



Using OHCI-compliant IEEE-1394 DV Devices with Sonic Foundry Software

October 2000

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Introduction

Sonic Foundry Vegas Video, Vegas Audio, and Video Capture applications are all compatible with OHCI-compliant (Open Host Controller Interface) IEEE-1394 DV devices. These products have been designed to take advantage of built-in Windows DV functionality, and are a high-quality, low-cost DV editing solution. Sonic Foundry does not write drivers for OHCI-compliant IEEE-1394 DV devices and is not responsible for resolving hardware issues or conflicts.

More information about OHCI-compliant IEEE-1394 DV devices can also be found on the Sonic Foundry Vegas FAQ Web page: <http://www.sonicfoundry.com/support/SupportProduct.asp?FamilyID=30&Family=Vegas>

OHCI Compatibility

There are numerous providers of DV devices and many possible hardware configurations. Sonic Foundry has performed limited testing and found that most OHCI-compliant IEEE-1394 DV devices work well with Vegas Video, Vegas Audio, and Video Capture.

Check with the hardware manufacturer to ensure the DV devices running on your computer fully conform to the "OHCI-compliant IEEE-1394 DV" specification.

You can download and run trial versions of Sonic Foundry's Vegas Video, Vegas Audio, or Video Capture application prior to purchasing them to test the compatibility with your OHCI-compliant IEEE-1394 DV device.

OHCI Known Limitations

Sonic Foundry software was tested with OHCI-compliant IEEE-1394 DV devices using Microsoft DirectShow 6.1 (MSDV.sys). The Microsoft DV drivers work well and should improve with subsequent releases. OHCI support using MSDV drivers currently requires Windows 98 Second Edition (SE), Windows Me or Windows 2000. Windows NT is not supported.

OHCI Technical Support

Sonic Foundry technical support is not available for issues related to 3rd-party OHCI hardware performance and configuration. Technical support for the OHCI-compliant IEEE-1394 DV devices remains the responsibility of the manufacturer.

Supported Operating Systems

- Windows 98 SE
- Windows 2000
- Windows Me

Windows NT does not natively support OHCI-compliant IEEE-1394 DV devices. However, Windows NT (SP4 and above) can be used with Vegas Video or Vegas Audio if you do not need to use OHCI-compliant IEEE-1394 DV devices.

Tested OHCI-compliant IEEE-1394DV Cards

Limited tests have been performed on the following cards. All have been found to work well with Windows 98 SE and Windows 2000. Because of the vast number of possible configurations, Sonic Foundry cannot guarantee that these cards will work on your system. Support for these cards remains with the manufacturer of the card.

- Evergreen Fireline
- SIIG 1394 DV-cam kit
- Ratoc PCIFUIP
- Ratoc CBFWIU
- ADS Pyro
- Sony Vaio (more info: <http://www.sonicfoundry.com/support/SupportProduct.asp?FamilyID=30&Family=Vegas&TopicID=89&DetailID=608>)
- SCI Firewave
- Western Digital 1394 Cardbus
- Orange Micro Orangelink
- Gateway Solo 9300

Tested OHCI-compliant IEEE-1394DV Cameras

DV cameras can be used as a source for capturing video and you can record your finished video back to the camera (called "print-to-tape") using Sonic Foundry Video Capture. You can also use your camera to decompress video coming from Vegas Video or Vegas Audio for viewing on an external monitor. Please note that not all DV cameras support this feature.

Limited tests have been performed on the following DV cameras. Because of the vast number of possible configurations, Sonic Foundry cannot guarantee that these cameras will work on your system. Support for these cameras remains with the manufacturer of the camera.

- Canon Elura
- Canon XL-1
- Canon GL-1
- Sony PC1
- Sony PC5
- Sony PC7
- Sony PC100
- Sony TRV110
- Sony TRV900
- JVC GR-DVL25

PAL Issues

There are several known problems with PAL ("European standard") DV cameras and OHCI-compliant IEEE-1394 DV cards running Windows 98 SE and Windows 2000. Sonic Foundry continues to work closely with Microsoft in an effort to improve PAL performance for all supported operating systems.

PAL performance has been greatly improved in the Windows Me operating system (released September 14, 2000). Users of OHCI-compliant IEEE-1394 DV PAL devices should consider using Windows Me.

Preliminary beta testing has also found that the installation of Microsoft's DirectX Runtime 8 (planned release: October 2000) will greatly improve PAL performance for Windows 98 SE and Windows 2000 users. Sonic Foundry assumes no responsibility for the use of beta drivers.

More information on DirectX Runtime 8 will be posted on this page once Microsoft releases the final version.

For more information on Windows Me and DirectX Runtime 8: <http://www.Microsoft.com>.

Installing the Microsoft DV Device Drivers

Note: *If you are about to install an OHCI-compliant IEEE-1394 DV card in your computer for the first time, do not install the drivers that came with that card. Windows 98 SE, Windows 2000, and Windows Me will automatically detect the card and choose the correct Microsoft DV device driver (MSDV.SYS) for you.*

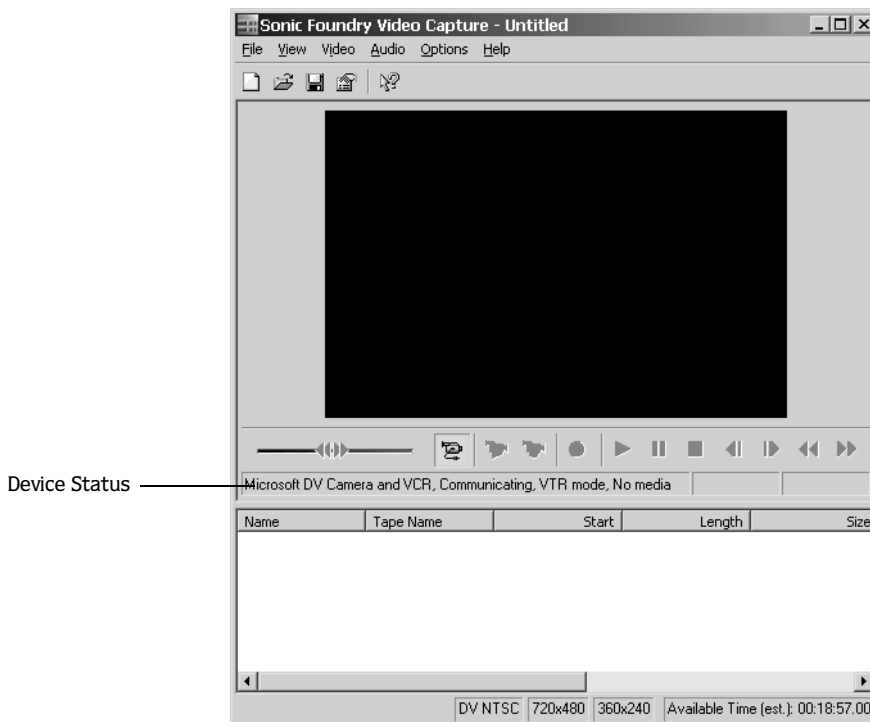
If you are running Microsoft Windows 98 SE, Windows 2000 or Windows Me, the preferred DV drivers to use are the MSDV.SYS drivers provided by Microsoft. The camera will automatically be detected and listed on the **Video** menu in Sonic Foundry Video Capture as "Microsoft DV Camera and VCR." If this is not how your camera is detected, you may continue to use the camera as is. Some features, such as device control and timecode reading, may be disabled however. To change to the Microsoft drivers please follow the procedures listed below.

Determining which drivers are installed

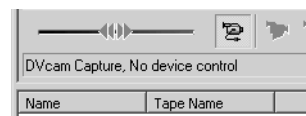
This procedure will allow you to determine which DV drivers are installed on your system. This procedure will work for all versions of Windows.

1. Turn on your camcorder and connect it to your computer with the IEEE-1394 cable.
2. Run Sonic Foundry Video Capture.

3. Sonic Foundry Video Capture should detect your camera automatically when it is done loading. The Device Status line below the transport controls will show which device is selected.



4. If the Device Status line shows Microsoft DV Camera and VCR (as shown above), you are using the Microsoft drivers (MSDV.SYS). These are the correct drivers for Sonic Foundry Video Capture. You do not need to uninstall these drivers.
5. If the status line shows DVcam Capture, you are using the DVCAM drivers. For the best performance with Sonic Foundry Video Capture, you should uninstall these drivers and replace them with the Microsoft DV drivers, as outlined in the following section.



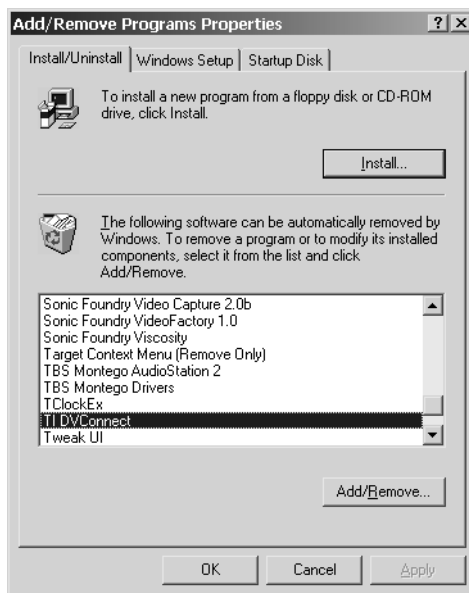
Replacing the DVCAM drivers

This procedure will completely remove the DVCAM drivers from your system and will install Microsoft DV drivers (msdv.sys) to control your camcorder. You will need your Windows CD for this procedure. Procedures are listed below for Windows 98 SE, Windows Me, and Windows 2000.

Windows 98 SE: Replacing the DVCAM drivers

To replace the DVCAM drivers:

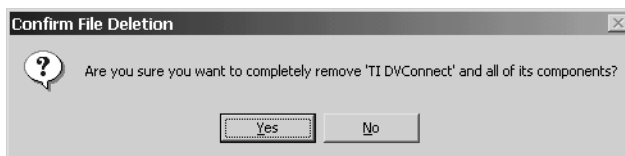
1. Turn off your camera, and disconnect it from the IEEE-1394 cable.
2. Click the **Start** button on the Windows task bar and select Settings.
3. In the Control Panel, double-click the Add/Remove Programs item.



4. The name of the driver you are looking for is dependent on which card you have. For example, the SIIG 1394DV card installs as “TI DVConnect”, and the ADS Pyro DV installs as “Pyro 1394DV Digital Video Driver Update.” Select the driver associated with your card and click the **Add/Remove** button.

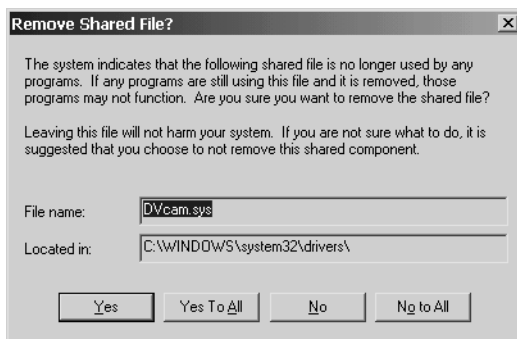
Note: *There is a bug with the 2.5 version of the uninstaller for ADS Pyro Digital Video card. For more information, see Fixing the ADS Pyro Uninstaller on page 20.*

- Windows may show a confirmation dialog. The exact wording depends on your particular drivers.



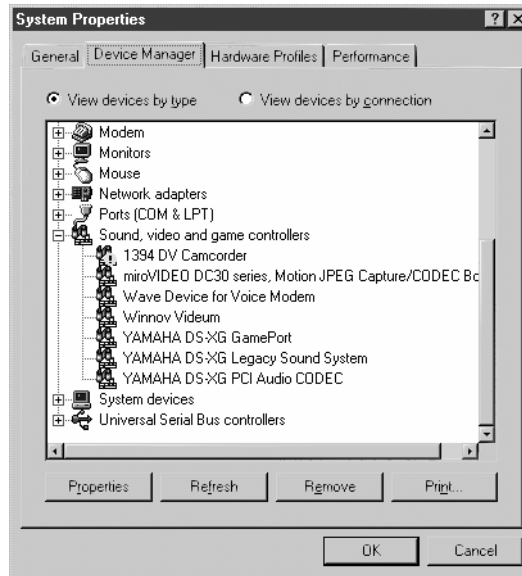
Click the **Yes** button to finish uninstalling the drivers.

- The uninstaller may ask you if it is okay to remove the files "DVcam.sys" and "DVcam.inf." Click the **Yes** button to uninstall these drivers.



- When the uninstall procedure is complete, you will be returned to the Add/Remove Programs dialog. Click **OK** to return to the Control Panel.
- Restart your computer.
- After Windows starts up, turn on your camera, and connect it to the IEEE-1394 cable.
- Click the **Start** button on the Windows task bar and select Settings.
- In the Control Panel, double-click the System item.
- Select the Device Manager tab.

13. Click the Sound, video and game controllers item.



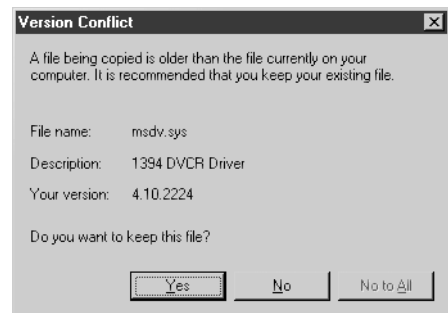
14. Select the 1394 DV Camcorder item with a “!” icon on it.

15. Click the **Remove** button.

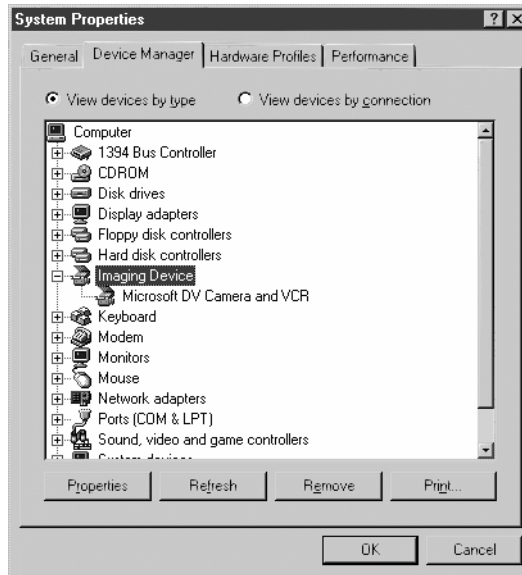
16. Click **OK** to confirm removal.

17. Click the **Refresh** button in the Device Manager. Windows now rebuilds its driver database and installs the default MSDV.SYS from your Windows CD. If you don't see a dialog box that indicates that Windows is rebuilding its driver database, then turn your camera off, disconnect the IEEE-1394 cable, and then turn your camera back on and reconnect the IEEE-1394 cable.

If Windows prompts you with a “Version Conflict” message, click **Yes** to keep the current version, since Sonic Foundry Video Capture automatically updated the MSDV.SYS when it was installed.



The DVCAM drivers should now be removed from your system. All cameras that are connected should now connect with the MSDV drivers labeled as Microsoft DV Camera and VCR in both Sonic Foundry Video Capture under the **Video** menu and in Device Manager under the Imaging Devices item.

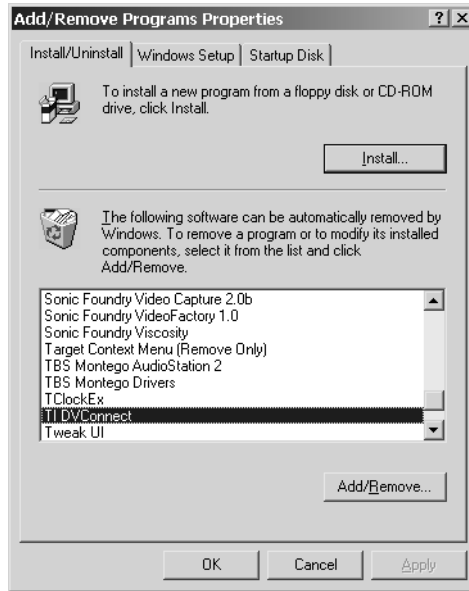


Windows Me: Replacing the DVCAM drivers

To replace the DVCAM drivers:

1. Turn off your camera, and disconnect it from the IEEE-1394 cable.
2. Click the **Start** button on the Windows task bar and select Settings.

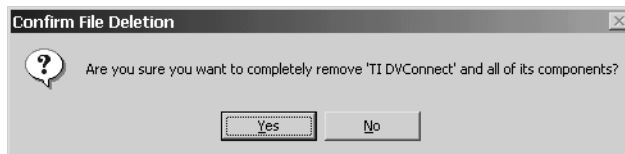
- In the Control Panel, double-click the Add/Remove Programs item.



- The name of the driver you are looking for is dependent on which card you have. For example, the SIIG 1394DV card installs as “TI DVConnect”, and the ADS Pyro DV installs as “Pyro 1394DV Digital Video Driver Update.” Select the driver associated with your card and click the **Add/Remove** button.

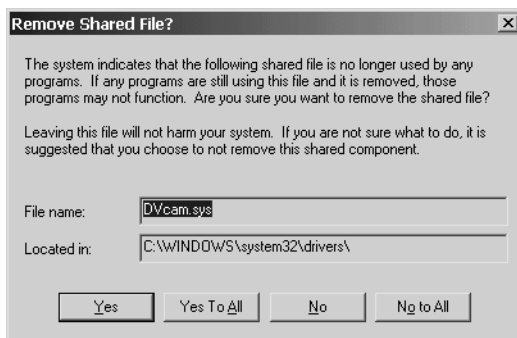
Note: *There is a bug with the 2.5 version of the uninstaller for ADS Pyro Digital Video card. For more information, see [Fixing the ADS Pyro Uninstaller](#) on page 20.*

- Windows may show a confirmation dialog. The exact wording depends on your particular drivers.

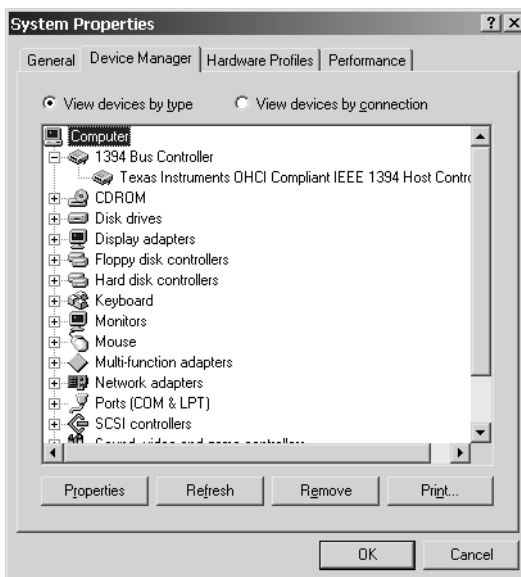


Click the **Yes** button to finish uninstalling the drivers.

6. The uninstaller may ask you if it is okay to remove the files “DVcam.sys” and “DVcam.inf.” Click the **Yes** button to uninstall these drivers.



7. When the uninstall procedure is complete, you will be returned to the Add/Remove Programs dialog. Click **OK** to return to the Control Panel.
8. In the Control Panel, double-click the System item.
9. Select Device Manager tab.
10. Click the 1394 Bus Controller item to expand it.



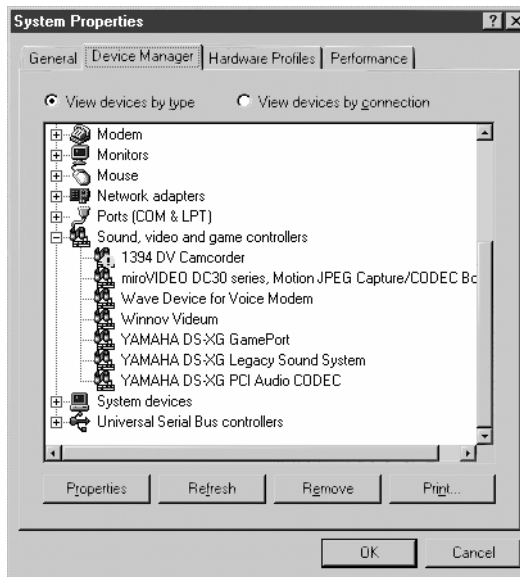
11. Select the device listed underneath the 1394 Bus Controller item (e.g. Texas Instruments OHCI Compliant 1394 Host Controller) and click the **Remove** button.

12. Click the **OK** button in the confirmation message that appears.

Note: Repeat steps 11 and 12 for any other devices that may exist underneath the 1394 Bus Controller item. The 1394 Bus Controller item will disappear when no more items exist underneath it.



13. Click the **Refresh** button. Windows Me will detect any IEEE-1394 cards in your system. If you are not prompted to restart your computer after it has been added to the Device Manager, restart your computer.
14. After Windows starts up, turn on your camera, and connect it to the IEEE-1394 cable.
15. Click the **Start** button on the Windows task bar and select Settings.
16. In the Control Panel, double-click the System item
17. Select the Device Manager tab.
18. Click the Sound, video and game controllers item.



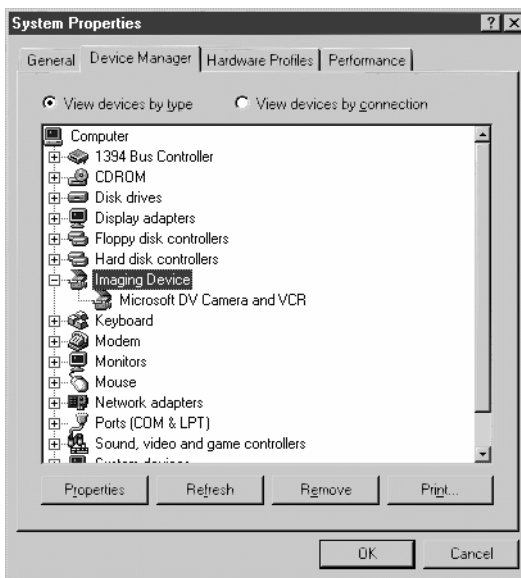
19. Select the 1394 DV Camcorder item with a "!" icon on it.
20. Click the **Remove** button.

21. Click **OK** to confirm removal.



22. Click the **Refresh** button in the Device Manager. Windows now rebuilds its driver database and installs the default MSDV.SYS from your Windows CD. If you don't see a dialog box that indicates that Windows is rebuilding its driver database, then turn your camera off, disconnect the IEEE-1394 cable, and then turn your camera back on and reconnect the IEEE-1394 cable.

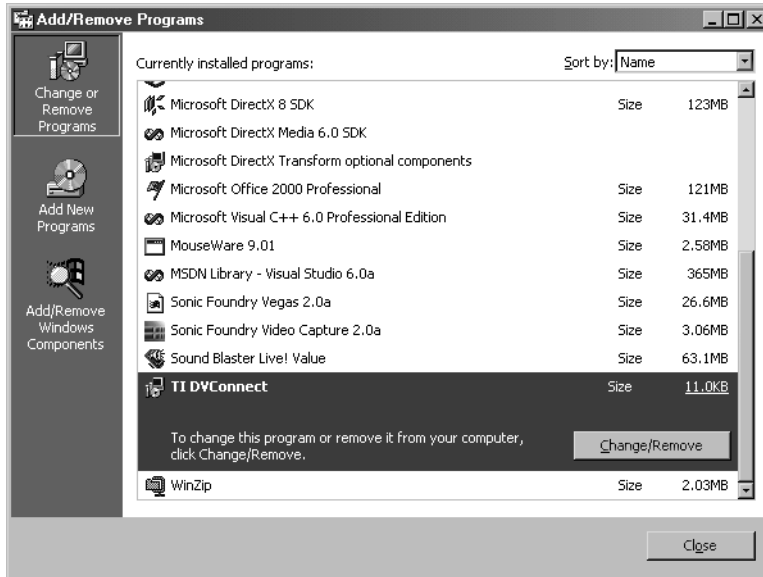
The DVCAM drivers should now be removed from your system. All cameras that are connected should now connect with the MSDV drivers labeled as Microsoft DV Camera and VCR in both Sonic Foundry Video Capture under the **Video** menu and in Device Manager under the Imaging Devices item.



Windows 2000: Replacing the DVCAM drivers

To replace the DVCAM drivers:

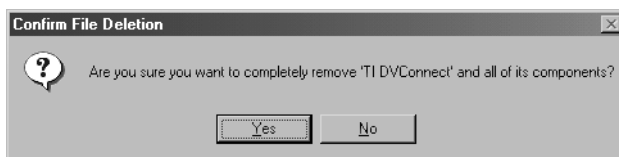
1. Turn off your camera, and disconnect it from the IEEE-1394 cable.
2. Click the **Start** button on the Windows task bar and select Settings.
3. In the Control Panel, double-click the Add/Remove Programs item.



4. The name of the driver you are looking for is dependent on which card you have. For example, the SIIG 1394DV card installs as “TI DVConnect”, and the ADS Pyro DV installs as “Pyro 1394DV Digital Video Driver Update.” Select the driver associated with your card and click the **Change/Remove** button.

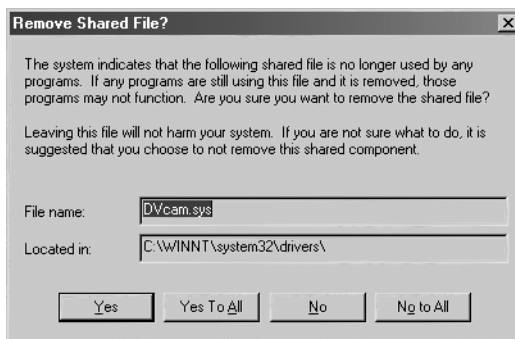
Note: There is a bug with the 2.5 version of the uninstaller for ADS Pyro Digital Video card. For more information, see *Fixing the ADS Pyro Uninstaller* on page 20.

5. Windows may show a confirmation dialog. The exact wording depends on your particular drivers.



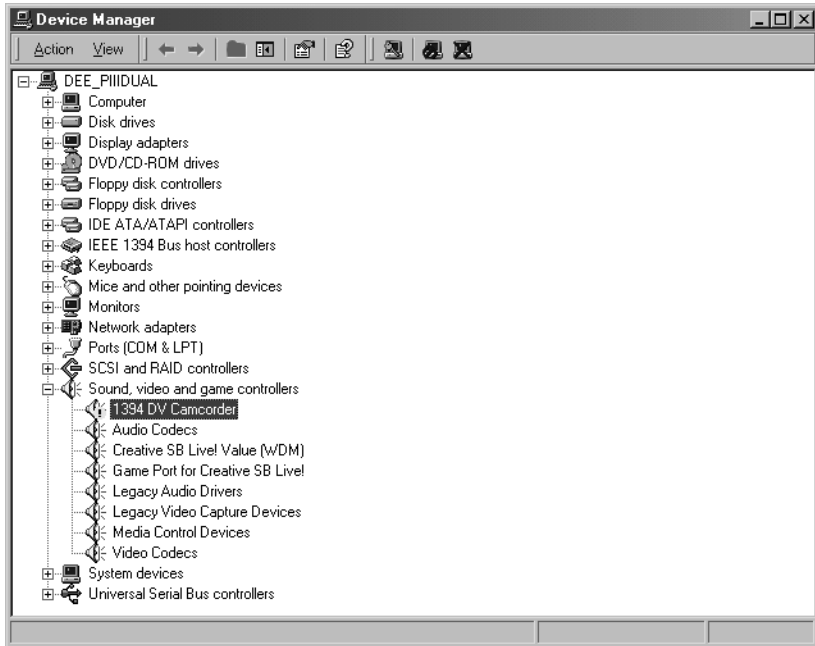
Click the **Yes** button to finish uninstalling the drivers.

6. The uninstaller may ask you if it is okay to remove the files “DVcam.sys” and “DVcam.inf.” Click the **Yes** button to uninstall these drivers.



7. When the uninstall procedure is complete, you will be returned to the Add/Remove Programs dialog. Click **Close** to return to the Control Panel.
8. Restart your computer.
9. After Windows starts up, turn on your camera, and connect it to the IEEE-1394 cable.
10. Click the **Start** button on the Windows task bar and select Settings.
11. In the Control Panel, double-click the System item
12. Select the Hardware tab and click the **Device Manager** button.

13. Click the Sound, video and game controllers item to expand it.



14. Select the 1394 DV Camcorder item with a “!” icon on it.

15. From the **Action** menu, choose Uninstall.

16. Click the **OK** button to confirm uninstallation.

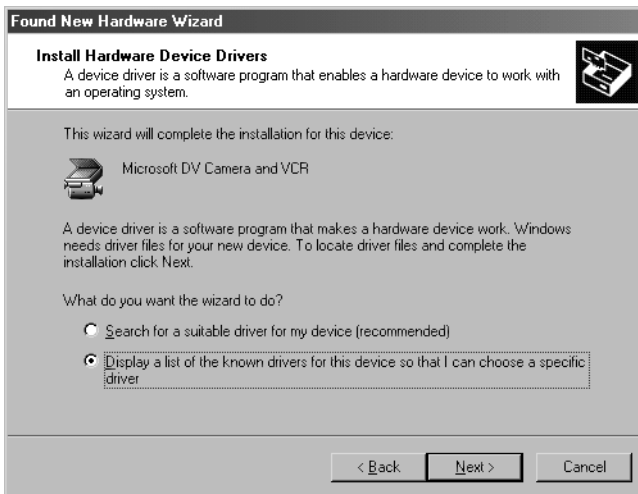
17. From the **Action** menu, choose **Scan for Hardware Changes**.



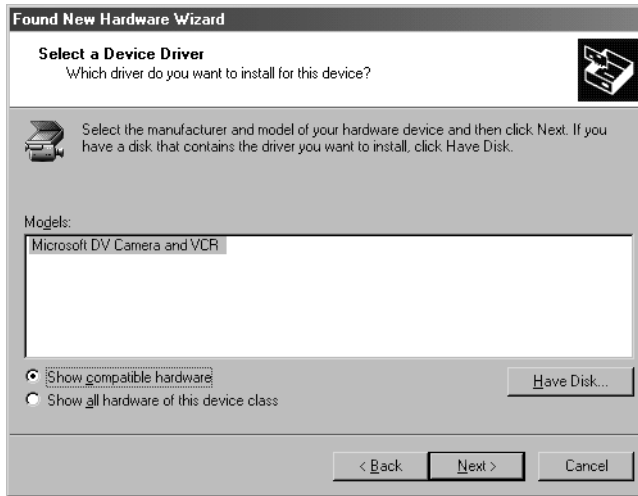
18. The Found New Hardware Wizard will appear. Click the **Next** button.



19. Select Display a list of known drivers for this device so that I can choose a specific driver and click the **Next** button.



20. Select the Microsoft DV Camera and VCR on the Models list and click the **Next** button.



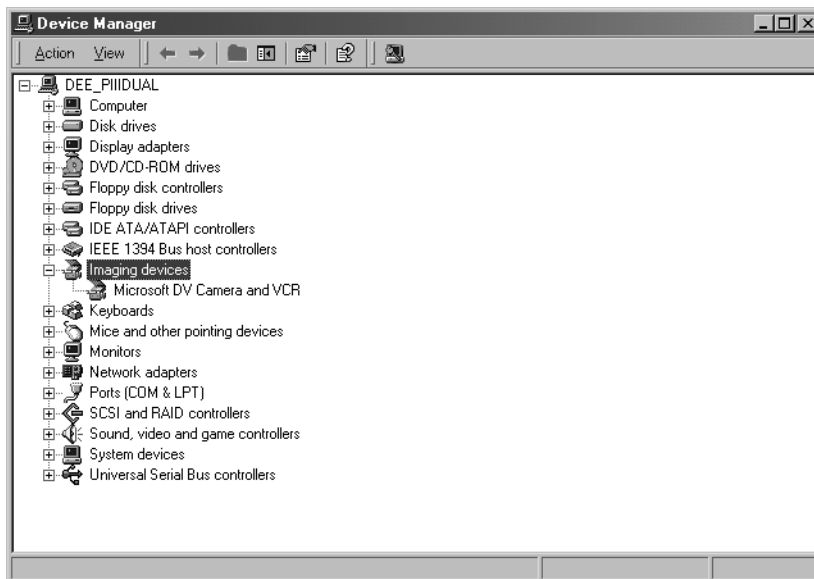
21. Click the **Next** button to finish the installation procedure.



22. When the driver is installed, click the **Finish** button to return to the Device Manager.



The DVCAM drivers should now be removed from your system. All cameras that are connected should now connect with the MSDV drivers labeled as Microsoft DV Camera and VCR in both Sonic Foundry Video Capture under the **Video** menu and in the Device Manager under the Imaging Devices item.



Fixing the ADS Pyro Uninstaller

The 2.5 version of the DVCAM installer for the ADS Pyro Digital Video card does not store the correct uninstaller information for its drivers. This can be corrected by manually editing the registry.

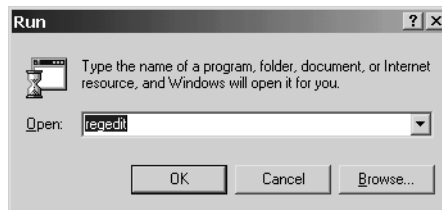
Note, however, that the 3.3 version of the DVCAM installer does not include uninstall information, but instead requires a separate “Unti.exe” uninstaller program available on the Pyro CD or downloadable from <http://www.adstech.com>.

Note: *This procedure should not be attempted except by experienced Windows users. Incorrect modifications to the registry can result in Windows not being able to start up. Please make a backup copy of your registry before making any changes to it.*

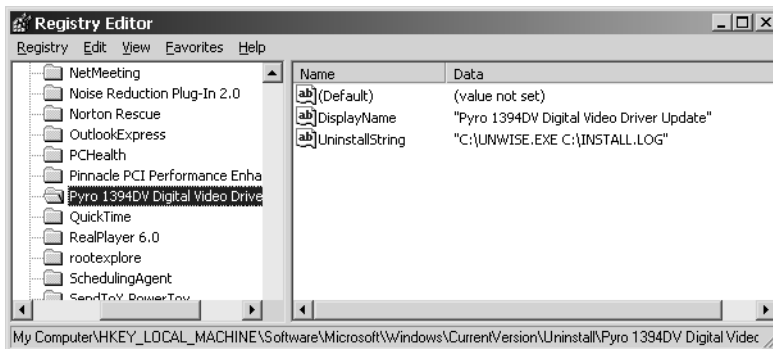
You will need to know where Windows is installed before continuing. For Windows 98 SE and Windows Me, the default for the Windows Setup program is C:\Windows\. For Windows 2000, the default for the Windows Setup program is C:\Winnt\.

Windows 98 SE and Windows Me

1. Click the **Start** button on the Windows task bar and select **Run**. Enter “regedit” and click the **OK** button.

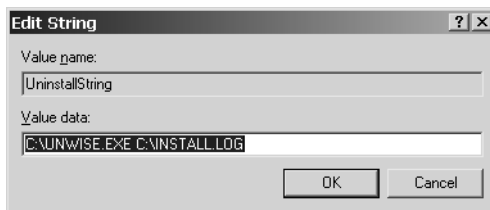


2. In the tree portion of the editor, go to “HKEY_LOCAL_MACHINE\Software\Microsoft\Windows\CurrentVersion\Uninstall\Pyro 1394DV Digital Video Driver Update.”

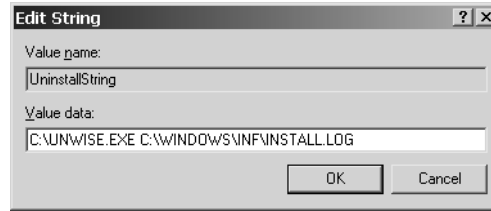


Note: *If this entry is not available but your camera shows up in Device Manager under “Sound, video, and game controllers” as “1394 DV Camcorder” or in Sonic Foundry Video Capture as “DVcam Capture,” then you have version 3.3 of the DVCAM drivers installed. You will need to use the ADS “Unti.exe” program to uninstall the drivers.*

3. Double-click the item UninstallString on the list (right) side of the Registry Editor.

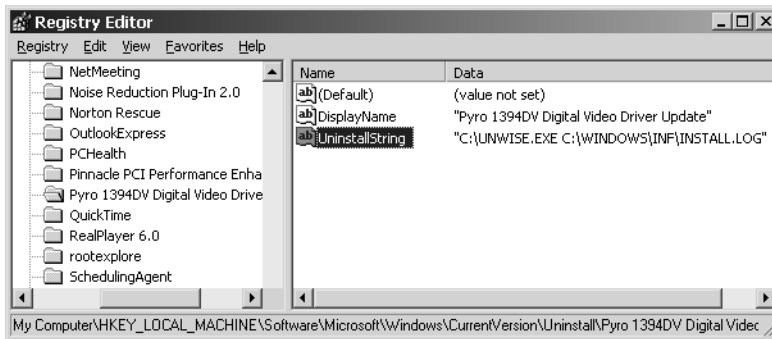


- Change the Value data field to read
 “C:\UNWISE.EXE C:\WINDOWS\INF\INSTALL.LOG”
 (replacing C:\WINDOWS with your Windows directory).



Note: If you encounter problems uninstalling the software, replace the value with “C:\UNWISE.EXE C:\WINDOWS\SYSTEM32\INSTALL.LOG”, replacing C:\WINDOWS with your Windows directory.

- Click the OK button. The changes should be reflected in the Registry Editor.

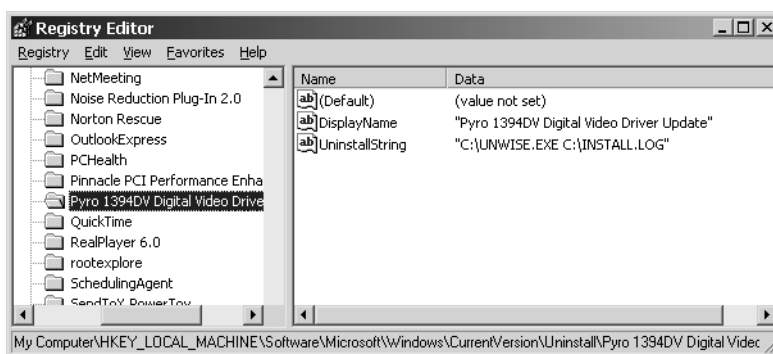
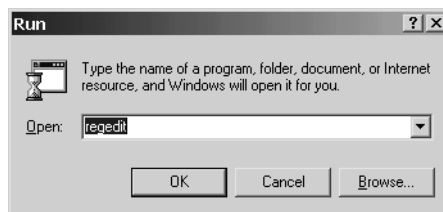


- Close the registry editor. You can now uninstall the drivers. *For more information, see Windows 98 SE: Replacing the DVCAM drivers on page 6.*

Windows 2000

Before you can correct the registry, you must first determine which version of the ADS Pyro Digital Video drivers you have installed. Follow this procedure to determine this.

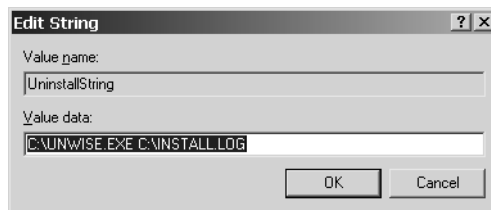
1. Click the **Start** button on the Windows task bar and select **Run**. Enter “regedit” and click the **OK** button.
2. In the tree portion of the editor, go to “HKEY_LOCAL_MACHINE\Software\Microsoft\Windows\CurrentVersion\Uninstall\Pyro 1394DV Digital Video Driver Update.”



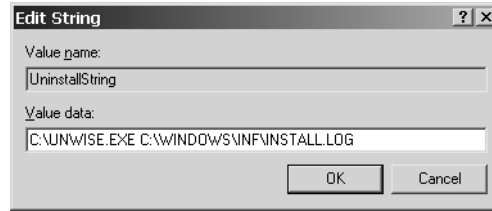
- If this entry is available, do not close the Registry Editor. Follow the “Windows 2000 Registry Fix” procedure starting on page 23.
- If this entry is not available but your camera shows up in the Device Manager under Sound, video, and game controllers as 1394 DV Camcorder or in Sonic Foundry Video Capture on the **View** menu as DVcam Capture, you will need to manually delete the DVCAM files. Close the Registry Editor and follow the procedure “Windows 2000 File Delete” starting on page 25.

Windows 2000 Registry Fix

1. Double-click the item UninstallString on the list side of the Registry Editor.

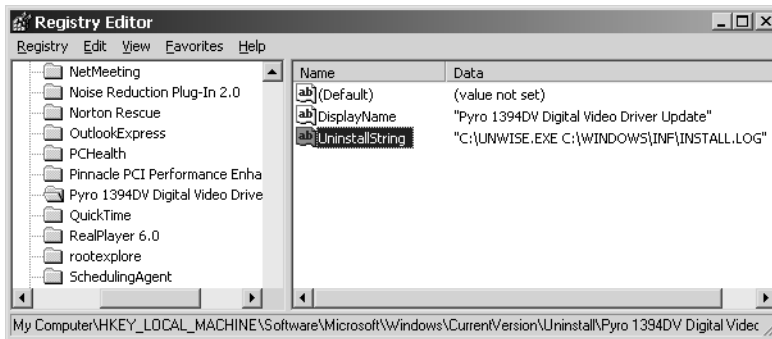


- Change the Value data field to read
 “C:\UNWISE.EXE C:\WINDOWS\INF\INSTALL.LOG”
 (replacing C:\WINDOWS with your Windows directory).



Note: If you encounter problems uninstalling the software, replace the value with “C:\UNWISE.EXE C:\WINDOWS\SYSTEM32\INSTALL.LOG”, replacing C:\WINDOWS with your Windows directory.

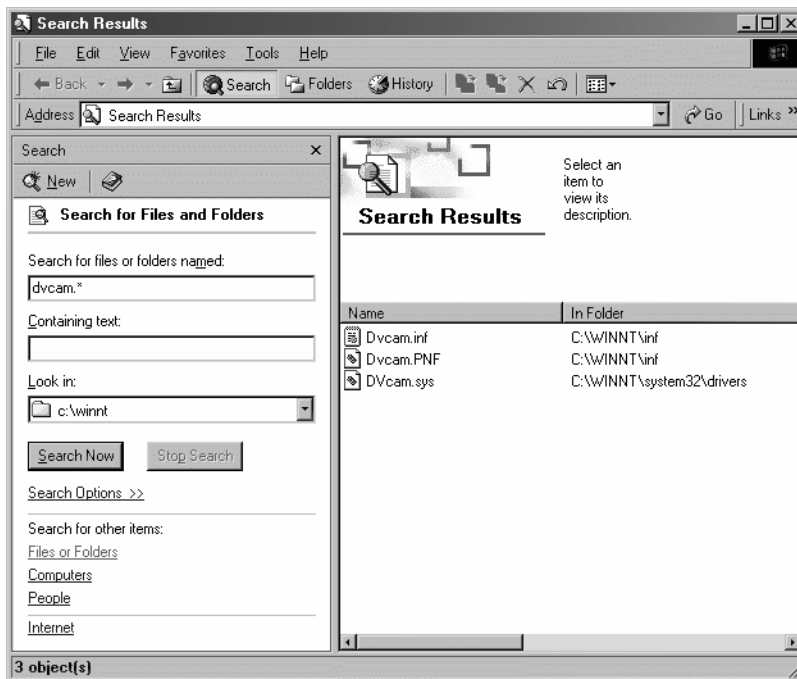
- Click the OK button. The changes should be reflected in the Registry Editor.



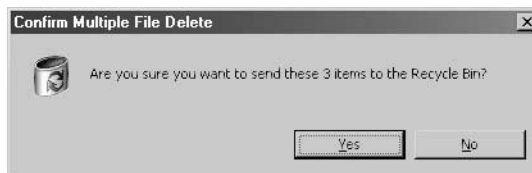
- Close the registry editor. You can now uninstall the drivers. For more information, see *Windows 2000: Replacing the DVCAM drivers on page 14*.

Windows 2000 File Delete

1. Click the **Start** button on the Windows task bar, choose **Search**, and, from the submenu choose **For Files or Folders**. In the Search for files or folders named field enter “dvcam.*”. In the Look in field, enter your Windows directory. Click the **Search Now** button.



2. Select all items that were found and click the **Delete** button. If you get a confirmation dialog box, click the **Yes** button to delete the files.



3. Close the Search Results window. You can now uninstall the drivers. *For more information, see Windows 2000: Replacing the DVCAM drivers on page 14.*