



IEEE1394 & USB2.0 Combo PCI Board

PCIFU2U

User's Guide

Rev. 1.0

December 2001

KS **RATOC Systems, Inc.**

Contents

| | |
|---|-----------|
| 1. Introduction | 1 |
| 1-1.Package Confirmation | 1 |
| 1-2.System Requirements | 1 |
| 1-3.Restrictions | 2 |
| 1-4.Compatibility with Video Editing software | 3 |
| 2. HardWare Setup | 5 |
| 2-1. Setup Procedure | 5 |
| 2-2. PCIFU2U Board | 6 |
| 2-2-1. Installing the PCIFU2U | 7 |
| 2-2-2. Attaching the Front Bay Kit to the PCIFU2U | 8 |
| A.Installing to 3.5 inch bay | 8 |
| B.Installing to 5 inch bay | 11 |
| 3. Driver Installation..... | 13 |
| 3-1.Windows 98 SE Installation | 14 |
| 3-2.Windows Me Installation | 24 |
| 3-3.Windows 2000 our USB2.0 Driver Installation | 28 |
| 3-4.Windows 2000 Microsoft USB2.0 Driver Installation | 32 |
| 3-5.Windows XP Microsoft USB2.0 Driver Installation | 35 |
| 3-6.Driver confirmation(Macintosh) | 37 |
| 3-6-1.For Mac OS 9.x users | 37 |
| 3-6-2.For Mac OS X users | 39 |
| 4. Bundled Software | 40 |
| 4-1.Disk Partitioning and Formatting Software | 40 |
| 4-1-1.For Windows 98SE/Me users | 40 |
| 4-1-2.For Windows 2000/XP users | 43 |

| | |
|---|----|
| 4-2.Plug-In software for Adobe Premiere 5.1c | 44 |
| 4-2-1.Installing the Plug-In software | 45 |
| 4-2-2.Setting up Premiere project | 46 |
| 4-2-3.Capturing a video from a DVCAM | 48 |
| 4-2-4.Converting a captured data to a DV format | 49 |
| 4-2-5.Exporting a video to a DVCAM | 51 |
| 4-2-6.Plug-In Software troubleshooting | 52 |

5. Setting up capture software 53

6. How to use RsDvCap 55

| | |
|---|----|
| 6-1.Main menu: | 56 |
| 6-2.Control Bars | 57 |
| 6-3.Application settings | 59 |
| 6-4.Capturing a video from a DVCAM in camera mode | 63 |
| 6-5.Capturing a video from a DV tape | 64 |
| 6-6.DV Batch Capture | 65 |
| 6-7.Exporting a video data to a DVCAM | 67 |

7. How to use RsDvStill 68

| | |
|----------------------------|----|
| 7-1.Main menu | 68 |
| 7-2.How to save a BMP file | 71 |

8. How to use CompressAVI 73

| | |
|--|----|
| 8-1.How to convert the DV-AVI2 format to other formats | 74 |
| 8-2.How to convert other formats to the DV-AVI2 format | 77 |

9. Troubleshooting 79

| | |
|--|----|
| 9-1.A camera can't be recognized | 79 |
| 9-2.When you play back the captured file, it gets choppy | 80 |

10. Registration and Tech-Support 81

| | |
|-----------------------------------|----|
| 10-1. How to Register | 81 |
| 10-2. Software Update and Support | 81 |

11. Specifications 82

1. Introduction

This User's Guide describes how to install, use the RATOC PCIFU2U 1394 & USB2.0 Combo PCI Board(called PCIFU2U in this User's Guide).

The information in the README.TXT file on the CD-ROM may include the latest information.
Be sure to read the README.TXT file as well.

1-1. Package Confirmation

Confirm the package contents:

- PCIFU2 1394 & USB2.0 Combo PCI Board
- Support CD-ROM
- User's Guide (This document)
- Software License Agreement

NOTE

If any of these items are missing from the PCIFU2U retail package, contact your supplier immediately.

1-2. System Requirements

Your PC must meet the following requirements:

<Windows>

- PC with one free PCI 2.1/2.2 compliant slot
- Windows XP/Me/2000/98 SE
- ACPI BIOS

<Mac>

- PowerMac G4/G3/604e with one free PCI slot
- Mac OS 9.1/9.2.x/10.1 or later

<For Video Editing>

- Pentium II 300MHz or faster for video editing
- At least 64 MB memory for video editing
- High performance AGP Graphic Board for video editing
- High performance Sound Board for video editing
- High performance DMA enabled Hard Disk Drive for video editing
- Sufficient Hard Disk space for video capture (1 second DV video = 3.6MB) for video editing

1-3. Restrictions

1. When you export a DV-AVI file at a 1394 Hard Disk Drive to a DVCAM, the video image or its sound gets choppy.
2. When you capture a video image as a DV-AVI file into a 1394 Hard Disk Drive directly with Canon DM-CV11 or Hitachi VM-D1, the video image sometimes contains noise.
3. Suspend mode may not work with the PCIFU2U (A device connected to the PCIFU2U may not be recognized with suspend mode function).
4. You may not use the PCIFU2U on a PC with standard 1394 port because of confliction of its preinstalled 1394 applications/drivers.
5. If you use the PCIFU2U with a Mac, Apple support USB drivers (Mac OS standard driver) are required. Only Low/Full Speed (1.5/12Mbps) is supported on a Mac.
6. Our original USB2.0 driver doesn't support High Speed Isochronous data transfer. We plan to release a USB2.0 drivers supporting the High Speed Isochronous data transfer at our web site(<http://www.ratocsystems.com/english/>).
7. We strongly recommend you to use USB2.0 driver available through "Windows Update" on Windows XP/2000. You may use our original USB2.0 drivers, but we don't support them when Microsoft officially releases its USB2.0 driver.

1-4.Compatibility with Video Editing software

For Windows Users

Microsoft Standard WDM DV filter drivers captures DV data stream and save as an AVI file which consists with original DV data stream. This DV data stream requires 3.6MB/sec and includes 720x480 resolution video data(NTSC). Also, the file size is restricted up to 4GB (about 19 minutes). As our application named RsDvCap uses this DV file which is a different file format from AVI file of Windows 3.1/95, you need special Video Editing Software to open and edit it.

If you want to edit video captured by our RsDvCap application, you have two choices:

1. You have to use Video Editing Software which can treat DV-AVI2 format.

If you have Adobe Premiere 5.1, you have to update your Premiere to 5.1c. 5.1c updater is available at **www.adobe.com**. Then please install our Premiere Plug-In included in this package. With the Premiere Plug-In, your Premiere can treat DV-AVI2 format file.

MediaStudio Pro 6.0, MGI VideoWaveIII can treat DV-AVI2 format.

If your Video Editing Software can not treat DV-AVI2 format file, you need file format conversion both before and after editing as described below.

2.If your Video Editing Software can not treat DV-AVI2 format file, you have to use our CompressAVI application to convert DV-AVI2 format to other formats which your Video Editing Software can treat.

For Mac OS 9.x users

You can use the following video editing software with the PCIFU2U.

(In November in 2001)

For more information, contact the manufacturer of the software.

| Manufacturer | Software | Data Import from a DV device | Video Editing | Controlling a DV device | Exporting to a DV device |
|---------------|------------------------|------------------------------|---------------|-------------------------|--------------------------|
| Adobe | Premiere 5.1c, 6.0 | O.K. | O.K. | O.K. | O.K. |
| Apple | Final Cut Pro 1.2, 2.0 | O.K. | O.K. | O.K. | O.K. |
| Apple | iMovie, iMovie2 | O.K. | O.K. | O.K. | O.K. |
| DigitalOrigin | EditDV 1.6 | ^{*1} O.K. | O.K. | ^{*1} O.K. | ^{*1} O.K. |
| DigitalOrigin | EditDV Unplugged 1.6.1 | O.K. | O.K. | O.K. | O.K. |
| DigitalOrigin | MotoDV 1.1.3 | ^{*1*3} O.K. | - | ^{*1*3} O.K. | - |
| DigitalOrigin | PhotoDV 1.4 | ^{*1*3} O.K. | - | ^{*1*3} O.K. | - |
| STRATA | VIDEO Shop 4.5 | O.K. | O.K. | ^{*2} N.G. | ^{*2} N.G. |

*1 You need to set [**QuickTime FireWire DV Support**], [**QuickTime FireWire DV Enabler**] inactive with the [**Extensions Manager**].

*2 The next version(VIDEO Shop 5) will be able to treat these functions.

*3 You need to download EditDV 1.6 update driver from the Digital Origin web site.
(<http://www.digitalorigin.com/>)

2. Hardware Setup

2-1. Setup Procedure

Here's the setup procedure:

1)Installing the PCIFU2U into a PCI slot(For Windows users or Mac users)

==>Refer to Chapter 2-2

2)Installing the drivers(For Windows users)

==>Refer to Chapter 3-1 through 3-5

Confirming the drivers(For Mac users)

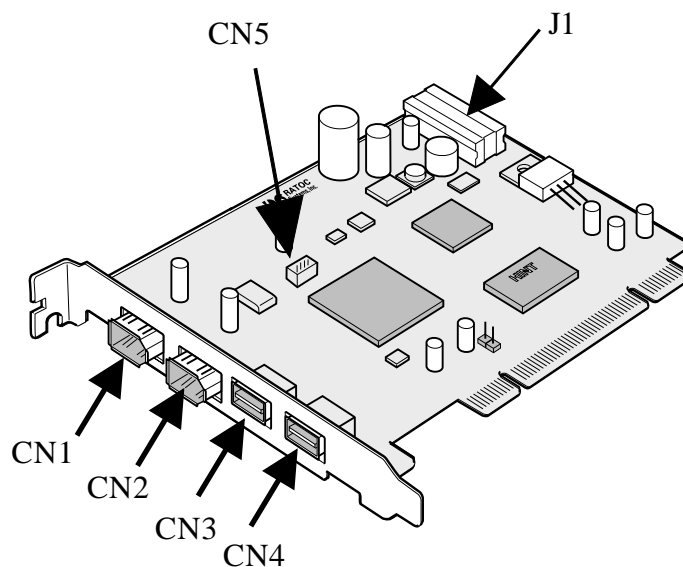
==>Refer to Chapter 3-6

3)Installing bundled software(For Windows users)

==>Refer to Chapter 4, 5

2-2. PCIFU2U Board

Before installing the PCIFU2U into a PCI slot, understand the usage of the connectors on the PCIFU2U.



| | |
|----------|---|
| CN1, CN2 | 1394 6pin connector |
| CN3, CN4 | USB2.0 connector |
| CN5 | Connector to be used for attaching an optional Front Bay Kit |
| J1 | 1394 Cable Power connector You have to connect this J1 to a HDD power connector of your computer to use a cable-powered device such as a 1394 portable HDD, CCD camera, etc. |

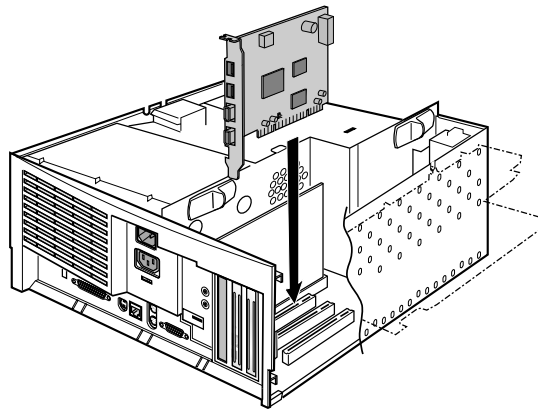
If you don't have an optional Front Bay Kit, proceed to Chapter 2-2-1.

If you have an optional Front Bay Kit, proceed to Chapter 2-2-2.

2-2-1. Installing the PCIFU2U

Follow the steps to install the PCIFU2U into a PCI slot.

1. Turn off your PC and open the computer cabinet.



2. Carefully install the PCIFU2U by firmly pressing the PCI board into a PCI expansion slot.

Please note the following:



a) You have to install the PCIFU2U firmly. If the PCIFU2U isn't installed firmly, this product or your PC may get damaged.

b) Be sure the gold contact of the PCI board is completely in a white PCI slot.

3. Fasten the retaining bracket with a screw.

4. If you connect a cable-powered type 1394 device such as a portable HDD, CCD camera which requires cable power source, you have to connect a HDD power connector of your computer to J1 connector on the PCIFU2U. If you connect a self-powered type 1394 device such as a DVCAM, you don't need to connect the HDD power connector of your computer to J1 connector.

5. Close the computer cabinet.

Then, you have to install the driver for the PCIFU2U.

==> Refer to Chapter 3-1 if you use Windows 98SE.

==> Refer to Chapter 3-2 if you use Windows Me.

==> Refer to Chapter 3-3 or 3-4 if you use Windows 2000.

==> Refer to Chapter 3-5 if you use Windows XP.

==> Refer to Chapter 3-6 if you use Macintosh.

2-2-2. Attaching the Front Bay Kit to the PCIFU2U

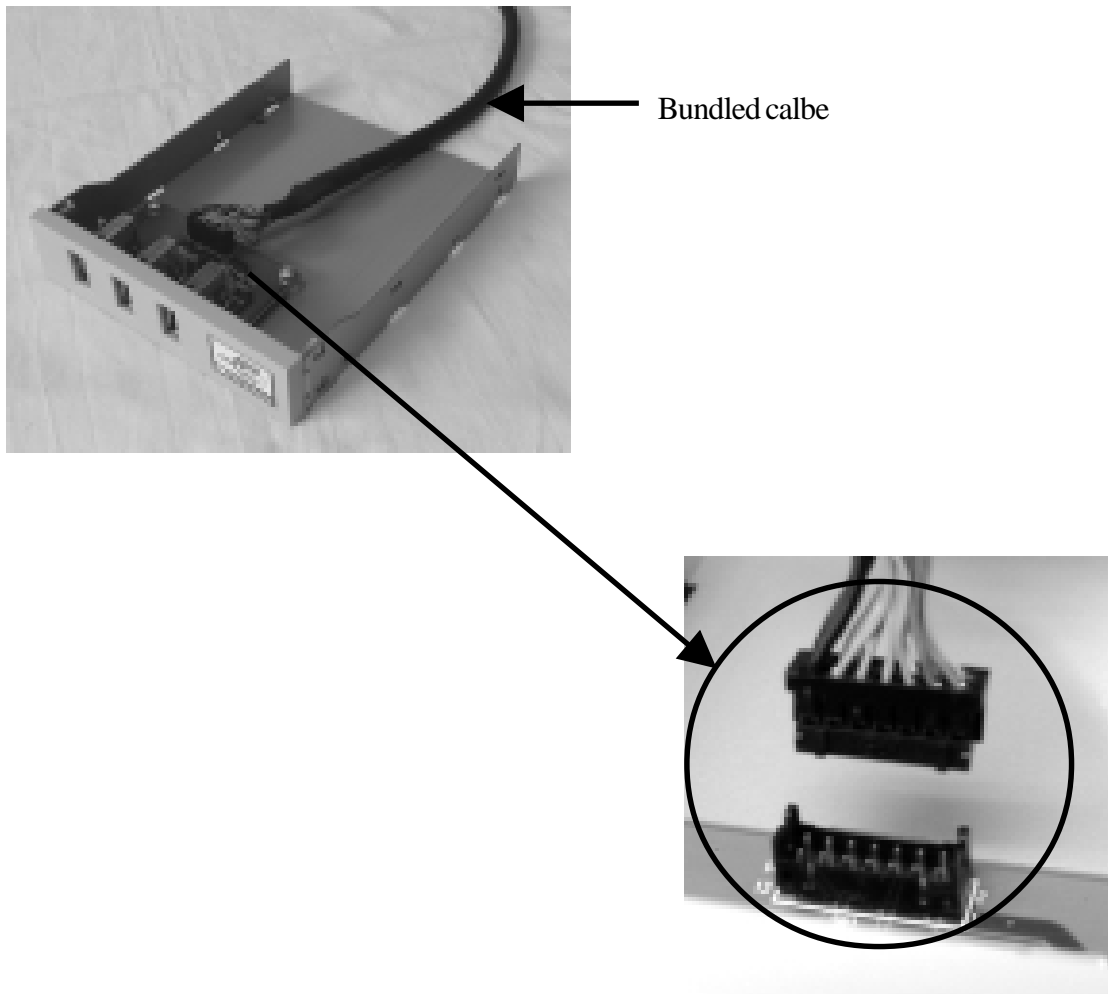
If you have an optional Front Bay Kit, follow the steps to attach it to the PCIFU2U.

If you attach the optional Front Bay Kit to 3.5 inch front bay, refer to Chapter A).

If you attach the optional Front Bay Kit to 5 inch front bay, refer to Chapter B).

A.Installing to 3.5 inch bay

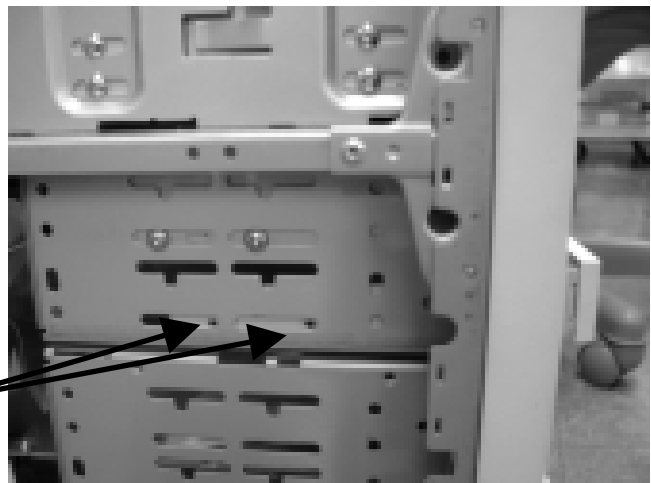
1. Turn off your computer. Then, attach the bundled cable to the connector on the Front Bay as shown below.



2.Slide the front-bay into the 3.5 inch bay as shown below.



3.Open the computer cabinet and fix the front-bay with the bundled screws.



Fix two points.

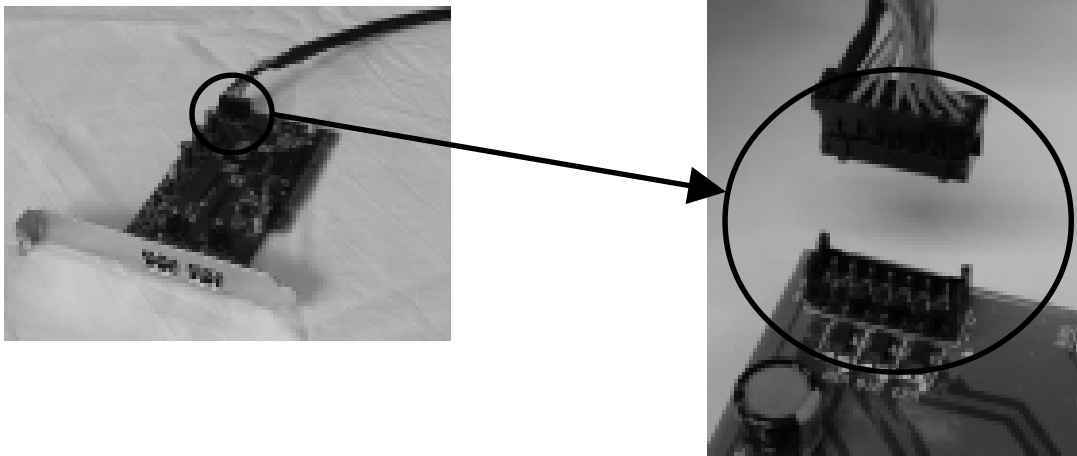
Fix two points on the other side.

There are two types of
screws in this package.



Use this type of screws.

4. Attach the other end of the cable to the PCIU2U as shown below.

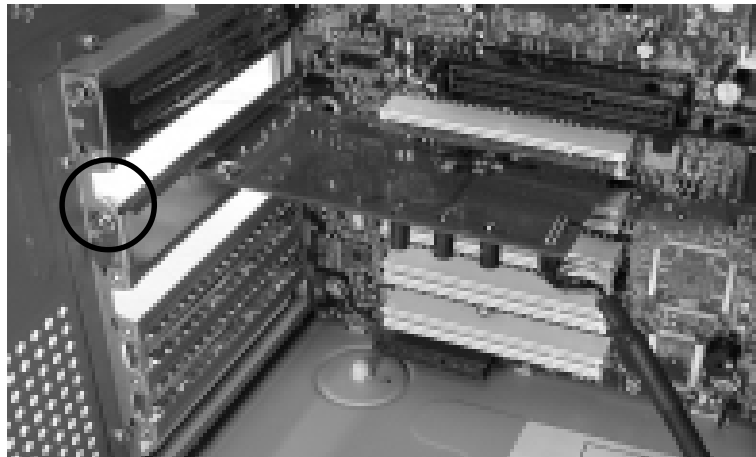


5. Install the PCIU2U into a PCI slot and close the computer cabinet.

Please note the following:



- a) You have to install the PCIU2U firmly. If the PCIU2U isn't installed firmly, this product or your PC may get damaged.
- b) Be sure the gold contact of the PCI board is completely in a white PCI slot.
- c) Be sure to fasten the bracket of the PCI board with a screw as shown below.



Then, you have to install the driver for the PCIFU2U.

==>Refer to Chapter 3-1 if you use Windows 98SE.

==>Refer to Chapter 3-2 if you use Windows Me.

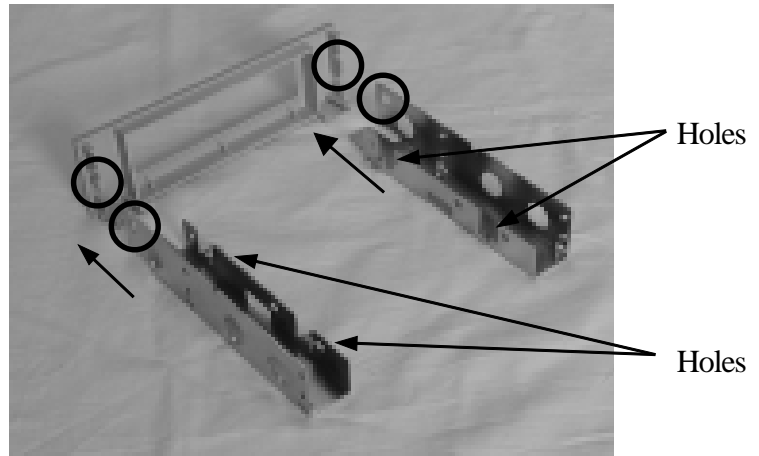
==>Refer to Chapter 3-3 or 3-4 if you use Windows 2000.

==>Refer to Chapter 3-5 if you use Windows XP.

==>Refer to Chapter 3-6 if you use Macintosh.

B.Installing to 5 inch bay

1. Turn off your computer. Then, slide rails into the front panel until they are firmly seated as shown below.

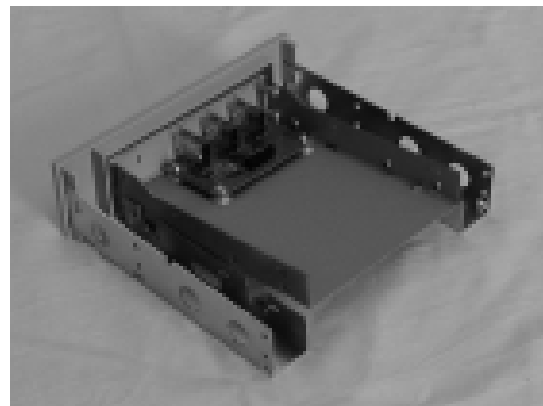


2. Fix the front-bay to the holes shown above with the screws to attach the front bay to the rails.

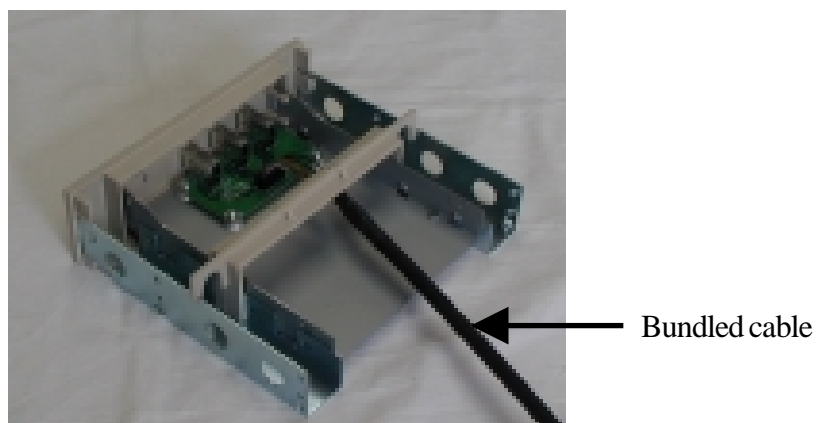
There are two types of screws in this package.



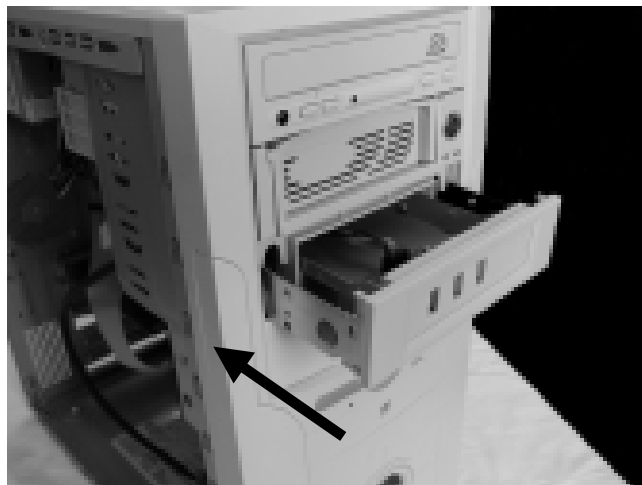
← Use this type of screws.



3. Attach the bundled cable to the front bay. Then, attach the clasp as shown below.

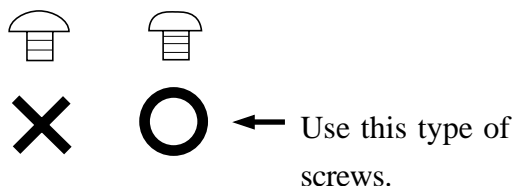


4. Open the computer cabinet and slide the front bay into the front panel as shown below.



5. Fix the front bay with the screws.

There are two types of screws in this package.



6. Attach the other end of the cable and install the PCIU2U into a PCI slot, following the instructions described at step 4 to 5 in Section A in Chapter 2-2-2.

Then, you have to install the driver for the PCIFU2U.

==>Refer to Chapter 3-1 if you use Windows 98SE.

==>Refer to Chapter 3-2 if you use Windows Me.

==>Refer to Chapter 3-3 or 3-4 if you use Windows 2000.

==>Refer to Chapter 3-5 if you use Windows XP.

==>Refer to Chapter 3-6 if you use Macintosh.

3. Driver Installation

This section describes the driver installation.

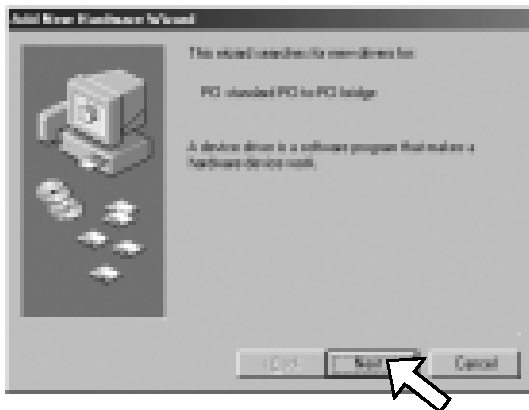
- When your Windows version is Windows 98 SE(Second Edition), proceed to Chapter 3-1.
- When your Windows version is Windows Me(Millennium Edition), proceed to Chapter 3-2.
- When your Windows version is Windows 2000, proceed to Chapter 3-3 or 3-4.
If you would like to use our original USB2.0 driver, proceed to Chapter 3-3.
If you would like to use Microsoft USB2.0 driver, proceed to Chapter 3-4.
- When your Windows version is Windows XP, proceed to Chapter 3-5.
- If you use the PCIFU2U with a Mac, proceed to Chapter 3-6.

3-1.Windows 98 SE Installation

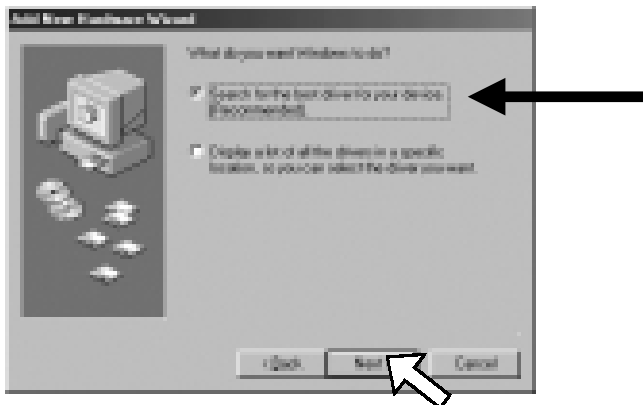
To use the PCIFU2U on Windows 98 SE, follow the steps through.

1. When you start your PC after installing the PCIFU2U, the following wizard will appear.

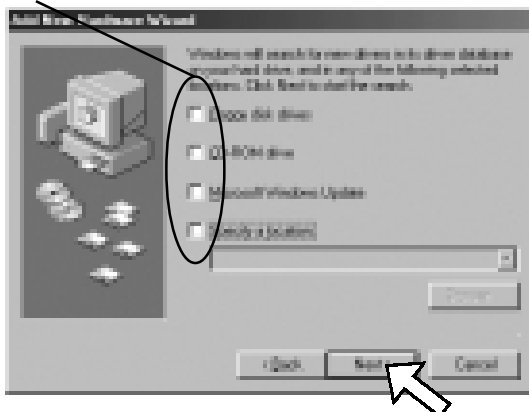
Insert the bundled RATOC USB2.0 CD-ROM into the CD-ROM drive and click **[Next]**.



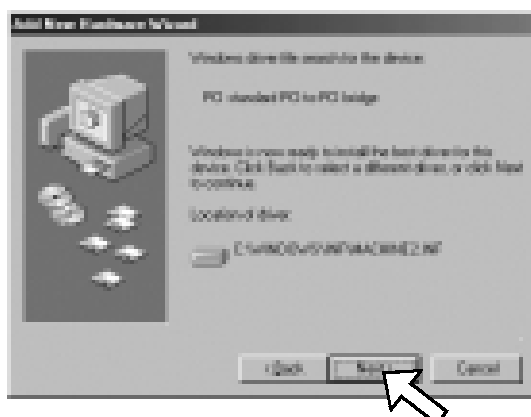
2. Select the **[Search for the best driver for your device(Recommended)]** option and click **[Next]**.



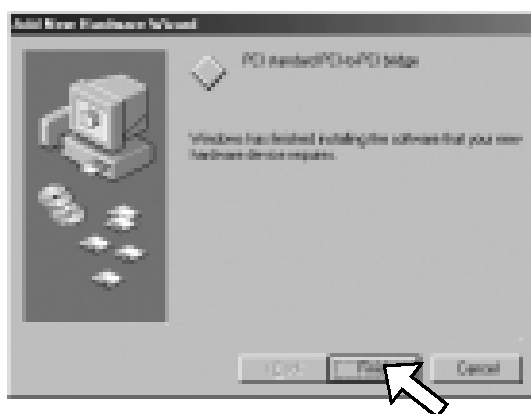
3. Uncheck the all options and click **[Next]**.



4. Click **[Next]**.



5. Click **[Finish]**.



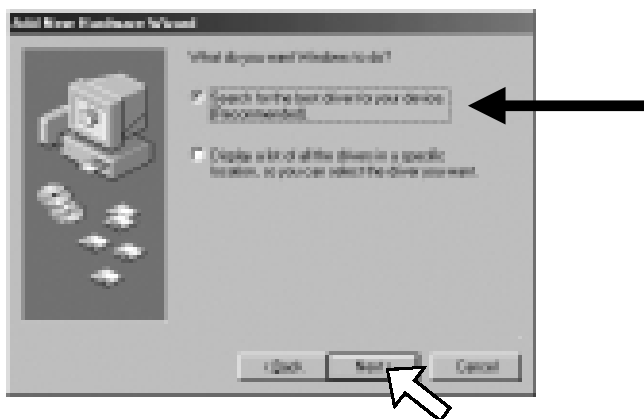
6. When you see the following message, click **[No]**.



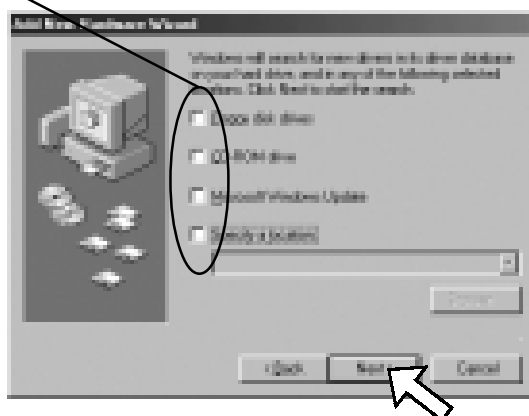
7.The following wizard will appear. Click **[Next]**.



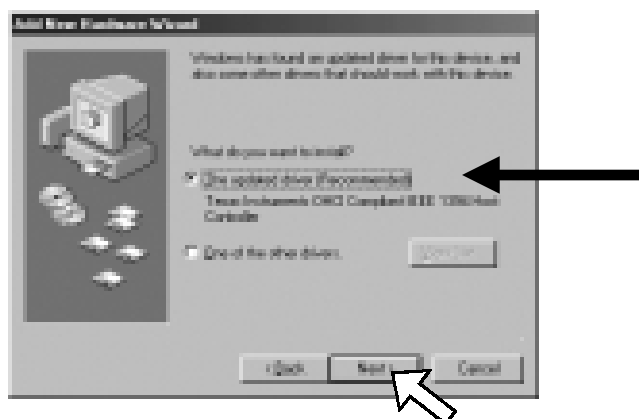
8.Select the **[Search for the best driver for your device(Recommended)]** option and click **[Next]**.



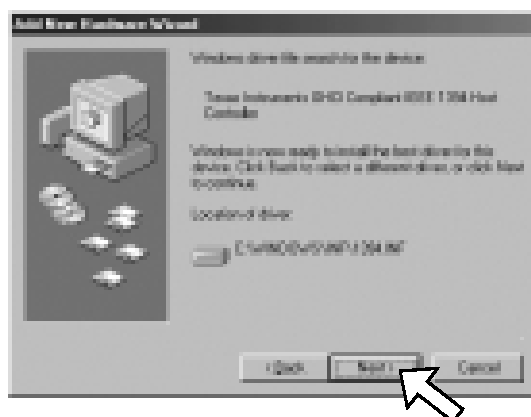
9.Uncheck the all options and click **[Next]**.



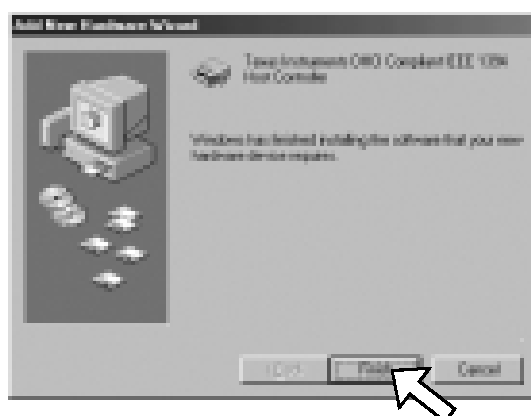
10. Select the **[The updated driver(Recommended)]** option and click **[Next]**.



11. Click **[Next]**.



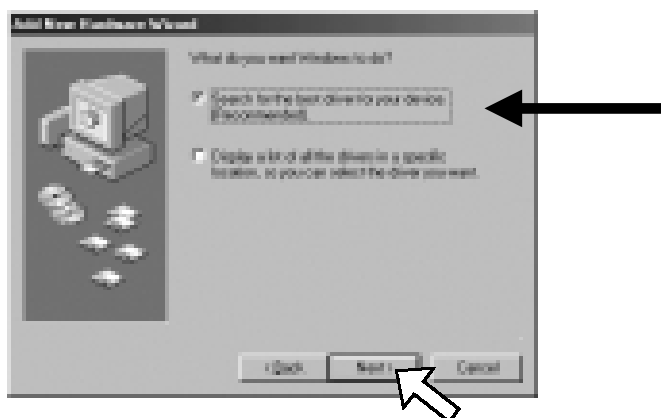
12. Click **[Finish]**.



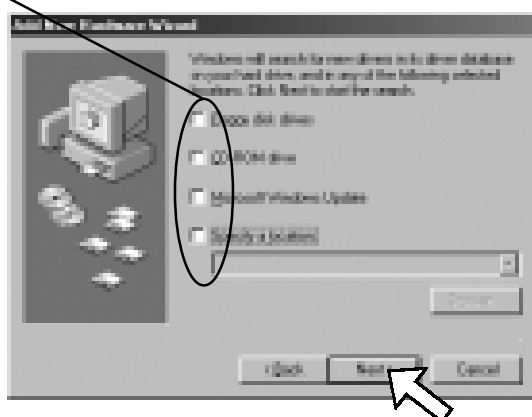
13. The following wizard will appear. Click **[Next]**.



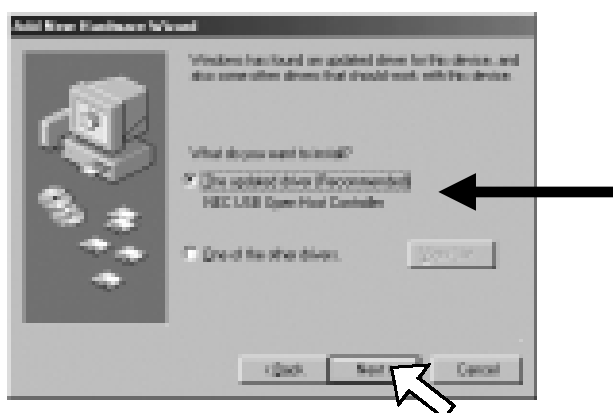
14. Select the **[Search for the best driver for your device(Recommended)]** option and click **[Next]**.



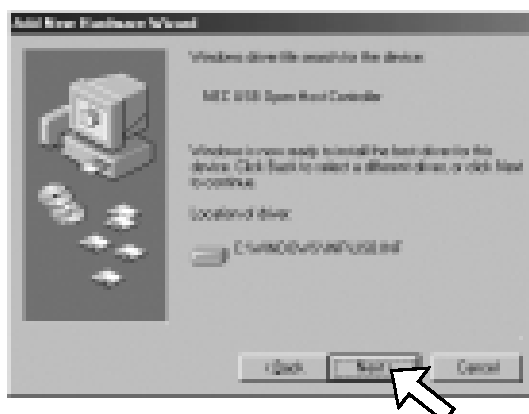
15. Uncheck the all options and click **[Next]**.



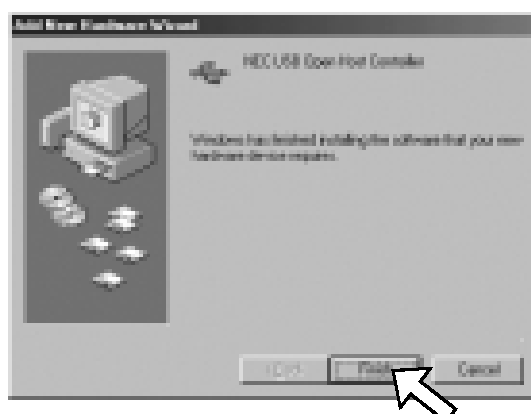
16. Select the **[The updated driver (Recommended)]** option and click **[Next]**.



17. Click **[Next]**.



18. Click **[Finish]**.

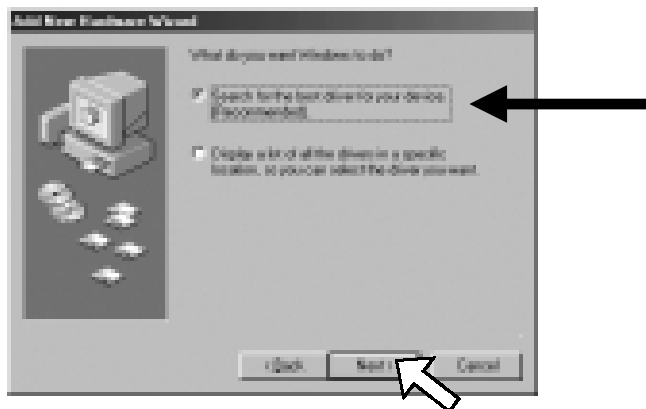


19. The same hardware wizards shown at step 13 through 18 will appear again. Follow the same procedure as described above.

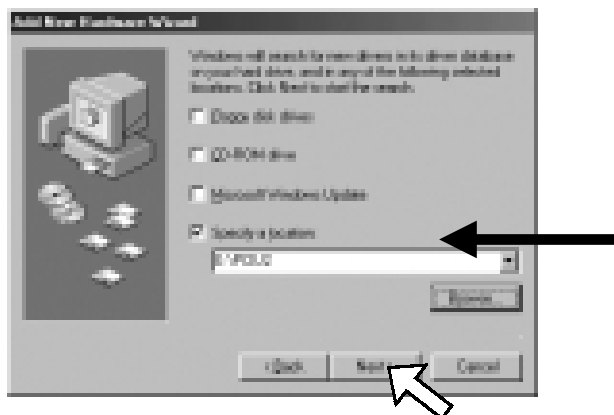
20. The following wizard will appear. Click **[Next]**.



21. Select the **[Search for the best driver for your device(Recommended)]** option and click **[Next]**.



22. Select the **[Specify a location]** option and type **[E:\PCIU2]** and click **[Next]**.
(E means your CD-ROM drive letter. If your CD-ROM is “F”, you have to type **[F:\PCIU2]**.)



23. Make sure Windows found the PCIEHCI.INF file at the PCIU2 folder in the CD-ROM drive. Then, click **[Next]**.



24. Click **[Finish]**.

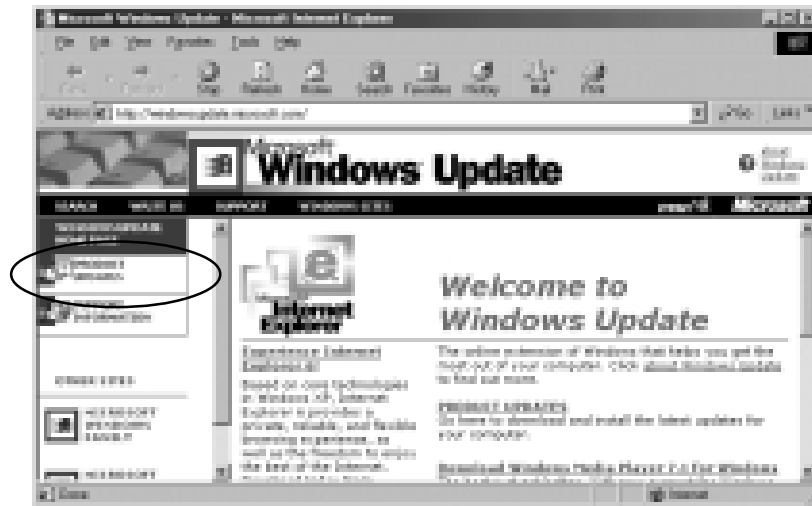


25. If you would like to use a DVCAM, you need to install the MSDV patch program as described below. Follow the steps through to install it.

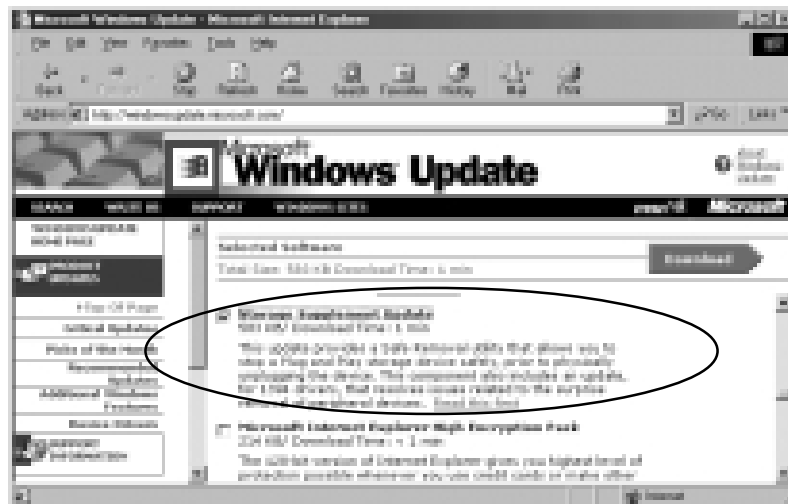
- 1) Insert the bundled RATO IEEE1394 CD-ROM into your CD-ROM drive.
- 2) Open **[My Computer]** and double-click the CD-ROM drive icon.
- 3) Double-click the **[Win98se]** folder and double-click the **[DvPatch]** folder.
- 4) Double-click **[252640USA8.EXE]** to install the MSDV patch program.

26. You should update your Windows 98 SE to improve performance. To update your Windows 98 SE, follow the steps through.

- 1) Click the **Start** button.
- 2) Select **Windows Update**.
- 3) You will see the screen below. Click **PRODUCT UPDATES**.



27. You will see the screen below. Check **Storage Supplement Update** and download the component. After installing, please restart your PC. For more information on the component, refer to **Read this first** on the screen.



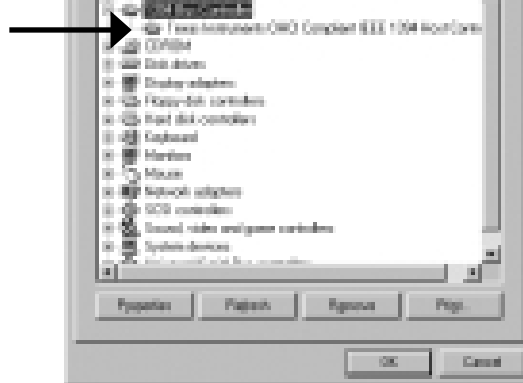
28. Restart your PC.

29.To confirm the installation, follow the steps through:

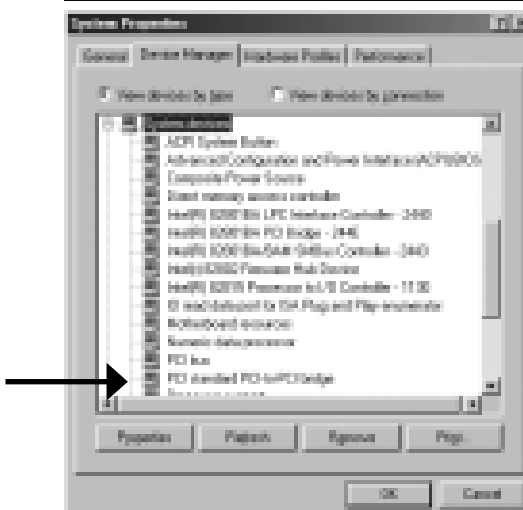
Right-click on **[My Computer]**, select **[Properties]**, and the **[Device Manager]** tab.

Please confirm the following three strings:

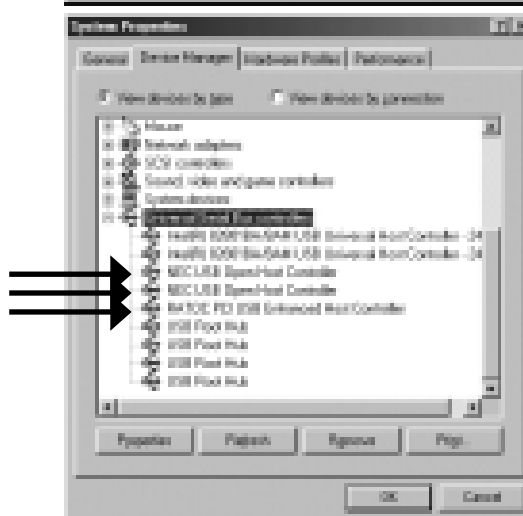
1)Confirm there is a **[Texas Instruments OHCI Compliant IEEE 1394 Host Controller]** string under the **[1394 Bus Controller]**.



2)Confirm there is a **[PCI standard PCI to PCI bridge]** string under the **[System devices]**.



3)Confirm there are two **[NEC USB Open Host Controller]** strings and a **[RATOC PCI USB Enhanced Host Controller]** under the **[Universal Serial Bus controllers]**.



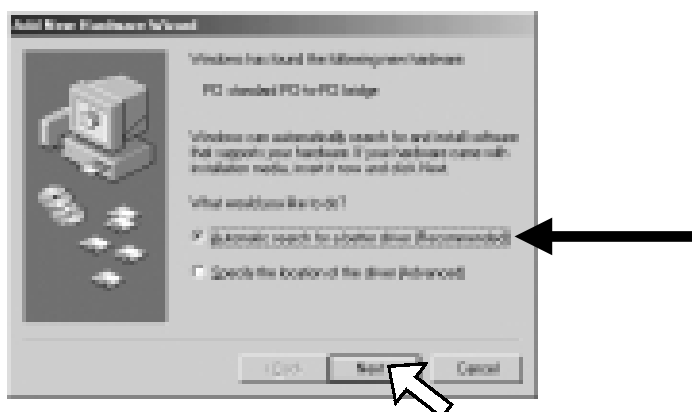
30.Refer to Chapter 4 and 5 to install our original software/utility.

3-2.Windows Me Installation

To use the PCIFU2U on Windows Me, follow the steps through.

1. When you start your PC after installing the PCIFU2U, the following wizard will appear.

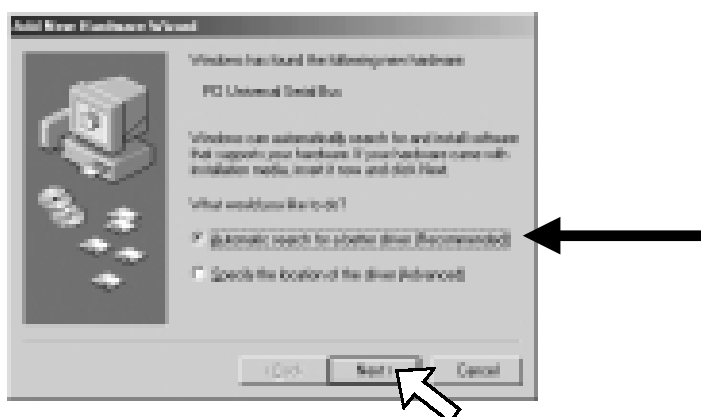
Insert the bundled RATOC USB2.0 CD-ROM into the CD-ROM drive and select the **[Automatic search for a better driver(Recommended)]** option. Then, click **[Next]**.



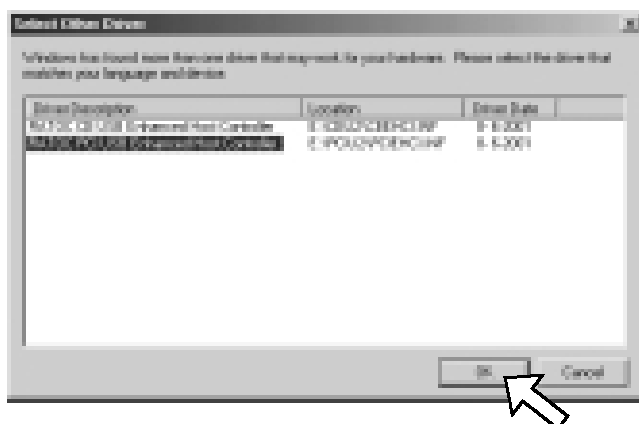
2. Click **[Finish]**.



3. Select the **[Automatic search for a better driver(Recommended)]** and click **[Next]**.



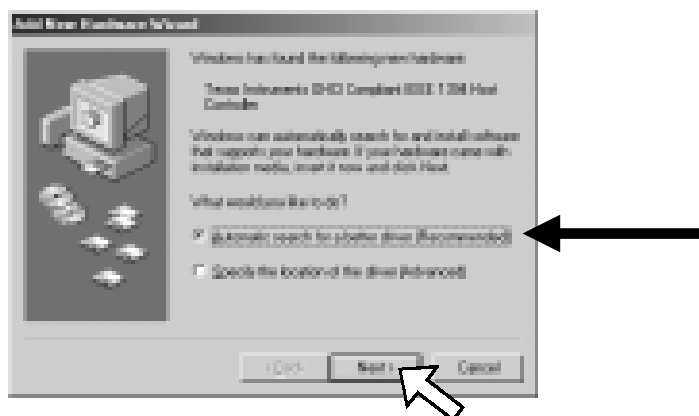
4. Select **[RATOC PCI USB Enhanced Host Controller]** and click **[OK]**.



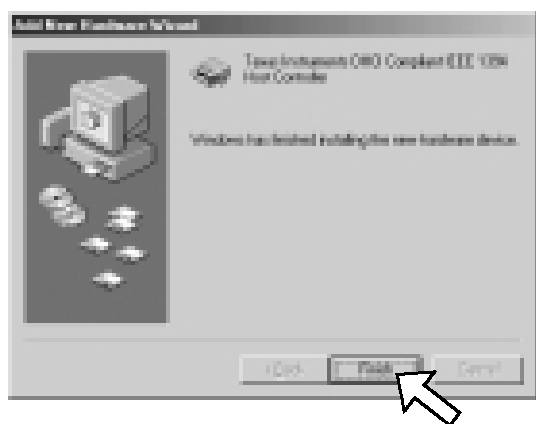
5. Click **[Finish]**.



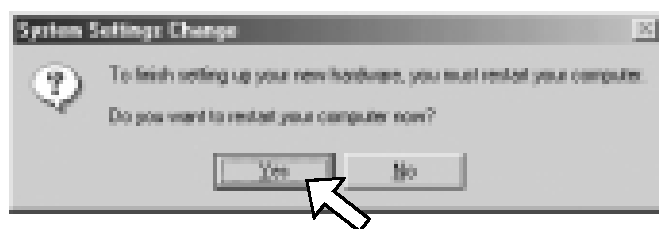
6. Select the **[Automatic search for a better driver(Recommended)]** option and click **[Next]**.



7. Click **[Finish]**.



8. When you see the following message, click **[Yes]**.

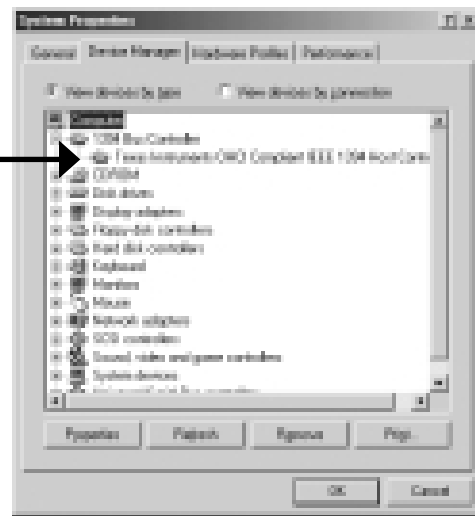


9.To confirm the installation, follow the steps through:

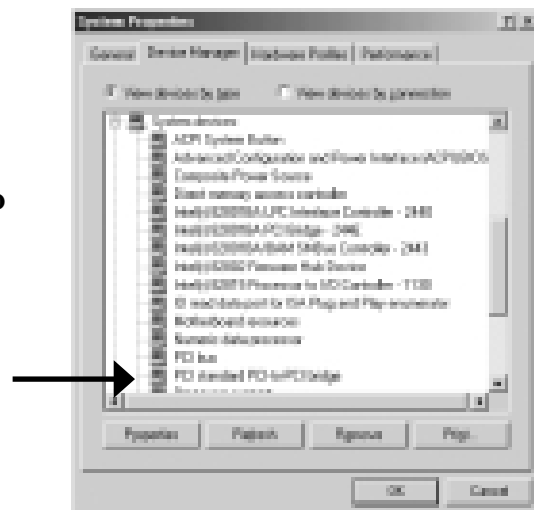
Right-click on **[My Computer]**, select **[Properties]**, and the **[Device Manager]** tab.

Please confirm the following three strings:

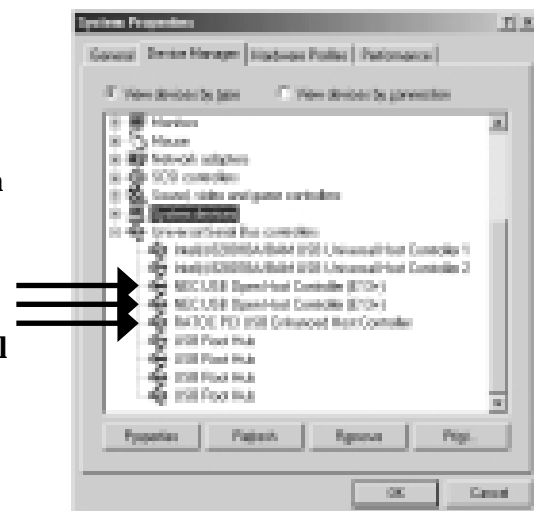
1)Confirm there is a **[Texas Instruments OHCI Compliant IEEE 1394 Host Controller]** string under the **[1394 Bus Controller]**.



2)Confirm there is a **[PCI standard PCI to PCI bridge]** string under the **[System devices]**.



3)Confirm there are two **[NEC USB Open Host Controller]** strings and a **[RATOC PCI USB Enhanced Host Controller]** under the **[Universal Serial Bus controllers]**.



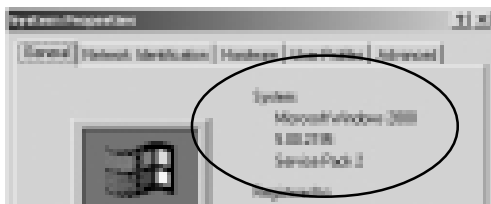
10.Refer to Chapter 4 and 5 to install our original software/utility.

3-3.Windows 2000 our USB2.0 Driver Installation

You can install our original USB2.0 driver. But, please note that when Microsoft officially releases its USB2.0 driver for Windows 2000, we will finish supporting our USB2.0 driver for Windows 2000. If you install Microsoft USB2.0 driver, refer to 3-4.

NOTE:If you have installed Microsoft USB2.0 in Chapter 3-4, you don't need to install our original USB2.0 driver.

Before you install the driver, make sure Windows 2000 Service Pack 2 or later is already installed. To confirm Service Pack 2 or later is installed, right-click on **[My Computer]**, and then select **[System Properties]**.If you can find a “Service Pack 2” string as shown below, Service Pack 2 is already installed in your system.



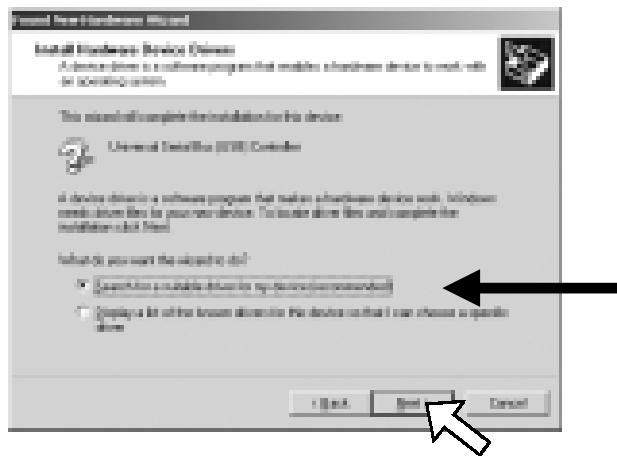
After confirming Service Pack 2 or later is installed, follow the steps through:

1. When you start your PC after installing the PCIFU2U, the following wizard will appear.

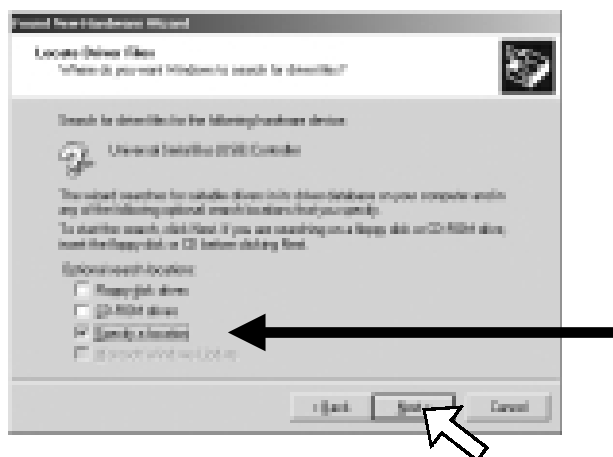
Insert the bundled RATOC USB2.0 CD-ROM into the CD-ROM drive and click **[Next]**.



2. Select the **[Search for a suitable driver for my device(recommended)]** option and click **[Next]**.



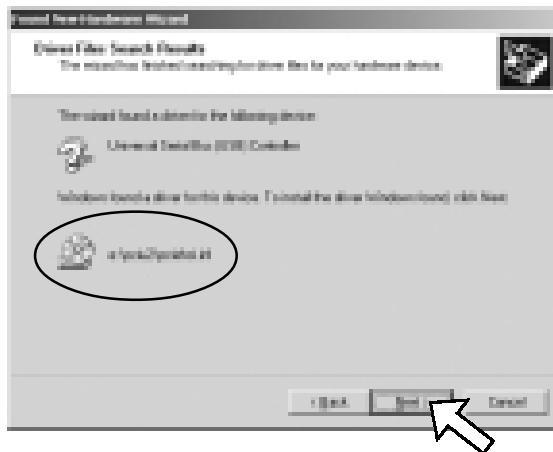
3. Select the **[Specify a location]** option and click **[Next]**.



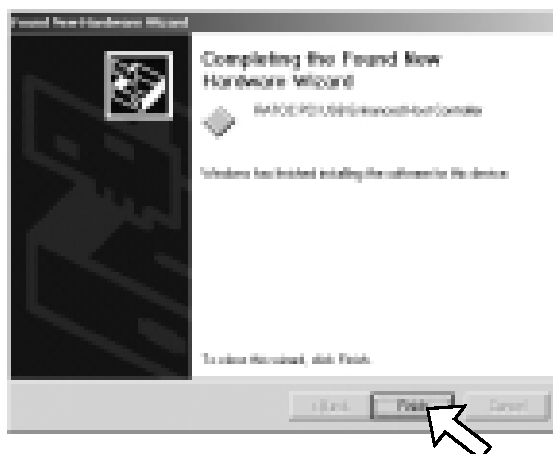
4. The following dialog box will appear. Type **[E:\PCIU2]** and click **[OK]**.
(E means your CD-ROM drive letter. If your CD-ROM is "D", you have to type **[D:\PCIU2]**.)



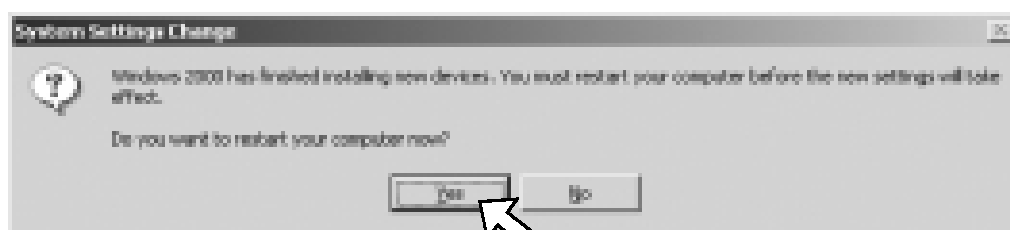
5. Make sure Windows found the PCIEHCI.INF file at the PCIU2 folder in the CD-ROM drive. Then, click **[Next]**.



6. Click **[Finish]**.



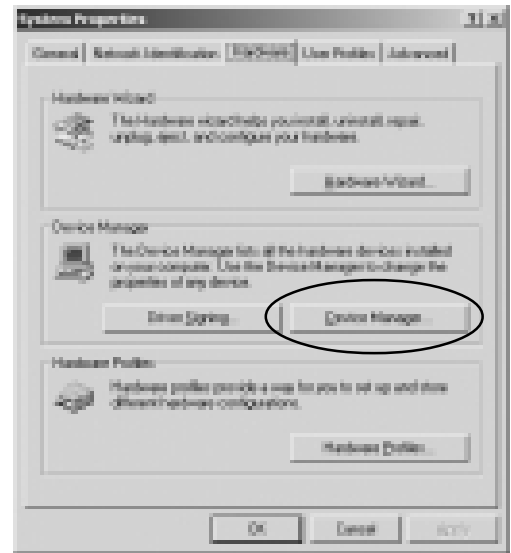
7. When you see the following message, click **[Yes]**.



8.To confirm the installation, follow the steps through:

Right-click on [**My Computer**], select [**Properties**], and the [**Hardware**] tab.

Click the [**Device Manager**] button. Please confirm the following three strings:



1)Confirm there is a [**Texas Instruments OHCI Compliant IEEE 1394 Host Controller**] string under the [**IEEE 1394 Bus host controllers**].

2)Confirm there is a [**PCI standard PCI to PCI bridge**] string under the [**System devices**].

3)Confirm there are two [**NEC PCI to USB Open Host Controller**] strings and a [**RATOC PCI USB Enhanced Host Controller**] under the [**Universal Serial Bus controllers**].



3-4.Windows 2000 Microsoft USB2.0 Driver Installation

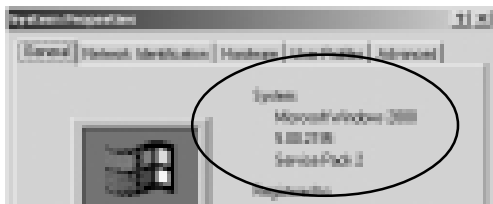
In November in 2001, Microsoft doesn't release its USB2.0 driver for Windows 2000.

But, if Microsoft USB2.0 driver for Windows 2000 gets available through "Windows Update", you can install the driver, following the steps below. Please note that you have to access to the Internet to install it. If you can't access to the Internet, refer to Chapter 3-3.

NOTE: 1)If you have already installed our USB2.0 driver in Chapter 3-3, you don't need to install Microsoft USB2.0 driver.

2)The screens below may be different when you install the Microsoft USB2.0 driver.

Before you install the driver, make sure Windows 2000 Service Pack 2 or later is already installed. To confirm Service Pack 2 or later is installed, right-click on [**My Computer**], and then select [**System Properties**].If you can find a "Service Pack 2" string as shown below, Service Pack 2 is already installed in your system.



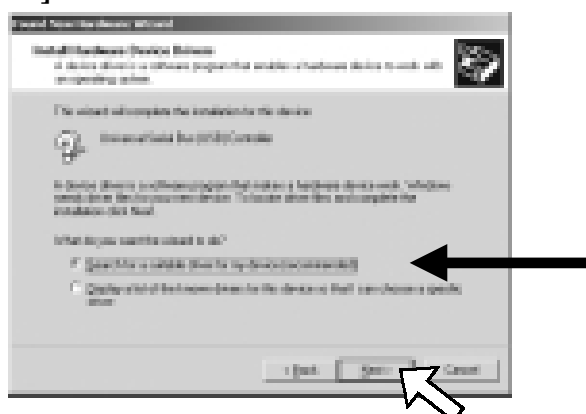
After confirming Service Pack2 or later is installed, follow the steps through:

1. When you start your PC after installing the PCIFU2U, the following wizard will appear.

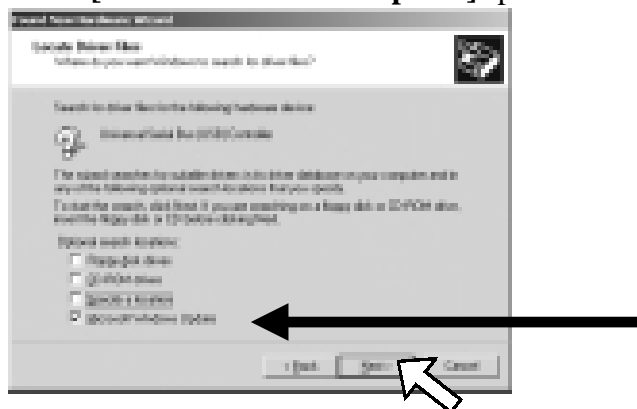
Click [**Next**].



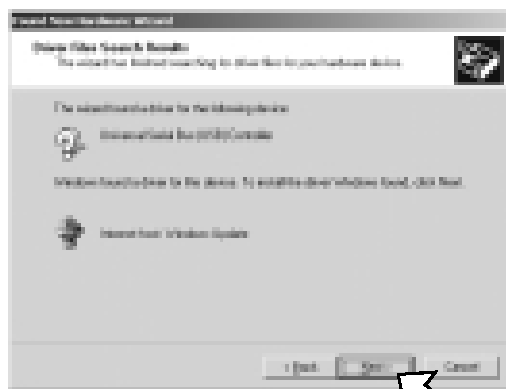
2. Select the **[Search for a suitable driver for my device(recommended)]** option and click **[Next]**.



3. Select the **[Microsoft Windows Update]** option and click **[Next]**.



4. Click **[Next]**.



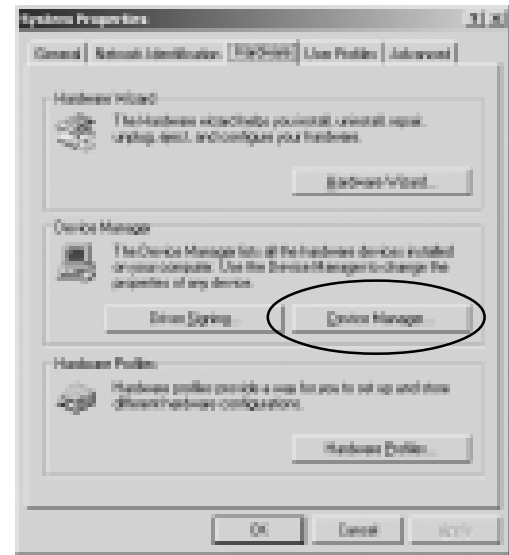
5. Click **[Finish]** and restart your PC.



6.To confirm the installation, follow the steps through:

Right-click on **[My Computer]**, select **[Properties]**, and the **[Hardware]** tab.

Click the **[Device Manager]** button. Please confirm the following three strings:



1)Confirm there is a **[Texas**

Instruments OHCI Compliant IEEE 1394 Host Controller] string under the **[IEEE 1394 Bus host controllers]**.

2)Confirm there is a **[PCI standard PCI to PCI bridge]** string under the **[System devices]**.

3)Confirm there are two **[NEC PCI to USB Open Host Controller]** strings and a **[NEC PCI to USB Enhanced Host Controller]** and a **[USB2.0 Root Hub]** under the **[Universal Serial Bus controllers]**.



3-5.Windows XP Microsoft USB2.0 Driver Installation

NOTE: 1)Please note that you have to access to the Internet to install Microsoft USB2.0 driver.
2)The screens below may be different when you install the Microsoft USB2.0 driver.

- 1.When you start your PC after installing the PCIFU2U, the following wizard will appear.
select the [**Install the software automatically(Recommended)**]. Then,click [**Next**].



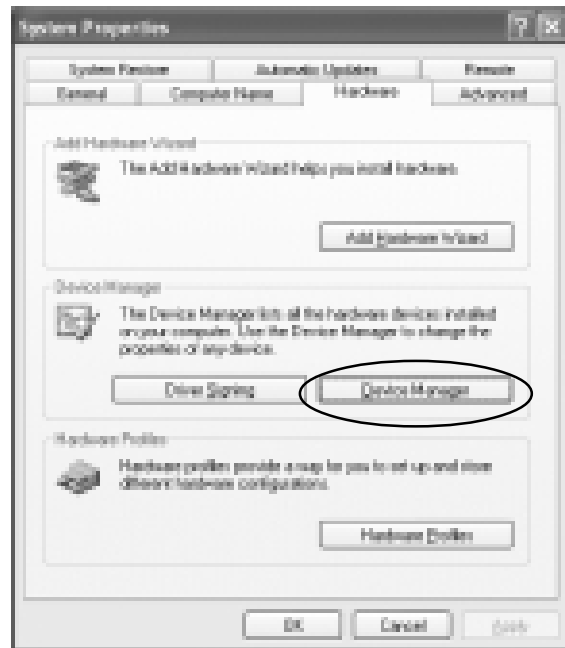
- 2.Click [**Finish**] and restart your PC.



3.To confirm the installation, follow the steps through:

Right-click on **[My Computer]**, select **[Properties]**, and the **[Hardware]** tab.

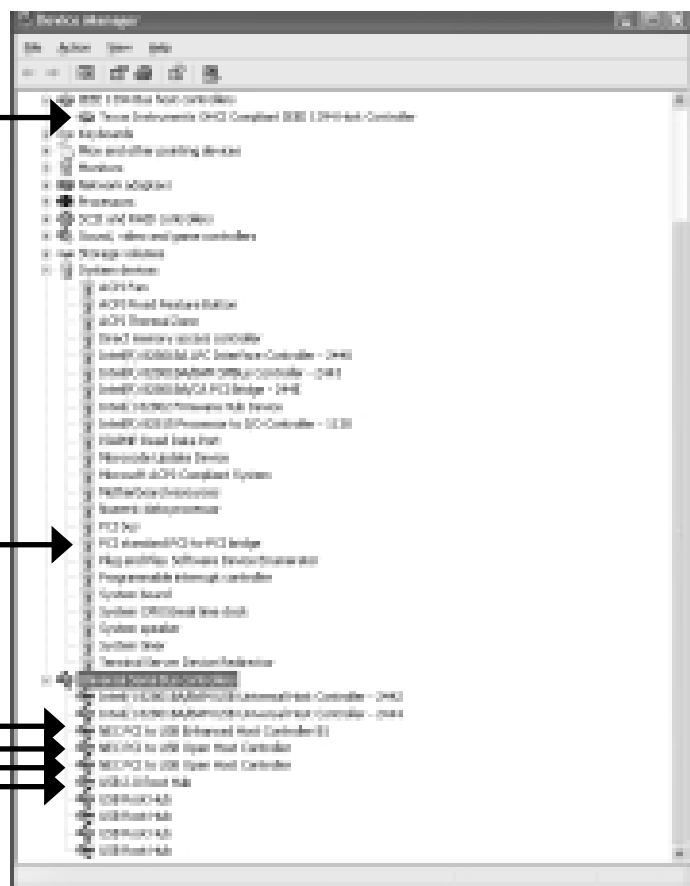
Click the **[Device Manager]** button. Please confirm the following three strings:



1)Confirm there is a **[Texas Instruments OHCI Compliant IEEE 1394 Bus host controllers]** string under the **[IEEE 1394 Bus host controllers]**.

2)Confirm there is a **[PCI standard PCI to PCI bridge]** string under the **[System devices]**.

3)Confirm there are two **[NEC PCI to USB Open Host Controller]** strings and a **[NEC PCI to USB Enhanced Host Controller]** and a **[USB2.0 Root Hub]** under the **[Universal Serial Bus controllers]**.



3-6.Driver confirmation(Macintosh)

NOTE: 1)Only Low/Full Speed (1.5/12Mbps) is supported on Macintosh.

2)The screens below may be different when you access to Apple web site.

3-6-1. For Mac OS 9.x users

If you have a Mac OS 9.x, please confirm the following two points:

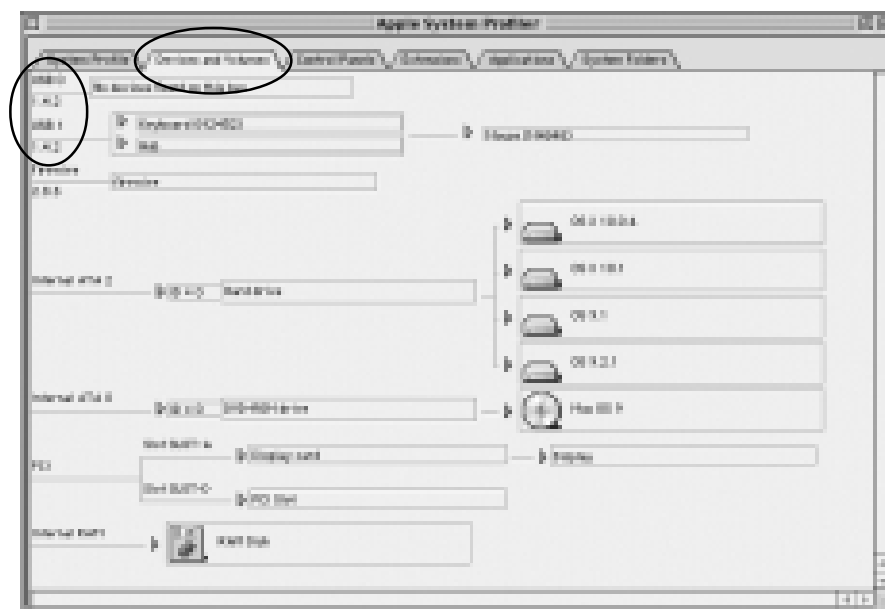
1. Select **[Extensions Manager]** of the **[Control Panels]** in the Apple menu.

Confirm the **[FireWire Enable]** and **[FireWire Driver]** components are installed.



2. Start **[Apple System Profiler]** in the Apple menu. Then, click the **[Devices and Volumes]** tab.

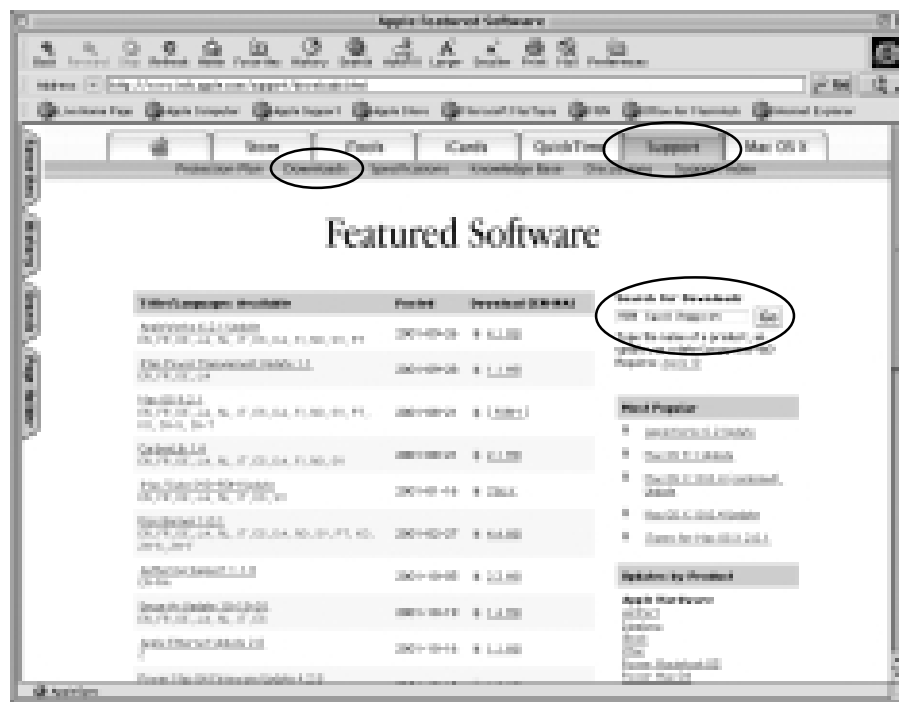
Confirm a USB string is shown on the window.



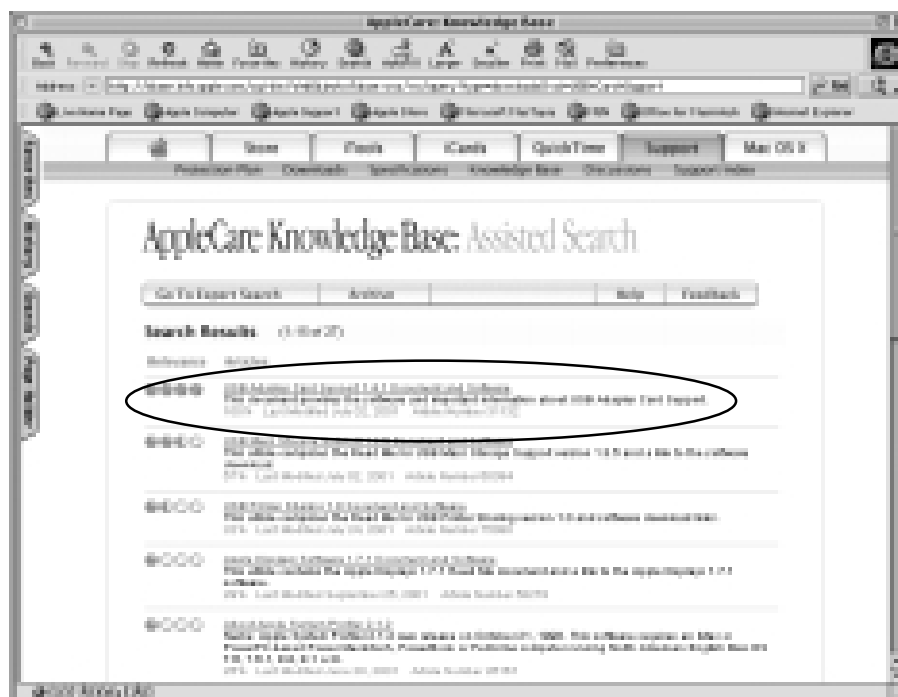
If you can't find any USB strings on the window, you need to download Apple support USB drivers from Apple web site(www.apple.com).

To download and install it, follow the instructions described in the next page.

2-1) Access to Apple web site (www.apple.com). Click the [Support] tab and click [Downloads]. Then, type [USB Card Support] at the [Search for Downloads].



2-2) Double click the [USB Adapter Card 1.4.1 Document and Software].



2-3)The following icon will mount after downloading.



2-4)License agreement window will appear. Click **[Agree]**.

2-5)The following icon will mount. Double click **[USB Adapter Card Support]**.



2-6)The following window will open. Double click the **[Installer]** icon.

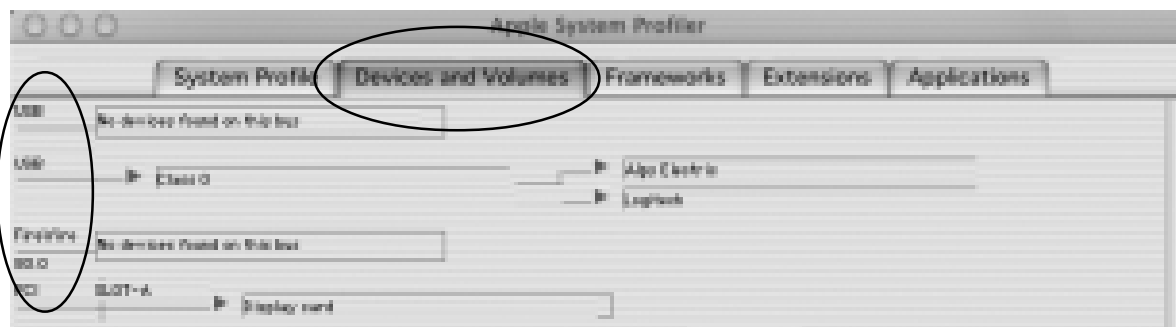


3-6-2.For Mac OS X users

If you have a Mac OS X, please confirm the following point:

Start **[Apple System Profiler]** at the **[Utilities]** folder at the **[Applications]** folder.

Click the **[Devices and Volumes]** tab to confirm the **[USB]** and **[FireWire]** strings are shown.



4. Bundled Software

This package includes the following software and utilities:

1) Our original capture software: RsDvCap, RsDvStill, CompressAVI

Refer to Chapter 5.

2) Our original Disk Partitioning and Formatting software: FrFmtW9X

Refer to Chapter 4-1.

3) Our original Plug-In software for Adobe Premiere 5.1c.

Refer to Chapter 4-2.

4-1. Disk Partitioning and Formatting Software

If you have Windows 98SE/Me, refer to Chapter 4-1-1.

If you have Windows 2000/XP, refer to Chapter 4-1-2.

4-1-1. For Windows 98SE/Me users

With this Disk Partitioning and Formatting Software: FrFmtW9X, you can partition and format a Hard Disk Drive, MO, Zip, Jaz, etc. To partition and format a disk, follow the steps through.

NOTE: You can't partition or format a CD-R, CD-RW, DVD-RAM, etc. with this FrFmtW9X.

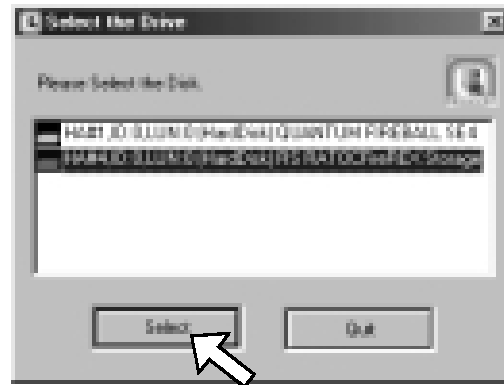
This FrFmtW9X software runs only on Windows 98SE/Me.

1. Confirm a device connected to the PCIFU2U is powered on.
2. Insert the bundled RATO IEEE1394 CD-ROM into the CD-ROM drive.
3. Open [**My Computer**] and double click the **CD-ROM drive** icon.

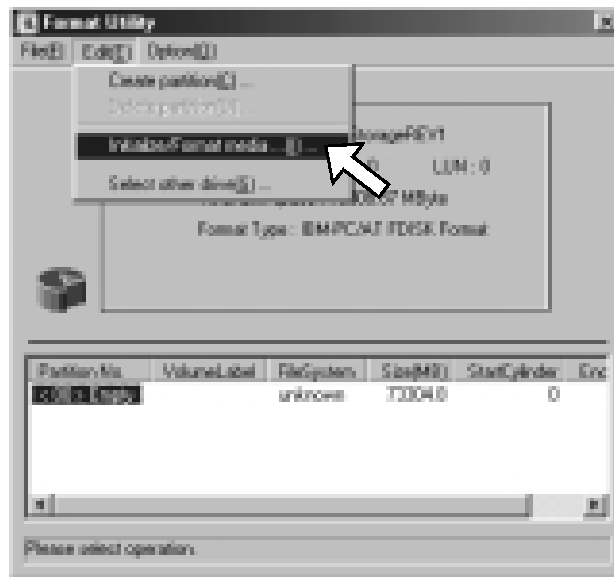
Then, double click the **FrFmtW9X.EXE** file.

4.[**Select the Drive**] window will appear. Select a drive you want to partition and format and click [**Select**].

NOTE:The [**Select the Drive**] window shows all the devices connected to SCSI, IDE interface besides 1394 or USB interface. Be carefull not to select a wrong device. If you select a wrong device and format it, all data in it will be lost.



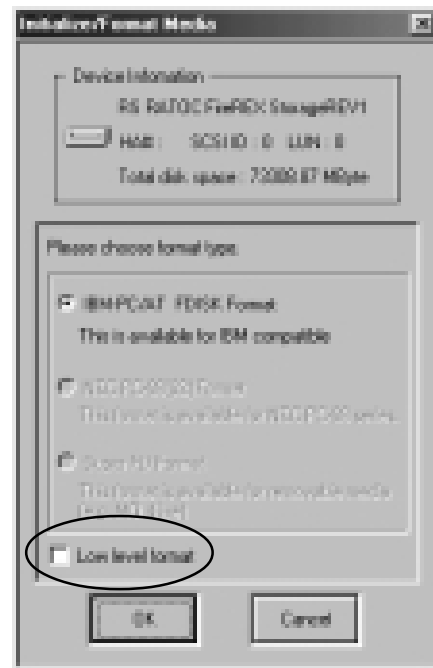
5.[**Format Utility**] window will appear. Select [**Initialize/Format media**] from the [**Edit**] menu.



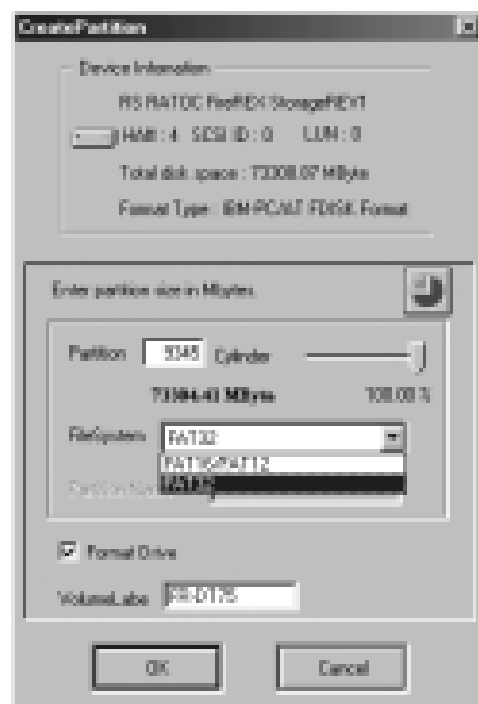
6.[**Initialize/Format Media**] window will appear. Select a format type. Then, click [**OK**].

NOTE:

If you do low level format and get an error message saying you failed to initialize, the device itself can't treat low level format. In this case, don't put a check mark at [Low level format].



7.If you have selected **IBM-PC/AT FDISK Format** at step 6, the message box saying [**You should create partition next**] will appear. Click [**OK**]. Then, you will see the screen shown in step 5. Select [**Create Partition**] from the [**Edit**] menu. After that, the [**Create Partition**] window shown below will appear. Select a **File System** from the list box and set a Partition size, using the slider bar. Then, click [**OK**] to create partition. If you have selected **Super FD Format** at step 6, a window similar to the window below will appear. Select a **File System** and click [**OK**].



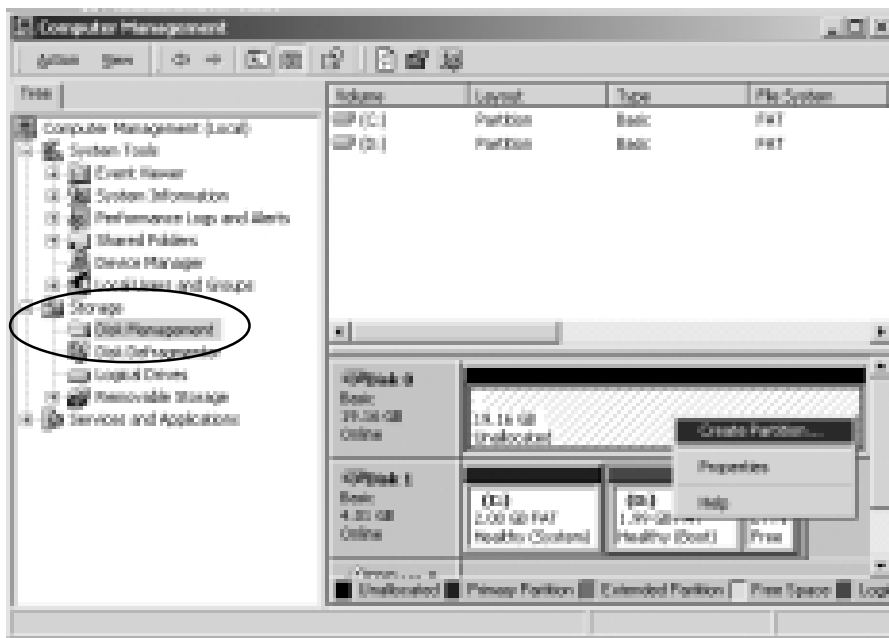
4-1-2.For Windows 2000/XP users

When you want to format a device such as a Hard Disk Drive, MO, Zip, Jaz on Windows 2000 /XP, you can use **[Computer Management]** in Windows 2000/XP.

Here is a brief explanation:

- 1.Open **[My Computer]** and double click **[Control Panel]**.
- 2.Double click **[Administrative Tools]** and start **[Computer Management]**.
- 3.The following window will appear. Select **[Disk Managemet]** of the **[Storage]**.

For more information, refer to the Windows 2000/XP help or documents.



4-2.Plug-In software for Adobe Premiere 5.1c

If you use this Plug-In software, you can use the following functions:

- 1)Capturing a video from a DVCAM
- 2)Converting a captured data to DV format
- 3)Exporting a video to a DVCAM

To use this Plug-In software, the followings are required:

OS : Windows XP/Me/2000/98 SE

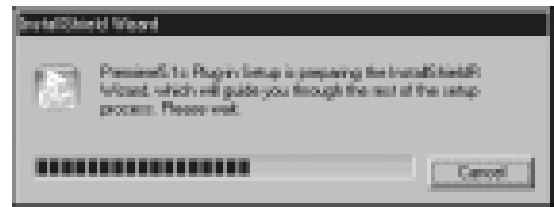
Premiere 5.1c (You don't need this Plug-In software if you use Premiere 6.0 or later.)

4-2-1.Installing the Plug-In software

1.Insert the bundled RATO IEEE1394 CD-ROM into your CD-ROM drive.

Double click on the **E:\PlugIn\Setup.exe** file.

(E means your CD-ROM drive. If your CD-ROM drive is not “E”, you must replace “E” to the appropriate drive letter.)

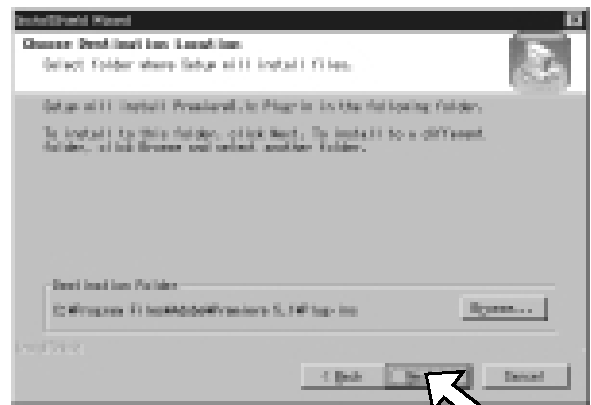


2. You will see the following window.

Click **[Next]**.



3.After confirming the destination of this Premiere 5.1c Plug-In, click **[Next]**. Usually you don't need to change this destination.



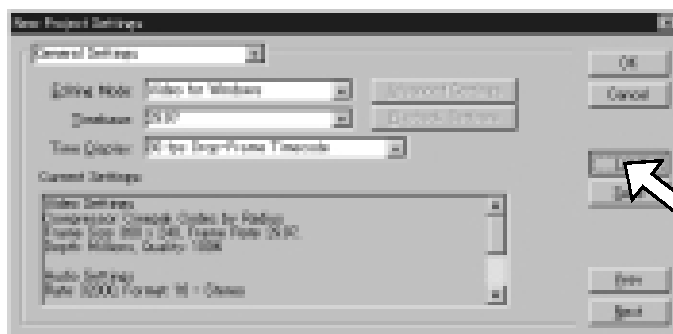
4.Select **[Yes, I want to restart my computer now.]** and click **[Finish]**.



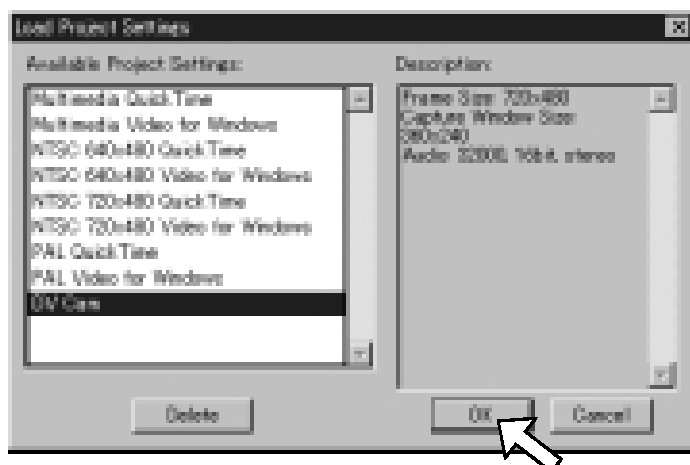
4-2-2.Setting up Premiere project

Before you start, you have to connect a DVCAM to a 1394 port before you start Premiere and confirm a DV tape is inserted in the DVCAM and the DVCAM is set to VTR mode.

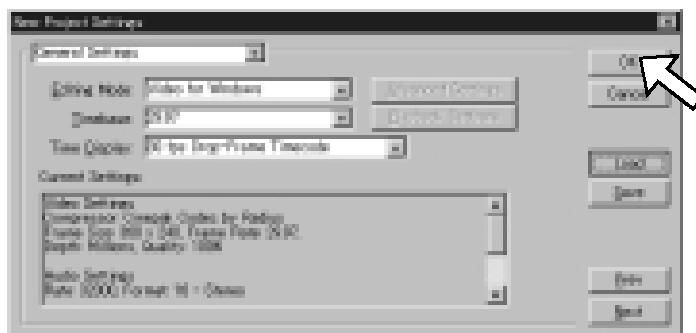
1. When you start Premiere, New Project Settings dialog will appear. Click **[Load]**.



2. Load Project Settings dialog will appear. Select **[DV Cam]** and click **[OK]**.



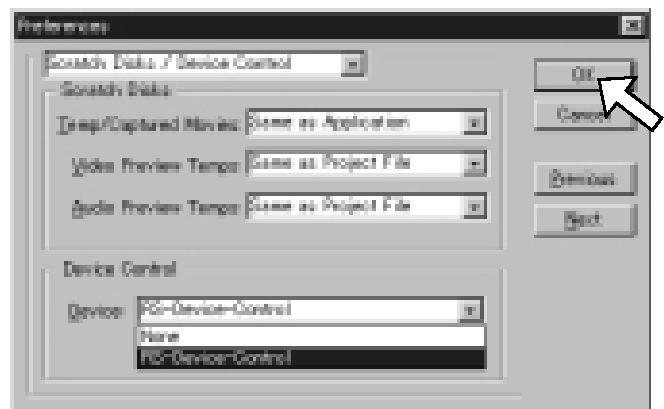
3. New Project Settings dialog will appear again. Click **[OK]**.



4. Select **[Preferences]** -> **[Scratch Disk/Device Control...]** from the **[File]** menu.



5. Select **[Rs-Device-Control]** from the **[Device]** list box. Then, click **[OK]**.

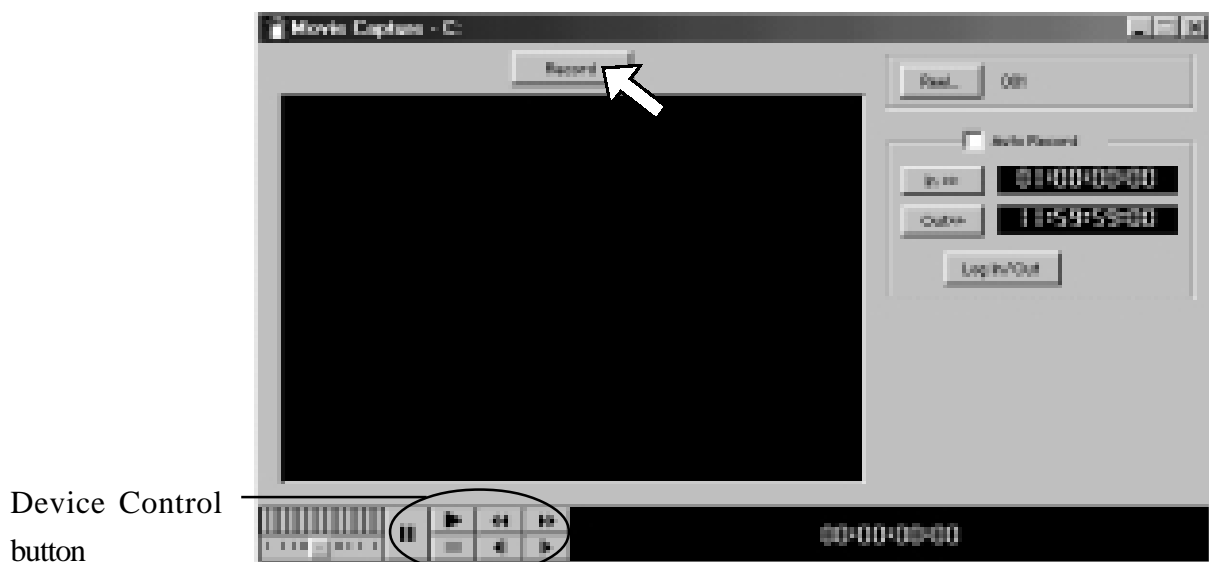


4-2-3.Capturing a video from a DVCAM

1.Select [**Capture**] -> [**Movie Capture**] from the [**File**] menu to show the capture window.



2.You can play back, pause, fast forward, rewind, using the Device Control button if your DVCAM is set to VTR mode. Move the point where you want to start capturing data. Then, play back the DV tape. Click [**Record**] to start saving an AVI file. To stop it, press the [**ESC**] key.



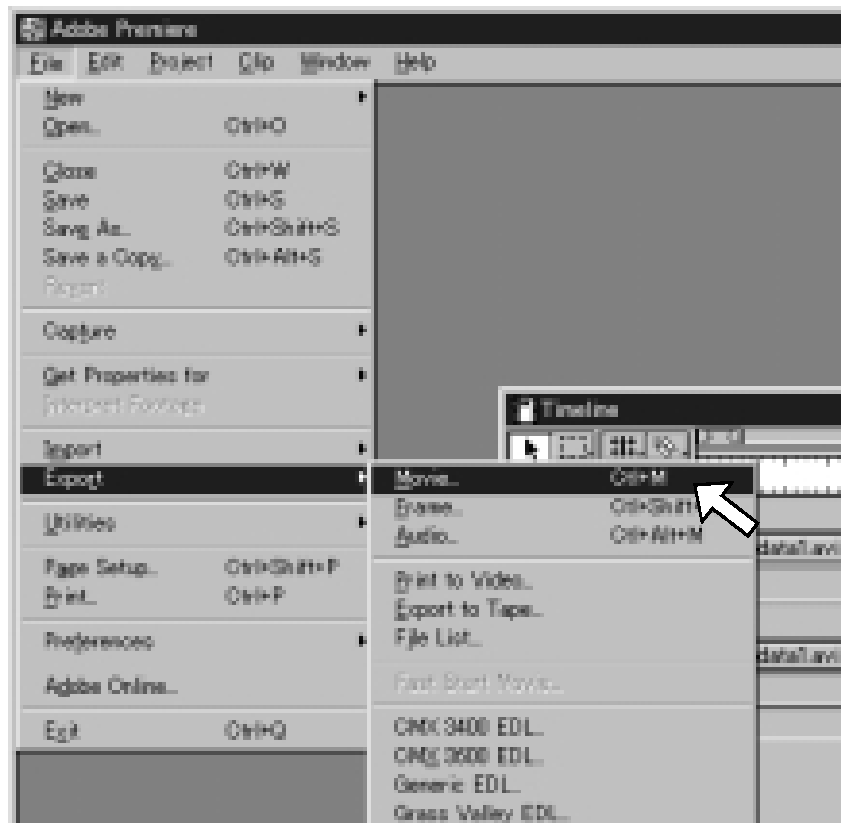
*Playback command will be sent to a DVCAM when you click [**Record**] even if a DV tape is stopped.

4-2-4. Converting a captured data to a DV format

You can convert a captured data to DV format which allows you to export a video to a DVCAM.

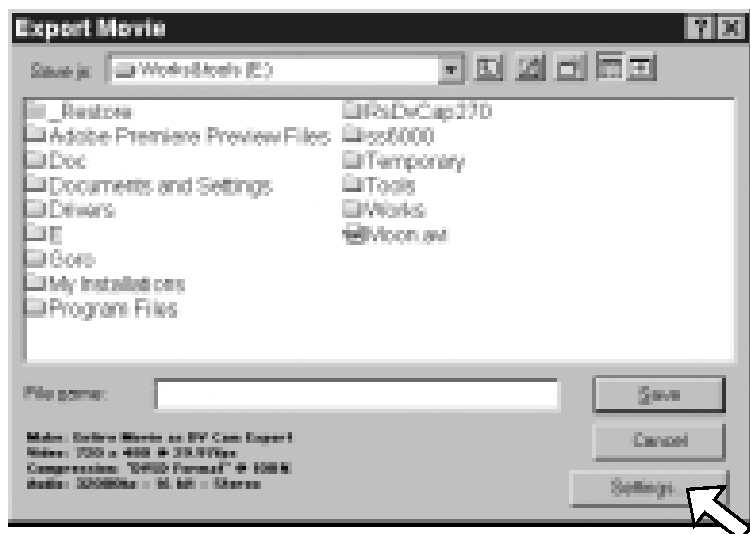
1. While you create a project, select a format (e.g. CinePack) and do the video editing such as adding effect, etc.

After you have finished video editing, select **[Export]->[Movie]** from the **[File]** menu.

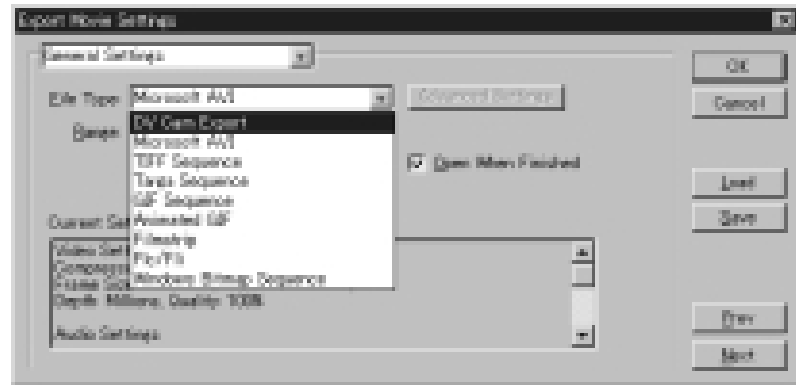


2. Export Movie dialog will appear.

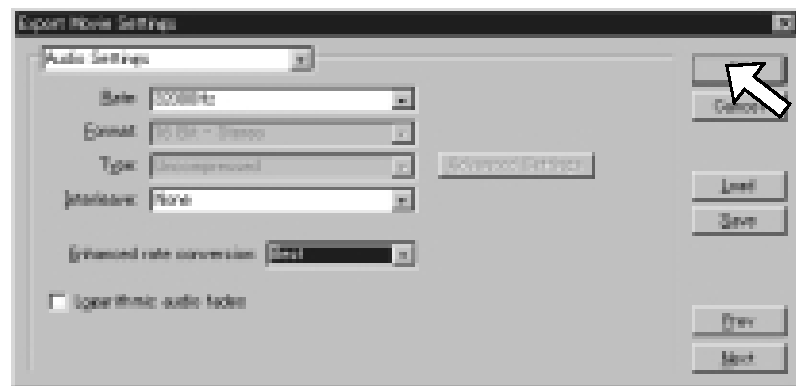
Click the **[Settings]** button.



3. Export Movie Settings dialog will appear. Select **[DV Cam Export]** from the **[File Type]** list box.



4. Select **[32000Hz]** from the **[Rate]** list box in the **[Audio Settings]** and click **[OK]**.



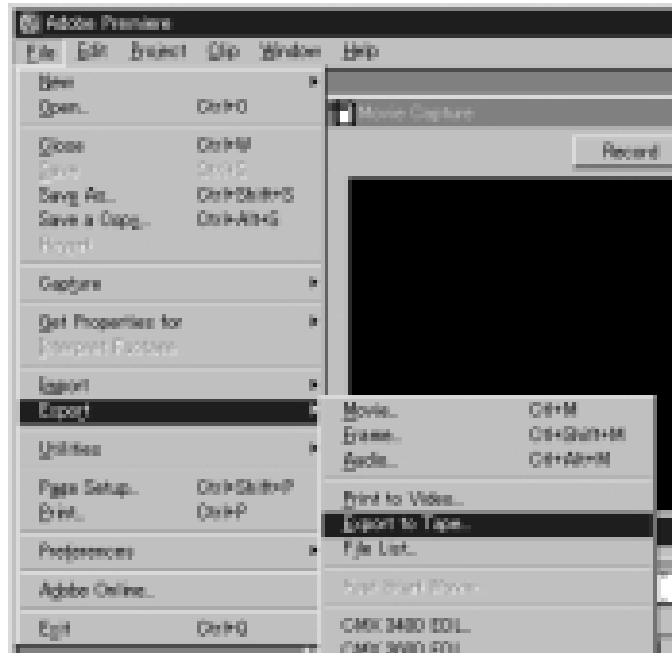
5.Type a movie file name you want to create in the **[File name]** box and click **[Save]**. File conversion will start.



4-2-5.Exporting a video to a DVCAM

- 1.Select [**Capture**]->[**Movie Capture**] from the [**File**] menu or hit the [F5] key to show the capture window.
Focus on the [**Timeline window**] and select [**Export**]->[**Export to Tape**] from the [**File**] menu.

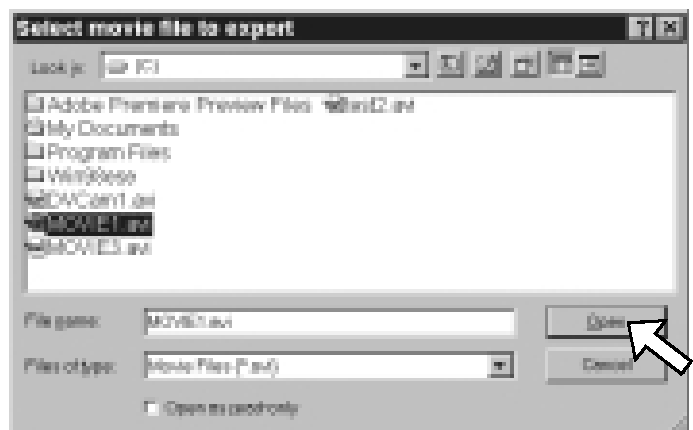
If you don't show the capture window, you can't export a video.If you don't focus on [**Timeline window**], the [**Export to tape**] item of the menu is disabled.



- 2.Building preview file will start.



- 3.Select a file you want to export.
Click [**Open**] to start exporting the video to a DVCAM.



NOTE:

- 1)You can export only an AVI file which captured from a DVCAM directly, or data which was converted to DV format as explained in 4-2-4. Converting a captured data to DV format.
- 2)While you export a video, the video isn't previewed on the movie capture window of your PC.

4-2-6.Plug-In Software troubleshooting

Q.I can't show a video in the capture window.

A.If you are using Windows 98SE/Me, right click on **[My Computer]** and select **[Properties]**. Click the **[Device Manger]** tab and confirm your camera and sound device are working properly.

If you are using Windows 2000, right-click **[My Computer]** and select **[Properties]**.

Click the **[Hardware]** tab and the **[Device Manger]** button. In the Device Manger windows, confirm your camera and sound device are working properly.

Q.I can't export a video to a DVCAM.

A.To export a video, you need to open the capture window.

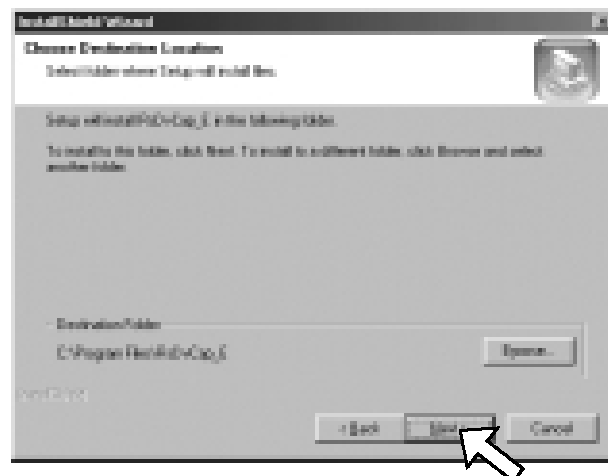
5. Setting up capture software

Installing RsDvCap/RsDvStill/CompressAVI

1. Close all programs currently running on your computer.
2. Set the bundled **RATOC IEEE1394 CD-ROM** in your CD-ROM drive.
3. Open **[My Computer]** and double-click CD-ROM drive icon.
4. Open **[Win98SE]**, **[WinMe]**, **[Win2000]** or **[WinXP]** folder.
If your Windows version is Windows 98 SE, open **[Win98SE]** folder.
If your Windows version is Windows ME, open **[WinMe]** folder.
If your Windows version is Windows 2000, open **[Win2000]** folder.
If your Windows version is Windows XP, open **[WinXP]** folder.
5. Double-click the **[RsDvCap]** folder.
6. Double-click on **[Setup.exe]** to install the capture software.
7. Select a language. You will see the screen below. Click **[Next]**.



8. You will see the screen below. Click **[Next]**.



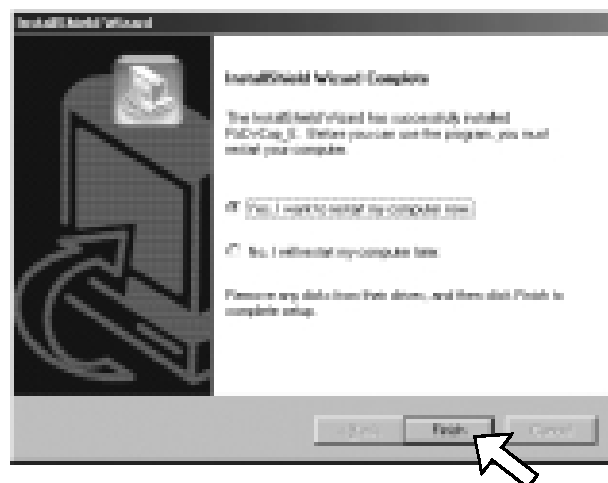
9. You will see the screen below. Click **[Next]**.



10. You will see the screen below.

Select **[Yes, I want to restart my computer now]** and click **[Finish]**.

You have now completed installing the capture software.



NOTE:

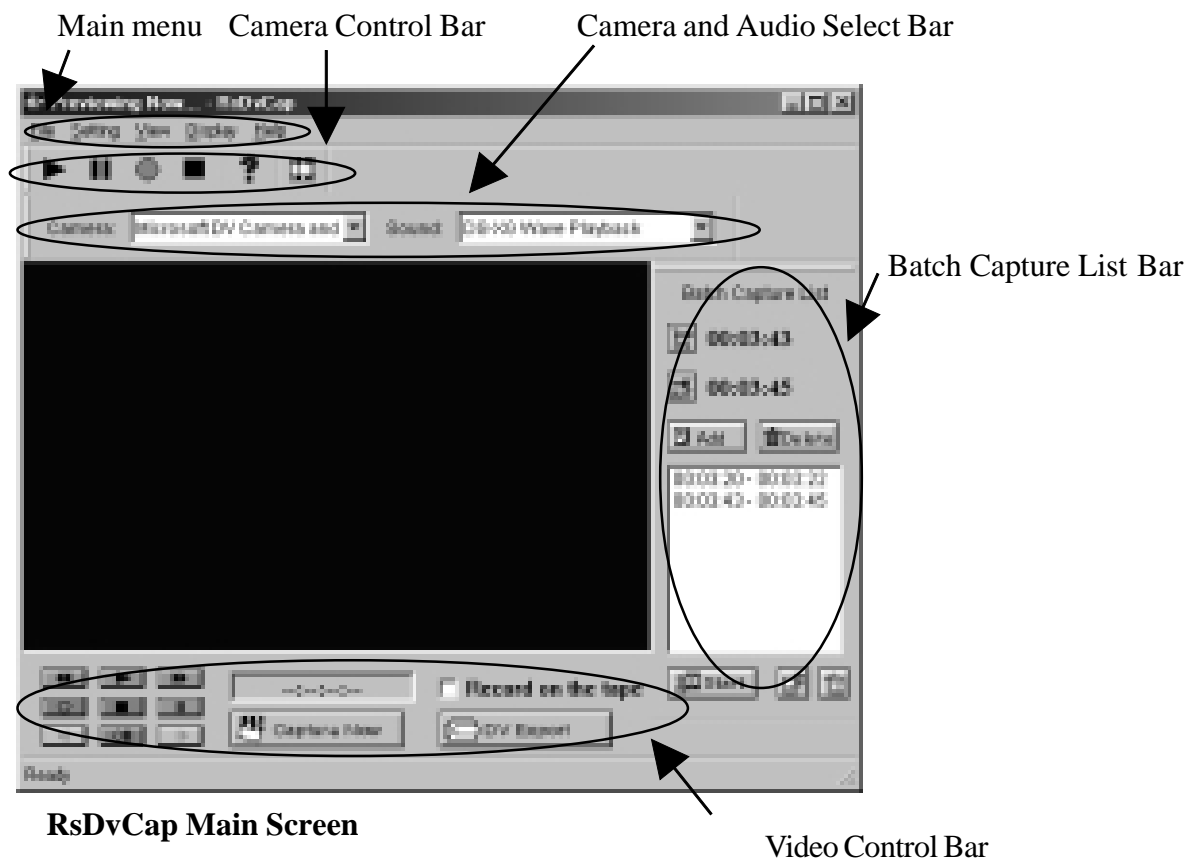
If you have installed this software already and start this installer, this installer will delete the software and end. You have to start the installer again to install this software.

6. How to use RsDvCap

What is the RsDvCap?

This application software has the following functions.

- Preview and capture video/sound data from a DVCAM.
- Preview and capture video data from a CCD camera.
- Export media file from a PC to a DVCAM.
- Playback media file.



NOTE:

- 1) This software uses Microsoft standard DV-AVI2 format video file.
- 2) To capture correct DV file, you have to use original DV footages which has continuous Timecode(recording). If the original DV footage has intermittent Timecode, sometimes it may cause system freeze or may not be captured.

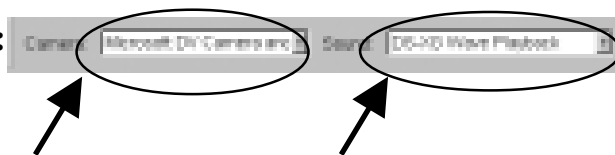
6-1.Main menu:



| Top menu | Sub menu | Description |
|----------|-------------------------|---|
| File | Review movie file | Select an AVI file you want to play back. |
| | END | Terminate this application. |
| Setting | DV Batch Capture | Show batch capture dialog box.Refer to 6-6.DV Batch Capture . |
| | Application Setting | Show RsDvCap parameter setting dialog box. Refer to 6-3.Application settings . |
| | Cam Setting | Show CCD camera control dialog box. |
| View | Camera Audio Select Bar | Show Camera and Audio Select Bar . Refer to 6-2-1.Camera and Audio Select Bar . |
| | Camera Control Bar | Show the DVCAM camera mode control bar. You can control a DVCAM.Refer to 6-2-2. Camera Control Bar . |
| | Video Control Bar | Show the DVCAM video mode control bar. You can control a DVCAM.Refer to 6-2-3. Video Control Bar . |
| | Batch Capture List | Show the Batch Capture List Bar.You can capture favorite scenes in a DV tape to your HDD.Refer to 6-6.DV Batch Capture . |
| Display | | Select the size of the preview window. The preview window of the [PC] is 4:3. The preview window of the [DV] is 3:2. |

6-2.Control Bars

6-2-1.Camera and Audio Select Bar:



Camera list box

Sound device list box

This bar has the **Camera list box** and **Sound device list box** as shown above. **Camera list box** displays a list of camera device connected to your PC. If this list box is blank, your camera isn't recognized. If your camera is recognized, "Microsoft DV Camera and VCR" string will appear. **Sound device list box** displays a list of sound device.

6-2-2.Camera Control Bar :



You can preview and capture a video image from the connected DVCAM. The bar will appear automatically when the DVCAM is set to camera mode. The DVCAM have a switch which selects video mode or camera mode. Set this switch to camera mode to preview and capture a video image.



.....When you click this button, you can preview a video image.



.....When you click this button, you can pause a video image.



.....When you click this button, you can capture a video image to the HDD.



.....When you click this button, you can stop previewing or capturing a video image.



.....When you click this button, you will see the Help contents.












.....When you click this button, you can play back an AVI file.

6-2-3.Video Control Bar :



You can control a DVCAM from this control bar. The DVCAM have a switch which selects video mode or camera mode. If you set this switch to camera mode or a DV tape is not inserted, this control bar will be disabled automatically. Set this switch to video mode to control the DVCAM.

The functions are below:

-  ...Rewind
-  ...Previous frame
-  ...Play
-  ...Next frame
-  ...Pause
-  ...Stop
-  ...Fast forward
-  ...Record
-  ...Pause recording



When you click the **Capture Now** button, you can start to capture DV data from a DVCAM. The [**Capture Now**] will change to [**Capture Stop**].

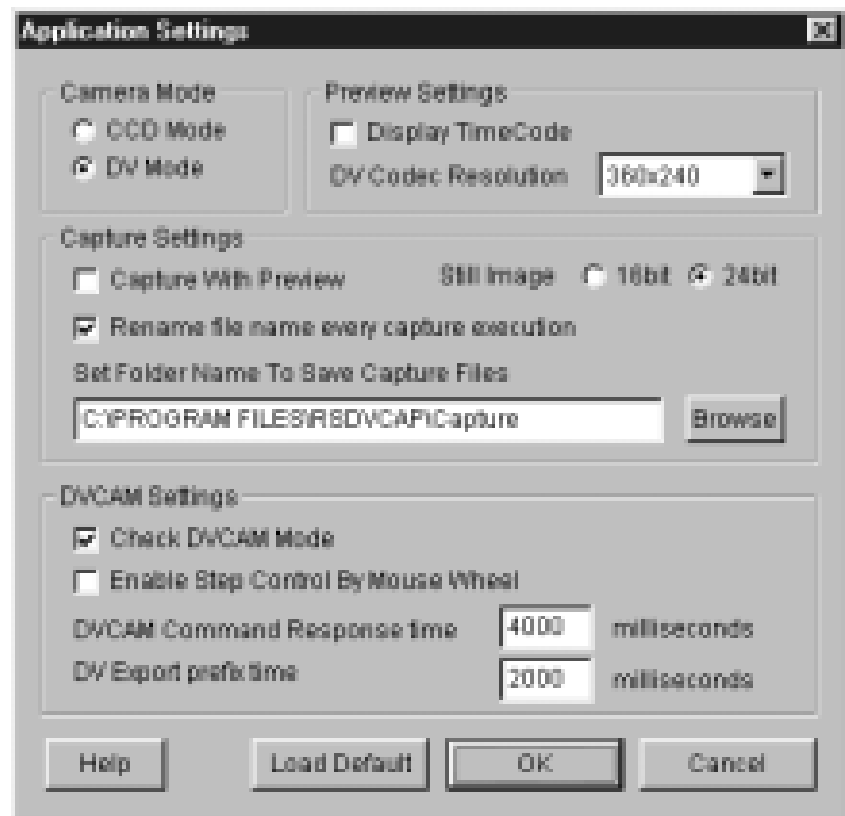


When you click the **DV Export** button, you can export DV data to a DVCAM. You can see the DV data on the screen of the DVCAM.




- 1.If you don't want to record DV data onto your DV tape, don't check "**Record on the tape**".
- 2.If you really want to record DV data onto your DV tape, check "**Record on the tape**".

6-3.Application settings

When you select [**Application setting**] of the [**Setting**] menu, you will see the dialog box below.
You can set up this application's behavior.



| Category | Item | Description |
|------------------|--|--|
| Camera Mode | CCD Mode | Select when you use a CCD camera. |
| | DV Mode | Select when you use a DVCAM. |
| Preview Settings | Display TimeCode | If checked, timecode will be displayed. |
| | DV Codec Resolution | You can select DV Codec Resolution. If you select a higher resolution, you will get a better image. This DV Codec Resolution affects only the preview quality. |
| Capture Settings | Capture With Preview | If checked, video images will be displayed in the preview window during capturing video stream. When you check here, it will be a heavy load on your PC. If you have problems of dropping frames or sounds, don't check this option. |
| | Rename file name every capture execution | If checked, every time you start and stop capturing a video, the file rename dialogbox will appear. You can set a file name and location to save the file in. If you don't check here, a captured file will be saved automatically under the name of CAPTIVE+(Time)+Year+(Date).AVI in the folder you set at "Set Folder Name To Save Capture Files" . |

| Category | Item | Description |
|----------------|------------------------------------|--|
| DVCAM Settings | Check DVCAM Mode | <p>If you click here, this application will detect whether your DVCAM is in camera mode or video mode automatically. If your DVCAM is in video mode, the Camera Control Bar will disappear. If your DVCAM is in camera mode, the Camera Control Bar will appear and the Video Control Bar will be disabled.</p> |
| | Enable Step Control By Mouse Wheel | <p>If you check here, you can control a camera with your mouse as shown below.</p> <p>1)When you click wheel, a DVCAM starts to play.</p>  <p>2)When you turn wheel down, a DVCAM starts to rewind.</p>  <p>3)When you turn wheel up, a DVCAM starts to fast forward.</p>  <p>4)When you click the right button, a DVCAM stops.</p>  |

| Category | Item | Description |
|----------|------------------------------------|---|
| | DVCAM Command Response time | When you control a DVCAM from the PC consecutively, it takes some time for the DVCAM to get ready for a next command from the PC. This time depends on the DVCAM. If you have trouble in controlling the DVCAM from the PC consecutively, change this value to a longer time than 4 seconds. Default time is 4 seconds. For example, 5 seconds. |
| | DV Export prefix time | When you export an AVI file to a DVCAM, there is data prefix time from starting to export the AVI file to recording it onto a DV tape. The data prefix time results in failing to record the beginning of the AVI file onto the DV tape. To avoid this problem, you can set a time here. During the time you set here, blank data will be exported to the DVCAM and it avoids failing to record the beginning of the AVI file onto the DV tape. |

6-4. Capturing a video from a DVCAM in camera mode

When you want to capture a video image from a DVCAM set to camera mode, follow steps through.

1. Confirm a DVCAM is set to camera mode.

Camera mode means you can capture a video image. If your DVCAM is in video mode, change mode selection switch from video mode to camera mode slowly. Everytime you change DVCAM's Mode Control switch, move this switch to OFF position and confirm that the RsDvCap's Camera device name will disappear. After that, you can change this switch to your choice and the camera device name will appear.

2. Select **[DV mode]** on the **[Application Setting]** as shown in **6-3.Application settings**.

3. Click the  button on the **Camera Control bar**. A video image from a DVCAM will appear.

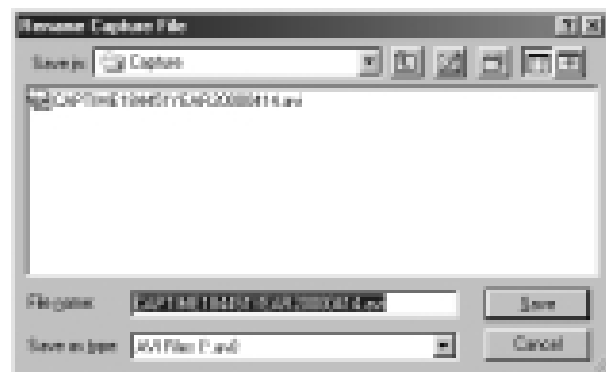
4. Click the  button to start capturing.

5. Click the  button to stop capturing.

You can also stop capturing by using the  button on the **Camera Control Bar** or pressing **ESC** button on the keyboard.

6. If you checked **[Rename file name every capture execution]** on the **[Application Setting]**, You will see the window. You can rename the captured file.

7. The file will be saved in the folder you set at **[Set Folder Name To Save Capture Files]** on the **[Application Setting]**.



NOTE:

When you preview, it puts some load on PCs. If data loss happens, don't check **[Capture With Preview]** on the **[Application Setting]**. For more information, please refer to Chapter 9-2. When you play back the captured file, it gets choppy.


6-5.Capturing a video from a DV tape

When you want to capture a video image from a DV tape, follow steps through.

1. Set a DV tape in a DVCAM and confirm the DVCAM mode is set to video mode.

Video Mode means you can control a video of a DV tape. If your DVCAM is in camera mode, change mode selection switch from camera mode to video mode slowly as mentioned **6-4.Capturing a video from a DVCAM in camera mode**.

- 2.Select **[DV mode]** on the **[Application Setting]** as shown in **6-3.Application settings**.

- 3.When you click the  DV play button on the **Video Control Bar**, the DV tape will start to play and a video image of the DV tape will appear in the preview window.

- 4.Click the  **Capture Now** button to start capturing.

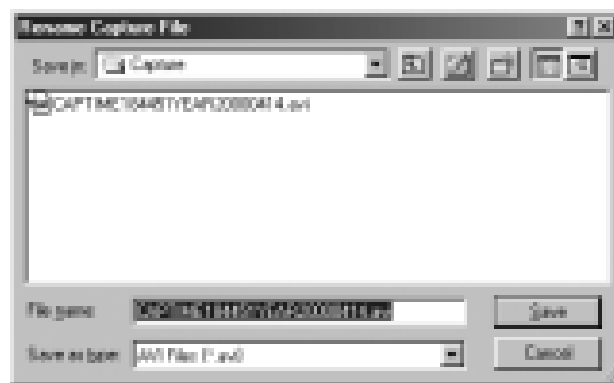
- 5.Click the  **Capture Stop** button to stop capturing.

You can also stop capturing by using the  stop button on the **Video Control Bar** or pressing **ESC** button on the keyboard.

6. If you checked **[Rename file name every capture execution]** on the **[Application Setting]**,

You will see the window. You can rename the captured file.

- 7.The file will be saved in the folder you set at **[Set Folder Name To Save Capture Files]** on the **[Application Setting]**.



NOTE:


- 1)When you preview, it puts some load on PCs. If data loss happens, don't check **[Capture With Preview]** on the **[Application Setting]**. For more information, please refer to Chapter 9-2.When you play back the captured file, it gets choppy.
- 2)To capture correct DV file, you have to use original DV footages which has continuous Timecode(recording). If the original DV footage has intermittent Time code, sometimes it may cause system freeze or may not be captured.


6-6.DV Batch Capture


Batch capture function saves video images files as your time scheduling. To batch capture video images from a DV tape, follow steps through.


1.To show the Batch Capture Window as shown right, select **[Batch Capture List]** of the **[View]** in the system menu.

2.Set a DV tape in a DVCAM and confirm the DVCAM mode is set to video mode. Video Mode means you can control a video of a DV tape. If your DVCAM is in camera mode,change mode selection switch from camera mode to video mode slowly as mentioned **6-4.Capturing a video from a DVCAM in camera mode.**


3. Click the  DV play button on the **Video Control Bar** to play the DV tape.

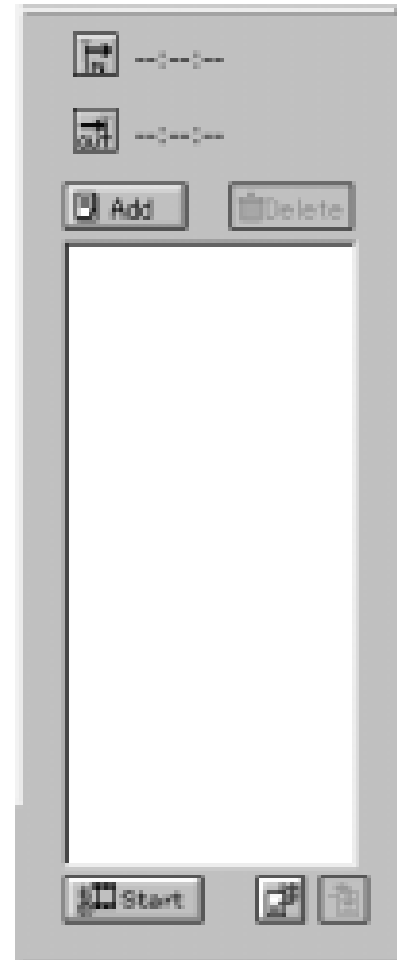
4. Click the  In point button when you want to start capturing.

5. Click the  Out point button when you want to stop capturing.

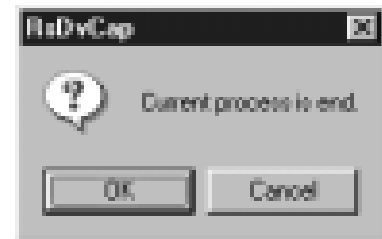
6. Click the  Add button to add time code to the window as shown above.

To capture other Video images of the DV tape, repeat the steps from 4 to 6.

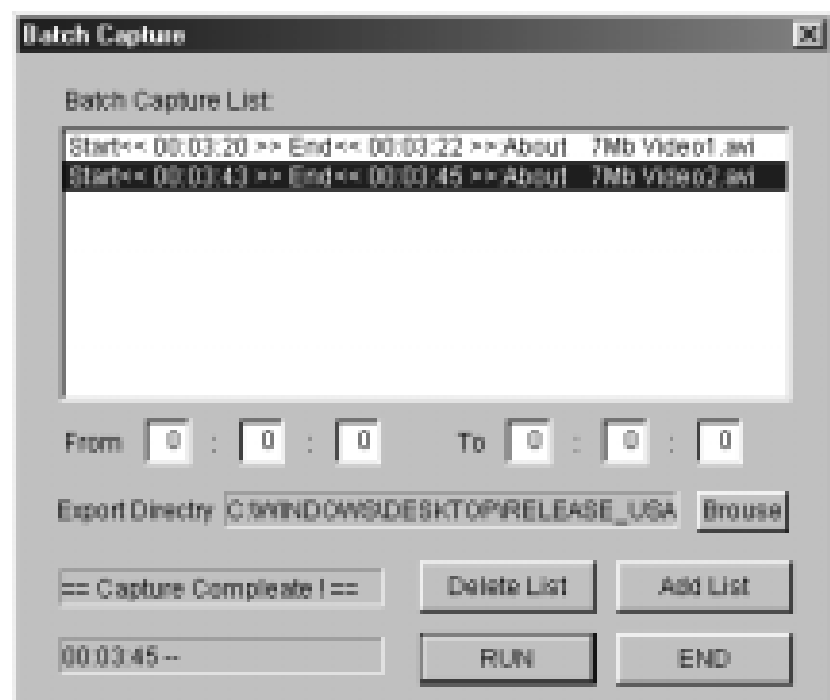
7.Click the  start button to show the Batch Capture dialog box as shown in the next page.



8. You will see the screen. Click **[OK]** to continue.



9. The Batch Capture dialog box will be shown. Click **[RUN]** to start batch capture. This application searches automatically the timecode you have just set and starts to capture video images and saves the file in the folder written in the “**Export Directory**” under the name of **Video + (number)** starting 1 + **.avi** as shown below. When batch capture is finished, “**Capture Complete!**” message will appear. Click **[END]** to finish batch capture.



NOTE:

To capture correct DV file, you have to use original DV footages which has continuous Timecode(recording). If the original DV footage has intermittent Timecode, sometimes it may cause system freeze or may not be captured.

6-7.Exporting a video data to a DVCAM

When you want to export an video data to a DVCAM, follow steps through.

1. Set a DVCAM to video mode.

Video Mode means you can control a video of a DV tape.

If your DVCAM is in camera mode, change mode selection switch from camera mode to video mode slowly as mentioned **6-4.Capturing a video from a DVCAM in camera mode.**



2. Click the DV Export button. The File select dialog box will appear. Select an AVI file you want to export, and click [SAVE] button. The AVI data will be exported to the DVCAM.

When you check **“Record on the tape”**, **“Video image”** and **“Rec command”** will be sent to the DVCAM. This means the AVI file will be really overwritten to your DV tape. So, you should be careful not to overwrite important DV tapes.

When you don't check **“Record on the tape”**, only **“Video image”** will be sent to the DVCAM. This means the AVI file will not be overwritten to your DV tape. You can just see the video image on the screen of the DVCAM.

NOTE

There is time-delay between start of video stream and the DVCAM actually starting to record. So, for a few seconds at the head of video stream, nothing will be recorded on your DV tape.

3. Click the  stop button in the **Camera Control Bar** to stop exporting.

NOTE:

Only a Microsoft DV AVI 2.0 with DVSD(Digital Simultaneous Voice and Data) can be exported to a DVCAM.

7. How to use RsDvStill

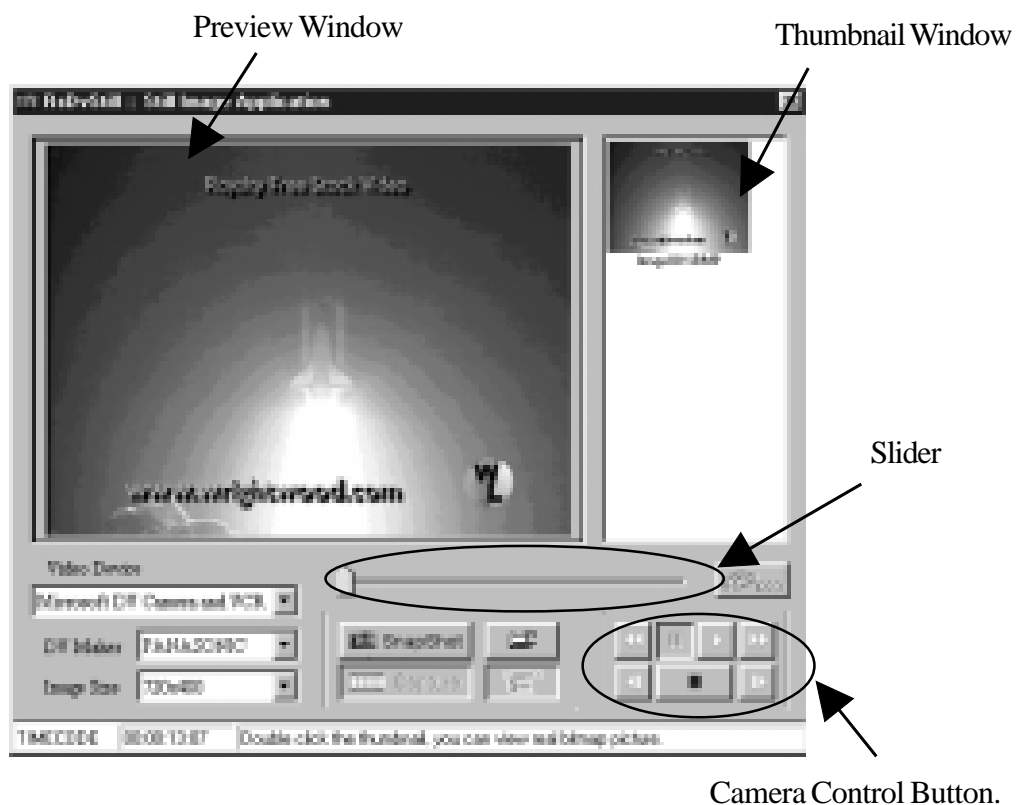
What is the RsDvStill?

This application software has the following functions.

- Preview video data from a DVCAM/a CCD camera.
- Save a still image to a BMP file.










7-1.Main menu

When RsDvStill starts with a DVCAM connected to the PCIFU2U, RsDvStill will detect whether the DVCAM is in camera mode or in video mode automatically and pauses the DV tape if the DVCAM is set to video mode and there is a DV tape in the DVCAM.



NOTE:

To capture correct DV file, you have to use original DV footages which has continuous Timecode(recording). If the original DV footage has intermittent Timecode, sometimes it may cause system freeze or may not be captured.

| Category | Description |
|---|--|
| DV Maker | This list box shows a list of DVCAM manufacturer such as Sony, JVC, Panasonic, Canon, Sharp, etc. Choose your DVCAM manufacturer. If you can't find it, choose OTHER. |
| Image Size | There are 3 kinds of resolution:720 x 480, 360 x 240, 88 x 60. This value means raw data from a DVCAM. |
| Slider Bar | You can select a favorite scene from video capture data by moving this slider bar. This slider bar is enabled when you click the Capture button. |
|  | You can capture video images for about 1 second by clicking this button. After clicking this button, preview will be stopped. |
|  | You can save a BMP file on the preview window. The BMP file will be saved and be held at the top of the thumbnail window. |
| Video Device | Video Device displays a list of camera device connected to your PC. If this list box is blank, your camera isn't recognized. If your camera is recognized, " Microsoft DV Camera and VCR " string will appear. |
| Camera Control Button | When a DVCAM is in video mode, you can control a DV tape as follows. |
|  ,  |Play, Stop |
|  |Pause |
|  ,  |Fast Rewind, Fast Forward or Slow Rewind, Slow Forward |
|  ,  |Previous Frame, Next Frame |

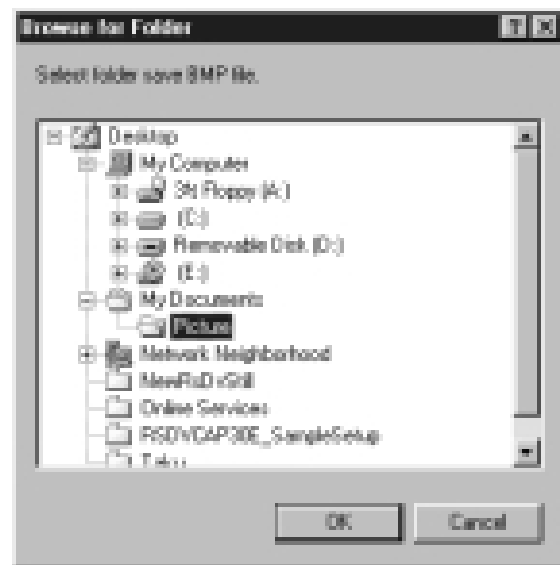
| Category | Description |
|----------|-------------|
|----------|-------------|

Time Code

This box shows the timecode information of your DV tape.
This timecode format is HOUR:MINUTE:SECOND:FRAME.



When you click this button, you will see the screen below. You can select a folder where you want to save a BMP file.



This button will be enabled only when you click the



button. When you click the



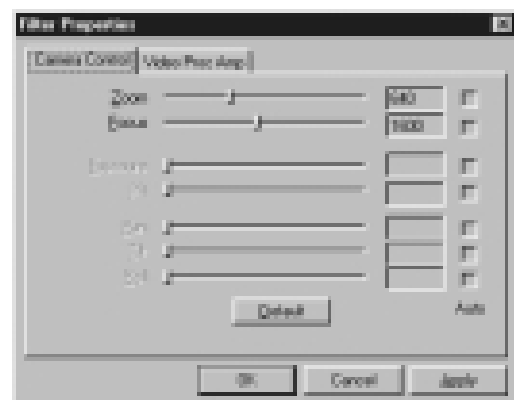
button, preview will be paused. When you want to resume previewing, click the



button.



This button will be enabled only when you use a CCD camera.
When you click this button, you can display the CCD camera control dialog box. With this dialog, you can control a CCD camera. For example, zoom, focus, etc.




7-2.How to save a BMP file

(1)Save a BMP file from a DV tape


1.Set a DV tape in a DVCAM and confirm the DVCAM mode is set to video mode.

Video Mode means you can control a video of a DV tape. If the DVCAM is in camera mode, change mode selection switch from camera mode to video mode slowly as mentioned 6-4.

Capturing a video from a DVCAM in camera mode.

2.Starting RsDvStill, your DV tape will be paused and the  button is disabled.

Set **DV Maker** and decide **Image Size**.

3.Click the  button. You will see the dialog box. Select a folder where you want to save a BMP file and click **OK**. If you don't select a folder, a BMP file will be saved in the folder where this application is installed.

4. Find a favorite scene on the DV tape, using the camera control button.


(TIPS)




When the  button is disabled, click the  button and the  button.

You can preview slowly. When the  button is enabled, click the  button.

After that,click the  button and the  button. You can preview slowly.

5.There are two ways to save a BMP file as follows.

5-1.Click the  button. The BMP file will be saved in the folder under the name of **“Image+ (number) + .BMP”** and the BMP file will be held at the top of the thumbnail window. If you double click the thumbnail, you can view it with real BMP file size.


5-2.Click the  button.After capturing, the DV tape will be paused. Then move the slider to a favorite scene and click the  button. The BMP file will be held as mentioned above. If you want to resume previewing, click the  button.

(2) Save a BMP file from a DVCAM in camera mode or a CCD camera


1. Set a DVCAM to camera mode. Camera mode means you can capture a video image. If your DVCAM is in video mode, change mode selection switch from video mode to camera mode slowly as mentioned **6-4. Capturing a video from a DVCAM in camera mode.**




When you use a CCD camera, skip this step.

2. Starting RsDvStill, set **DV Maker** and decide **Image Size**. When you use a CCD camera, **DV Maker** list box is disabled. So, decide **Image Size**.

3. Click the  button. You will see the dialog box. Select a folder where you want to save a BMP file. Then click **OK**. If you don't select a folder, a BMP file will be saved in the folder where this application is installed.

4. There are two ways to save a BMP file as follows.

4-1. Click the  button. The BMP file will be saved in the folder under the name of **Image+ (number) + .BMP** and the BMP file will be held at the top of the thumbnail window. If you double click the thumbnail, you can view it with real BMP file.

4-2. Click the  button. After capturing, preview will be paused. Then move the slider to a favorite scene and click the  button. The BMP file will be held as mentioned above. If you want to resume previewing, click the  button.

NOTE:

When you use a CCD camera, the  button is enabled. Using this button, you can control the CCD camera. For example, zoom, focus, etc.

8. How to use CompressAVI

What is CompressAVI application software?

This application software has the following functions.

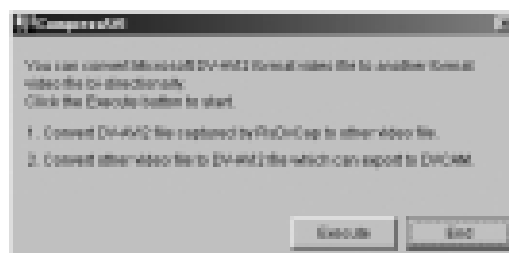
Convert Microsoft DV-AVI2 format video file to another format video file bi-directionally. As current existent video editing software don't support DV-AVI2 format video file, you have to convert the format of video file which is captured by RsDvCap before editing. And after editing, if you want to export it to a DVCAM, you have to re-convert video file to DV-AVI2 format video file.

Please note, file conversion will take a long time, sometimes over a hour.

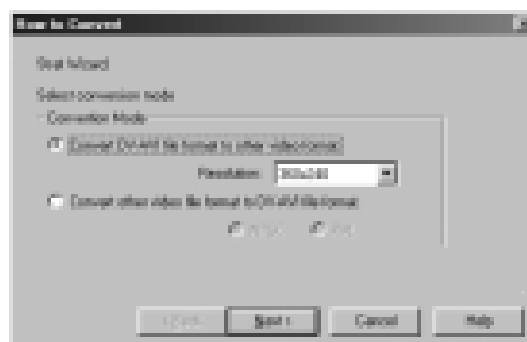
8-1.How to convert the DV-AVI2 format to other formats

After you convert the AVI files made by RsDvCap, you can edit it with video editing software.

1.When you start the CompressAVI, you will see the screen below. Click **[Execute]**.

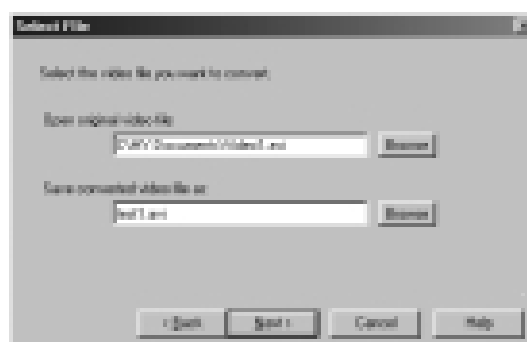


2.Please select “**Convert DV-AVI format to other video format**” and select Resolution.
Click **[Next]**.



3.Please specify an original video file and a converted video file name.

Click **[Next]**. (After conversion, an original video file remains in the Hard Disk Drive.)



4. Please choose a conversion filter from the Compression formats list box.

AVI files made by RsDvCap have a DV-AVI2 format.

So, select the other compression formats than **DV Video Encoder**.



There are many kinds of compression formats.

(Compression formats appeared in the **[Compression formats]** list box depend on your system)

Popular compression formats are explained below.

1. Microsoft Video1

It does not take much time to convert because this type will lose quality and cause poor image.

2. Microsoft MPEG4

If you use this type of codec, file size will be compressed to about one-tenth and keep good quality.

3. Intel Indeo(R) video3.2

This type of codec was invented by Intel.

Compression rate and quality get better than Microsoft Video1

4. Intel Indeo(R) video5

Compression rate will get better under MMX(R) or Pentium(R) II processor.

5.CinePak Codec

It takes much time to convert but this type will keep quality.

6.DV Video Encoder

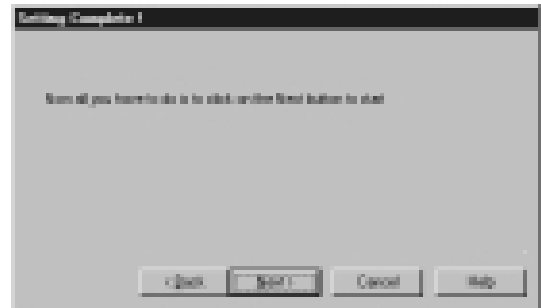
This type of codec can capture a video from a DVCAM in real time.

RsDvCap uses this type of compression and creates AVI files.

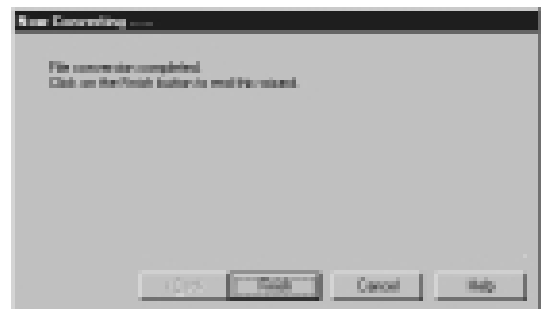
7.Non compression

This type saves data without compression.

5. Click **[Next]**. The file conversion starts. It takes much time to convert an AVI file.
Conversion time depends on the type of compression format. Please wait patiently.



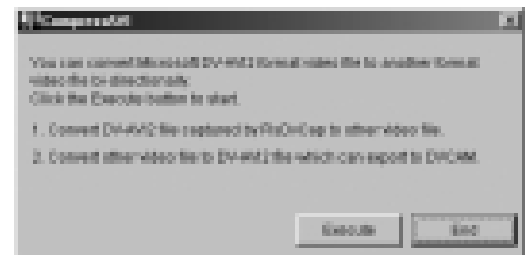
6. When conversion ends, you will see the screen below. Click **[Finish]**.
You can now do a video editing with your video editing software.



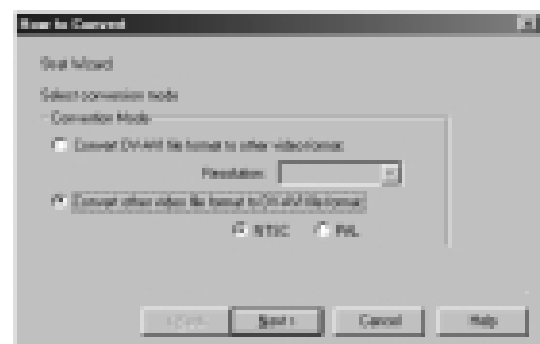
8-2.How to convert other formats to the DV-AVI2 format

You can export a video to a DVCAM after you convert an existing AVI file to the DV-AVI2 format.

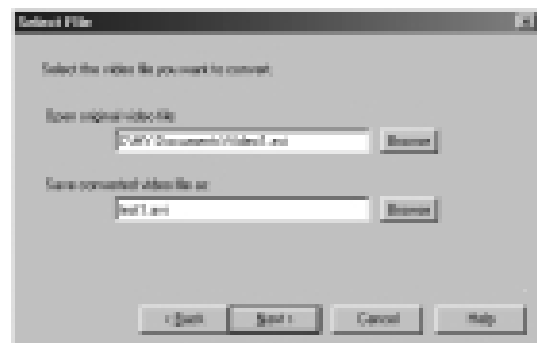
1. When you start the CompressAVI, you will see the screen below. Click **[Execute]**.



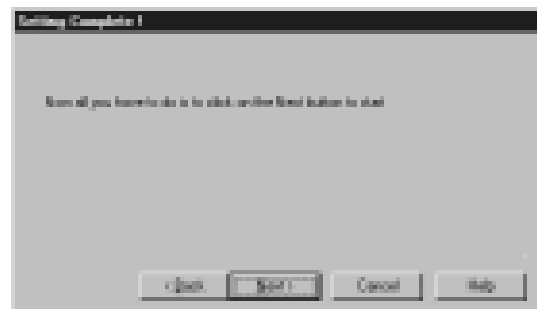
2. Please select **“Convert other video file format to DV-AVI file format”** and choose NTSC or PAL. NTSC is used in the U.S.A. PAL is used in Europe and Asia(except Japan). Then click **[Next]**.



3. Please specify an original video file and a converted video file name. Click [**Next**].

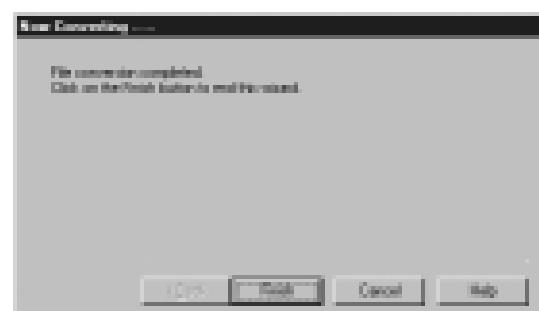


4. Click [**Next**]. It may take much time to convert an AVI file. Please wait patiently.



5. When conversion ends, you will see the screen below. Click [**Finish**].

You can now export the converted data to a DVCAM by using RsDvCap.



9. Troubleshooting

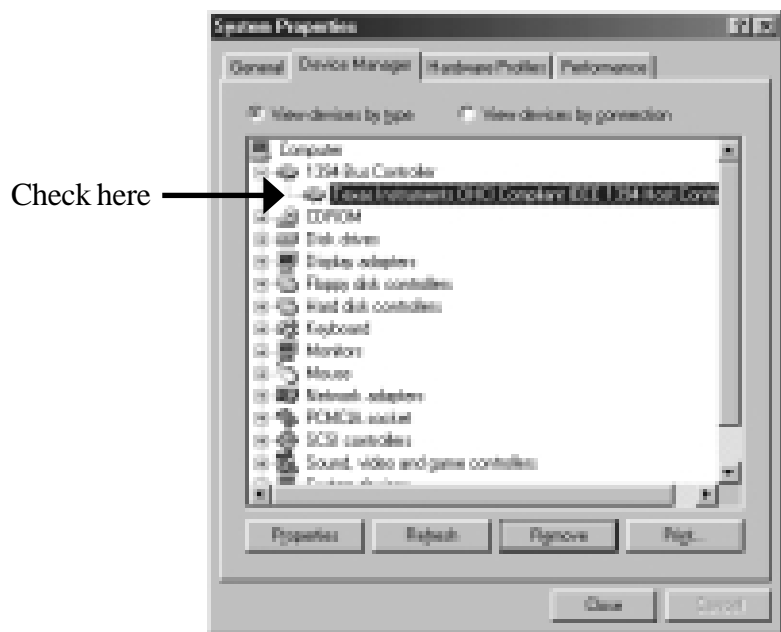
9-1.A camera can't be recognized

If your camera is recognized by our capture software(RsDvCap,RsDvStill), **Camera list box in RsDvCap or Video Device in RsDvStill** shows the **Microsoft DV Camera and VCR** string. If the box is blank, camera is not recognized.

General Solution:

- 1.The PCIFU2U PCI Board isn't firmly seated in the PCI slot.

If your PCI Board is inserted correctly, you will see the screen below in the **Device Manager** and you can find a [**Texas Instruments OHCI Compliant IEEE 1394 Host Controller**] string.



(OS:Windows 98SE)

- 2.If you use Windows 98SE/2000, there have to be a [**Microsoft DV Camera and VCR**] string under the “**Imaging Device**” in the **Device Manager**. If you can't find it, confirm your DVCAM is powered on.

If you use Windows Me/XP, there have to be a **camera name** string under the “**Imaging Device**” in the **Device Manager**. If you can not find it, make sure your DVCAM is powered on.

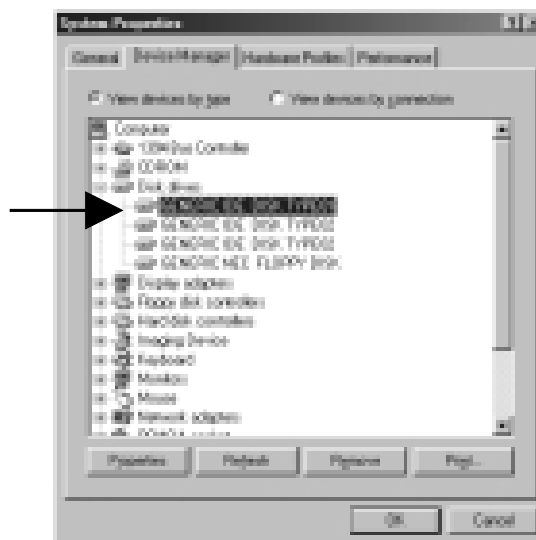
9-2. When you play back the captured file, it gets choppy

The data rate from a DVCAM is 3.6MB/sec. If your HDD sustained data write rate is lower than 3.6MB/sec., a captured file may get choppy or jerky when you play back the file.

To avoid this trouble, enable DMA function of your HDD, following the steps through.

1. Open “**Device Manager**”.

2. Select your **Disk drive** as shown below and click the **Properties** button.

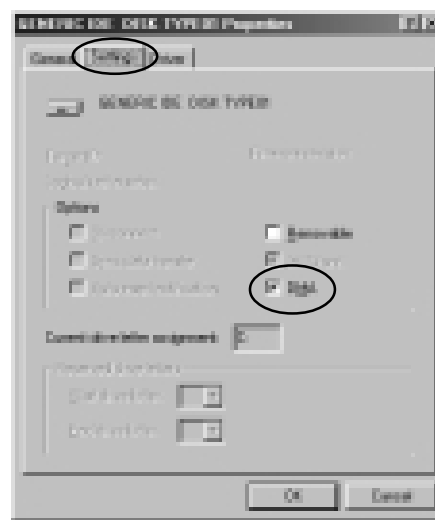


(OS: Windows 98SE)

3. Click the [Setting] tab and if DMA box is not checked, check here.

But, please note that if your HDD is not Ultra DMA HDD, don't check here.

To confirm that your HDD is Ultra DMA HDD, refer to your HDD manual.



10. Registration and Tech-Support

10-1. How to Register

We highly recommend to register yourself as our customer through our on-line registration.

1. On the Internet, access our site (<http://www.ratocsystems.com/english/>)
2. Follow window menu guide to register.
3. Fill out and submit the registration form.

10-2. Software Update and Support

-Software Update-

The latest driver and application software are subject to change for improvement or bug fix.

You can download the latest version from our web site.

(<http://www.ratocsystems.com/english/>)

-Technical Support-

You can get a Tech support from RATOC at the following.

(Open Monday - Friday, 9:30A.M. to 5:00P.M.(PST))

RATOC Systems International, Inc. Tech support

Address: 1933 O'Toole Avenue Suite A109

SanJose, CA 95131, U.S.A.

Phone : (408)955-9400

Fax : (408)955-9402

E-mail : int-support@rexpccard.co.jp

Web : <http://www.ratocsystems.com/english/>

NOTE

Please include the following information:

- Our product name, serial number, and product description
- Host Computer Name, Windows version
- Application software/driver version

11. Specifications

Product Name :PCIFU2U USB2.0/IEEE1394 Combo PCI Board
Operating Environment :
Power Consumption:5V, 12V
Temperature : 0°C(32°F)-55°C(131°F)
Relative humidity : 95% Max. (Non-condensing)
Dimensions :130(L) x 100(W) mm
(PCI Full Height Half Size)

Appendix

Trademarks

- Windows is a trademark of Microsoft Corporation, registered in the U.S. and other countries.
- USB 2.0 Hi-Speed logo is a registered trademark of Universal Serial Bus Implementers Forum.
- ‘Mac’, ‘PowerMacintosh’, ‘Mac logo’, ‘FireWire’, and FireWire logo are registered trademarks of Apple Computer, Inc. registered in U.S. and other countries.
- ‘iLINK’ and ‘iLINK’ Logo are registered trademarks of Sony corporation.
- Other brand and product names may be registered trademarks or trademarks of their respective holders.

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- (1) Reorient or relocate the receiving antenna.
- (2) Increase the separation between the equipment and receiver.
- (3) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- (4) Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance may result in this unit not complying with FCC Rules Part 15.



