800293-0D Oct 2016

# **Quick Start Guide**

**Digital High Speed** 



# **SP-642**





Copyright © 2016 NAC Image Technology Inc.

The copyright for this document is owned by NAC Image Technology Inc. The copyrights for the software products described in this document are owned by NAC Image Technology Inc.

Trademarks

MEMRECAM is a registered trademark of NAC Image Technology, Inc. Microsoft Windows, Windows XP, Windows Vista, Windows7, Windows8/8.1 and Windows 10 are registered trademarks of Microsoft Corporation registered in the USA.

TIFF is a registered trademark of Adobe Systems. Other company names and product names in this document are the trademarks or registered trademarks of these companies.

MEMRECAM HXLink SP-642 Quick Start Guide

Oct 2016

A description of HXLink version 1.92a is written in this document.

Unauthorized duplication, reproduction or transfer of all or any part of this document without the prior written consent of NAC Image Technology is prohibited.

The contents of this document are subject to change without notice.

# Please Read Carefully Before Using

# **Safety Precautions**

Completely read the following precautions before using. The following symbols and warnings are shown for items where safety precautions are required during handling or use. If a safety warning symbol is present, make sure to completely read the warning prior to use.

# DANGER

If the indications are ignored, dangerous conditions could result in death or serious injury.

# WARNING

If the indications are ignored, potentially dangerous conditions could result in death or serious injury.

# CAUTION

If the indications are ignored, potentially dangerous conditions could result in slight or moderate injury. Additionally, this caution sign is a warning of unsafe operation and indicates the potential of damage to this device or peripheral devices.

# **Handling Precautions**

# Safety alert symbol



This is an industry "safety alert symbol". This symbols alerts you or others to the danger and/or items or operating concerns relating to the use of this device.

This mark is also used when there is important information relating to operation. Read the message by this symbol carefully and follow the instructions for safe and appropriate use of this device.

#### Grounding terminal symbol



This symbol indicates the site of a protective grounding terminal. If not grounded, electrical shock could be received from the metallic and other parts of this device. Due to this danger, please make sure it is grounded. When connecting to an electrical outlet using a 3P-2P convertible plug, connect with the outside grounding terminal of the convertible plug grounding wire.

#### Warning



Turn off the power switch before connecting or disconnecting the cable. If the cables are connected or disconnected with the power switch ON, electrical shock or damage to the equipment may occur.



#### High voltage warning symbol

Unplug the power cable from the outlet when replacing fuses. Do not open the cover. Depending on the device, there may be parts that generate high voltage internally so leaving the cover open could result in electrical shock.

There may be problems with the conditions and circumstances of use for this device that are not indicated above. Therefore, make sure you understand the general provisions noted in the Operating Guide (or User's Manual) before using. Also, if there are any questions about this device, please directly contact the store where purchased.

# Provisions Regarding Use and Warranty

NAC Image Technology provides a warranty for operation of the software product with the following limitations and operation under normal conditions of use described in the Operating Manual. NAC Image Technology does not offer any other warranty related to this product.

#### 1. Warranty

Upon receipt, if this software does not function normally due to a defect in the recording medium or for some other reason, it will be replaced free of charge.

#### 2. Customer Support

NAC Image Technology will provide necessary information relating to this software, such as serious errors (bugs) and upgrades. This service shall be available for a period of one year from the date of software delivery.

#### 3. Licensing

NAC Image Technology shall be liable for this software only as stated in 1. and 2. above.

NAC Image Technology shall not be liable for any damage that occurs as the result of use of this software.

While we attempted to create a perfect User's Manual, NAC Image Technology shall not be liable for any damage arising from anything written in this document

#### 4. Copyright and Rights of Use

The copyright for this software is owned by NAC Image Technology, Inc. NAC Image Technology, Inc. authorizes customers the use of this software under the following conditions.

#### 5. Duplication Limitations

Other than for the express purpose of customer backup, reproduction of all or part of this software is prohibited.

#### 6. Warranty after Modifications or Upgrades

NAC Image Technology shall not warranty normal operation if any modifications or upgrades unrelated to the administration of NAC Image Technology are made to this software. NAC Image Technology shall not be liable for any damages arising from the use of such modifications or upgrades to this software.

# 1 Overview

The following can be performed with the HXLink.

■Control of the MEMREACM Q, HX, GX, and fx series cameras (preview, recording, playback, download)

■Playback of downloaded images (MCFF, AVI), image quality adjustment, format conversion (AVI, TIFF, BMP, JPEG)

■Playback of image files (AVI, TIFF, BMP, JPEG)

Coordinate measurement (camera preview images, downloaded images, image files)

Zooms and scrolls images for display.

Synchronized display is possible to synchronize display of images of multiple specified items (camera or file).

For video playback, the playback range, playback direction and playback rate can be specified.

# 2 Installation

# 2.1 Operating Environment

The PC conditions to operate HXLink are as follows.

Computer	IBM PC compatible (DOS/V)
CPU	Core2 Duo 2GHz or equivalent
	(the compression and display processing speed depends on the CPU properties.)
Memory	2GB or greater
Display	Full color, screen size of 1024×768 or greater, screen DPI setting of 96dpi
	(Recommend 1600×1200 or greater for color image sizes of 1280×1024)
OS	Windows XP Professional + SP2 (32bit)
	Windows Vista Ultimate/Business + SP1 (32/64bit)
	Windows 7 Ultimate/Professional (32/64bit)
	Windows 8/8.1 Pro (32/64bit)
	Windows 10 Pro (32/64bit)
	Internet Explorer 5.0 service pack 2 or higher
	DirectX 8.0 or higher
	With Q camera, Windows 7 or higher
Disc drive	600MB for program or log
	60GB or greater for data (recommend 200GB or more)
	(depends on the number of cameras and the number of frames saved)
Network	With HX, GX, Q and fx cameras (Gbit connection):
	Ethernet (IEEE802.3ab 1000BASE-T Half Duplex)
	With fx cameras (TCP/IP Fast Ethernet):
	Ethernet (IEEE802.3u 100BASE-TX Half Duplex)
	With fx cameras (FC-AL connection):
	FC-AL
	With ULTRA Cam:
	Ethernet (IEEE802.3u 100BASE-TX Half Duplex )
CD drive	1 (for installation)
Mouse	1
Keyboard	1

The compression and display processing speed depends on the CPU properties. Enough disc data free space is required for the size required by the application.

In addition to the requirements listed above, depending on the computer configuration and version, this product may not function properly.

(Please contact our company for recommended models.)

# 2.2 PC Settings

Have the user with Windows Administrators authorization log in.

Connect the powered up HUB or camera to the LAN port used for camera control. This manual describes the setting method for Windows7.

■ PC IP Address Settings

Open the control panel from the Windows start button.



Click to open "View network status and tasks".



Click to open "Change adapter settings".



Double click to open the LAN port connection used for HX camera control.

Normally, select "Local Area Connection". This manual describes an example where "Local Area Connection" was selected.

If extending the LAN adapter for camera control, select the name of the connection for "Local Area Connection 2".



Click "Properties" in the "Local Area Connection Status" window to open the "Local Area Connection Properties" window.

Select "Internet Protocol Version 4 (TCP/IPv4)" in the items under the "This connection uses the following items" in "Local Area Connection Properties", and then click on "Properties" immediately under that to open the window for "Internet Protocol Version 4 (TCP/IPv4) Properties".

Alternate Configuration	General	
You can get IP settings assigned automatically if your network support his capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.	You can get IP settings assig this capability. Otherwise, yo for the appropriate IP setting	ned automatically if your network supports ou need to ask your network administrator gs.
Obtain an IP address automatically	Obtain an IP address au	utomatically
Use the following IP address:	Use the following IP add	dress:
IP address:	IP address:	172 . 21 . 80 . 1
Subnet mask:	Subnet mask:	255.255.0.0
Default gateway:	Default gateway:	· · · ·
Obtain DNS server address automatically	Obtain DNS server addr	ress automatically
Use the following DNS server addresses:	Use the following DNS s	server addresses:
Preferred DNS server:	Preferred DNS server:	
Alternate DNS server:	Alternate DNS server:	· · ·
Validate settings upon exit	. Validate settings upon	exit Advanced

As shown in the figure on the right, the PC IP address is set to 172.21.80.1 and the subnet mask is set to 255.255.0.0.

Click OK for "Internet Protocol Version 4 (TCP/IPv4)", and then click OK for the "Local Area Connection Properties" to confirm the settings. Close the "Local Area Connection Status" window.

Confirm the IP address set for the PC by performing the ipconfig command with the command prompt. Open accessories from the Windows start button and click "Command Prompt" to open.

Accessories	•	
Calculator	-anithe	
Connect to a Projector	Documents	Ci¥Windows¥system32¥cmd.exe
Math Input Panel	Pictures	Connection-specific DNS Suffix .: Description
<ul> <li>Paint</li> <li>Remote Desktop Connection</li> </ul>	Music	Physical Address DHOP Enabled
<ul> <li>Run</li> <li>Snipping Tool</li> </ul>	Games	IPv6 Address: erred) Temporary IPv6 Address:
Sound Recorder Sticky Notes	Computer	erred) Lite Loss I TP. & Address IPV4 Address,
Sync Center Windows Explorer	Devices and Printe	Submet Mask
WordPad Base of Access	Default Programs	NetBIOS over Tcpip :
🍌 System Tools 🎉 Tablet PC	<ul> <li>Help and Support</li> </ul>	Notis State
1 Back		Description Elustocth Device (Personal Area Networ Physical Address
Search programs and files	Shut down	

Type in ipconfig and press Enter to display the PC IP address.

\* If the PC IP address is set up other than 172.21.80.1, the PC IP address must be different from the camera IP address. At this point, communication is not possible if the PC and the camera not set the same Network segment and the Subnet mask on the same Network, and in this case, the Network segment is 172.21.\*.\* and the Subnet Mask is 255.255.0.0. For example, the subnet mask both of the PC and the camera is 255.255.0.0, and the PC IP address is 172.21.100.50, the camera IP address is 172.21.100.80.

If the camera IP address is changed, refer to the camera user's manual or the HXLink user's manual. 7 (00293)D

# 2.3 HXLink Installation

For using Q camera, Please refers to HXLink User's Manual.

After completing all of the PC applications, insert the camera CD into the CD drive to display the "Auto Play" window.



Once all of the PC applications have been completed, the "Automatic Playback" window is displayed when the HXLink CD is inserted into the PC CD drive.

Click "Open folder to view files" to start the installer and installation.



The HXLink CD is displayed in Explorer so double click on "Launcher.exe" in the "HXLink" folder. The "CUDA3Setup", "CUDA4Setup" and "HASPdrivers" folders on the CD are the various types of program folders for options sold separately.

■Microsoft Visual C++ 2010 Install

In VS2010 folder, there is a 32bit program installer for vcredist\_x86.exe and 64bit program installer vcredist\_x64.exe.

Please run vcredist\_x86.exe only if you want to install the HXLink 32bit version, both of vcredist\_x86.exe and vcredist\_x64.exe If you are installing the HXLink 64bit version.

#### ■Install HXLink Application

岁 MEMRECAM HXLink 64bit 1.60a Setup
Welcome to the InstallShield Wizard for MEMRECAM HXLink 64bit The InstallShield(R) Wizard will install MEMRECAM HXLink 64bit on your computer. To continue, click Next.
WARNING: This program is protected by copyright law and international treaties.
< Back Next > Cancel
MEMRECAM HXLink 64bit 1.60a Setup  Select the camera connection method for the fx camera.
Either connecting via TCP/IP when using the fx camera or not using the fx camera.     Connecting via FC-AL when using the fx camera.
Connecting via Gbit when using the fx camera.
InstallShield Cancel
岁 MEMRECAM HXLink 64bit 1.60a Setup
Mode Change setup
Please choose the mode
Basic Mode     It is simple GUI which can perform fundamental operation.(for General User)     Formert Mode
It is GUI which can perform detailed operation.(for Advanced user)
After installation, this setting can be changed in the Option of MEMRECAM HXLink. InstallShield
< Back Next > Cancel

Displays the launcher by double-clicking the Launcher.exe of HXLink installer.

Click the button of HXLink 32bit version / 64bit version to install.

<u>Click</u> "Yes", and then continue with the installation.

Upon starting the installation, "Welcome to the MEMRECAM HXLink Setup" appears. Click "Next" to start the installation.

Set the fx camera connection method. If not using an fx camera, or if using a TCP/IP connection, simply click "Next".

If using an fx camera with an FC-AL connection, select "Use fx Camera with an FC-AL Connection" and click "Next".

If using an fx camera with a Gbit connection, select "Use fx Camera with Gbit Connection" and click "Next".

Select Basic Mode and click "Next".





腸 MEMRECAM HXLink 64bit 1.60a Setup	×
Choose Default Folder.	ć
Setup will choose Default Folder in the following folder. To choose to a different folder, click frowse and selectanother folder. The same folder as "Default folder for loading data", "Default folder for saving o "Snap Shot Image Folder / Display Composite Image Folder" is set.	lata", and
D: \hxData	Browse
Custom setting. The setting of default is a setting that the application was used a time. Default folder for loading data	t the last
D: \hxData	Browse
Default folder for saving data	
D:\hxData	Browse
Snap Shot Image Folder / Display Composite Image Folder	
D:\hxData	Browse
Folder preservation of conversion configuration file	
C:\Users\Public\Documents\nac\MEMRECAM\HXLink\BatchConv\ConvSettings	Browse
It is called inclu	Cancel



Select an fxLink compatible GUI.

## Compatible fxLink

GUI corresponding to the fx camera. All of the GX camera functions cannot be used.

#### Standard HXLink

All of the GX camera functions can be used.

If changing the drive or folder for installing the program, click "Browse" and set the folder for installing the program. After designating the folder, click "Next".

Select the previously set folder.

If changing the default settings, click "Browse" and select the folder. After designating the folder, click "Next".

When first installing HXLink, settings for the previously set input folder, save folder, snapshot/cross fade display folder are set in the same folders.

If updating HXLink versions, the previous settings for each folder can be set individually.

Selection of the previously set folders can be changed when executing HXLink.

The installation will start when you click the "Install".

This performs "TCP IP Network Optimization".

Perform the following operations after connecting the PC to the LAN HUB or MEMRECAM.

If the following operations are conducted when the PC is not connected to the LAN or MEMRECAM, there will be message indicating "TCP/IP Network Optimization" required when the MEMRECAM is connected.

At that point, end HXLink and perform "TCP/IP Network Optimization" in "Start Menu"  $\rightarrow$  "MEMRECAM HXLink" and restart the PC.

b optimize, click check box next to it. the check box is set, A TCP/IP network setting i	is optimized to MEMRI	ECAM connection.	Cancel
ou must shut down and restart your computer be	fore the new settings v	vill take effect.	Gateway
Roadcom NetXtreme Gigabit Ethernet	172.21.128.47	255.255.0.0	

• If using an HX, GX or an fx camera connection, check the network and click OK.

If using only the fx camera FC-AL, click Cancel.





Click "Finish" when the dialog for setup complete is displayed.

Reboot the computer before using the program.

This completes the installation of the HXLink application.

(Blank page)

# 3 Basic Functions

# 3.1 HXLink Startup

Double click on the HXLink icon on the desktop to start the HXLink application.



Click "Yes" when the "User Account Control" dialogue is displayed.



The following screen appears when HXLink starts up.

(The descriptions in this manual assume the HXLink GUI setting is in "Basic Mode".)



[Startup Screen : Basic Mode]

# 3.2 Camera Registration

You can assign a "Nickname" of your own choice to the camera registered in HX Link.

If the camera is not registered, the camera name will be the symbol and CID (camera identification number) indicating the model.

To set the camera nickname, select "Camera Registration" from "Settings" to display the camera registration dialogue.

File	View	Settings Help	
		Camera <u>R</u> egistration	Shift+Ctrl+R
		Settings at beginning of camera connection	Shift+Ctrl+C
		Option	Shift+Ctrl+O

Nick Name	IP Address	Туре	CID/ID	Nickname	
				IP Address	
				) Camera Type	
				HX-3	-
				CID/ID	
				Add	Delete
				Change	

Input the Nickname, Camera Type and CID in the camera registration screen and click "Add".

The input Nickname will be displayed in the list on the camera registration screen. Click "OK" to finish registration.

- \* The CID is the number identifying the individual MEMRECAM camera.
- \* The camera IP address is set at factory shipment.

\* The Camera Type, CID, and IP address are displayed at camera startup.



Startup Screen: MEMRECAM HX-3

Confirm the Camera Type, CID and IP address, even with the HXLink camera search function described next.

Confirmation can also be made with TOP MENU> SYS MENU> INFO with the optional J-PAD3 remote control.

# 3.3 Camera Connections

Click "Connect Camera" in the "Item Toolbar" to start connections with the camera. HXLink searches for cameras on the network when "Connect Camera" is pressed and displays them in the camera connection window. The cameras found are displayed in this window, and cameras connected from other PC are marked with a red X indicating connection is not possible. Check the box to the left of the cameras that can be connected and click OK to connect all of the cameras checked.

If only one camera is to be used, register that camera and that camera is connected without being displayed in the camera connection window.

Attach the camera						×
Select A	All Clear	All	OK		Cancel	
NAME	TYPE	IP	IP Address		ID	CAMERA
<b>✓</b> ■hx3 7779	HX-3	17	2.21.90.21	7779		
<b>□•</b> □ hx3 7777	HX-3	17	2.21.90.50	7777		

Start "Connect Camera" and the cameras designated in the item list are added as camera items, and the Nickname, Camera Type and camera status for the camera is displayed. The camera item status display is updated each time the camera status changes, and the camera status is then displayed.

When the camera connection is done, a live camera image is shown in the image display area.



Recording Setting	J
BB Update	
SensorGain	
GXC OFF 💌	
All Cameras Cooling Fan Driving Stop	

The "Recording Settings" window appears when HX series cameras are connected.

"BB Update"



Conduct black balance after changing the shutter or frame size by correcting the black level for each pixel.

The HX camera is set at factory shipment to automatically update the black balance upon camera startup, when starting VIEW, ARM or when ending recording.

Check the "HX Link User's Manual" for "Sensor Gain", "GXC" and "All Cameras Cooling Fan Driving Stop".

# 3.4 Toolbars

■ Item Toolbar (Basic Mode)

Ĕ		•(		[
Item List	Tupo		Chabua	_
Name	туре	<u> </u>	วเลเนร	
				_
				-
4				
Close		Clo	se All	'n
Download	Forr	nat (	Conversi	on
5k -				-
Frame Rate	0	Fran	ne Size	
3				-
Shutter		Low	Light	
Option 🖌 \varTheta	Detai		Superim	pose

# Add Item

Open Image File

**2** 

Opens the image file and adds it to the item list as a file item.

# Connect Camera



Connects the camera and adds it to the item list as a camera item.

# Item List

Displays the items (cameras connected, image file opened).

□ ☑ Synchronous display selection check boxes■ □ ▷ Item mark

•	Camera Item	
	Name	Camera nickname
	Туре	Camera Type or memory segment. Memory segments are shown as "MEM".
	CAMERA	Camera port number (with multiple camera head DRP)
	Status	Camera status or memory segment number
-	File Item	Image file name
	Туре	Image file type (mcf, avi, tif, bmp, jpg)
	Close	Closes the item in the image display and deletes it from the list. For cameras, ends the camera connection.
	Close All	Closes all of the items and deletes them from the list.
		For cameras, ends all of the camera connections.
	Download	Downloads image data from a camera to the PC Downloads the image data recorded on a camera to the PC as MCFF or AVI format files.
		Converts the image data (MCFF) format
F	Format Conversion	Converts MCFF files to the AVI/BMP/TIFF/JPEG format and saves.
Ľ		When specifying conversion to MCFF, it is cut off at the time axis and saved.
		Frame Rate Settings
	<b>3</b> 1000 ▼	Sets the camera Frame Rate in the VIEW mode.
	<ul> <li>Frame Rate</li> </ul>	The selectable Frame Rate are shown in the pull down menu. Click 🛛 🎿
		to set the Frame Rate in greater detail.
		Frame Size Settings
	□"i 2560v1920 -	Sets the camera frame size in the VIEW mode.
	C Frame Size	The selectable frame sizes are shown in the pull down menu. Click
		the frame sizes in greater detail.



Shutter Speed Settings

Select the shutter speed from the pull down menu to set.

Click the custom shutter I to set the shutter speed in greater detail.

# Low Light Settings

8	1000pps	-
	Low Light	

When in the VIEW mode, click the low light mode button *b* to verify the subject at an exposure corresponding to the Frame Rate specified in the pull down menu. The subject can be verified with general illumination conditions even without using photographic lighting, and image angle and focus adjustment is possible.

Option	Click the option button and the window for the HX Link settings is displayed.
Detail	Detailed Settings Displays the window for the detailed settings for the connected camera.
Superimpose	Click the superimpose button to display the camera photographic information on the downloaded image.

Custom Settings for Frame Rate and Frame Size

3 1000 ▼
Frame Rate

2560x1920

Frame Size

Click the left button on the pull down menu for "Frame Rate" and "Frame Size" to display the following dialogue and set the desired frame rate and frame size. However, there are limitations to the values that can be set for frame rate and frame size.



Coordinate the Frame Rate and Frame Size, and a message will be displayed for values that cannot be set.

Click "OK".



Click "Yes" to change to the set value.

Custor	n Setting(Frame Rate, Fra	ame Size) Co	llectiveSetting		
Priorit	y				
•	Frame Rate	100000	-		
0	Frame Size	320	<b>•</b> ×	248	•
	View Angle Display	4	æ	GXC OFF	•
	Recording Time		3.440297 sec		
		OK	Cancel	1	
		U.V.			

The "Frame Size" is changed to the value set.



**Custom Shutter Settings** 

Detailed shutter speeds can be set.

Setting shutter speed by exposure time
Input Exposure time.
O 1/n SEC 1000
micro SEC 999.5
OK Cancel Apply

HXLink Detailed Settings

"Download" and "Format Conversion" settings can be performed either "individual" or "Collective (List)".

Option		X
General GUI Folder	HXLink GUI F Basic Mode C Expert Mode     RESET	
MISC Camera ConnectType	Conversion     Format Conversion     Format Conversion     Individual     Collective (List)     Format Conversion     Collective (List)	
Download I/O Signal Synchronous Setting	GUI setting at the time of one camera connection     Individual     Collective ( List )	
Exposure Timing Frame Time HX, GX Video Disp Warning Disp	Current setting     Current setting	
Log Save Auto Process File	GUI setting of your favorite (Available at restart HXLink ) Current setting KLink Compatible KLink Standard HXLink Standard	
Auto conversion Default Conversion Moff Frame Time Function Auto recording/download	Disp clock setting	
Auto recording/ download		
	OK Car	ncel

Refer to the "HX Link User's Manual" for details for each item.

Option

## **Detailed Settings**

Click the detailed settings button to display the window for each of the settings for the connected camera.

A "Detail settings" window is shown for a single camera connection, while a "The list of camera setup" window is show for two or more camera connections.

Detail settings				×
Recording parameters				General parameters
ID		Knee	ON 💌	Comero Timo
Scene No.	1÷	Gain 🖉	NORMAL -	Internal Sync Time
🍳 🖓 📻	1000 💌	Gamma	NORMAL 💌	BATT.STATUS
C Frame Size 🛄	2560x1920 💌	White Balance 🍸	AUTO -	LARGE
Rec Trigger Mode 🔀 🛛 1	NORMAL	Enhance	NORMAL -	Save Range Mode
Trigger Timing 🗲	CENTER 💌	Chroma 🚦	100% 💌	PLAT
Shutter 🗲	OPEN 💌	Black Balance 📱	DN 💌	VALID
AE 🖊	OFF 💌	AOI	FULL 💌	
Pixel Bit Depth bit	10bit 💌	DRES Mode 🗾	OFF 💌	
Exposure phase	0	Rec Sync Signal In	nternal Sync	Video
Low Light 🔒	1000pps 💌	RGB Matrix	OFF 💌	∠oom
Comment				V Deciliar
Playback Parameters				X Position
Segment No SEG	1 -	Knee	ON 🔻	
Scene No.	0	Gain //	NORMAL -	Y Position
Frame Rate 🛚 🔧	1000	Gamma	NORMAL 💌	
Frame Size 🖳	1920x1080	White Balance 👖	AUTO 💌	Centering 👷
Trigger Mode <u> 1</u>	NORMAL	Enhance	NORMAL -	TRIG1 Filter
Trigger Timing ≶	CENTER	Chroma 🚦	100% 💌	TRIG2 Filter
Shutter 🕭	OPEN	Black Balance 📱	B ON 💌	20.0 us
AE 🖊	OFF	AOI	FULL	EST1 Filter
Pixel Bit Depth bit	10bit	DRES Mode 📕	V OFF	U.U us
Exposure phase	0	Rec Sync Signal In	nternal Sync	0.0 us
		RGB Matrix	OFF 💌	Trigger Edge detect
Comment				OFF(level)
Block Frame		Block Fr	rame	
Current 1	0	Top 1 -658	18	
Start 1 -	20 <u>÷</u> B	Bottom 1 6587	7	Apply
End 1 💌	20 🛨 Trigge	r Time 13/03/27 16:	36:20.000000	Close

"Detail setttings" Window

(00293)D

Double click on a cell for each of the parameters in the "Collective" row to display the settings dialogue. Settings for the parameters for all of the connected cameras can be made. Parameters for the connected cameras can be set in the cells for the selected cameras.

		S	witch th	e tabs to cha	nge	the setti	ng item		"C	ollective	"row	
-	The list of can	nera setup							_ /			X
C	amera Configu	uration Informa	tion Camera E	invironmental Settings	Rec. F	Parameters   Pla	y Parameters   Play	Parameters(Image	e Qualit/)   Pl	ay Parameters(F	Range)   Connection C	or • •
		Misland	ID Address	MAC Address	CID	DDD Version	Perceding Device	HD Mag Op.	Malan	Master/Claus	Manage Segment	
	Collectiv	e										
	HA-5	nx5 ////	172.21.90.30	00-10-25-22-20-00	1111	1.12	NAIVI		54.1 OD		540bX1	-1
	HX-3	hx3 7779	172.21.90.21	00-21-5A-75-80-3C	7779	1.12	RAM		34.1 GB		34GBx1	
	(											+

"The List of camera setup" Window

For example, if setting segmentation, the following occurs for cameras selected as "Collective" or "Individual".

Memory Segment	Memory Segment
OnlineSetup(Collective) Memory Segment	OnlineSetup(Individual) Memory Segment • 34GBx1
С х2	C 17GBx2
C x4	C 8.5GB×4
C x8	C 4.2GBx8
C x16	C 2.1GBx16
C x32	C 1.0GBx32
C x64	C 533MBx64
OK Close	OK Close

Collective

Individual

Detail

The list of camera setup (Partial)

The	list of came	era setup										
ame	ra Configur	ation Informat	ion Camera E	nvironmental Settings	Rec. F	arameters   Play	/ Parameters   Play P	arameters(Image	Quality)   Pl	ay Parameters(Ra	ange)   Connection Co	r_1
	TVDE	Nickname	ID Address	MAC Address	CID	DRP Version	Recording Device	HD-Mag On	Memony	Macter/Slave	Memory Segment	-
	Collective	THERITOTIC	If Address	MAC Address	CID	Dia version	Recording Device	The Wildy op.	wiemory	Waster/ Slave	Memory Segment	-
	HX-3	by3 7777	172 21 90 50	00-1C-23-22-2D-DD	7777	112	RAM		34.1 GB		34GBv1	
	HX-3	hx3 7779	172.21.90.21	00-21-5A-75-80-3C	7779	1.12	RAM		34.1 GB		34GBx1	

Camera Configuration Information : Displays information such as the IP address for connected cameras

The	list of came	ra setup										
				5		1	- 1					
m	era Configura	ation Informati	on Came	era Environmental Se	ettings Rec. P	arameters   Play	y Parameters   Play Pa	rameters(Image (	Quality)   Play I	Parameters(Rani	ge)   Connecti	ion Cor
D	TYPE	Nickname	Status	SaveRangeMode	FrameTime	Time Stamp	Camera Time	Camera Sync	EST Select	EST1 Input	EST2 Input	EST2
	Collective											
	HX-3	hx3 7777	READY	PLAY	Trigger	ON	Internal Sync Time	Internal Sync	EST1	Nega	Nega	0.0
	HX-3	hx3 7779	READY	PLAY	Trigger	ON	Internal Sync Time	Internal Sync	EST1	Nega	Nega	0.0
							11				2000	

Camera Environmental Settings:

Displays information such as the synchronization settings for connected cameras

The	he list of camera setup													
am	amera Configuration Information   Camera Environmental Settings Rec. Parameters Play Parameters   Play Parameters(Image Quality)   Play Parameters(Range)   Connection Cor													
ID	TYPE	Nickname	Status	Seg	Scene No.	Frame Rate	Frame Size	Blocks	Rec Trigger Mode	TriggerTiming	Shutter	LowLight	Sensor Gain	AOI
	Collective													
)	HX-3	hx3 7777	READY	1	2	1000*	2560x1920*	1	NORMAL	CENTER	OPEN	OFF	LOW	FUL
)	HX-3	hx3 7779	READY	1	2	1000*	2560x1920*	1	NORMAL	CENTER	OPEN	OFF	LOW	FUL
•			III											_

Rec. Parameters : Displays recorded image data settings

3	The	list of came	ra setup													
(	ame	amera Configuration Information   Camera Environmental Settings   Rec. Parameters   Play Parameters   Play Parameters(Image Quality)   Play Parameters(Range)   Connection Cor														
[	ID	TYPE	Nickname	Status	Frame No.	Seg	Scene No.	Frame Rate	Frame Size	Blocks	Rec Trigger Mode	Shutter	Sensor Gain	AOI	ImageTrigger	
		Collective														
	0	HX-3	hx3 7777	READY	0	1	1	1000	2560x1920	1	NORMAL	OPEN	LOW	FULL	LOW	
	0	HX-3	hx3 7779	READY	0	1	1	1000	2560×1920	1	NORMAL	OPEN	LOW	FULL	LOW	
	•				m	ř									•	
1	- tan															

Play Parameters: Displays the recorded image data playback settings

The list of camera setup												
Camera Configuration Information   Camera Environmental Settings   Rec. Parameters   Play Parameters   Play Parameters (Image Quality)   Play Parameters (Range)   Connection Cor												
IC	TYPE	Nickname	Status	Frame No.	Gain	Gamma	White Balance	Edge Enhance	Knee	Chroma	RGB Matrix	Luminance encoding
	Collective											
0	HX-3	hx3 7777	READY	0	NORMAL	NORMAL	AUTO	NORMAL	ON	100%	OFF	NORMAL
0	HX-3	hx3 7779	READY	0	NORMAL	NORMAL	AUTO	NORMAL	ON	100%	OFF	NORMAL

Play Parameters (Image Quality) :

Displays the image quality settings during recorded image data playback

# Superimpose

#### Superimposed Information

Click the superimpose information button to display information during camera photography on the downloaded image (MCFF). Change the format to superimpose information on the converted file image in the same manner.



MEMRECAM HXLink - [hx3 7777-N001.mcf] - [Color] - [ , 0]		
File View Control ImageQuality AVISettings Sync Display Settings Help		
D 0 Scene 2 Trigger CENTER Trigger Time 13/03/27 17	25:26.000000 Erame00000001	
	And the second se	
		Name Tune C Status
	and the second	Indiane 1995 C. Colorado
	and the second second	🗹 🀲 hx3 7777 mcf
	A REAL PROPERTY AND A REAL PROPERTY A	
	Contraction of the second second	
	and the second second second	
	and the second second	
and the second	and the second second	
	Second States of the second second	
FRANK AND	A REAL PROPERTY AND A REAL PROPERTY.	
<b>大学会会是一些教育的人民的人的人</b>		< F
A REAL PROPERTY AND ADDRESS OF AD		Close Close All
	A COMPANY OF A COM	
	A CONTRACTOR OF THE OWNER OF THE OWNER	Download Format Conversion
A REAL PROPERTY OF THE PARTY OF		<u>₹</u> 1000 <u>▼</u> <u>512x512</u> <u>▼</u>
A DATE OF THE OWNER	And a state of the second second	Frame Rate     C Frame Size
the second se	and the second	
		Chatter Law Links
	and the second	Shaker Low Light
Nickname hx3 7777-N001 CID 7777 Re	c 1000 Shutter OPEN nac HX-3	Option Option Detail Superimpose
A		
		Menu (Menu)
K K ■ N → O S Current Frame (F) Start Fra	me [F] End Frame [F] Play Rate	
	V 500.00 V	
	X:520.00 Y:-8.00	R:180 G:180 B:180

[Nickname], [CID], [Rec(Rec Rate)], [Shutter], [CameraType]

## ■Main Toolbar

Toolbar for recording of the camera selected on the item list and camera/file playback.

Includes image zoom/scroll function/display entire image.



Main Toolbar: Basic Mode

Either establish connection between the PC and the camera or open a file to enable the main toolbar.



## Names of the Types of Display Buttons and Their Functions

Names of the types of display buttons and their functions are given below. Click the display button with the mouse to start the camera control operation.

₩-	GO TO START	Display starting frame for playback range
K	<b>REV STEP</b>	1 frame reverse
	STOP	Stops the playback, VIEW, and ARM modes, and switches to READY
		mode
•	PLAY	Forward playback/forward loop playback
H	FWD STEP	1 frame forward
<b>→</b>	GO TO END	Displays the end frame of the playback range
•	VIEW	Switch from READY mode to VIEW mode
•	ARM	Switch from VIEW mode to ARM mode
1	TRIG	Manual trigger during ARM mode,
		Trigger frame display during READY mode
		Set the current frame to the start frame of the playback range
		Set the current frame to the end frame of the playback range

Click "PLAY" b during forward playback to switch to forward loop playback. Click "REV STEP" during playback to change the playback rate. Frame Display and Playback Rate



The playback rate can vary during camera operation and during file image operation with the pull down menu.



**Camera Operation** 

File Image Operation

>>>>>, <-<-<-, ->-> in the "Playback Rate" pull down menu refers to

>>>>> Actual playback rate. Plays at the same rate as the frame rate during recording.

<-<-- Plays in the reverse direction at the fastest playback rate without dropping frames.

->->> Plays in the forward direction at the fastest playback rate without dropping frames.

# Names of Button Relating to Display and Their Functions Image Zoom Tool Switch to zoom mode Image Zoom Rate Set the value for the zoom rate Image Hand Tool Switch to the mode to scroll the image Image Display Entire Image Automatically sets the rate of magnification to match the window size, and displays

# Playback Slider

Used to specify the playback frame and set the playback range.






\* For the READY mode, STOP is displayed in the HX/GX camera monitor output (Status)

#### **Camera Operation Status Figure**

(Blank page)

# 4 Basic Operation

### 4.1 Basic Operating Procedures

The basic operating procedures are divided into single camera connection and multiple camera connections for description.

Subsequent descriptions are for the "Basic Mode".

- 4.2 Single Camera Connection
  - 4.2.1 Connect Camera
  - 4.2.2 VIEW
  - 4.2.3. Change Settings (Example : Change the Frame Rate)
  - 4.2.4 ARM
  - 4.2.5 Trigger Input
  - 4.2.6 Playback
  - 4.2.7 AVI Downloads

#### 4.3 Multiple Camera Connections

- 4.3.1 Connect Cameras
- 4.3.2 VIEW
- 4.3.3 Change Settings (Example: Change trigger location)
- 4.3.4 ARM
- 4.3.5 Trigger Input
- 4.3.6 Playback
- 4.3.7 Download
- 4.3.8 Convert Format

#### 4.2 Single Camera Connection

#### 4.2.1 Connect Camera

Click "Connect Camera" on the "Item Toolbar" to start the camera connection. - Check the box for the camera to be connected. X At ach the camera Clear All OK Select All Click "OK" to start the camera connection. CAMERA TYPE IP Address CID ID 1E 🗹 💶 hx3 7777 HX-3 172.21.90.50 7777 MEMRECAM HXLink - [hx3 7777] - [Color] - [ , 0] File View Control Recording AVISettings Recording Setting Sync Display Settings Help BB Update Ê Once the connection VALID tem List 
 Name
 Type
 C.
 Status

 ✓
 ►
 ★
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 ■
 orGain is done, the camera is 105 ---Ψ GXC OFF 💌 added to the item list. All Cameras Cooling Fan Driving Stop The live image for the Stoppable selected camera is displayed on the Close Al Close monitor. 現。1000 👻 🔜 1920x1080 👻 Frame Bate C Frame Size 3 OPEN \* 💧 1000pps Shutter Low Light Option 9 Detail Superir End Frame [F] Play Rate Start Frame [F] End Frame 5 < 100 ÷ 🕅 🖬 +00000000 +00000000 

X:411.00 Y:-6.00

R:180 G:180 B:180

#### 4.2.2 VIEW

When the camera is READY, click "VIEW/ARM" • on the main toolbar.



When the camera is in the VIEW mode, the "STATUS" on "Item list" switches from WAIT→VIEW.

4.2.3 Change Settings (Example : Change Recording Rate)

1) When changing the camera settings, click each pull down menu on the item toolbar and make the settings.



2) Click and a message to update the black balance appears.

[2013/03/	29 13:06:27][ <sup>1</sup>	nx3 7777],Update B	lack Balance Data!	
				Ŧ



	BB Update	
	SensorGain	
	🖄 LOW 💌	
	GXC OFF 🛫	
_	All Cameras Cooling Fan Driving Stop	
ć	Stoppable	

4) For more detailed settings, press "Detail Settings" Detail and set in the "Detail settings" dialogue.

Detail settings					×				
Recording parameters					General parameters				
ID		Knee		ON 💌	C				
Scene No.	0 -	Gain	2	NORMAL -	Internal Sync Time				
🍳 Frame Rate 🏂 💻	500 💌	Gamma		NORMAL -	BATT.STATUS				
O Frame Size 📃	2560x1920 💌	White Balance	π	AUTO -	LARGE				
Rec Trigger Mode 🚺 1	NORMAL	Enhance		NORMAL -	Save Range Mode				
Trigger Timing 🤸	CENTER -	Chroma	7	100% -	PLAY				
Shutter 🗲	OPEN -	Black Balance	$\mathbf{B}_{\mathbf{B}}$	ON 💌	Black Balance Update				
AE Æ	OFF 💌	AOI		FULL 💌					
Pixel Bit Depth bit	10bit 💌	DRES Mode	W	OFF 💌					
Exposure phase	0	Rec Sync Signal	Inter	mal Sync	Video				
Low Light 🔒	1000pps 👻	RGB Matrix		OFF 💌	Zoom				
Comment									
Plavback Parameters					× Position				
Segment No SE6	Ţ	Knee		ON 👻	0				
Scene No.		Gain	四	NORMAL -	Y Position				
Frame Rate 🛛 🔧		Gamma		NORMAL -					
Frame Size 📃		White Balance	11	AUTO 👻	Centering 👷				
Trigger Mode <u> </u> …		Enhance		NORMAL -	TRIG1 Filter				
Trigger Timing ≶		Chroma	2	100% 👻	TRIG2 Filter				
Shutter 🗲		Black Balance	$B_B$	ON 👻	20.0 us				
AE 🖊	OFF	AOI	_		EST1 Filter				
Pixel Bit Depth bit		DRES Mode	<u>//</u>		EST2 Filter				
Exposure phase		Rec Sync Signal			0.0 us				
		RGB Matrix		OFF -	Trigger Edge detect				
Comment Block Frame		Di/			orrievelj				
Current 🔄	0	Top	Fran.	ne					
Start 🚽	0 <del></del> B	ottom			Apply				
End									
, , ,									

#### 4.2.4 ARM

When the camera is in VIEW, click "VIEW/ARM"

• on the main toolbar.



When the camera is in the ARM mode, the "STATUS" on the item list switches from WAIT→ARM.

#### 4.2.5 Trigger Input

MEMRECAM HXLink - [hx3 7777] - [Color] - [ , 0] . 0 . X File View Control Recording AVISettings Sync Display Settings Help Recording Setting • BB Update VALIE Item List SensorGain Type C. Status 🕅 LOW 🖃 GXC OFF -All Cameras Cooling Fan Driving Stop Close Close All 號 500 ▼ 2560x1920 Frame Rate C Frame Size 3 OPEN - 💧 1000pps Shutter Low Light Option • Detail Superimpose End Frame [F] Play Rate View / Measu me IF1 art Frame (F)  $H H \blacksquare H H \to 0 \checkmark$ Q 100÷ en 192 X:272.00 Y:-34.00 R:180 G:180 B:180

When the camera is in ARM, click "TRIG" 5 on the main toolbar.

When a trigger is input to the camera, the camera switches to the REC mode and the "STATUS" on the item list switches from REC→WAIT→READY.

#### 4.2.6 Playback

Once recording is complete, the image can be played back.

1) Click "PLAY" **)** on the main toolbar.



The camera "STATUS" switches to PLAY.

2) Click "STOP" 🔲 on the main toolbar to end recording.

#### 4.2.7 AVI Downloads

1) When the camera is READY, download the recorded scene. Click "Download" On the item toolbar.

Specify "AVI Files (\*.avi)" in the file type.



2) Click "Save" in the "Download" dialogue to start the download.



3) Once the "Download" is done, the AVI file is added to the item list.



#### 4.3 Multiple Camera Connections

4.3.1 Connect Camera

Α

ich the camera

hx3 7777

hx3 7779

Select All

Click "Connect Camera"

Clear All

TYPE

HX-3

HX-3

ΟK

CID ID

7777

7779

IP Address

172.21.90.50

172.21.90.21

on the "Item Toolbar" to start the camera connection.

Check the box for the camera to be connected.

Click "OK" to start the camera connection.



X

CAMERA

Once the connection is done, the camera is added to the item list. The live image for the selected camera is displayed on the monitor.

#### 4.3.2 VIEW

When the camera is READY, click "VIEW/ARM" • on the main toolbar.



Also, all of the camera images from the menu can be arranged in order for display.



- 4.3.3 Change Settings (Example: Change Trigger Settings)
  - on the item toolbar to display "The list of camera setup". Click "Detailed Settings" Detail 1)



"Collective" in the "The list of camera setup" sets parameters for all of the cameras. Select the "Rec. Parameters" tab to change the "Trigger Timing" settings.



Double click on a "Collective" row of the "Trigger Timing" to display the "Trigger" settings dialogue.

2) Set the value selected in the "Trigger Timing" setting dialogue for all of the cameras. For example, to change the "Trigger Timing" from "START" to "CENTER", click "CENTER" on the radio button. Then click OK and the settings will be reflected for the camera.

#### 4.3.4 ARM

When the camera is in VIEW, click "VIEW/ARM" • on the main toolbar.



When the camera is in the ARM mode, the "STATUS" on the item list switches from WAIT  $\rightarrow$  ARM.

#### 4.3.5 Trigger Input

When the camera is in ARM, click "TRIG" on the main toolbar.



#### 4.3.6 Playback

Once recording is complete, the image can be played back.

1) Click "PLAY" **)** on the main toolbar.



2) Click "STOP" on the main toolbar to end recording.

#### 4.3.7 Downloads

1) When the camera is READY, download the recorded scene. Click "Download" Download on the item toolbar. Select "Collective (List)" in "Option".



Double click the cell for "Save. Start[F]" and "Save. End[F]" to set " Save range".

Save Range	×
Reference Frame Rate	1000 💌
Start. Frame [F]	-20
End. Frame (F)	20
Recorded Range	-2779 TO 2778
ОК	Cancel

Click the cell for the save file name to edit the file name.

ownload								
Rec. Bott	Frame Rate	Save. Start[F]	Save. End[F]	Save as type	File name	Save in	Status	Free
		-20	20			-		
2778	1000	-20	20	mcf	hx3 7777.mcf	hxData	Unsaved	7373
2778	1000	-20	20	mcf	hx3 7779.mcf	hxData	Unsaved	7373
								,
Automati	c format conve	rsion						
Save Fram	ie All					Tot	al size	
						480.4	IMB1 c	omp 1 ÷
							[	···· •
				4			4	

Double click on the cell for the folder and set the destination folder.

b 🔚 Libraries	
D B mm	
Computer	
Floppy Disk Drive (A:)	
🔺 🏭 Local Disk (C:)	
🌗 hxData	=
PerfLogs	
Program Files	
Program Files (x86)	
Users	
Windows	-
New Folder OK C	ancel

Set each cell as a "Batch", to set all of the cameras checked. (00293)D 47 Click "Start Download" Download in the "Download" dialogue to start the download.

MEMRECAM HXLin	k - [hx3 7779.mcf]	- [Color]	-[,0]									
File View Control	ImageQuality	AVISettin	gs Sync Di	isplay Settings	Help					_		
Recording Setting	23								^			
BB Update											The downloaded	
B <sub>B</sub> VALID										Iber Link		
SensorGain	Download								23	Name List	MCFE is added t	0
S LOW		-			1			-		Name Type C. Status		U
	Name	Type C.	S. Rec. T	op[F] Rec. Bott.	Frame Rate	Save. Start[F]	Save. End[F]	Save as type	File na	■ hx3 7779 HX-3 READY	1 1	
GXC OFF	✓ Collective ✓ hx3 7777	HX-3 0	1 .	2779 277	8 1000	-20	20	mcf	hx3 7;	🗹 🗁 hx3 7779 mcf	the item list.	
All Cameras	hx3 7779	HX-3 0	1 .	2779 277	8 1000	-20	20	mcf	hx3 7;			
Cooling Fan Dri												
合 😳 Stoppa												
distanti di si												
										· · · · · · · · · · · · · · · · · · ·		
										Close Close All		
	•								P.	Download Format Conversion	1	
	Automatic fo	ormat conv	resion									
										<u>  5%</u>  1000 ▼ <u> </u>  2560x1920	*	
	Save Frame A	λШ					Tota	l size		Frame Rate C Frame Size		
							480.4	[MB] comp	1 ÷	OPEN - 8 1000pps	*	
										Shutter Low Light		
										Option a Detail Superimon	real control of the second s	
			Download	1	Cancel	1	Close					
•	h	_		-		_		_	,	9		
			Current Fra	me (F) 9	tart Frame [F]	End Frame	e (F) Play Rate	e View	/ Measure			
<b>⊬ K ■ &gt;</b>	▶ → ○	5	-00	000020	-00000020	+000	00020 30		100-	87 🖬		
					1							
						X	:714.00 Y:217	.00	R:180	G:180 B:180		

Once all of the image downloads are finished, click "Close" dialogue.

Close

to close the "Download"

MEMRECAM HXLink	: - [hx3 7777.mcf	f] - [Cole	or] - [	, 0]									0 X
File View Control	ImageQuality	AVISet	tings	Sync Display	Settings	Help							
Recording Setting	23							an a		^			
BB Update											<b></b>		
MALID													
SensorGain	Download									23	Item List		
I DW	Download										Name	Type C.	Status
D 1000	Name	Туре	C. S.	Rec. Top[F]	Rec. Bott	Frame Rate	Save. Start[F]	Save. End[F]	Save as type	File na	Image: Second secon	HX-3	READY
GXC OFF	Collective	LIV 2	0 1	2770	2770	1000	-20	20		w27	🖌 🗁 hx3 7777	mcf	
1	hx3 7777	HX-3 HX-3	0 1	-2779	2778	1000	-20	20	mcr	hx37;	🗹 🌤 hx3 7779	mcf	
All Cameras Cooling Fan Drit			• •										
A Stoppa													
No. 10 Continue													
											·		•
											Close	Clo	ise All
												1	
	•									•	Download	Format 0	Conversion
	Automatic f	format co	onversi	on							=#1.1000		20-4020
											256 11000 -	201	50x1320 -
100 B 100	Save Frame	All						Tota	al size		<ul> <li>Frame Rate</li> </ul>	C Fran	ne Size
								0.0	[MB] comp	1 🕂	DPEN -	8 10	00pps 👻
										_	Shutter	Low	Light
											Onting 10	Date:	c
			Dov	vnload		Cancel	1	Close			opion	Detail	Subeimbose
	Tre-	_									J		
					C1 C1-		5.45	151 Di D.		/Manura	-		
₩ ₩ ■ ▶	N → O	5	U	urrent Frame	rj sta M		End Frame	e (F) Play Rate		100	89 <b>–</b>		
						00000020	4000	130		100-1	<u>N</u>		
K= /						1					, <b>D</b>		
							X	: 714.00 Y : 217	.00	R:180 0	G:180 B:180		

#### 4.3.8 Convert Format

- 1) Converts the format of the image file (MCFF) added to the item list.
  - Click "Format Conversion" Format Conversion the item toolbar. Select "Collective (List)" in "Option".



Double click the cell for "Conv.Start[F]" and "Conv.End[F]" to set "Conversion range".

Conversion Range	×
Start. Frame [F]	-20
End. Frame [F]	20
Mcff Range	-20 TO 20
ОК	Cancel

Double click on the cell for the file type to set the type, compression program and playback rate of the file subject to format conversion.



Set each cell as a "Collective" row, to set all of the MCFF checked.

Double click on the cell for the folder to



Click the cell for the save file name to edit the file name.

2) Click "Conversion start" Conversion start in the "Format Conversion" dialogue to start the format

conversion.

MEMRECAM HXLi	ink - [hx3 7779.mcf	] - [Color] - [	, 0]								
File View Contro	ImageQuality	AVISettings	Sync Displa	y Settings I	Help						
Recording Setting	23										
BB Update											The format
B <sub>B</sub> VALI	D									_ Item List	The format
SensorGain	Format Conversion	n							×	Name Type C Status	converted file is
🖄 LO	Name	Mail Tap/El	Malí Dalla	Conv. ShadlEl	Conv. En	C	Elenano	C auro in	Chabus		converted file is
		MCIT TOP[F]	MCIF BOtto	Conv. Start(F)	Conv. En	Save as	File name	Savein	Status		<b>—</b>
GXC OF	hx3 7777	-20	20	-20	20	avi	hx3 7777.avi	hxData	Convert fi		added to the
All Cameras	💌 hx3 7779	-20	20	-20	20	avi	hx3 7779.avi	hxData	Converting	✓ → hx37779 mcf	
Cooling Fan											item list.
🔒 💽 Stop											
										×	
										Close Close All	
										Download Format Conversion	
										<u>∃%</u> 1000 <u>▼</u> <u></u> 2560x1920 <u>▼</u>	
	Conversion time	All							Registration	Frame Rate Frame Size	
	Conversion une	All					- 1	lotal size		OPEN - 8 1000pps -	
							1155	5.1 [MB]	comp 1 🚊	Shutter Low Light	
	Conversion time	hx3 7779							· _	Partian Lo. David Directionard	
							Omin 23sec	remaining		Uption Uetal Superimpose	
4	Cor	nversion start			Cancel			Close		1	
				IEI Chui	France (E)	Ends			-View / Measur	10	
₩ ₩ = >	N - N   O	5	urrent Frame	(F) Stan		Endr	rame (F) Pia	n			
					00000020	_	10				
					1						
							X:769.00	Y:1460.00	R : 239	G: 254 B: 254	
									111200		

Once all of the image format conversions are finished, click "Close" Close to close the "Format Conversion" dialogue.

File       View       Control       AVEStituas       Sure Display       Settings       Help         Recording Setting       Image: Seting       Ima	MEMRECAM HXLin	k - [hx3 7779.avi]	- [Color] - [	, 0]								_ 0 X	1
Recording Setting       X         BB Update       Image: Conversion         Section air       Format Conversion         Name       MchTag(F)         MchTag(F)       McH Boto.         Conversion       Name         MchTag(F)       McH Boto.         Not of the section of t	File View Control	AVISettings Sy	nc Display	Settings H	elp						_		
BB Update       Image: Series Conversion         Series Carl       Format Conversion         Image: Series Carl       Image: Series Carl         Image: Conversion       Image: Conversion         Image: Conversion       Image: Conversion         Image: Conversion       Image: Conversion         Image: Conversion       Image: Conversion         Image: Conversion       Conversion         Image: Conversion       Conversion         Image: Conversion       Image: Conversion	Recording Setting	23											
Image: Series of Game       Format Conversion         Image: Medif Top(F)       Medif Top(F)         Image: Medif Top(F)       Medif	BB Update										<b>1</b>		
SeruolGair       Format Conversion         Image: SeruolGair       Image: SeruolGair         Image: Conversion       Image: SeruolGair         Image: Conversion       Image: Conversion         Image: Conversion       Image: Conversin	E VALID										lines 1 int		
Image: Section of the section of t	SensorGain F	ormat Conversion								×	Name	Tupe C Status	-
GVC       [V]       Name       Molf Top[F]. Mcff Bolo.       Low Statif[]       Low Statif[]<	85 LO		1		0 0 15	0.5	0	(D)	<u> </u>		■ maine	HX-3 READY	-
GXC       0       ACamera       Convertion       Ma37777       avi       ma3777       avi       ma3777       avi       ma3777       avi       ma3777       avi		Name	Mcff I op[F]	Mclf Botto	Conv. Start[F]	Lonv. En	Save as	File name	Savein	Status	🗹 🖙 hx3 7779	HX-3 READY	
Al Cameras Cooling Fan Conversion time All Conversion time hu3 7773 Conversion time hu3 7773	GXC OF	hx3 7777	-20	20	-20	20	avi	hx3 7777.avi	hxData	Convert fi	🗹 🍉 hx3 7777	mcf	
Conversion time All Conversion time hu3 7773 Conversion time hu3 777	All Cameran	hx3 7779	-20	20	-20	20	avi	hx3 7779.avi	hxData	Convert fi	w hx37777	avi	
Conversion time All     Conversion time hu3 7773     Conversion time	Cooling Fan										🖌 🗁 hx3 7779	avi	
Conversion time All Conversion time All Conversion time hu3 7779 Conversion time hu3 7779	🖰 🐼 Stop												
Conversion time All Conversion time hu3 7779 Conversion time hu3 777													
Conversion time All Conversion time All Conversion time hx3 7773 Conversion time hx3 7773													
Conversion time All Total size Conversion time hu3 7773 Conversion time hu3 7773 Conversion statt Conversion													
Conversion time All Conversion time All Conversion time All Conversion time All Conversion time hu3 7779 Conversion tim											•		F
Conversion time All Conversion time hu3 7779 Conversion time hu3 77											Close	Close All	1
Conversion time All Registration Conversion time hu3 7779 Conversion time hu3 7779 Conversion time hu3 7779 Conversion start Conversion start													5
Conversion time All  Conversion time hx3 7773  Conversion time hx3 7773  Conversion time hx3 7773  Conversion start  Co											Download	Format Conversion	1
Conversion time All  Conversion time All  Conversion time hu3 7779  Conversion time hu3 7779  Conversion stat  Conversion st													-
Conversion time All									-		-350 T1000 -	2560x1320	-
Conversion time     hu37779       Omin Osec remaining     Omin Osec remaining       Conversion start     Cancel       Conversion start     Close		Conversion time	All						_	Registration	In the second	C Frame Size	
Conversion time         hu37779           Omin Osec remaining         Option           Conversion start         Concel								Т	otal size		OPEN -	<b>6</b> 1000pps	Ŧ
Conversion start         Cancel         Option         Detail         Superimpose           K		Conversion time	by3 7779					0	LO [MB]	comp  1 🕂	Shutter	Low Light	
Conversion start         Cancel         Close           Image: Conversion start         Cancel         Close           Image: Conversion start         Concel         Close           Image: Concel         Concel         Close           Image: Concel         Concel         Close           Image: Concel         Concel         Close           Image: Concel		Conversion and	1837773					Omin Osoo co	en aliain a		Option O	Detail Superimpo	ose
Conversion statt         Concel         Dore           Image: Conversion statt         Concel         Concel         Concel           Image: Conversion statt         Concel         Concel         Concel         Concel           Image: Conversion statt         Concel         Concel         Concel         Concel         Concel           Image: Conversion statt         Concel         Concel         Concel         Concel         Concel         Concel           Image: Concel						a 1		Unin Usec le	maring	-			
K         Image: State Frame         Courset Frame         Find Frame         Find Frame         View / Measure           C0000020         C0000020         30         •	•	Con	version start			Cancel			Close				
			<1 C	urrent Frame	[F] Star	Frame [F]	EndF	rame [F] Pla	y Rate	View / Measure			
			>	-000000	20	-00000020		00000020	• •	100 ÷	37 🖃		
									_				
								N 700 00 1		0.000			

# 5 Troubleshooting

### 5.1 Troubleshooting

This describes the issues and solutions for various problems that may arise during HXLink use. (Jointly used items are also used with GXLink images)

<u>"Error Settings" message appears when the camera connection button is pressed</u>

(during TCP/IP connection)



If this message is displayed, open "Network Connections" in the control panel and confirm that the network in use is valid (the status is "Connected").

V 🗣 🙀 « Network and Int	ernet   Network and Sharing Center	✓ 4y Search Control Panel							
Control Panel Home	View your basic network information a	and set up connections							
Change adapter settings	🔊 —— 🜆	See full ma							
Change advanced sharing settings	WIN-OGCJPQSSJCE Network 2 (This computer)	2 Internet							
	View your active networks	Connect or disconne							
	Network 2 Work network	Access type: Internet Connections: 🏺 Local Area Connection							
	Change your networking settings								
	Set up a new connection or network Set up a wireless, broadband, dial-up, ad hoc, or VPN connection; or set up a router or access point.								
	Connect to a network								
	Connect or reconnect to a wireless, wired, dial-up, or VPN network connection.								
	Choose homegroup and sharing options								
	Access files and printers located on othe	r network computers, or change sharing settings.							
See also	Troubleshoot problems								
HomeGroup	Diagnose and repair network problems,	or get troubleshooting information.							
Internet Options									
Mindaus Fissuall									

Next, click "TCP IP Network Optimization" in the Windows Start Menu  $\rightarrow$  Programs  $\rightarrow$  MEMRECAM HXLink.

ICP/IP network optimization			
A TCP/IP network setting is optimized to MEMREC/ To optimize, click check box next to it. If the check box is set, A TCP/IP network setting is	AM connection. optimized to MEMF	RECAM connection.	OK Cancel
You must shut down and restart your computer befo	re the new settings	will take effect.	
Name	Address	SubnetMask	Gateway
✓ Intel(R) PR0/1000 MT Network Connection	172.21.80.1	255.255.0.0	
			•

Check only the network in use and then click "OK". Then, reboot the computer. This operation sets the optimal value for the network settings.

If the error still remains after rebooting,

remove the setting file "NicConfig.ini"(\*1), re-try "TCP IP Network Optimization", and reboot the computer.

(\*1) "NicConfig.ini" is in "C:\Program Files\Program Eles\Program Eles\Program Files\Program Eles\Program Eles\Program Files\Program Eles\Program Eles\P

•<u>"Error Settings" message appears when the camera connection button is pressed</u> (during FC-AL connection)



If this message is displayed, execute the <fcal\_setup.reg> file created in the folder where the HXLink programs are installed (different from the OS) and then reboot the computer. This operation sets the optimal value for the FC-AL host adapter settings.

#### ■Cannot connect camera

When the camera connection button is pressed and the camera connection dialogue appears, the icon for the camera that should be connected may have an "X" mark (or with HX or GX cameras, an icon is not displayed on the list).

Check the following items.

- Are the camera and the PC properly connected?
- Is the camera already connected to another PC?
- With fx cameras, was the correct CID, IP address and model registered during camera registration?
- With fx cameras, was the "Connection Format" tab (TCP/IP connection, FC-AL connection, Gbit connection) in the "Options" dialogue set properly?

#### • "Sync Setting Failure" appears during fx camera connection

Under the "Sync Settings" tab of the "Options" dialogue or "Camera Connections Settings" dialogue, if the "fx Camera Time" setting is "IRIG Time", the following message may be displayed during camera connection or when "Sync Settings" in the control menu is clicked.



If using IRIG signals, check the following items.

- If using the IRIG BOX, are the IRIG-B signals properly connected to the IRIG BOX IRIG IN connector?
- If using the M-HUB, are the IRIG-B signals properly connected to the M-HUB IRIG.IN connector?
- Is the external trigger input?

#### ■Camera unable to VIEW

With a multi camera head DRP such as the RX-5, if camera heads not connected to DRP have HXLink camera connections, the following message is displayed during VIEW.



If the aforementioned is displayed, camera heads are not connected to the MEMRECAM fx RX-5 PM Unit port 2 so VIEW is not possible. End camera control one time with HXLink and either connect the camera head to port 2 or connect the camera with the port 2 configuration.

If using GX cameras, VIEW may not be possible when a video warning is displayed.

If a video warning is displayed, confirm that the camera is not in use (in particular, not saving on the USB) and if not in use, click "Stop" to delete the warning shown on the video. Since there are multiple warnings displayed, click "Stop" until the warnings are no longer displayed.

The video display or the PC live image does not work on the GX camera during VIEW/ARM or there is noise

If the camera sync setting is "EST", the image is not updated during VIEW if there are no EST signals.

If not using EST, set "Sync HX, GX Camera" to "Internal Sync" in the "Options" dialogue or under the "Sync Settings" tab in the "Camera Connections Settings" dialogue.

If using EST, check the following.

- Are the EST signals properly input into the connector specified in "Input/Output Settings" in the options dialogue?
- Is the shutter speed for the recording parameters (frame rate if OPEN) set slower than the EST signal frequency?

• The recording date for the HX, GX camera is January 1 or December 31

Under the "Sync Settings" tab of the "Options" dialogue or the "Camera Connections Settings" dialogue, if the "HX, GX Camera Time" setting is "IRIG•M-HUB Time", any of the following may be generated.

• The IRIG signals are not connected to the GX-HUB.

• With combined HX, GX, fx use (using the M-Hub), the HXLink does not control the "fx Camera for M-HUB Control".

The recording time does not match the time of the IRIG signals

For HX and GX cameras, check the following.

- •Under the "Sync Settings" tab of the "Options" dialogue or the "Camera Connections Settings" dialogue, is the "HX, GX Camera Time" setting the "IRIG•M-HUB Time"?
- If directly inputting IRIG signals into the camera, are the IRIG-B signals properly connected to the IRIG-B IN connector of the camera?
- •If using GX-HUB, are the IRIG-B signals properly connected to the IRIG IN connector of the GX-HUB?
- If using GX-HUB and M-HUB, are the IRIG-B signals properly connected to the IRIG IN connector of the M-HUB?

For fx cameras, check the following.

• Under the "Sync Settings" tab of the "Options" dialogue or "Camera Connections Settings" dialogue, is the "fx Camera Time" setting the "IRIG Time"?

•If using IRIG BOX, are the IRIG-B signals properly connected to the IRIG-B IN connector of the IRIG BOX?

•If using M-HUB, are the IRIG-B signals properly connected to the IRIG-B IN connector of the M-HUB?

#### IRIG locked when using M-HUB

The IRIG signals are not locked even if IRIG-B signals are used with M-HUB. Therefore, the "IRIG Lock Status" in "Display IRIG Lock, Event2" always shows in red (

"Recording Command Failed", "Memory Protected" displayed when starting ARM and

recording is not possible	HXLink Failed Rec Command OK	
Warning		
[2013/05/30 19:02:51][hx3 7777],Mem   Copy To Clipboard Clear	ory Protected. AUTOVIEW=AUTO	Close

Check to see if "Auto Processing" under "Options", "AUTO" isn't selected in the "All Camera Auto View" or that the recording trigger mode isn't "AUTO" (example: NORMAL(A), EVENT(A)). If these settings are enabled, the segment is protected until recording is finished, and overwriting data by recording (ARM) is not permitted.

If it doesn't matter if data is overwritten, set "All Camera Auto View" to something other than AUTO and set the recording trigger mode to something other than AUTO (NORMAL etc.).

#### • Video and PC live image display not updated during ARM and recording is not possible

If the recording trigger mode is "BURST", image recording does not occur unless burst signals are input during ARM. If burst recording with GX cameras, the image is updated only when burst signals are input during ARM.

If not conducting burst recording, set the "Trigger Recording Mode" to "NORMAL" in the "Detailed Settings" dialogue.

If conducting burst recording, check to make sure the burst signals are correctly input to the connector selected in "Select Trigger Input" under the "Input/Output Signals" in the "Options" dialogue or the "Camera Connection Settings" dialogue.

#### ■ The trigger button doesn't work in ARM

When the camera status is in ARM, the trigger button is grayed out and can't be clicked. In this case, check that you are not in any of the following situations.

1) The recording trigger mode is BURST.

In BURST recording, input the burst recording signals from the trigger connector.

Detail settings				×
Recording parameters ID		Knee	ON 💌	General parameters
Scene No.	2	Gain 📉	NORMAL -	Camera Time Internal Sync Time
🍳 🛛 Frame Rate 🏂	<b>—</b> 1000 <b>—</b>	Gamma	NORMAL 💌	BATT.STATUS
C Frame Size 🔜	2560x1920 💌	White Balance 🏦	AUTO 💌	LARGE
Rec Trigger Mode 🔀	1 BURST	Enhance	NORMAL -	Save Range Mode
Trigger Timing ≶	CENTER -	Chroma 🚦	100% 💌	Black Balance Lindate
Shutter 🍤	OPEN 💌	Black Balance 📱	ON 💌	
AE 🖊	OFF 💌	AOI	FULL 💌	
Pixel Bit Depth bit	10bit 💌	DRES Mode 🗾	OFF 💌	
Exposure phase	0	Rec Sync Signal Inte	rnal Sync	Video

2) "ARM All Cameras" connected to HXLink is not selected.

Set ARM again after temporarily stopping ARM with the STOP button.



#### ■ Failure downloading camera image data

The following message appears when downloading.



Displayed when there is not enough free space in the disc drive and the camera image data for the specified range cannot be downloaded. Either change the destination drive for the camera image data or delete unnecessary files in the destination drive and make the download range smaller.

#### The free space shown in the USB is less than the actual

If the USB media format is wrong, it will be treated as if the free space is less than the actual. If the camera power was turned off when writing to the USB media, the USB cable was removed or the media was impacted or shaken during writing, the USB media format may be wrong. In this case, check the options for "Check for Errors" in the disc properties corresponding to the Windows PC and perform the necessary repairs.

#### ■<u>Unable to download images larger than 4GB</u>

Check the file system format of the PC used. If the format is FAT32, files larger than 4GB cannot be downloaded. Change the file system format to NTFS to download files larger than 4GB.

#### • "There is no image data" is displayed on the monitor

If this is displayed, for some reason, the camera image download has failed and the camera image data is not in the MCFF file.



A checkerboard pattern is displayed on the monitor

Consider the following causes.

- For some reason, the camera image download has failed and the camera image data is not in the MCFF file.
  - During sync display, the current frame time is outside the range for the image data.
  - The live image was set to "Do Not Display" under the "Camera Live Display•Download" tab in the options menu or the camera connection settings when connecting the camera.



• The image does not change the image quality of the MCFF is adjusted

1) Gain and knee are not reflected

If recording MCFF images in the DRES mode, the gain and knee settings are disabled.

If the MCFF image properties in the DRES mode are LOW/MID/HIGH, record in the DRES mode.

2) Gain, gamma and knee are not reflected

If the luminance in the image quality adjustment menu is LINEAR or CUSTOM, the gain, gamma and knee settings are disabled.

If the luminance in the image quality adjustment menu is NORMAL, the gain, gamma and knee settings are enabled.

#### AVI conversion with compression program (CODEC)

There are limits to the image size that can be converted with the compression program (CODEC). For example, Indeo 3.2 CODEC generates a conversion error with sizes other than 640x480. Contact your CODEC supplier for CODEC questions.

The HXLink Motion JPEG conversion can handle conversion of most image sizes.

The following format conversion dialogue will be displayed if there is an AVI conversion failure.

Format Co	nversion						Đ	3
ff Top[sec]	Mcff Bottom[sec]	Conv. Start[sec]	Conv. End[sec]	Save as type	File name	Save in	Status	
-0.129000	+0.128000	-0.129000	+0.128000	avi	gx1 1100-N001.avi	gxData	Convert faled	
							"Convers	ion
							Failure" c	lisplaye
<							>	
Conversio	on time All							
Conversio	on time gx1 1100	)			_			
	Conversion start		Can	cel		Close		

Nothing is displayed in the "Save As" dialogue if there is an AVI conversion failure.

#### ■ AVI conversion of large images

HXLink format conversion can handle "AVI 1.0" and "AVI 2.0" AVI conversion.

The AVI 1.0 format is limited to a file size of 2GB. There are no limits to the AVI 2.0 format.

If converting into the AVI 2.0 format, check "Convert with AVI2.0" under the "Previous Conversion Settings" in the "Options" dialogue.

#### Previous versions of HXLink

If reverting to a previous version of HXLink due to some problem, uninstall HXLink but before installing a previous version of HXLink, first delete <HXLink.ini> from the folder where the HXLink program was installed and then proceed with the installation.

#### If the "User Account Restrictions" dialogue appears when HXLink is started

If the Windows Vista/7/8/8.1/10 function UAC is enabled, the "User Account Restrictions" dialogue appears when the HXLink is started.

Click "Allow" in the "User Account Restrictions" dialogue.

To use the drivers necessary for camera connections (FC-AL connection, Gbit connection), HXLink must be executed as an administrator.

#### • I can't open the image file even when dragging and dropping the image file from Explorer to HXLink

There are restrictions when the Windows Vista/7/8/8.1/10 function UAC is enabled. Use the following process to drag and drop image files into HXLink.

- 1) Start Explorer. If a menu does not appear in Explorer, press the ALT key to display the menu in Explorer.
- 2) Click "Folder Options" in the "Tools" menu and the "Folder Options" dialogue appears.
- 3) Select the "Display" tab and check the 2<sup>nd</sup> item from the top, "Open Folder Window with a Different Process".
- 4) Log off and then log on again to enable the settings in 3).
- 5) Execute Explorer as an administrator and drag and drop the image file to HXLink. Conduct the following to execute Explorer as an administrator.
  - 5.1) Click "All Programs" from the "Start" menu.
  - 5.2) Click "Accessories" and right click on "Explorer".
  - 5.3) Click "Execute as Administrator" when the right click menu appears.
  - 5.4) Click "Continue" when the "User Account Restrictions" dialogue appears.
- <u>After importing the MCFF high speed conversion software and updating the HXLink version, a</u> message is displayed when HXLink is started



This message indicates the MCFF high speed conversion software, installed with HXLink, is not compatible with the driver for the graphics board installed on the PC.

To remedy, update the NVIDIA driver to a version 314 or higher. Depending on the type of PC, a driver supplied by the PC manufacturer may be required.

When using the previous version 1.53a HXLink, the conversion algorithm D can be used also with the NVIDIA driver before version 314

by performing setup.exe of the CUDA3Setup folder of installer CD.

If there is no driver with a version 314 or higher, follow the procedures below to change the HXLink environment to one

that is compatible with the old NVIDIA driver.

Update the NVIDIA driver to a version 256 or higher. Execute the setup.exe in the CUDA3Setup folder on the installer CD. Then, use the HXLink to select the conversion algorithm D. <u>Select conversion algorithm D to open MCFF but a message is displayed and the MCFF is not</u>



This message is displayed when the HXLink environment is compatible with a 195 or less driver with a graphics board driver that is a version 256 or higher.

To remedy, re-install HXLink.

If other applications using MCFF are installed (MOVIAS Neo, CARS etc.), uninstall all of these applications and then re-install.

<u>Confirm that the NVIDIA driver version can be used with the conversion algorithm D</u>
 Confirm the NVIDIA driver version with the following process.
 1) Right click on the PC screen and select "NVIDIA Control Panel" from the menu displayed.

	View Sort by Refresh	*
	Paste Paste shortcut Undo Move	Ctrl+Z
	NVIDIA Control Band	
	INVIDIA CONTOFPAREI	
	New	Þ
©	New Screen resolution	•
8 1	New Screen resolution Gadgets	Þ

- 2) Click "System Information" in the bottom left of the "NVIDIA Control Panel" displayed.
- 3) Confirm "Driver Version" shown in "Graphics Card Information" under the "Display" tab of the system information.

le <u>E</u> dit Des <u>k</u> top <u>3</u> D Settings <u>H</u> elp			
🕄 Back 👻 💟 🚺			
ect a Task	📃 Manage 3D Settings		Portoro Dofaultr
Adjust image settings with preview <mark>Manage 3D settings</mark> Configure Surround, PhysX	You can change the global 3D settings and cr time the specified programs are launched.	eate overrides for specific programs. The o	verides will be used automatically each
DisplayChange resolutionAdjust desktop color settings	I would like to use the following 3D settings		
Rotate display	Global Settings Program Settings		
Set up digital audio	Satting		
Adjust desktop size and position	Settings:		
-Video	Feature	Setting	î
Adjust video color settings	Ambient Occlusion	Off	
Adjust video image settings	Anisotropic filtering	Application-controlled	
- Workstation	Antalasing - FXAA	0#	
Set up Mosaic	Antailasing - Gamma correction	Un .	=
	Antaiasing - Mode	Application-controlled	
	Antalasing - Setting	Application-controlled	
	Anualasing - mansparency		
	CODA - GPOS	All	
	Multi-deplay/mixed-CRLLacceleration	Multiple display performance mode	
	Power management mode	Adaptive	
	Taxtura filtarias - Apisatropic cample opti	off	
	Texture intering - Anisotropic sample opum		*
		<u>@</u>	Restore
	Description:		

System Information			×
Detailed information about your NV	IDIA hardware and the syste	m it's running on.	
Display Components			
System information Operating system: Windows 7	7 Ultimate, 64-bit (Service Pa	ck 1)	
DirectX runtime version: 11.0			
Graphics card information			
Items	Details		
Quadro NVS 290	Driver version:	331.82	
GeForce GTX 670	Direct3D AP1 Version:	11	
	Direct3D feature level:	11_0	=
	CUDA Cores:	1344	_
	Graphics clock:	1006 MHz	
	Memory data rate:	6208 MHz	
	Memory interface:	256-bit	
	Memory bandwidth:	198.66 GB/s	
	Total available graphics	3806 MB	-
	•	111	•
			About
		Save	Close

The compatible NVIDIA driver versions in HXLink are as follows.

Compatible Application and Version	NVIDIA Driver Version
HXLink 1.30 or higher	256 or higher
HXLink 1.60 or higher	314 or higher

If the NVIDIA driver version is less than 256, we recommend updating the NVIDIA driver to the latest version. Depending on the type of PC, a driver supplied by the PC manufacturer may be required.

If using a NVIDIA driver with a version less than 195 with the conversion algorithm D and using HXLink Ver 3.55 or higher, the HXLink environment can be changed to operate with a NVIDIA driver version less than 195.

Execute the setup.exe in the CUDA2Setup folder on the HXLink installation CD.

■ An application error is generated when opening an AVI file with AVI2.0 format

When opening an AVI file with AVI2.0 format using HXLink, DirectX 8.0 or higher must be installed.



To confirm the version of DirectX, execute "dxdiag" from "Specify the File Name" in Windows.

#### Part of the character string is missing on the screen

Not all of the character string will be displayed on the screen if the character size of the display is greater than 96DPI.

Close	Close All
Download	Format Conversion
3 1000 ▼ ₽	1920x108 ▼ Frame Size
DPEN - U	1000pps 💌
Option o Detail	uperimpos

Example: The character string "Superimpose" is only partially displayed.

Set the character size of the display to 96DPI.

#### Windows 7

1) Click on "Individual Settings" in the right mouse menu on the desktop.



2) Click "Display" at the lower left and select "Small (S) – 100%" so the screen is "Easily Read Characters on the Screen".



Control Panel Home		1	1.1	
	Make it easier to read what	t's on your screen		
Adjust resolution	You can change the size of text and temporarily enlarge just part of the	other items on your screen by ch	loosing one of thes	e options. To
Calibrate color	temporany enarge just part of the	screen, use the <u>magniner</u> tool.		
Change display settings	Constitute 100% (default)	0		
Adjust ClearType text	Smaller - 100% (derault)	Preview		
Set custom text size (DPI)	© Medium - 125%			
	© Larger - 150%			

3) The settings are enabled at the next log on.

## ■ Select conversion algorithm D to open MCFF but the message "ErrorNo:224" is displayed and the MCFF is not open.

The graphic board memory is in low. Please start "CudaSelect" and check which graphic board is used on HXLink. a "Start Menu"  $\rightarrow$  to "MEMRECAM HXLink" "CudaSelect".

The graphics board to be recommended will depend on usage

#### ■When connected to HX camera, segment is set to "download reservation" and cannot be recorded..

Connection with the camera and would have been cut,

the state of the segment will be reserved even after reconnecting. To cancel Segment Reservations, open push "download" button and open "download" dialog again.

(blank page)