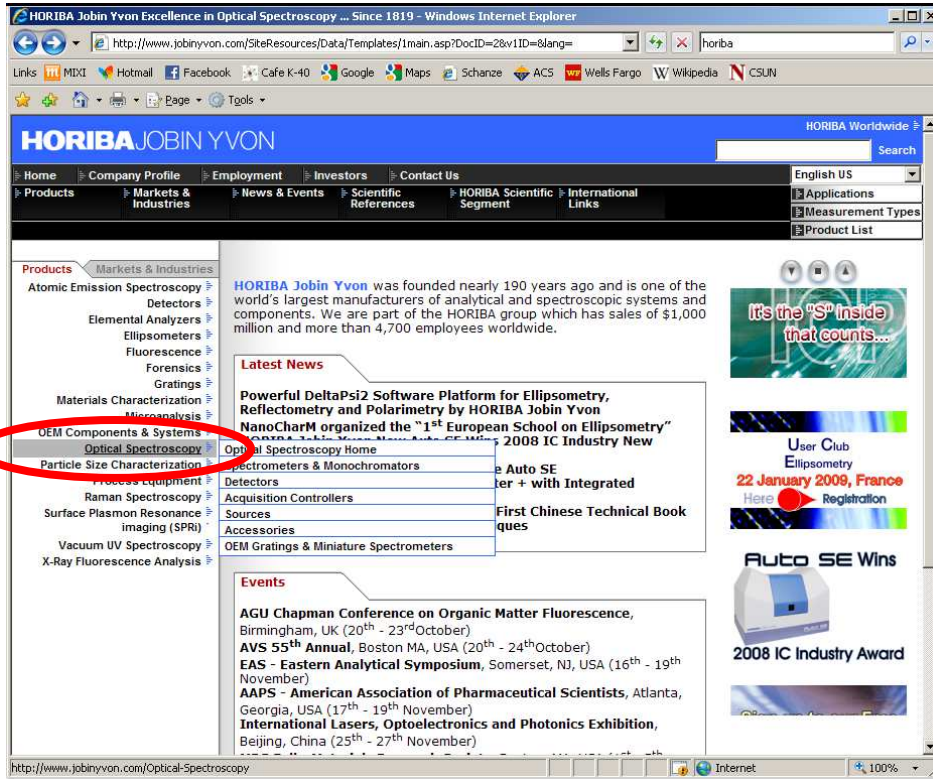
[VISUAL]
BITMAP1=MONO1_18.BMP
BITMAP2=GENMONO2.BMP
BITMAP3=GENMONO3.BMP
BITMAP4=GENMONO4.BMP
WIDTH=248
HEIGHT=248

0

[Gratings]
Grating1=150
GratingName1=
Blaze1=500
Grating2=300
GratingName2=
Blaze2=500
Grating3=600
GratingName3=
Blaze3=500
```

APPENDIX: Downloading Software for CCD

1. Go to www.jobinyvon.com. Click on “Optical Spectroscopy” on the left menu.



2. Click on “Downloads” on the left menu.



3. Scroll down to Software Downloads & Updates. Click on “Spectrometer Control Program”

