## IEEE 1394 OHCI CardBus PC Card for Windows 98SE/2000/Me & for Mac OS 9.0.4 or later

# CBFW3

## **User's Guide**

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**KS**RATOC Systems, Inc.

## **CBFW3 User's Guide**

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## **1. Introduction**

This User's Guide describes how to install, use, and troubleshoot the RATOC CBFW3 IEEE1394(FireWire) CardBus PC Card for Windows and Macintosh users. If you purchased Windows package, refer to the Windows chapter. If you purchased Macintosh package, refer to the Macintosh chapter. The information in the README file on the CD-ROM may include the latest information. Be sure to read the README file as well.

### 1-1. Before using the CBFW3

- Never attempt to disassemble the PC Card.
- Do not bend, drop or strike the PC Card or the cable, or subject it to heavy pressure.
- Information in this document is subject to change without notice.
- If you have any questions or find errors in this guide, do not hesitate to let us know.

### 1-2. Package

Check the package contents:

- CBFW3 IEEE1394(FireWire) OHCI CardBus PC Card
- 1394 6pin DV 4pin cable(3feet)
- CBFW3 CD-ROM(Hybrid CD-ROM)
- Ulead Video Studio(This CD-ROM comes with Windows package only)
- User's Guide (This document)
- Premiere Plug-In user's manual (This user's manual comes with Windows package only)
- Software License Agreement

#### NOTE

If any of these items are missing from the CBFW3 retail package, contact your supplier immediately.

### 1-3. Features

- Two external IEEE1394 ports are available at card.
- IEEE-1394.a compatible PHY chip is on card.
- Full backward compatibility to IEEE1394-1955 device.
- OHCI 1.0 fully compliant Link chip is on card.
- 100, 200 and 400Mbps data rate is automatically supported at each IEEE1394 port.
- Class 1(15W) cable power is available at IEEE1394 port with additional cable power adapter.
- Fully compliant with PC Card Standard 7.0.
- 32-bit Bus-mastering data transfer and 33MHz operation.

### **1-4. System Requirements**

•Windows users

OS: Windows98 SE(Second Edition), Windows 2000, Windows Me(Millennium Edition)

System: Pentium II 300MHz or above and Memory 64 MB or above are recommended for the video editing. \*1

High performance DMA enabled Hard Disk Drive is recommended.\*2

<sup>\*1</sup> If your PC can not meet the specifications above, video motion and audio may get choppy.

\*2 It is neccessary to have about 4MB disk space to capture 1 second video. To achieve 13MB/ sec or above Read/Write speed of a HDD, you should use a 7,200rpm and Ultra DMA enabled HDD.

•Macintosh users MacOS 9.0.4 or later Apple PowerBook G3 233, 250, 266, 292, 300, 333, 400

\* If your PowerBook G3 is not 333 or 400, frame dropping may happen when you capture a video from a DVCAM directly to a FireWire HDD. So, when you want to capture a video from a DVCAM directly to a FireWire HDD, PowerBook G3 333 or 400 is recommended.

### **1-5.Restrictions**

#### For Windows Users

•If the following CardBus Bridge chip name is the same as your laptop uses, you can not use the CBFW3 with your laptop.

-Ricoh RL5C465 CardBus Controller

-Ricoh RL5C466 CardBus Controller

-Cirrus Logic PD6832 CardBus Controller

If your CardBus Bridge name is Ricoh CardBus Bridge RL5C476, the following problems happens.

A)You can not use suspend/resume mode.

B)You can not use another PC Card simultaneously with the CBFW3.

#### For Macintosh Users

•If your PowerBook G3 is not 333 or 400, frame dropping may happen when you capture a video from a DVCAM directly to a FireWire HDD.

#### For Windows/Macintosh Users

•You can not use this product with the following DVCAMs.(As of March in 2001)

-SHARP: VL-DC5, SHARP VL-FD1, SHARP VL-PD3

•Frame drop happens when you capture or export if you use the following DVCAMs made by CANON and 1394 storage devices simultaneously. The DVCAMs causes such a problem.

-OPTURA, ZR, XL1, VISTURA, ELURA, OPTURA Pi

But, the following DVCAMs or later models do not cause such a problem.

-GL1, ZR10, ELURA2, ELURA2 MC

•You may not be able to insert another PC Card with the CBFW3 simultaneously. You may not be able to insert the CBFW3 in the upper PC card slot.

### 1-6. 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 MS DV-AVI2 format.

You can use **bundled Ulead Video Studio** without file format conversion. 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 MS DV-AVI2 format file. For more information, refer to the Premiere DV Plug-In user's manual.

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

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

#### For Macintosh users

You can use the following video editing software with the CBFW3. (As of March 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	O.K.	O.K.	O.K.	O.K.
Apple	Final Cut Pro 1.2	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.	N.G. *2	*2 N.G.

\*1 You need to set [QuickTime DV Support], [Quick Time DV Enabler] inactive by using 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/)

If you are a Windows user, go to the Chapter 2 to set up the CBFW3.

If you are a Macintosh user, go to the Chapter 7 to set up the CBFW3.

## 2. Setup for Windows

To use the CBFW3 on Windows, follow the steps.

1.Insert the CBFW3 into the PC Card slot. Refer to the Chapter 2-1.

2.Install the OHCI driver. Refer to the Chapter 2-2.

3.Connect an IEEE1394 device to the CBFW3.If you connect a DVCAM, refer to the Chapter 2-3.If you connect a CCD camera, refer to the Chapter 2-4.If you connect a 1394 storage device, refer to the Chapter 2-5.

4. If you want to capture a video from a DVCAM, install RsDvCap. Refer to the Chapter 3.

## 2-1.Inserting the CBFW3

Insert the CBFW3 into the PC Card slot as shown below. Refer to the manual that accompanied with your PC for the location of the PC Card slot.



NOTE

You may not be able to insert another PC Card with the CBFW3 simultaneously. You may not be able to insert the CBFW3 in the upper PC card slot.

## 2-2.OHCI driver installation

Then, you need to install the OHCI driver installation. When your Windows version is Windows 98 SE(Second Edition), go to the Chapter 2-2-1. When your Windows version is Windows 2000, go to the Chapter 2-2-2. When your Windows version is Windows Me(Millennium Edition), go to the Chapter 2-2-3.

## 2-2-1. Windows 98 SE Installation

To use the CBFW3 on Windows 98 SE, follow the steps.

#### Step1.Install the OHCI driver

1. When the CBFW3 is inserted into the PC Card slot, Hardware Wizard will detect the

CBFW3 automatically and you will see the screen below. Click [Next].



2. When the following window appears, select [Search for the best driver for your device (Recommended)]. Then click [Next].

Add New Hardware Wis	terd
	What do you want Windows to do?
	<back next=""> Cancel</back>

3. When the following window appears, click [Next]. (You do not need to check any boxes)

Add New Hardware Wi	zərd
	Windows will search for new drivers in its driver database on your haid drive, and in any of the following selected locations. Elicit Next to start the search.
	Doppy disk drives
	CD-ROM drive
	Microsoft Windows Update
	F Specity a jocation
	E E
	Epwara.
	<back next=""> Cancel</back>

4. When the following window appears, select [The updated driver (Recommended) Texas Instruments OHCI Compliant IEEE 1394 Host Controller]. Then click [Next].

Add New Hardware Wiz	sand
	Windows has found an updated driver for this device, and also some other drivers that should work with this device. What do you want to install? © [The updated driver [Recommended] Texas Instruments OHCI Compliant IEEE 1394 Host Controller © [Ine of the other drivers.
	< <u>B</u> ack Next> Cancel

5. When the following window appears, click [Next].



6.When the following window appears, insert the Windows 98 Second Edition CD-ROM into the CD-ROM drive. Then click **[OK]**.

Insert Di	sk 🛛 🕅
$\otimes$	Please insert the disk labeled 'Windows 98 Second Edition CD-ROM', and then click OK.
	(OK]

7.If the following window appears, type **"D:\Win98"** or **"C:\Windows\options\cabs"** in the **Copy files from** box, where **"D"** means the CD-ROM drive. After that, click **[OK]**.

If your CD-ROM drive is not "**D**", you must replace "**D**" to the appropriate drive name.

Copying	Files	X
_	The file '1394bus.sys' on Windows 98 Second Edition CD-ROM cannot be found.	OK
	Insert Windows 98 Second Edition CD-ROM in the selected drive, and click OK.	Cancel
		<u>S</u> kip File
	Copy files from:	<u>D</u> etails
	D:\WIN98	<u>B</u> rowse

8. When the following window appears, click [Finish].

You have now completed the installation of the OHCI driver.

Add New Hardware Wiz	arð
	Texas Instruments OHD Compliant IEEE 1394 Host Controller
	Windows has finished installing the software that your new hardware device requires.
**	
	Cancel

#### Step2.Verify the OHCI driver installation

To verify the OHCI driver installation, follow the steps.

- 1.Click **My Computer** with the right button of the mouse.
- 2.Select Properties.
- 3.Click the **Device Manager** tab.
- 4. Double-click "1394 Bus Controller".
- 5. If there is a **Texas Instruments OHCI Compliant IEEE 1394 Host Controller** string without any yellow "!" marks or red "X" marks under the **1394 Bus Controller**, the OHCI driver for the CBFW3 is installed correctly.



#### Step3.Installing MSDV.SYS update program

Install MSDV update program(252640USA8.EXE) when you use Windows 98 SE.

Follow the steps to install MSDV update program.

- 1.Set the **CBFW3 CD-ROM** into your CD-ROM drive.
- 2.Open [My Computer] and double-click CD-ROM drive icon.
- 3.Double-click [Win98SE] folder and double-click the [DvPatch] folder.
- 4.Double-click on [252640USA8.EXE] file to install it.

#### Step4.Microsoft Windows Update

You should update your Windows 98 SE to improve performance. To update your Windows 98

- SE, follow the steps.
- 1.Click Start with the left button of the mouse.
- 2.Select Windows Update.

#### 3. You will see the screen below. Click **PRODUCT UPDATES**.



- 4. You will see the screen below. Check **Storage Supplement Update** and download the
- component. For more information on the component, refer to Read this first on the screen.



## 2-2-2. Windows 2000 Installation

To use the CBFW3 on Windows 2000, follow the steps.

#### Verify the OHCI driver installation

When you insert the CBFW3 into the PC Card slot, the OHCI driver is installed automatically by the Hardware Wizard.

To verify the OHCI driver Installation, follow the steps.

- 1.Click **My Computer** with the right button of the mouse.
- 2.Select Properties.
- 3. You will see the screen below. Click the **Hardware** tab.
- 4.Click the **"Device Manager"** button.

System Properties	
General Network Identification Hardware Uer Profiles Advanced	
Hardware Wizard	
unplug, eject, and configure your hardware.	
<u>H</u> ardware Wizard	
Device Manager	
The Device Manager lists all the hardware devices installed on your computer. Use the Device Manager to change the properties of any device.	
Driver <u>Signing</u> <u>D</u> evice Manager	— Click here
Hardware Profiles	
Hardware profiles provide a way for you to set up and store different hardware configurations.	
Hardware Profiles	
OK Cancel Apply	

5.If there is a **Texas Instruments OHCI Compliant IEEE 1394 Host Controller** string without any yellow "!" marks or red "X" marks under the **IEEE 1394 Bus host controllers**, the OHCI driver for the CBFW3 is installed correctly.

🚇 Device Manager	_ 🗆 ×
<u>A</u> ction <u>V</u> iew   ← →    💀   😭   😫   🕺 🗶 🗷	
AX3SPRO AX3SPRO Computer Disk drives Display adapters DVD/CD-ROM drives Floppy disk controllers Floppy disk drives Floppy disk drives Flo	Check here

## 2-2-3.Windows Me Installation

To use the CBFW3 on Windows Me, follow the steps.

#### Step1.Install the OHCI driver

1.When the CBFW3 is inserted into the PC Card slot, Hardware Wizard will detect the CBFW3 automatically and you will see the screen below. Select [Automatic search for a better driver(Recommended)] and click [Next].

Add New Hardware Wizard		
	Windows has found the following new hardware: Texas Instruments DHCI Compliant IEEE 1394 Host Controller Windows can automatically search for and install software that supports your hardware. If your hardware carse with installation media, insert it now and click Next. What would you like to do? @	
	CERCK Next > Cancel	

2. When the following window appears, click [Finish].



#### Step2.Verify the OHCI driver installation

To verify the OHCI driver installation, follow the steps.

- 1.Click **My Computer** with the right button of the mouse.
- 2.Select Properties.
- 3. You will see the screen below. Click the Device Manager tab.
- 4. Double-click "1394 Bus Controller".
- 5.If there is a **Texas Instruments OHCI Compliant IEEE 1394 Host Controller** string without any yellow "!" marks or red "X" marks under the **1394 Bus Controller**, the OHCI driver for the CBFW3 is installed correctly.



## **2-3.DVCAM Installation**

This section describes how to connect a DVCAM and install the DV driver.

Connect the CBFW3 and a DVCAM using the IEEE1394 cable as shown below.

And turn on the DVCAM power switch. You can connect the DVCAM without turning off the PC or DVCAM.



When your Windows version is Windows 98 SE(Second Edition), go to the Chapter 2-3-1. When your Windows version is Windows 2000, go to the Chapter 2-3-2. When your Windows version is Windows Me(Millennium Edition), go to the Chapter 2-3-1.



### 2-3-1.Windows 98 SE/Windows Me DV Driver Setup

#### Verify the DV driver installation

When you connect a DVCAM on Windows 98 SE or Windows Me, the DV driver will be installed automatically. To verify the DV driver installation, follow the steps.

1.Click My Computer with the right button of the mouse.

- 2.Select Properties.
- 3.Click the **Device Manager** tab.
- 4.If there is a **"Microsoft DV Camera and VCR"** string without any yellow "!" marks or red "X" marks under the **[Imaging Device]** as shown below, the DV driver is installed correctly on Windows 98SE.

If there is a camera name string without any yellow "!" marks or red "X" marks under the **[Imaging Device]** as shown below, the DV driver is installed correctly on Windows Me.







OS:Windows Me

## 2-3-2. Windows 2000 DV Driver Setup

#### Verify the DV driver installation

When you connect a DVCAM on Windows 2000, the DV driver will be installed automatically.

To verify the DV driver installation, follow the steps.

- 1.Click **My Computer** with the right button of the mouse.
- 2.Select Properties.
- 3. You will see the screen below. Click the Hardware tab.
- 4.Click the **Device Manager** button.

System Properties		? ×
General Network Identification	Hardware Jser Profiles Advanced	1
Hardware Wizard The Hardware wiza unplug, eject, and d	ard helps you install, uninstall, repair, configure your hardware.	
	Hardware Wizard	
Device Manager		
The Device Manac on your computer. I properties of any de	The Device Manager lists all the hardware devices installed on your computer. Use the Device Manager to change the properties of any device.	
Driver <u>S</u> ignin	g <u>D</u> evice Manager	Click here
Hardware Profiles		
Hardware profiles p different hardware of	rovide a way for you to set up and store configurations.	
	Hardware <u>P</u> rofiles	
[	OK Cancel	ply

5.If there is a **"Microsoft DV Camera and VCR"** string without any yellow "!" marks or red "X" marks under the **[Imaging devices]** as shown below, the DV driver is installed correctly.



## 2-4.Desktop CCD Camera Installation

This section describes how to connect a CCD camera and install the driver.

Follow the steps to connect a CCD camera.

- 1.Connect the optional AC adapter(sold separately) to the CBFW3.
- 2.Connect a CCD camera to the CBFW3 with an IEEE1394 6pin-6pin cable.

3. You can connect the CCD camera without turning off the PC or CCD camera.



When your Windows version is Windows 98 SE(Second Edition), go to the Chapter 2-4-1.

When your Windows version is Windows 2000, go to the Chapter 2-4-2.

When your Windows version is Windows Me(Millennium Edition), go to the Chapter 2-4-1.

#### NOTE

- 1. The 6 pin to 6 pin cable is not included in the CBFW3 package. You can order this cable. Refer to the Chapter 10.
- 2. The CCD camera doesn't work without a power source, typically DC +12V, 1.2A. You can use our optional AC power adapter, DC +12V, 1.2A. You can order this AC power adapter. Refer to the Chapter 10.

#### 2-4-1.Windows 98SE/Windows Me CCD Camera Setup

When the CCD camera is connected, the CCD camera will be recognized automatically. To verify the CCD driver installation, follow the steps.

1.Click **My Computer** with the right button of the mouse.

2.Select Properties.

3.Click the **Device Manager** tab.

4. Double-click "Imaging Device".

5.If there is a CCD camera name string without any yellow "!" marks or red "X" marks under the **[Imaging Device]** as shown below, the driver is installed correctly on Windows 98SE.

If there is a CCD camera name string without any yellow "!" marks or red "X" marks under the **[Imaging Device]** as shown below, the driver is installed correctly on Windows Me.





OS:Windows 98SE

OS:Windows Me

## 2-4-2. Windows 2000 CCD Camera Setup

When the CCD camera is connected, the CCD camera will be recognized automatically. To verify the CCD driver installation, follow steps through.

- 1.Click **My Computer** with the right button of the mouse.
- 2.Select Properties.
- 3. You will see the screen below. Click the Hardware tab.
- 4.Click the **Device Manager** button.

System Properties	? ×
General Network Identification Hardware User Profiles Advanced	
The Hardware wizard helps you install, uninstall, repair, unplug, eject, and configure your hardware.	
Hardware Wizard	1
Device Manager	
The Device Manager lists all the hardware devices installed on your computer. Use the Device Manager to change the properties of any device.	
Driver Signing Device Manager	Click here
Hardware Profiles	
Hardware profiles provide a way for you to set up and store different hardware configurations.	
Hardware Profiles	
OK Cancel Apply	y

5.If there is a CCD camera name string without any yellow "!" marks or red "X" marks under the **[Imaging devices]** as shown below, the driver is installed correctly.



## 2-5.1394 Storage Installation

This section describes how to connect a 1394 storage and install the driver. 1394 storage means Hard Disk Drives(HDDs), Magneto Optical Disks(MOs), etc. Only Windows 98 SE, Windows 2000 or Windows Me support such 1394 storage. The cable powered HDD, MO doesn't work without a power source. You can use our AC power adapter(sold separately) if you use the cable powered HDD, MO.

Follow the steps to connect a 1394 Hard Disk Drive(HDD).

1.Connect the optional AC adapter(sold separately) to the CBFW3.

2.Connect a 1394 HDD to the CBFW3 with an IEEE1394 6pin-6pin cable.

3. You can connect the 1394 HDD without turning off the PC or 1394 HDD.

When your Windows version is Windows 98 SE(Second Edition), go to the Chapter 2-5-1.

When your Windows version is Windows 2000, go to the Chapter 2-5-2.

When your Windows version is Windows Me(Millennium Edition), go to the Chapter 2-5-1.



6pin-6pin cable

(Not include)

#### NOTE

- 1. The 6 pin to 6 pin cable is not included in the CBFW3 package. You can order this cable. Refer to the Chapter 10.
- 2.The cable powered HDD, MO doesn't work without a power source, typically DC +12V, 1.2A. You can use our optional AC power adapter, DC +12V, 1.2A. You can order this AC power adapter. Refer to the Chapter 10.

### 2-5-1.Windows 98 SE/Windows Me 1394 Storage Setup

When the 1394 HDD is connected, Window will install the driver automatically. To verify the 1394 storage driver installation, follow the steps.

1. Click **My Computer** with the right button of the mouse.

- 2.Select Properties.
- 3. You will see the screen below. Click the **Device Manager** tab.
- 4.Doble-click "Storage device".
- 5. If there is a **1394/USB Disk** string without any yellow "!" marks or red "X" marks under the **[Storage device]** as shown below, the 1394 storage driver is installed correctly on Windows 98SE.

If there is a **IEEE 1394 Disk** string without any yellow "!" marks or red "X" marks under the **[Storage device]** as shown below, the 1394 storage driver is installed correctly on Windows Me.



OS:Windows 98SE



OS:Windows Me

## 2-5-2. Windows 2000 1394 Storage Setup

When the 1394 HDD is connected, Window 2000 will install the driver automatically. To verify the 1394 storage driver installation, follow the steps.

1.Click **My Computer** with the right button of the mouse.

#### 2.Select **Properties**.

- 3. You will see the screen below. Click the **Hardware** tab.
- 4.Click the **Device Manager** button.

System Properties	? X	
General Network Identification Hardware Iser Profiles Advanced		
Hardware Wizard The Hardware wizard helps you install, uninstall, repair, unplug, eject, and configure your hardware.		
Device Manager		
The Device Manager lists all the hardware devices installed on your computer. Use the Device Manager to change the properties of any device.		
Driver <u>S</u> igning <u>D</u> evice Manager	╉┼	-Click here
Hardware Profiles	_	
Hardware profiles provide a way for you to set up and store different hardware configurations.		
Hardware Profiles		
OK Cancel App	dy	

5.If there is a 1394 HDD name string without any yellow "!" marks or red "X" marks under the **[Disk drives]** as shown below, the 1394 storage driver is installed correctly.



## 3. Setup RsDvCap

## Installing RsDvCap/RsDvStill/CompressAVI

- 1. Close all programs currently running on your computer.
- 2.Set the CBFW3 CD-ROM in your CD-ROM drive.
- 3.Open [My Computer] and double-click CD-ROM drive icon.
- 4.Open [Win98SE], [Win2000] or [WinMe] folder.

If your Windows version is Windows 98 SE(Second Edition), open [Win98SE] folder.

If your Windows version is Windows 2000, open [Win2000] folder.

If your Windows version is Windows ME(Millennium Edition), open [WinMe] folder.

- 5.Double-click the [RsDvCap] folder.
- 6.Double-click on [Setup.exe] to install the RsDvCap software.
- 7. 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.

Install5hield Wizard	
	InstallShield Waard Excepters The InstallShield Waard has reaccentrally installed RisDvCop_E. Before you can use the program, you must install your computer. If [Yes, I want to restart my computer now] C No, I will restart my computer late. Remove any data from their drives, and then click Finish to complete setup.
	cigrel: Field Dressel

#### 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.

## 4. 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.



**RsDvCap Main Screen** 

Video Control Bar

#### 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.

## 4-1.Main menu:

<u>File Setting View Display H</u>elp

Top menu	1 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 <b>4-6.DV</b> <b>Batch Capture</b> .
	Application Setting	Show RsDvCap parameter setting dialog box. Refer to <b>4-3.Application settings</b> .
	Cam Setting	Show CCD camera control dialog box.
View	Camera Audio Select Bar	Show <b>Camera and Audio Select Bar.</b> Refer to <b>4-2-1.Camera and Audio Select Bar</b> .
	Camera Control Bar	Show the DVCAM camera mode control bar. You can control a DVCAM.Refer to <b>4-2-2.</b> <b>Camera Control Bar</b> .
	Video Control Bar	Show the DVCAM video mode control bar. You can control a DVCAM.Refer to <b>4-2-3.</b> <b>Video Control Bar</b> .
	Batch Capture List	Show the Batch Capture List Bar. You can capture favorite scenes in a DV tape to your HDD.Refer to <b>4-6.DV Batch Capture.</b>
Display		Select the size of the preview window. The preview window of the <b>[PC]</b> is 4:3. The preview window of the <b>[DV]</b> is 3:2.
## **4-2.Control Bars**

4-2-1.Camera and Audio Select Bar:	Carriers Microsoft DV Car	nera arc s iound OS-XS Wave Playback	$\supset$
	1	1	
Ca	mera list box	Sound device list b	ox

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. **"Microsoft DV Camera and VCR"** string will appear if your camera is recognized. **Sound device list box** displays a list of sound device.

## 4-2-2.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.

## 4-2-3.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:





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].



Record on the tape 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".

# **4-3.** 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.

Application Settings
Camera Mode Preview Settings CCCD Mode DV Mode DV Codec Resolution 360x240
Capture Settings Capture With Preview Still Image C 16bit C 24bit
Rename file name every capture execution Set Folder Name To Save Capture Files
C:\PROGRAM FILES\RSDVCAP\Capture Browse
DVCAM Settings Check DVCAM Mode Enable Step Control By Mouse Wheel
DVCAM Command Response time4000millisecondsDV Export prefix time2000milliseconds
Help Load Default OK Cancel

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 <b>DV Codec Resolution</b> 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 loca- tion to save the file in. If you don't check here, a captured file will be saved automatically under the name of <b>CAPTIME+(Time)</b> + <b>Year+(Date).AVI</b> in the folder you set at <b>"Set Folder Name To Save Capture Files".</b>

Category	Item	Description
DVCAM Setting	s Check DVCAM Mode	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.
	Enable Step Control By Mouse Wheel	If you check here, you can control a camera with your mouse as shown below.
		1) <b>When you click wheel,</b> a DVCAM starts to play.
		2) When you turn wheel down,
		a DVCAM starts to rewind.
		a DVCAM starts to fast forward.
		4) <b>When you click the right button,</b> a DVCAM stops.

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 ex- port 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.

# 4-4.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 4-3. Application settings.

- 3. Click the **b**utton on the **Camera Control bar**. A video image from a DVCAM will appear.
- 4. Click the **B**

Capture Now button

5.Click the

button to start capturing.

Capture Stop button to stop capturing.

You can also stop capturing by using the button pressing **ESC** button on the keyboard.

button on the Camera Control Bar or

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].

•		-					<b>01</b> /
Rename C	apture File						? ×
Save jn:	🕞 Capture				0	<u>r</u>	
CAPTI	ME184451YEAR	20000414.evi					
L							
File name:	CAPTIME 18	4451YEAR2	0000414.av	8			Save
Save as by	pe: AVI Files (*.	ลงป	_	_	۲		Cancel

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 the Chapter 8-4.A captured file is choppy or jerky.

# 4-5. Capturing a video from a DV tape

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

- 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 4-4.Capturing a video from a DVCAM in camera mode.
- 2.Select [DV mode] on the [Application Setting] as shown in 4-3.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.



5.Click the Ocapture Stop button to stop capturing.

You can also stop capturing by using the **stop** 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].

Rename Cap	ture File			1	l ×
Save jn 🖂	Capture	- 1	2	* 🖬 🛛	
CAPTIME1	84451YEAR20000414.avi				
File pame:	CAPTIME184451YEAR2000	)414.avr		Save	
Save as type:	AVI Files (". avi)		•	Cancel	

#### 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 the Chapter 8-4.A captured file is choppy or jerky.

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.

# 4-6.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 **4-4.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 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** start button to show the Batch Capture dialog box as shown in the next page.

<b></b>
Add Delete
J Start 🗗

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 searchs 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.

Batch Capture	×
Batch Capture List:	
Start<< 00:03:20 >> End<< 00:03:22 >>:About 7Mb Video1.avi	
Start<< 00.03.43 >> End<< 00.03.45 >>.About / Mip Video2.avi	
From 0 : 0 : 0 To 0 : 0 : 0	
Export Directry C:\WINDOWS\DESKTOP\RELEASE_USA Brouse	
== Capture Compleate ! == Delete List Add List	
00:03:45 RUN END	

#### 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.

# 4-7. 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 **4-4.Capturing a video from a DVCAM in camera mode**.

### 🗖 Record on the tape

2. Click the DV Export 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

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

2.If you can not to export clear video data, refer to the Chapter 8-2. or 8-3. When you can not export smooth and clear video image to a DVCAM.

# 5. 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.

## 5-1.Main menu

When RsDvStill starts with a DVCAM connected to the CBFW3, 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 <b>Capture</b> button.
Capture	You can capture video images for about 1 second by clicking this button. After clicking this button, preview will be stopped.
🔝 SnapShot	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	<ul> <li>Video Device displays a list of camera device connected to your PC. If this list box is blank, your camera isn't recognized.</li> <li>"Microsoft DV Camera and VCR" string will appear if your camera is recognized.</li> </ul>
Camera Control Button	When a DVCAM is in video mode, you can control a DV tape as follows.
, <b>.</b>	Play, Stop
<u>II</u>	Pause
<b>4</b> , <b>&gt;</b>	Fast Rewind, Fast Forward or Slow Rewind, Slow Forward
<b>◀</b> , <b>▶</b>	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. Ē When you click this button, you will see the screen below. You can select a folder where you want to save a BMP file. Browse for Folder ? × Select folder save BMP file. 🖃 🗭 Desktop ٠ 🔄 🛄 My Computer 🗄 🚽 3½ Floppy (A:) 🗄 🗃 (C:) 🗄 💼 Removable Disk (D:) 💮 My Documents 🔄 Picture 🖳 Network Neighborhood NewRsDvStill 🛅 Online Services RSDVCAP30E\_SampleSetup • 🗐 Taku 0K Cancel This button will be enabled only when you click the ۲. Capture button. When you click the Capture 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. CCD (CC) 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. Filter Properties Carvers Control Video Proc Amp Zoom Eccus 1600 **F** ---Π.

Auto

Apply

Default

Cancel

0K

## 5-2. 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 4-4.
  Capturing a video from a DVCAM in camera mode.
- 2.Starting RsDvStill, your DV tape will be paused and the **II** 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.

(1	
(1	25)
· · -	 $\sim$

When the	II b	outton	is disabled,	click	the	₽	button and the	₩	bu	itton.
You can pre	eview	slowl	y. When the	н	but	ton i	s enabled, click	the	П	button
After that,c	lick th	ne 🕨	button and	the	**	butt	on. You can prev	view	slov	wly.

- 5. There are two ways to save a BMP file as follows.
  - 5-1.Click the SnapShot 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. If you click the thumbnail with the right button, the pop-up menu will show up. If you select "Rename", the following window will show up. Type in a new file name and click [OK] to change the file name. If you select "Delete Bitmap File", the thumbnail will be deleted.

Renane bitnap file 🛛 🗵					
Old file same	Image001 bmp	CANCEL			
New file name	Spacesbuttle01.hmp	OK			
LTVT ALL DALLS	1	0.00			

5-2.Click the <u>IIII</u> Capture button. After capturing, the DV tape will be paused. Then move the slider to a favorite scene and click the <u>SnapShot</u> button. The BMP file will be held as mentioned above. If you want to resume previewing, click the <u>HEP</u> 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 4-4.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 SnapShot 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. If you double click the thumbnail, you can view it with real BMP file size. If you click the thumbnail with the right button, the pop-up menu will show up. If you select "Rename", the following window will show up. Type in a new file name and click [OK] to change the file name. If you select "Delete Bitmap File", the thumbnail will be deleted.

p file	×
Image001 brap	CANCEL
Spaceshuttle01.hmp	OK
	nage001 bmp Spacesbuttle01 bmp

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

#### NOTE

When you use a CCD camera, the work of the ccD camera. For example, zoom, focus, etc.

# 6. 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 MS 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 MS DV-AVI2 format video file.

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

## 6-1. How to convert the MS DV-AVI2 format to other formats

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

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



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

Convert DV-4VI Me format to other video format.     Resolution: 350x240     Convert other video file format to DV-4VI Me format.
Convert other video file format to DV-AVI file format.
O NIEC O RAL

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

Click [Next]. (After conversion, an original video file remains in the HDD.)

Sele	ct file	×
s	elect the video file you want to convert.	
(	Open original video file:	
	CVMY DocumentoWideo1.avi Browse	
:	Save converted video file as:	
	test1.avi Bowse	
	<back next=""> Cancel Help</back>	J

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

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

So, select the other compression formats than DV Video Encorder.

Compression formats	×
Compression formats listed in the ListBox below are installed in your computer. Choose one formal you want to use from the ListBox and click the Next	
Compression formate: Cinepak Codec by Radius	
DV Video Encoder Indeo® video 5.04 Indeo® video 5.04 Compression Filter Indeo® Video 83.2 Microsoft H.251 Video Codec Microsoft H.251 Video Codec	
< Bit Microsoft RLEs Video Cable	Help

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 Encorder

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. To make data in [Non compression], it is necessary to have Windows 98 SE, Windows 2000 or Windows ME.

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.

Now all you have	to do is to cil	ick on the Next bu	ton to start	
	< Dack	Net	Cascal	Heb

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

You can now do a video editing with your video editting software.

Now Converting	mpleted. h button to end this wizzed.	
1	Click Finish Cancel Help	

## 6-2. How to convert other formats to the MS DV-AVI2 format?

You can export a video to a DVCAM after you convert an existing AVI file to the MS 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 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].

How to Convert		×
Select conversion mode Convertion Mode		
C Convert DV-AVI Ne I	Resolution:	
@ Convert other video I	file format to DV-AVI file format	
	④ NTSC ○ PAL	
¢,B,e	the Next > Cancel	Help

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

Select th	e video file you	want to c	orwert.		
Open or	ginal video file:				
	C/MY Dool	//ofnernu	/ideo1.avi	Browse	
Save co	nverted video fi	le ar:			
	test1.avi			Browse	

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

etting Complete !					
Now all you have to	o do is to ci	ick on the Ned	button to	start	
	< Back	Next >		Sancel	Help

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.

File conversion of Click on the Finit	ampleted. h button to e	end this wistand.		
ĺ	e fizek	Finish	Cancel	Help

# 7. Setup for Macintosh

To use the CBFW3 on Macintosh, follow the steps below.

- 1.Install the CBFW3 driver. Refer to the Chapter 7-1.
- 2.Insert the CBFW3. Refer to the Chapter 7-2.
- 3.Connect a FireWire device to the CBFW3. Refer to the Chapter 7-3.

## 7-1.CBFW3 driver installation

Before you insert the CBFW3 into the PC Card slot, you have to install the CBFW3 driver. To install the CBFW3 driver, follow the steps.

1. Close all programs currently running on your computer.

2.Insert the CBFW3 CD-ROM into the CD-ROM drive.

3. The following icon will mount on the desktop. Double click the icon.



4. The following window will show up. Click the [CBFW3 Driver Installer] icon.

CBFW3	
립 4項目、0KB空き	
README	
Install Driver> CBFW 3 Driver Ins	staller
	▲ ▶ 4//

## 5. The software license window will show up. Click [Accept].

License	
License This RATOC Systems, Inc. License Agreement allows you to use the RATOC Systems, Inc. software program, provided you agree to the terms of this Agreement. - You may not translate, rent, lease, loan, resell for profit, distribute. But you may transfer your right under this license agreement on a permanet basis provided transfer this license agreement, all copies of the software and all written materials, and recipient agrees to the terms of this agreement. - You may not use other sets of disks which may be provided in the disk package (which may include CD-RDH, 3.5"and/or 5,25" disks) on another computer without first obtaining a license for use of additional Software copies form RATOC Systems, Inc. - You may not modify and adapt the software or any part thereof. You may not reverce engineer, decompile, disessemble.	
Termination This license is effective until terminated. This license will terminate immediately without notice from RATOC Systems, Inc. if you fail to comply with any provition of this license. Upon termination you must destroy the software and all copies thereof, you may terminate this license at any time by destroying the software and all copies thereof.	- -
Print/ Save As/ Decline Accept	

6. The following window will show up. Click [Install].

CBFW3 Driver	installer 🛛 🗉	B
Easy Install \$		
Click the install button to install		
REX-CBFW Enabler ( Version 2.0 )		
Disk space available : > 408	Approximate disk space needed: 44K	
Herns will be installed on the disk "06 9.1"	Quit	4

7. The following window will show up. Click [Restart] to restart your Mac.



8.Open **[Extensions]** folder in the **[System Folder]**. If you can find the REX-CBFW Enabler, the CBFW3 driver was installed correctly.



## 7-2.Inserting the CBFW3

1.Insert the CBFW3 into the PC Card slot as shown below.

Refer to the manual that accompanied with your Mac for the location of the PC Card slot.



2.If the following PC Card icon mount on the desktop, you succeeded the installation.



If the following PC Card icon mount on the desktop, you failed to succeed the installation. In this case, the CBFW3 driver may not be installed correctly. Check the CBFW3 driver is installed to the **[Extensions]** folder correctly.



#### NOTE

You may not be able to insert another PC Card with the CBFW3 simultaneously. You may not be able to insert the CBFW3 in the upper PC card slot. To remove the PC Card from the Mac, refer to the manual that accompanied your Mac for the instruction.

## 7-3. Connecting a FireWire device to the CBFW3

Follow the steps to connect a 1394 Hard Disk Drive(HDD).

- 1.Insert the CBFW3 into the PC Card slot.
- 2.Connect the optional AC adapter(sold separately) to the CBFW3 only when you connect a FireWire device which needs cable power such as a HDD, MO.
- 3.Connect a FireWire device to the CBFW3 with an FireWire cable.
- 4. You can connect the FireWire device without turning off the Mac or FireWire device.



#### NOTE

- 1. The 6 pin to 6 pin cable is not included in the CBFW3 package.
- 2. The cable powered HDD, MO doesn't work without a power source, typically DC +12V, 1.2A. You can use our optional AC power adapter, DC +12V, 1.2A. You can order this AC power adapter. Refer to the Chapter 10.

# 8. Troubleshooting

## 8-1.A camera can not 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 string named **Microsoft DV Camera and VCR**. If the box is blank, your camera is not recognized.

General Solution:

1.PC Card is not firmly seated in the slot.

If your PC Card 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.



If you use Windows 98 SE or Windows 2000, there have to be a [Microsoft DV Camera and VCR] string under the "Imaging Device" in the Device Manager. If you can not find it, make sure your DVCAM is powered on.

If you use Windows Me, 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.

# 8-2.When you can not export smooth and clear video image to a DVCAM(Windows 98SE/Me)

If you use Windows 2000, see **8-3.When you can not export smooth and clear video image to a DVCAM(Windows 2000)**.

In the **CBFW3 CD-ROM**, there is the driver for CardBus Bridge property setting controller named *CBRPSET.VXD*(for Windows 98 SE) or *MERPSET.VXD*(for Windows Me). This driver improves DV export data transfer capability, so you will get clear and smooth video image on your DVCAM screen. But please note, this driver does not affect any preview and capture capability.

If you can not get smooth video image on your laptop PC, you need other solutions such as fast CPU, big memory, and fast HDD. Also, DXMedia6.0 library, Powermanagement disable, LAN disable control.

### 1. Before installation of the driver.

You have to check the CardBus Bridge chip included in your laptop PC before the installation of this driver. If your CardBus Bridge chip is not listed in the **CardBus Bridges name list** written in the next page, the driver can not improve DV export transfer capability.

Here is how to check your CardBus Bridge chip name. Please follow the steps.

1.Click My Computer with the right button of the mouse.

2.Select **Properties**.

- 3.System Properties window will appear.
- 4.Click the **Device Manager** tab.
- 5.Double-click the "PCMCIA socket".
- 6. You can see some CardBus Bridge chip name string. If you can find your CardBus Bridge name in the **CardBus Bridges name list** written in the next page, you should install the driver.

### **CardBus Bridges name list**

#### CardBus Bridge chip made by RICOH:

-Ricoh RL5C476 CardBus Controller -Ricoh RL/RB5C478 CardBus Controller -Ricoh RL5C475 CardBus Controller

#### CardBus Bridge chip made by TEXAS INSTRUMENTS(TI):

-Texas Instruments PCI-1210 CardBus Controller -Texas Instruments PCI-1211 CardBus Controller -Texas Instruments PCI-1220 CardBus Controller -Texas Instruments PCI-1221 CardBus Controller -Texas Instruments PCI-1225 CardBus Controller -Texas Instruments PCI-1250 CardBus Controller -Texas Instruments PCI-1251/1251A CardBus Controller -Texas Instruments PCI-1251B CardBus Controller -Texas Instruments PCI-1260 CardBus Controller -Texas Instruments PCI-1410 CardBus Controller -Texas Instruments PCI-1420 CardBus Controller -Texas Instruments PCI-1450 CardBus Controller -Texas Instruments PCI-1451 CardBus Controller -Texas Instruments PCI-4410 CardBus Controller -Texas Instruments PCI-4450 CardBus Controller -Texas Instruments PCI-4451 CardBus Controller

#### CardBus Bridge chip made by TOSHIBA:

-Toshiba ToPIC95 CardBus Controller
-Toshiba ToPIC97 CardBus Controller
-Toshiba ToPIC100 CardBus Controller

#### CardBus Bridge chip made by O2Micro:

-O2Micro 0Z6812 CardBus Controller -O2Micro 0Z6832 CardBus Controller -O2Micro 0Z6912 CardBus Controller -O2Micro 0Z6933 CardBus Controller

## 2. Restrictions.

If you come across the following CardBus Bridge chip, unfortunately you can not use the CBFW3.

-Ricoh RL5C465 CardBus Controller
-Ricoh RL5C466 CardBus Controller
-Cirrus Logic PD6832 CardBus Controller

If you come across Ricoh CardBus Bridge RL5C476, please note the following restrictions. The driver will improve DV export capability of CardBus Bridge RL5C476, but this improvement may cause the following problems A) B).

- A)You can not use suspend/resume mode when you are using the CBFW3 if your CardBus Bridge is RL5C476.
- B)You can not use another PC Card simultaneously with the CBFW3 if your CardBus Bridge is RL5C476. You can use only one CBFW3 with your laptop. You can use another PC Card when the CBFW3 is removed if your CardBus Bridge is RL5C476.

### 3. How to install the driver: CBPRSET.SYS or MERPSET.SYS

You have already installed the driver [Texas Instruments OHCI Compliant IEEE 1394 Host Controller].

You should replace it to the new "RATOC 1394 CardBus Card(TI OS Version)" driver.

You can replace it, simply following the instructins:

1.Insert the CBFW3 PC Card into the PC Card slot.

2. Click My Computer with the right button of the mouse.

3.Select Properties.

4.System Properties windows will appear.

5.Click the **Device Manager** tab.

6.Double-click "1394 Bus Controller" icon.

You can find a **[Texas Instruments OHCI Compliant IEEE 1394 Host Controller]** as shown below and select it and click the **[Properties]** button.



7.Click the **Driver** tab and click [Update Driver...].



8. You will see the screen below if you use Windows 98SE. Click [Next].

Update Device Driver Wizard			
	This wised searches for updated drivers for: Texas Instruments OHCI Compliant IEEE 1394 Host Controller A device driver is a coffware program that makes a hardware device work. Upgading to a nerver vession of a device driver may improve the performance of your hardware device or add functionality.		
	Cancel		

You will see the screen below when you use **Windows Me**. Select [**Specify the location of the driver**(**Advanced**)] and click [**Next**].

Update Device Driver Wizard			
	This wiserd searches for updated drivers for Tesas Instruments DHCI Compliant IEEE 1394 Host Controller Windows can search for and install an updated driver to replace the one currently being used by your hardware. Or, you can specify the location of another driver. What would you like to do? guidentials cearch for a better driver (Recommended) goodly the location of the driver (Advanced)		
	Cancel		

9. You will see the screen below when you use **Windows 98 SE**. Select [**Display a list of all drivers in a specific location, so you can select the driver you want**] and click [**Next**].

Update Device Driver Wizard			
	What do you want Windows to do?  Seach for a better driver than the one your device is using now. [Recommended]   Display a fat of all the drivers in a specific location, so you can select the driver you want.		
	<back next=""> Cancel</back>		

You will see the screen below when you use **Windows Me**. Select **[Display a list of all drivers in a specific location, so you can select the driver you want]** and click **[Next]**.



10. You will see the screen below. Click [Have Disk...].

Update I	Device Driver Wizard			
- A	Select the manufacturer and model of your hardware device. If you have a disk that contains the updated driver, click Have Disk. To install the updated driver, click Finish.			
Mogleis:	IC Constant IEEE 1204 No	ot Controllar I.A.	9110000	
Texas	instruments DHCI Compliant	IEEE 1394 Hos	t Controller [ 4-	23-1999]
@ Sho	w gorupatble hardware.			Have Disk .
C Sho	vi gli hardware.			
		< <u>B</u> ack	Ned >	Cancel

11. You will see the screen below. Set the CBFW3 CD-ROM in the CD-ROM drive and type "D\Win98SE" or "D\WinMe", where "D" means the CD-ROM drive. When you use Windows 98 SE, type "D\Win98SE". When you use WindowsME, type "D\WinMe". After that, click [OK].

Install Fr	om Disk	x
9	Insert the manufacturer's installation disk into the drive selected, and then click OK.	Cancel
	Copy manufacturer's files from: D:\Win98SE	Browse

12. You will see a [RATOC 1394 CardBus Card(TI OS Version)] string as shown below. Click [Next].



13. You will see the screen below. Click [Next].



14.If the following message appears,make sure that the **CBFW3 CD-ROM** is inserted in the CD-ROM drive. After that, click **[OK]**.

Insert Di	k 🔣
$\bigotimes$	Please insert the disk labeled 'RATOC FW Install CD', and then click OK.
	[OK]

15. When a dialog box says [The file cbrpset.vxd on RATOC FW Install CD can not be found. Insert RATOC FW Install CD in the selected drive, and click OK.], type
"D:\Win98SE" and click [OK]. This message may appears only when your Windows is Windows 98SE.

Copying	Files	×
	The file 'cbrpset.vxd' on RATOC FW Install CD cannot be found.	OK
_	Insert RATOC FW Install CD in the selected drive, and click OK.	Cancel
		<u>S</u> kip File
	Copy files from:	<u>D</u> etails
	D:\WIN98SE	<u>B</u> rowse

If a dialog box says [The file MERPSET.VXD was not found.Windows needs the disk labeled 'RATOC FW Install CD' to continue. This disk may be provided by your computer or device manufacturer.], type "D:\WinMe" and click [OK].

This message may appears only when your Windows is Windows Me.

Copying	Files	×
_	The file 'MERPSET.VXD' was not found.	OK
	Windows needs the disk labeled 'RATOC FW Install CD' to continue. This disk may be provided by your computer or device.	Cancel
	manufacturer.	<u>S</u> kip File
	Copy files from:	<u>D</u> etails
	D:\WinMe	<u>B</u> rowse
16. You will see the screen below. Click [Finish].

Update Device Driver W	fizard
	RATOC 1394 CardBus Card (TI WindBSE Ver 350)
	Windows has finished installing the driver you selected for your hardware device.
8. *	
*	
	CRIME Frich David

17. You will see the screen below. Click [Yes].

System Settings Change 🛛 🔀						
?	To finish setting up your new hardware, you must restart your comput Do you want to restart your computer now?					
	Yes <u>N</u> o					

You have now completed the installation of the driver. Please try DV Export function with RsDvCap.exe.

- 18. Make sure you can find a [RATOC 1394 CardBus Card(TI OS Version)] string in the
  - Device Manager.



If there is yellow "!" mark on a **[RATOC 1394 CardBus Card(TI OS Version)]** string, restart your laptop PC again.

## 8-3.When you can not export smooth and clear video image to a DVCAM(Windows 2000)

If you use Windows 98 SE/Windows Me, see 8-2. When you can not export smooth and clear video image to a DVCAM(Windows 98SE/Me). In the CBFW3 CD-ROM, there is the driver for CardBus Bridge property setting controller named *CBPRSET.SYS*. This *CBPRSET.SYS* driver improves DV export data transfer capability, so you will get clear and smooth video image on your DVCAM screen. But please note, this driver does not affect any preview and capture capability. If you can not get smooth video image on your laptop PC, you need other solutions such as fast CPU, big memory, and fast HDD. Also, DXMedia6.0 library, Powermanagement disable, LAN disable control.

## 1. Before installation of the driver.

You have to check the CardBus Bridge chip included in your laptop PC before installation of this driver. If your CardBus Bridge chip is not listed in the **CardBus Bridges name list** written in the next page, the driver can not improve DV export transfer capability.

Here is how to check your CardBus Bridge chip name. Please follow the steps.

- 1.Click **My Computer** with the right button of the mouse.
- 2.Select Properties.
- 3.Click the **Hardware** tab.
- 4.Click the **Device Manager** button.
- 5. Double-click the "PCMCIA adapters".
- 6. You can see some CardBus Bridge chip name string. If you can find your CardBus Bridge name in the **CardBus Bridges name list** written in the next page, you should install the driver.

## **CardBus Bridges name list**

#### CardBus Bridge chip made by RICOH:

-Ricoh RL5C476 CardBus Controller -Ricoh RL/RB5C478 CardBus Controller -Ricoh RL5C475 CardBus Controller

### CardBus Bridge chip made by TEXAS INSTRUMENTS(TI):

-Texas Instruments PCI-1210 CardBus Controller -Texas Instruments PCI-1211 CardBus Controller -Texas Instruments PCI-1220 CardBus Controller -Texas Instruments PCI-1221 CardBus Controller -Texas Instruments PCI-1225 CardBus Controller -Texas Instruments PCI-1250 CardBus Controller -Texas Instruments PCI-1251/1251A CardBus Controller -Texas Instruments PCI-1251B CardBus Controller -Texas Instruments PCI-1260 CardBus Controller -Texas Instruments PCI-1410 CardBus Controller -Texas Instruments PCI-1420 CardBus Controller -Texas Instruments PCI-1450 CardBus Controller -Texas Instruments PCI-1451 CardBus Controller -Texas Instruments PCI-4410 CardBus Controller -Texas Instruments PCI-4450 CardBus Controller -Texas Instruments PCI-4451 CardBus Controller

#### CardBus Bridge chip made by TOSHIBA:

-Toshiba ToPIC95 CardBus Controller
-Toshiba ToPIC97 CardBus Controller
-Toshiba ToPIC100 CardBus Controller

### CardBus Bridge chip made by O2Micro:

-O2Micro 0Z6812 CardBus Controller -O2Micro 0Z6832 CardBus Controller -O2Micro 0Z6912 CardBus Controller -O2Micro 0Z6933 CardBus Controller

## 2. Restrictions.

If you come across the following CardBus Bridge chip, unfortunately you can not use the CBFW3.

-Ricoh RL5C465 CardBus Controller
-Ricoh RL5C466 CardBus Controller
-Cirrus Logic PD6832 CardBus Controller

If you come across Ricoh CardBus Bridge RL5C476, please note the following restrictions. The driver will improve DV export capability of CardBus Bridge RL5C476, but this improvement may cause the following problems A) B).

- A)You can not use suspend/resume mode when you are using the CBFW3 if your 0CardBus Bridge is RL5C476.
- B)You can not use another PC Card simultaneously with the CBFW3 if your CardBus Bridge is RL5C476. You can use only one CBFW3 with your laptop. You can use another PC Card when the CBFW3 is removed if your CardBus Bridge is RL5C476.

## 3.How to install the driver:CBPRSET.SYS

You have already installed the driver [Texas Instruments OHCI Compliant IEEE 1394 Host Controller].

You should replace it to the new "RATOC 1394 CardBus Card(TI OS Version)" driver.

You can update and replace it, simply following the instructions below.

1.Insert the CBFW3 PC Card into the PC Card slot.

2.Click My Computer with the right button of the mouse.

3.Celect Properties.

4.Click the Hardware tab.

5. Click the **Device Manager** button. You will see the screen below.

6.Double-click "IEEE1394 Bus host controllers" icon.

You can find a **[Texas Instruments OHCI Compliant IEEE 1394 Host Controller]** string as shown below and select and double-click it.



7. You will see the screen below. Click the **Driver** tab and click [Update Driver...].



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

Upgrade Device Driver Wizard					
	Welcome to the Upgrade Device Driver Wizard This wizard helps you upgrade a device driver for a hardware device.				
	<brek next=""> Cencel</brek>				

9. You will see the screen below. Check [Search for a suitable driver for my device (recommended)] and click [Next].



10. You will see the screen below. Check [Specify a location] and click [Next].

Jpgrade Device Driver Wizard
Locate Driver Files Where do you want Windows to search for driver files?
Search for driver files for the following hardware device:
Tesas Instruments DHCI Compliant IEEE 1334 Host Controller
The vizard searches for suitable drivers in its driver database on your computer and in any of the following optional search locations that you specify.
To start the search, click Next. If you are searching on a floppy disk or CD-RDM drive, insert the floppy disk or CD before clicking Next.
Optional search locations:
Floppy disk drives
CD-ROM drives
Specily a location
E Missouri Windows Update
< <u>B</u> ack <u>N</u> eed > Cancel

11. You will see the screen below. Insert the **CBFW3 CD-ROM** and type **"D:\Win2000"**, where **D** means your CD-ROM drive and click **[OK]**.



12. You will see the screen below. Click [Next].



13. You will see the screen below. Click [Finish].

Upgrade Device Driver Wizard					
	Completing the Upgrade Device Driver Wizard PATOC 1394 CardBus Card (TI Win2K Ver 1.60) Windows has finished installing the software for this device. The hardware you installed will not work until you restart your computer. To close this vizard, click Finish.				
	<brok cencel<="" finish="" th=""></brok>				

### 14.Click [Close].

RATOC 13	94 CardBus Card	(11 Win2K Ver 1.60) Properties	
General	Driver Resource	es	
-	RATOC 1394 Car	dBus Card (TI Win2K Ver 1.60)	
	Driver Provider:	Microsoft	
	Driver Date:	Not available	
	Driver Version:	1.0.0.0	
	Digital Signer:	Not digitally signed	
To view details about the driver files loaded for this device, click Driver Details. To uninstall the driver files for this device, click Uninstall. To update the driver files for this device, click Update Driver.			
1	Driver Details	Update Driver	
		Close Canod	

15. You will see the following message box. Click [Yes].

System 9	Settings Change
٩	Your hardware settings have changed. You must restart your computer for these changes to take effect. Do you want to restart your computer new?
	<u>Yes</u> Bo

You have now completed the installation of the driver. Please try DV Export function with RsDvCap.exe.

16.Make sure there is a **[RATOC 1394 CardBus Card (TI Win2K version)]** string in the **Device Manager**.



If there is yellow "!" mark on [RATOC 1394 CardBus Card (TI Win2K version)], restart your PC again.

## 8-4. A captured file is choppy or jerky

The data rate from a DVCAM is 3.6MB/sec. If your HDD sustainted 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.

## 1.Open "Device Manager".

2.Select your **Disk drives** as shown below and click the **Properties** buton.



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 make sure that your HDD is Ultra DMA HDD, refer to your HDD manual.

GENERIC IDE DISK TYPEDI P General Settings Driver	roperties 😰 🗵
GENERICIDE DISK T	YPEDI
Tegel D: Logicel ant number	Emorradia.
Disconnet	Enovable
<ul> <li>Sync deteitorstien</li> <li>Auto inset notification</li> </ul>	
Current drive letter assignment:	
Reserved dive letters	
Erd dive leter.	
	DK. Cancel

## 8-5.Using the format utility named FRFMTW9X.EXE

You can format a 1394 storage device such as a HDD, Zip, MO with format utility named FRFMTW9X.EXE. This utility is included in the CBFW3 CD-ROM. This FRFMTW9X.EXE runs only on Windows 98SE, Windows Me. If you want to format a 1394 storage device on Windows 2000, refer to 8-6.Formatting media on Windows 2000.

## (Caution) You can not format a CD-R, CD-RW or DVD-RAM.

Follow the steps to format a 1394 storage drive:

- 1. Make sure a 1394 storage device is connected and powered on.
- 2. If the device is a removable drive and a media is not inserted, insert a media.
- 3.Insert the CBFW3 CD-ROM into the CD-ROM drive.
- 4.Open [**My Computer**] and double click the **CD-ROM drive** icon. Double click the **FRFMTW9X** folder and **FRFMTW9X.EXE** file.

(Caution)

The drive list window shows all the devices connected to USB, SCSI port on your PC. Be sure to select the drive connected to the CBFW3.

5. You will see the window below and select the drive you want to format. And click the **[Select]** button.

💽 Select the Drive	X
Please Select the Disk.	
HA#0,ID:0,LUN:0 (HardDis	k) WDC AC14300R
HA#2,ID:0,LUN:0 (HardDisk	k) LSILogicSYM13FW500-Disk
Select	Quit

6. You will see the screen below. Select [Initialize/Format media] from the [Edit] menu.

Format	i <b>Utility</b> lit <u>(E)</u> Op	tion( <u>0)</u>				×
		Infomation — LSILogicS HA:#2 Total disk Format Ty	:YM13FW500 SCSI ID : space : 6194. pe : IBM-PC/4	-Disk 1.00 0 LUI 18 MByte AT FDISK Fo	V : O rmat	
Partition	No. \ mpty	/olumeLabel	FileSystem unknown	Size(MB) 6189.1	StartCylind	ler Enc 0
Please sel	ect operal	tion.				<u> </u>

7. You will see the Initialize/Format screen below. Select **format type**. If you want to do Low Level Format simultaneously, check **[Low Level Format]**. Then, click **[OK]**.



## (Caution)

You can do low level format only for a HDD, MO which is converted from SCSI interface to IEEE1394 interface. If you get an error message saying you failed to initialize when you do low level format, the IEEE1394(FireWire) device itself can not treat low level format. In this case, don't put a check mark at [Low level format] when you format the device. 8.If you selected IBM-PC/AT FDISK format at step 7), the message box saying [You should create partition next] appears. Then, click [OK]. You will see the screen shown in the step 6) and select [Create Partition] from the [Edit] menu. After that, you will see the screen below. Select [File System] from the list box and set Partition size, using the slider bar. Then, click [OK] to create partition.

If you selected **Super FD format** at step 7), you will see a screen similar to the following. Select **[File System]** from the list box.

Crea	tePartition 🔀
	Device Infomation
	LSILogicSYM13FW500-Disk 1.00
	HA#:2 SCSIID:0 LUN:0
	Total disk space : 6194.18 MByte
	Format Type : IBM-PC/AT FDISK Format
E	nter partition size in Mbytes.
	Partition 789 Cylinder
	6189.10 MByte 100.00 %
	FileSystem FAT32
	FAT16/FAT12 Partition Nan FAT32
	✓ Format Drive
	VolumeLabe RATOC
	OK Cancel

9. You must restart your computer for your information to take effect.

If you are using a removable media, the media will be ejected to take effect.

So, you do not need to restart your computer.

## 8-6.Formatting media on Windows 2000

When you want to format a 1394 storage device such as a HDD, Zip, MO on Windows 2000, you can use [Computer Management].

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 show up. Select [Disk Managemet] of the [Storage].

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

🖵 Computer Management							
Action yew ⇔ → C TE C2 C m S2							
Tree	Volume	Layout	Туре	Pile System			
Computer Management (Local)	🗩 (C:)	Partition	Sesic .	PAT			
🗄 🐔 System Tools	(D:)	Partition	Sasic	FAT			
B Event Verver							
R-B System Information							
Performance Logs and Alerts							
E Shared Folders							
H-10 Local Lisers and Groups							
C S Storage							
Disk Management	4			•			
Did. Datrogens ner							
Elogical Drives	CPDisk 0						
E-Ba Services and Applications	19.16 GB	19.16 GB	<u></u>				
	Online	Unallocated ///	Greate	Partition			
	Shut 1		Propert	ties 🗖			
	Basic	(6)	(Dc) Helm				
	4.01 GB	2.00 GB FAT	1.99 GB	E			
	URE .	Heatty (Systen)	Heathy (Boot)	Free			
	Arna a	Discon Decision III a		·			
	Chalocated	Primary Parkton 📕 E	: wended Parkidn	Pree space 🔳 Logk			

# 9. Registration and Tech-Support

## 9-1. 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.

## 9-2. 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

# **10. Options**

Options are available (sold separately) at the web site:

1. http://www.ratocsystems.com/english/

2. http://www.firewireshop.com

-CBFW-466	(4pin-6pin IEEE1394(FireWire) cable(6 feet))
-CBFW-666	(6pin-6pin IEEE1394(FireWire) cable(6 feet))
-CBFW-463	(4pin-6pin IEEE1394(FireWire) cable(3 feet))
-CBFW-663	(6pin-6pin IEEE1394(FireWire) cable(3 feet))
-CBFW-CPA	(AC Adapter for the CBFW3, DC +12V, 1.2A)

If you have any questions about these options, contact to:

RATOC Systems Insternational, Inc. Tech Support: TEL : (408)955-9400 FAX: (408)955-9402 E-mail: int-support@rexpccard.co.jp

# **11. Specifications**

Product Name :CBFW3 IEEE1394 CardBus PC Card Transfer :PC Card Standard(CardBus) 32bit Bus Master :100/200/400Mbps Data Transfer Rate Power Requirements : Voltage :+3.3V(Supplied from PC Card Slot) Current :110mA (Idle) 220mA (MAX) Operating Environment : Temperature  $: 0^{\circ}C(32^{\circ}F)-55^{\circ}C(131^{\circ}F)$ Relative humidity: 95% Max.(Non-condensing) Cable power input jack :DC 8 to 30V, 3A max GND  $-------+DC(5.5\phi - 2.1\phi)$ 

# Appendix

#### Trademarks

-Windows is a registered trademark of Microsoft Corporation.

-Sony Corporation has a original copyright of SONYDVCR.SYS.

-Other brand and product names may be registered trademarks or trademarks of their respective holders.

#### **I)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.

#### **II)CE Statement**

This device complies with EN55022(class B) and EN55024.