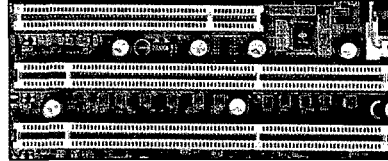


STEP 1 - INSTALL THE CONTROLLER CARD

We recommend you consult the manual supplied with your computer to ensure correct installation of the PCI controller card for your particular model. An example installation follows:

- (1) Exit the computer's operating system then switch off the computer and any accessories. Unplug the computer and any accessories from the wall outlet(s).
- (2) Unscrew any cover mounting screws on the computer and set them aside safely.
- (3) Carefully remove the cover of the computer. Situated inside the computer are a number of Expansion Slots, e.g.:



- (4) After deciding which slot you are going to use, remove any metal filler bracket(s) that may be covering the opening for the slot at the back of the computer. Place any retaining screw(s) and/or clip(s) in a safe container, as you will need them later in the installation procedure.
- (5) Put on the ESD wrist strap supplied with your camera and attach the crocodile clip to a suitable earth point on the PC e.g.:



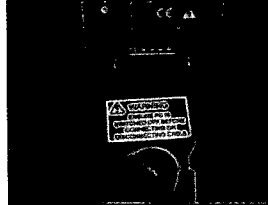
IMPORTANT NOTE: The ESD strap must be worn at all times when handling the Controller Card.

- (6) Remove the Controller Card carefully from its protective packaging then press the connector on the long edge of the card into the chosen expansion slot.
- (7) For maximum cooling, when the supplied PCI card has an Auxiliary Power connector (flylead), this can be connected to a suitable point on the power supply of the PC NOTE: Should any problems be experienced with this connection, please contact your nearest technical representative.
- (8) Making sure that the card's mounting bracket is flush with any other mounting brackets or filler brackets to either side of it, secure the Controller Card in place.
- (9) Replace the cover of the computer and secure it with the mounting screws if applicable.
- (10) Reconnect any accessories you were using previously.

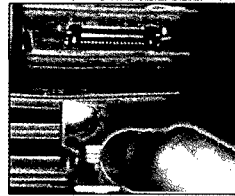
CONTROLLER CARD WARNING: Pins 11, 12 & 13 are reserved. These pins are NOT available for auxiliary use. DO NOT make electrical connections to these pin locations when attaching external devices via the Controller Card Auxiliary Connector Port. Doing so may cause damage to the Controller Card, the Camera or your external device.

STEP 2 - CONNECT THE CAMERA

- (1) Connect the elements of your system as follows:
- (2) Wherever possible, plug your PC into the mains outlet to ensure grounding, but keep the power switched off.
- (3) Connect the Camera to the **Controller Card** using the **PCI Cable** provided, e.g.:



- (4) Connect the other end of the PCI cable to the PCI connection on the PC, e.g.:



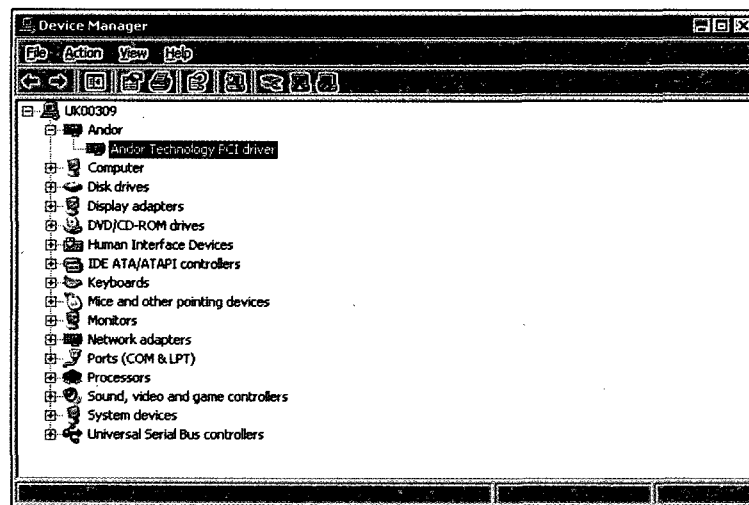
NOTE: Some connectors are different in style and are dependant on the type of PCI card being used

- (5) Your system has been also supplied with a **Power Supply Unit (PSU)** for cooling. For best performance the **PSB** should be plugged into the same power source as the computer.
- (6) Switch on the PC.


STEP 3 - INSTALL THE SOFTWARE

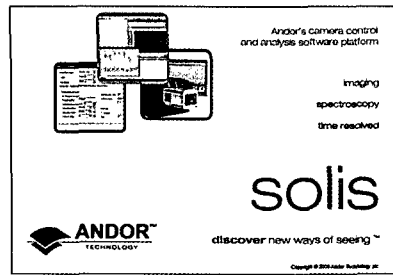
During the start up sequence the operating system will detect the Andor PCI controller card and a dialogue box will prompt you for the location of the device driver.

- (1) Insert the device that contains the driver file. **NOTE: Please ensure you choose the correct type of camera during the installation.**
- (2) Select the device driver file and click **OK**. This completes the device driver installation.
- (3) The **Andor Technology PCI driver** should now be shown in the **Device Manager**, e.g.:

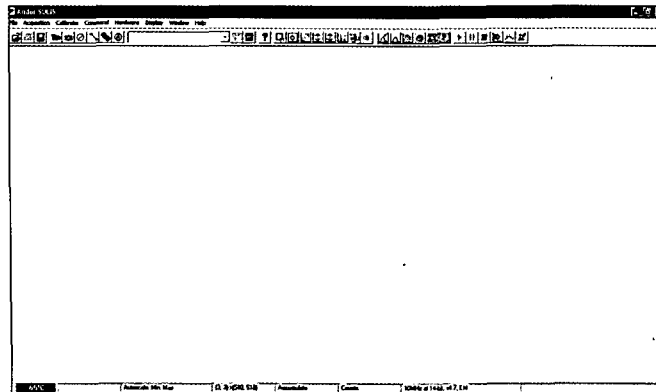


STEP 4 - START THE APPLICATION

Click on the  icon on your desktop and the **Solis Splash Screen** appears briefly:

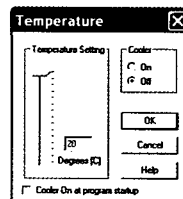




The **Main Window** should then appear, similar to the following:



STEP 5 - SWITCH ON THE COOLING

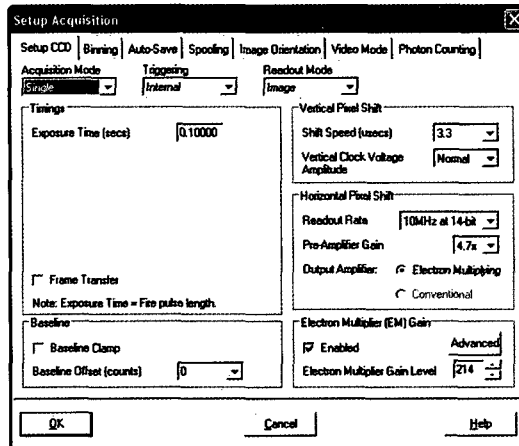
(1) Select **Temperature** from the **Hardware** drop-down menu and the **Temperature** dialog box appears:



- (2) Select **Cooler On** and either type in the required temperature or drag the **Temperature Setting** slider bar to the required value.
- (3) Alternatively, clicking on the  icon in the bottom-left hand corner of the screen will also open the Temperature setting screen. This icon displays the current CCD temperature (to the nearest 5°C), in red whilst it is cooling, e.g. . It will revert to blue and display the temperature when the correct temperature is reached.

STEP 6 - SETUP ACQUISITION

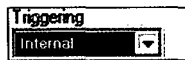
Click either the  or  button and a **Setup Acquisition** dialog box similar to the following appears:



Set Acquisition Mode
to **Single**:



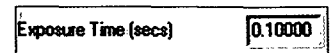
Set Triggering to
Internal:



Set Readout Mode to
Image:









Set Exposure Time to
0.1 seconds:



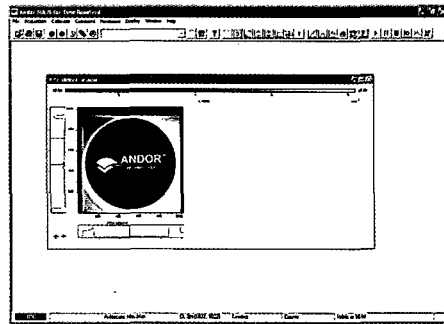
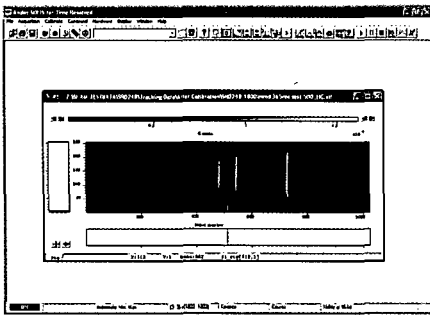
The sensor is now ready to read out a signal in **Image** mode.


NOTES:

1. Before taking a signal acquisition, ensure the optical path is clear (e.g. shutter is open, etc.)
 2. Exposure Time may need to be increased if light levels are too low.
- Click either the  or  button to take a single acquisition.
 - Alternatively, click either the  or  button to take a continuous acquisition. To stop this acquisition, click either the  or  button at any time.
 - The displayed image will show the status of focus and alignment.

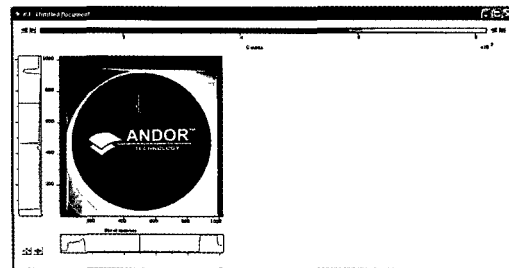
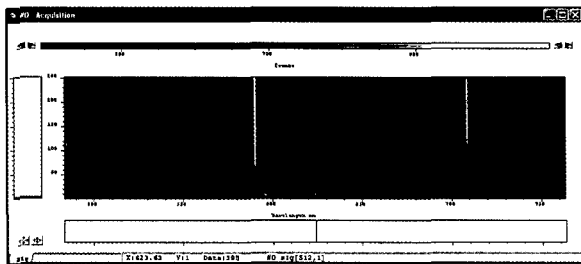
STEP 7 - SETTING THE DISPLAY MODE

Once the data has been successfully acquired, the data should be displayed initially in grayscale, e.g.:

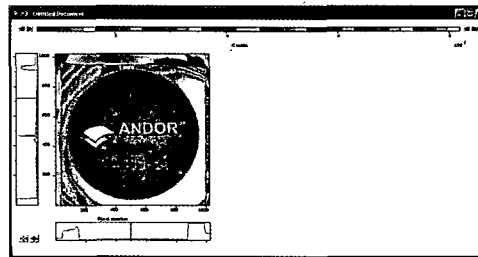
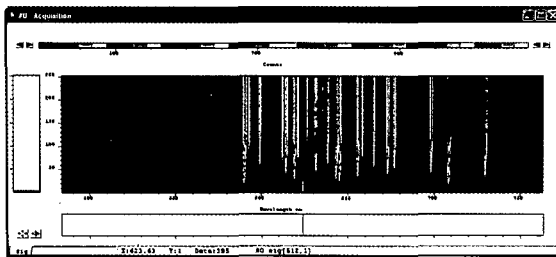


Clicking on the  button causes the data window to go through the following modes:

- **False Color**, e.g.:



- **Iterated Grayscale** (a small sequence of grays is repeated at intervals to cover the same range of data as grayscale), e.g.:



Once you have successfully acquired an image, please take the time to browse the other manuals supplied with the camera.

NOTES

1. Before connecting the PCI cable, always power up the camera using the PSU supplied.
2. The camera has internal hardware protection from overheating. Should the body of the camera reach $>40^{\circ}\text{C}$, a buzzer will sound and the power to the cooler will be disconnected until a safe temperature is reached. If the buzzer sounds, check for the following:
 - Any obstructions in the air or water flow(s)
 - Ambient air temperature & water temperature
 - The temperature set in the Temperature screen. Set a lower temperature if required
3. When a safe temperature is reached, the camera will **Auto-Reset**.

Should you have any problems or queries, please contact the nearest Technical Support Engineer as shown below:

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