SBIG
ASTRONOMICAL
INSTRUMENTS

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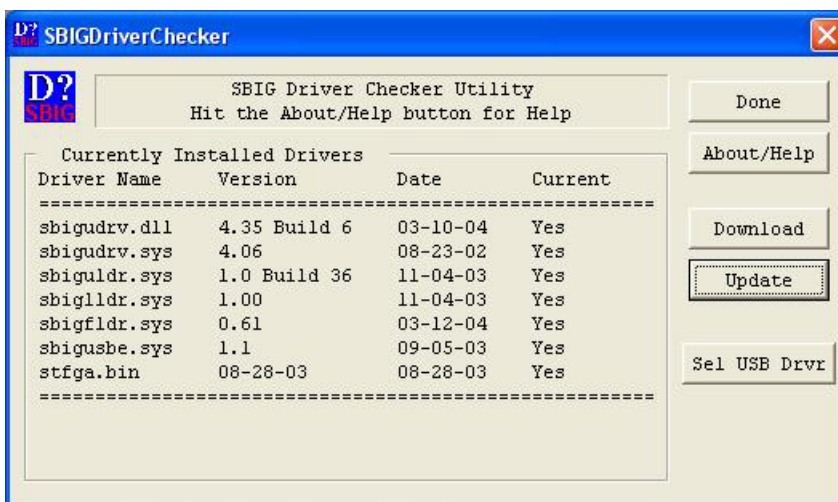e-mail:sbig@sbig.com   home page:www.sbig.com

Application Note - First Connection to an SBIG USB Camera
Installing the USB Drivers
March 30, 2004

The Application Note describes the process of making the first connection to an SBIG USB camera. With USB devices you don't pre-install the drivers like you did in the past. With USB the first time you connect to a new USB device the system walks you through the driver installation procedure. It's a bit complicated, and it's easy to make a mistake so please follow these instructions for your OS to the letter for best results.

1. Installing CCDOPS and the Driver Checker
The first thing you should do in all cases is to install CCDOPS Version 5 and the Driver Checker utility. This is relatively simple:

1. Make sure the camera is not connected to the computer. You will do this later.

2. Run the CCDOps Installer. It can be found in the CCDOps directory of the CD-ROM that came with your camera. Follow the onscreen instructions to complete the installation.

3. First make sure you are the Administrator or have Administrator privileges if you're running under Windows 2000, or Windows XP. On Windows XP Home edition you are the administrator so you don't have to worry about that. Next run the Driver Checker Installer. It can be found in the Driver Checker folder of the CD-ROM.

4. Towards the end of the Driver Checker installation the installer will run the utility. This utility checks to make sure you have the latest version of the SBIG camera drivers installed on your system. When the SBIGDriverChecker utility is run you'll see a dialog like:
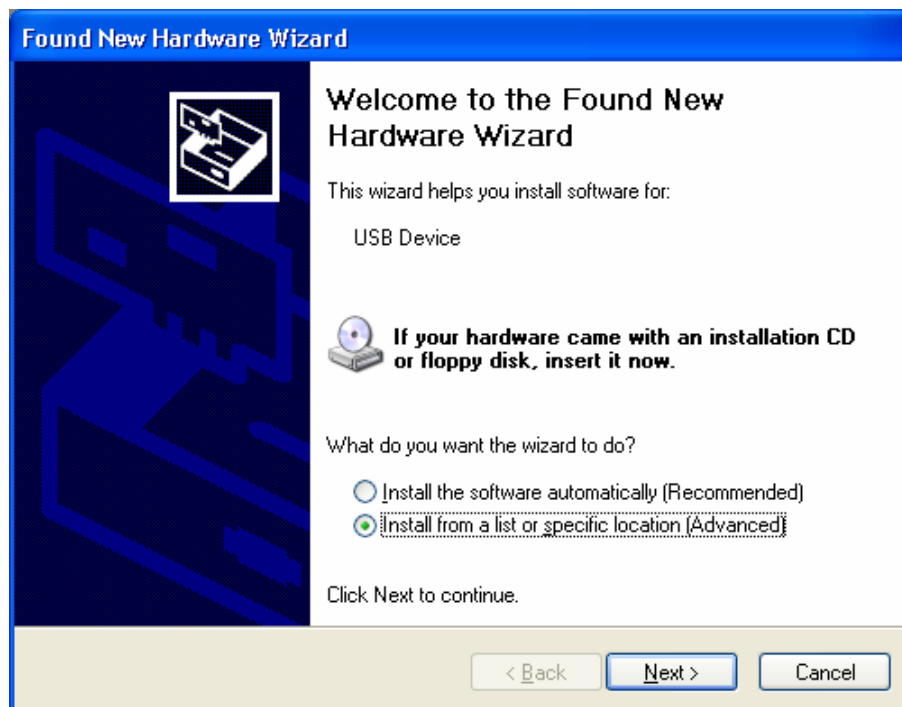

If you have previously installed CCDOPS you'll see some entries in the table. Most likely one or more drivers is not installed or is not up to date. Also if this is the first time you've run the Driver Checker you may get a warning something like "The sbigudrv service can not be found". Just ignore this error,

5. Using the Driver Checker to update your drivers is a two-step process:

    A. If you have an internet connection, Click on the **Download** button then follow the instructions to download the current drivers from SBIG's Servers. If you don't have an internet connection on this machine then make sure you have downloaded the latest Driver Checker Installer from SBIG's web site, copied it to this machine and run it.

    B. Whether you have an internet connection or not then click the **Update** button. This will copy the current drivers to your system and make sure they are properly installed. Some new computers without parallel ports will report that the SBIGUDRV.SYS was not started. Don't worry about that. The SBIGUDRV.SYS is the parallel port camera driver and is not use with USB cameras.

    You may be asked to reboot your system as well. If so, click Done and do so. Otherwise simply click Done.

6. Follow the instruction in Sections 2A, 2B or 2C below depending on the version of Windows you have on your computer.
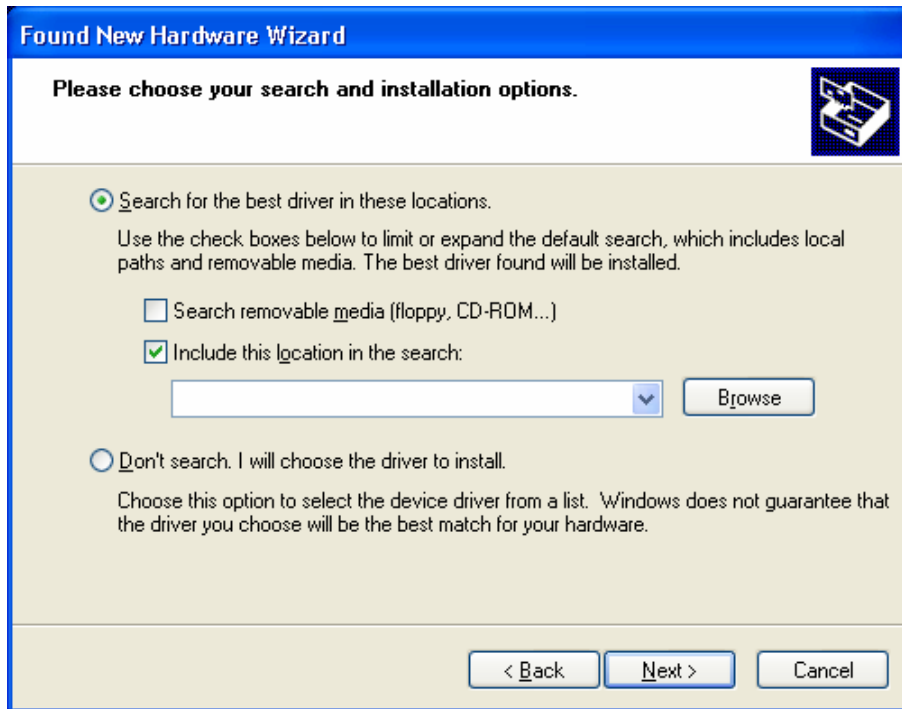
2A. Windows XP Users

1. With the camera disconnected from the computer, plug in the power to the camera and if your power supply has a power switch turn on the power to the camera.

2. Plug the camera into the computer with the supplied USB cable. The computer will then present you with the Found New Hardware Wizard. Click the "**Install from a list…**" radio button then click the **Next** button.

3. As shown below, click the "**Search for the best driver…**" radio button then check the "**Include this location…**" checkbox then click the **Browse** button.

You will see the **Browse for Folder** dialog shown below:

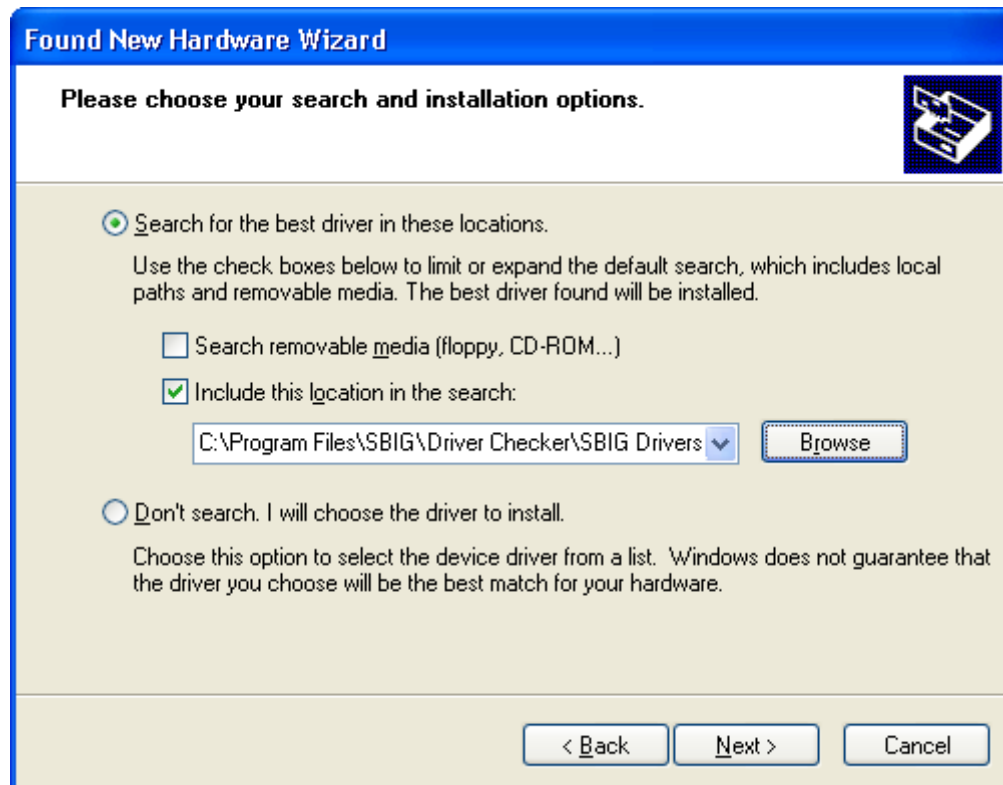Navigate through the directory structure of you hard drive to the:

My Computer\C:\Program Files\SBIG\Driver Checker\SBIG Drivers

directory. Expand each section by clicking on the "**+**" next to the name. For example scroll to the top and click the "**+**" next to My Computer, then click the "**+**" next to C:, etc. Finally click on the **SBIG Drivers** folder to select it (it will turn blue as shown below) then click **OK**.
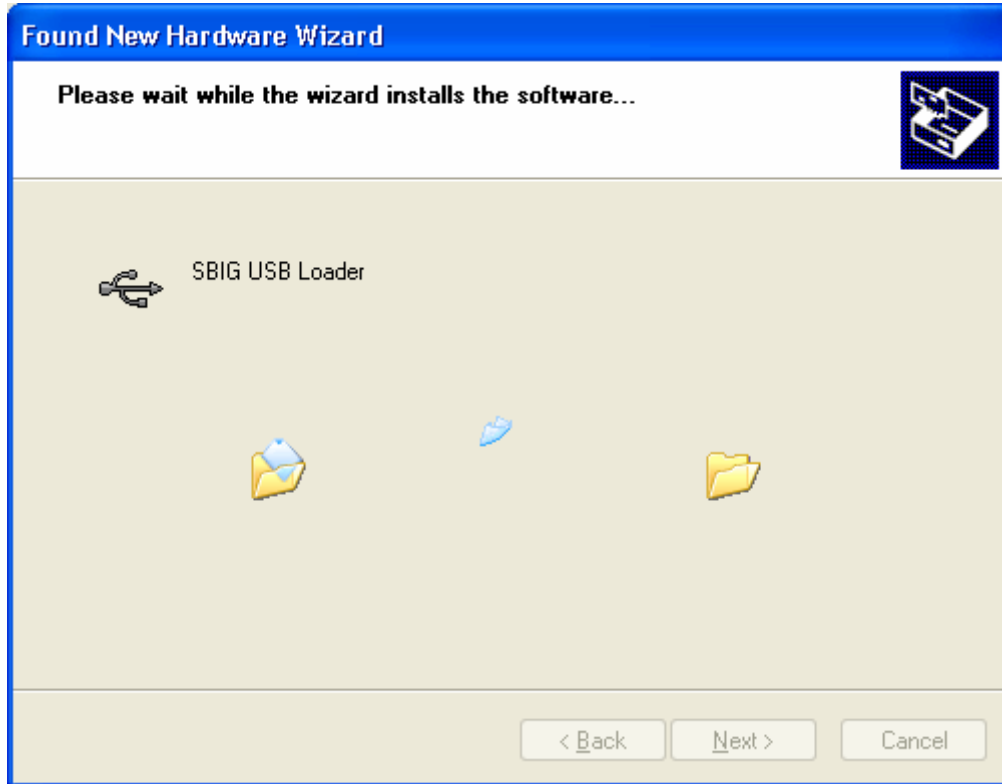
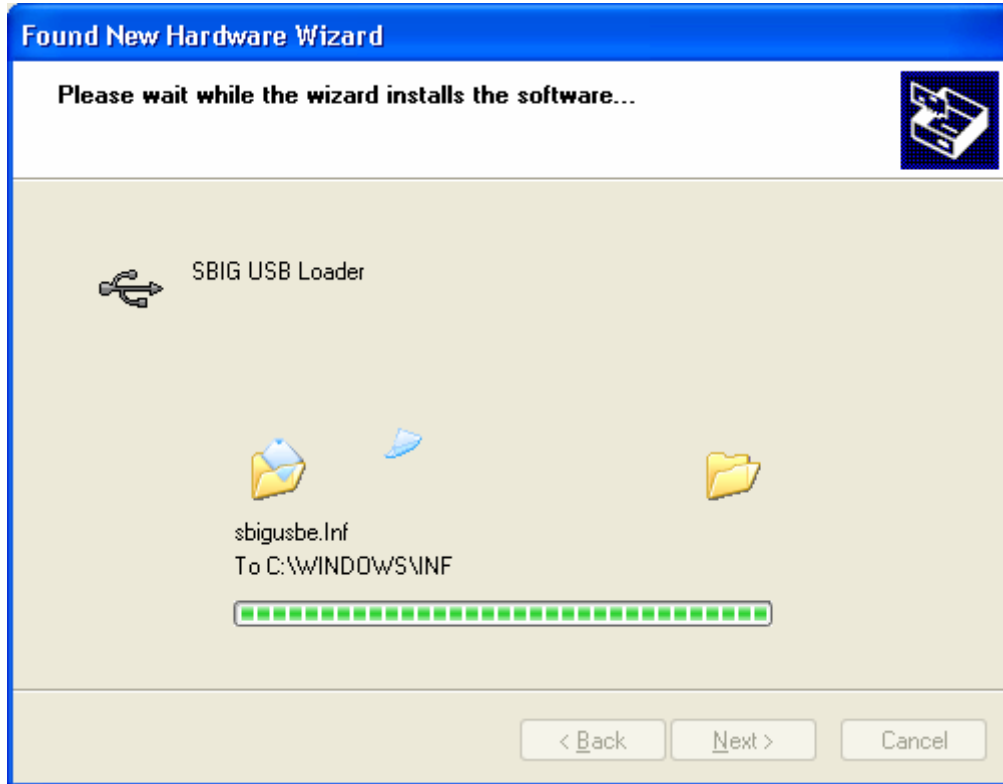You'll then be back in the Found New Hardware Wizard as shown below. Click the **Next** button.

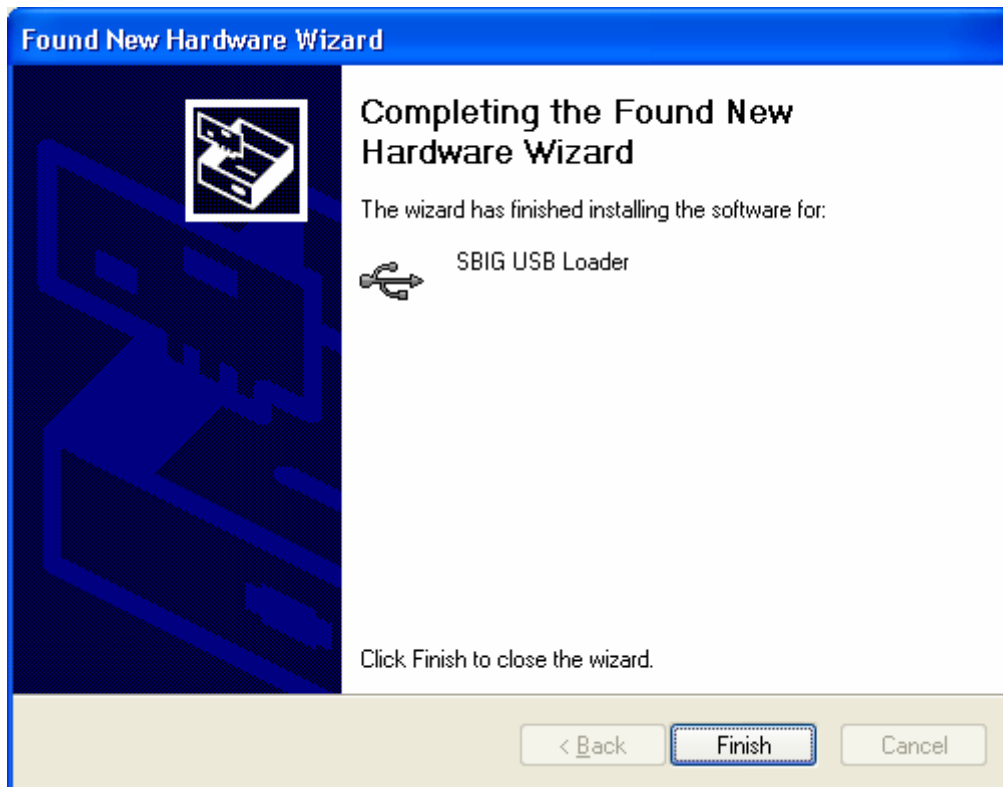4. Windows will show the dialog below while it is copying the driver:

5. You may be presented with the dialog below warning you the SBIG USB Loader driver has not passed the Windows Logo testing procedure. At this point click the **Continue Anyway** button.

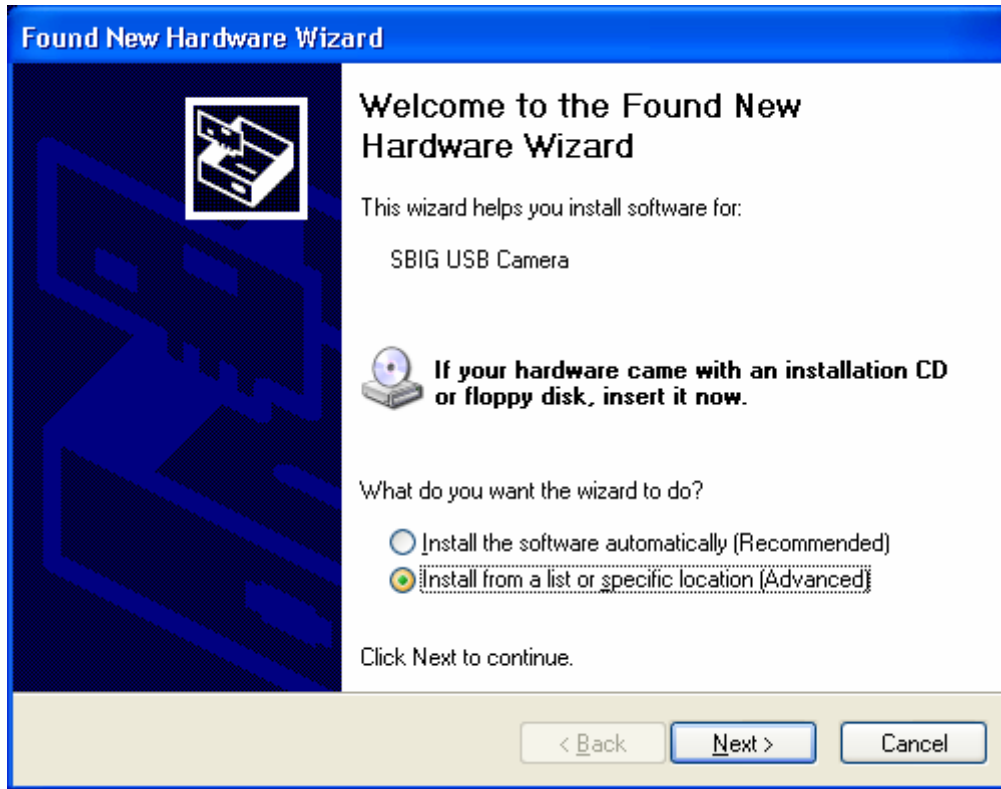6. Windows will continue installing the driver as shown in the dialog below:

7. **Windows will finish installing the SBIG USB Loader driver as shown in the dialog below**
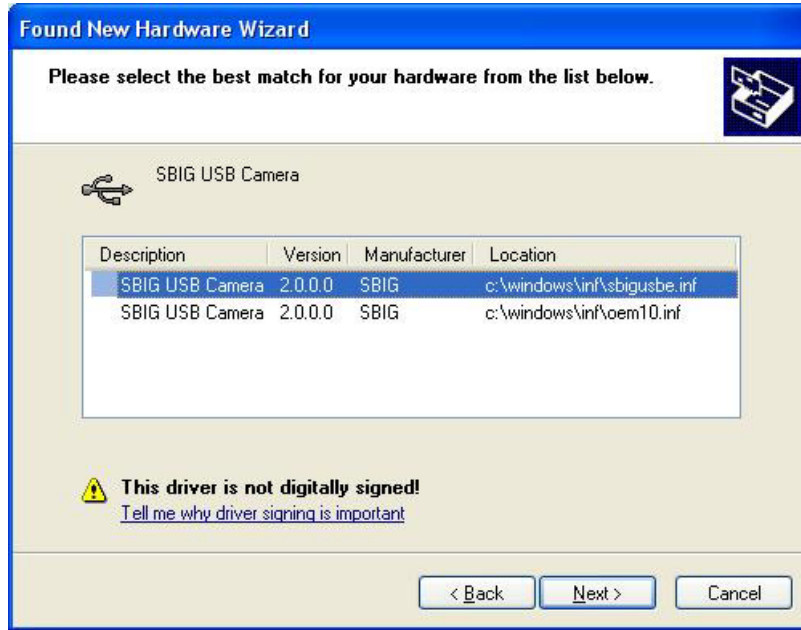

Hit the **Finish** button. **At this point the Camera's Fan and LED should come on.** You are half-way through the installation of the drivers.
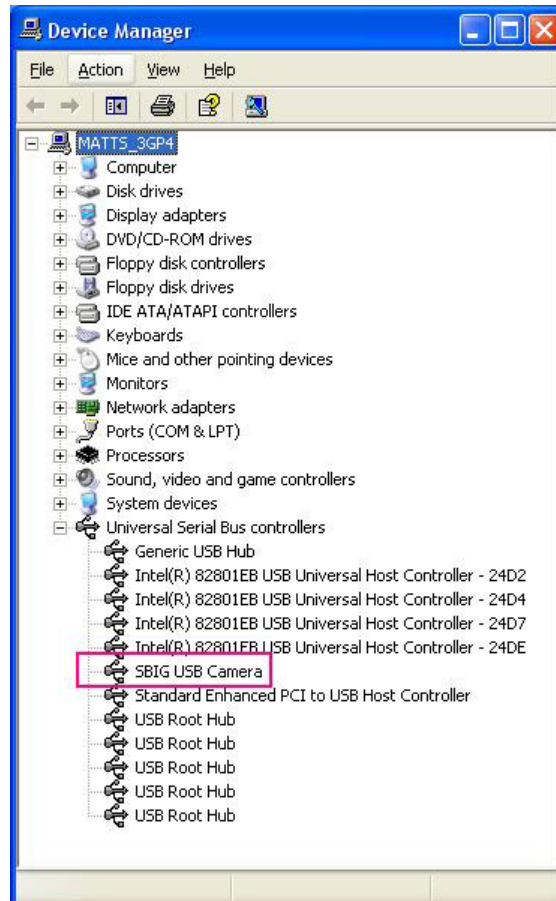
8. Again you will be presented with the Found New Hardware wizard for the SBIG USB Camera driver as shown in the dialog below. Repeat steps 3 through 7 for this driver just like you did before.

9. At one point you may be presented with the following dialog:

Select the top entry and hit the **Next** button. When you're all done if you open the **System Control Panel** from the **Start Menu**, select the **Hardware** tab then click the **Device Manager** button and finally expand the **Universal Serial Bus Controllers** section at the bottom you should see the SBIG USB Camera entry as shown below:
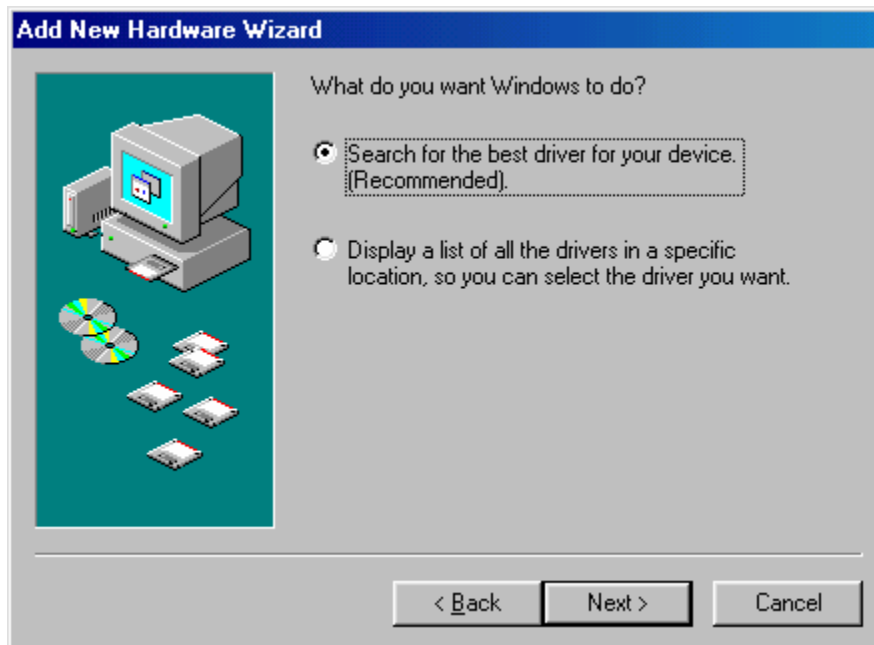
2B. Window 95/98/Me Users

1. With the camera disconnected from the computer, plug in the power to the camera and if your power supply has a power switch turn on the power to the camera.

2. Plug the camera into the computer with the supplied USB cable. The computer will then present you with the Found New Hardware Wizard shown below:

> Click the **Next** button.

3. Click "**Search for the best driver..**" then click the **Next** button as shown below:
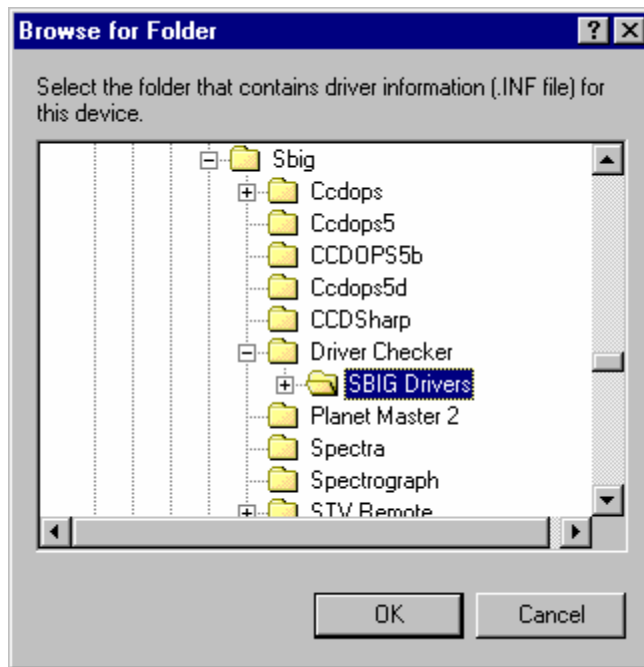
4. Uncheck all the options except "**Specify a location**" as shown below then click the Browse button

5. Navigate through the Browser window to the

    My Computer\C:\Program Files\SBIG\Driver Checker\SBIG Drivers

    directory as shown below. Expand each section by clicking on the "+" next to the name. For example scroll to the top and click the "+" next to My Computer, then click the "+" next to C:, etc.:

    Click on the **SBIG Drivers** folder until it is highlighted as shown above then click the **OK** button. This will get you back to the dialog shown above in step 4 but with the location filled out. Click the **Next** button.
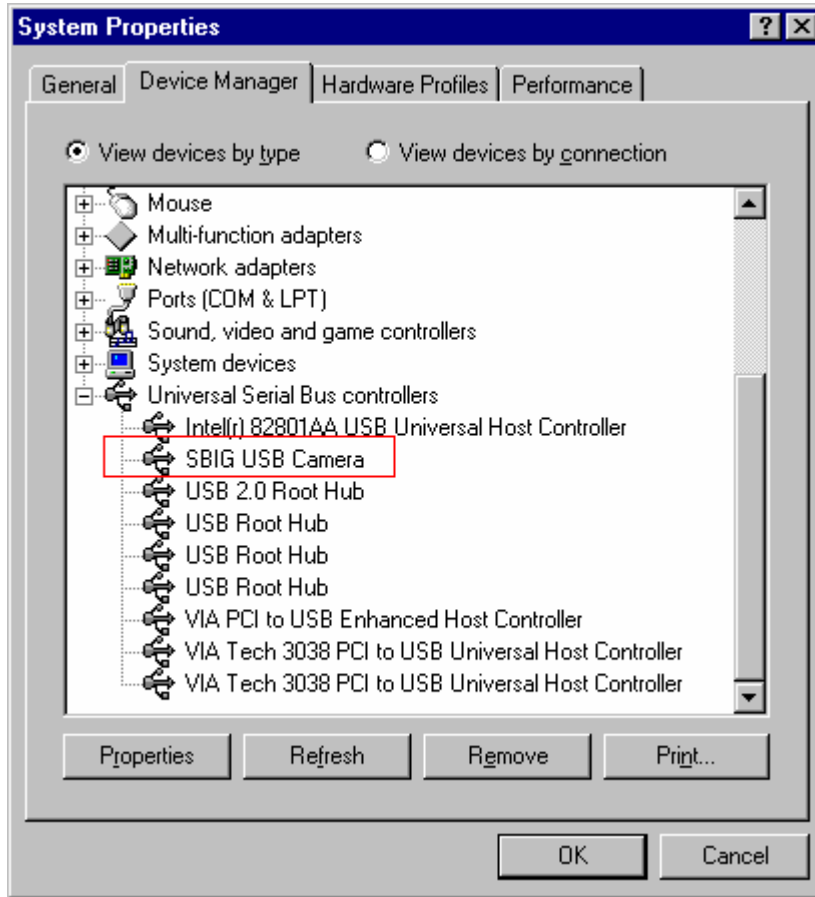
6. You'll see the dialog below. Click the **Next** button.

7. Windows will spin for a while and then present you with the dialog below. Click the **Finish** button and you're done. The SBIG cameras actually use two drivers and after you click Finish the system will automatically install the second driver. **At this point the Fan and LED should come on in the camera**.

8. If you have any question about whether the drivers were installed correctly open the Device Manager tab of the System Control Panel. Click the "View devices by type" button and expand the "Universal Serial Bus controllers" section by clicking the "+" to the left. You should see something like the dialog below where we have highlighted the SBIG USB Camera in red outline:

2C. Windows 2000 Users

1. With the camera disconnected from the computer, plug in the power to the camera and if your power supply has a power switch turn on the power to the camera.

2. Plug the camera into the computer with the supplied USB cable. The computer will then present you with the Found New Hardware Wizard shown below. Click the **Next** button.

3. Click the "**Search for suitable driver…**" radio button as shown below:
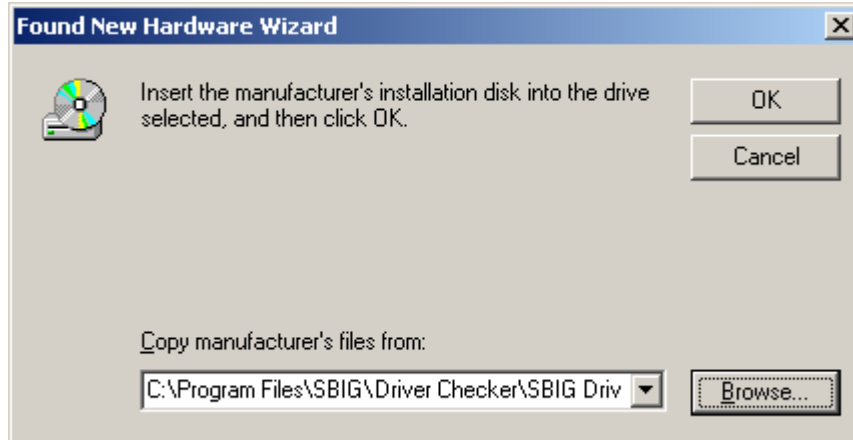

   then click the **Next** button.

4. Uncheck all the options other than "**Specify a location**" as shown below:

   then click the **Next** button.

5. As shown below click the Browse button then navigate to the

My Computer\C:\Program Files\SBIG\Driver Checker\SBIG Drivers

directory. Expand each section by clicking on the "+" next to the name. For example scroll to the top and click the "+" next to My Computer, then click the "+" next to C:, etc. Click on the **SBIG Drivers** folder to highlight it then Click **OK** in the Find File dialog then click **OK** back at the New Hardware Wizard.

6. Windows will find the driver and present you with the dialog below:

Click the **Next** button.

7. Windows will spin for a while, then present you with the dialog below. Click the **Finish** button and you're done. The SBIG cameras actually use two drivers and after you click Finish the system will automatically install the second driver.