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Application Note - First Connection to an SBIG USB Camera

Installing the USB Drivers January 19, 2005

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 the 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. *Windows XP Users* To simplify installing the drivers under XP let's turn off *Driver Signing*. Open the **System Control Panel**, click the **Hardware Tab** then click the **Driver Signing** button. Set it to *Ignore* then click **OK**. Finally, click **OK** again to close the System Control Panel.

Driver Signing Options
During hardware installation, Windows might detect software that has not passed Windows Logo testing to verify its compatibility with Windows. (ifell me why this testing is important.)
What action do you want Windows to take?
 Ignore - Install the software anyway and don't ask for my approval
O Warn - Prompt me each time to choose an action
O Block - Never install unsigned driver software
Administrator option
Make this action the system <u>d</u> efault
OK Cancel

4. 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.

5. Towards the end of the Driver Checker installation the installer will ask you if it should **Launch** the program. Click to do so. 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 it will ask you if you have an Internet connection on this PC. If you do click **Yes**, if not click **No**.

?	Do you have an ir	nternet conne	tion on this PC?	
~	If you do then Dr the latest Drivers System.	iverChecker w from SBIG's w	ill automatically Do eb site before Up	ownload dating the
	Vec	No	Cancal	

6. After the Driver Checker is done updating your drivers you should see the following dialog:

	SBIG Driver C Hit the About/He.	hecker Utili lp button fo:	ty r Help	Done
Currently In	stalled Drivers			About/Helj
Driver Name	Version	Date	Current	
sbigudrv.dll	4.43	01-12-05	Yes	Download
sbigudrv.sys	4.06	08-23-02	Yes	
sbiguldr.sys	1.41	11-04-04	Yes	Undate
sbiglldr.sys	1.06 Build 2	09-22-04	Yes	
sbigfldr.sys	1.07	01-11-05	Yes	
sbigusbe.sys	1.1	09-05-03	Yes	a 1 map p
Note: Just bec drivers To be su with our	ause the "Curren are all current re you need to c server.	t" column sa doesn't mean lick Downloa	nys your h they are. hd to check	
Status ——				-
Tdle				

Everything should be listed as Current.

7. 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. If it asks you "*Can Windows connect to Windows Update to search for the software*?" click the **No, not this time** radio button then click **Next**.



Installing the SBIG USB Drivers

3. Click the "Install the software automatically" radio button then click the Next button.



4. Windows will install the driver as shown below:

Found New	Hardware Wizard		
Please wa	it while the wizard installs t	he software	E)
¢	SBIG ST-F Loader		
	6	Þ	
	Setting a system restore pr case your system needs to	sint and backing up old files in be restored in the future.	
		< <u>B</u> ack <u>N</u> ext >	Cancel

5. Windows will finish installing the 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.

- 6. 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 2 through 5 for this driver just like you did before.
- 7. At one point you may be presented with the following dialog:

Description	Version	Manufacturer	Location
SBIG USB Camera	2.0.0.0	SBIG	c:\windows\inf\sbigusbe.inf
SBIG USB Camera	2.0.0.0	SBIG	c:\windows\inf\oem10.inf
This driver is not a <u>Tell me why driver sig</u>	digitally signing is impor	gned! ^{Itant}	

Select the *oemxxx.inf* Location (not the *sbigusbe.inf* Location) which is second in the above dialog and then hit the **Next** button.

8. 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

Installing the SBIG USB Drivers

Add New Hardware Wiz	zard
	Windows will search for new drivers in its driver database on your hard drive, and in any of the following selected locations. Click Next to start the search. Eloppy disk drives CD-ROM drive Microsoft Windows Update Specify a location:
	< <u>B</u> ack Next > Cancel

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.:

Browse for Folder	? ×
Select the folder that contains driver information (.INF file) for this device.)(
E Sbig	•
Ccdops5	
CCDOPS56	
Ccdops5d	
CCDSharp	
🖻 🧰 Driver Checker	
🗄 🔂 SBIG Drivers	_
Planet Master 2	
Spectra	
🗊 🗇 STV Bemote	-
▲	
OK Cancel	

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.

Installing the SBIG USB Drivers

Add New Hardware Wi	zard
	Windows driver file search for the device:
	Windows is now ready to install the best driver for this device. Click Back to select a different driver, or click Next to continue. Location of driver: C:\PROGRA~1\SBIG\DRIVER~1\SBIGDR~
	< <u>B</u> ack Next> Cancel

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**.

Add New Hardware Wiz	ard
	SBIG USB Loader
	Windows has finished installing the software that your new hardware device requires.
ی ک	
	< Back Finish Cancel

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:

Installing the SBIG USB Drivers

System Properties ? 🗙
General Device Manager Hardware Profiles Performance
• View devices by type C View devices by connection
Mode Mode
⊕
System devices Universal Serial Bus controllers SBIG USB Camera USB 2.0 Root Hub USB Root Hub USB Root Hub USB Root Hub USB Root Hub VIA PCI to USB Enhanced Host Controller VIA Tech 3038 PCI to USB Universal Host Controller
Properties Refresh Remove Print
OK Cancel

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:

Found New Hardware Wizard	
Locate Driver Files Where do you want Windows to search fi	or driver files?
Search for driver files for the following har	dware device:
USB Device	
The wizard searches for suitable drivers in any of the following optional search locati	nits driver database on your computer and in ons that you specify.
To start the search, click Next. If you are insert the floppy disk or CD before clicking	searching on a floppy disk or CD-ROM drive, g Next.
Optional search locations:	
Floppy <u>d</u> isk drives	
CD-ROM drives	
Specify a location	
Microsoft Windows Update	
	< Back Next > Cancel

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:

Found New Hardware Wizard
Driver Files Search Results The wizard has finished searching for driver files for your hardware device.
The wizard found a driver for the following device:
USB Device
Windows found a driver for this device. To install the driver Windows found, click Next.
c:\program files\sbig\driver checker\sbig drivers\sbigusbe.inf
< <u>B</u> ack <u>Next</u> Cancel

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.

Found New Hardware Wizard	
	Completing the Found New Hardware Wizard SBIG USB Loader Windows has finished installing the software for this device.
	< <u>B</u> ack Finish Cancel