November 2006





Ethernet Connectivity



Ethernet connectivity to a single **MEMRECAM** fx DRP

Connect as shown in Diagrams 1 and 2 before turning the *MEMRECAM* fx power on. For proper operation ensure that the *MEMRECAM* fx DRP is configured for Ethernet connectivity (shown in the *MEMRECAM* fx DRP Ethernet connectivity setup section).



Diagram 1 Direct Ethernet Connectivity to a single MEMRECAM fx DRP



Diagram 2 Ethernet Connectivity via optional Ethernet Hub to a single MEMRECAM fx DRP

The **MEMRECAM** fx supports 100 Base-TX connectivity either direct to a control computer or via an optional 100 Base-TX Ethernet Hub. The control computer must have either Smart Capture or fx Link software installed to operate the DRP remotely. For direct connectivity a CAT 5 crossover cable is necessary. When the optional Ethernet Hub is used, straight CAT 5 cables are required. While connected to the control computer, the **MEMRECAM** fx can also be operated using the Rear Camera Control Touch Pad or the J-PAD 2 remote control panel (not shown).

- MEMRECAM fx DRP Ethernet connectivity setup
 - Enter the TOP MENU by pressing the MENU button while in READY mode. Use the UP/DOWN keys to select the SYSTEM MENU row and press the RIGHT key.

< TOP MENU >	
GAIN	0dB 6dB 12dB
WHITE BALANCE	AUTO 3100 5000 9000 REG
ENHANCE	OFF NORMAL HIGH
GAMMA	OFF LOW NORMAL
CHROMA	0 50 100 150 200
KNEE	OFF ON
♦ SYSTEM MENU ►	l l
CF save MENU ►	
Press SET for SYSTEM MENU	

TOP MENU

 In the SYSTEM MENU, use the UP/DOWN keys to select the INFORMATION row and press the RIGHT key to enter the INFORMATION sub menu.

TOP MENU < SYSTEM	MENU >
ID	000
DATE,TIME	2002/02/27 15:24:33
IBOX DISPLAY	ON OFF
CAFM DISPLAY	ON OFF
FRAME DISPLAY	Frame Time Memory%
D-VGA VIDEO	ON OFF
IBOX Settings ►	
TRIGGER MENU >	
SYSTEM SETUP ►	
↑ INFORMATION ►	
Press SET for Information MENU	

SYSTEM MENU – INFORMATION

3) From the INFORMATION sub menu write down the IP address and subnet mask of your particular MEMRECAM fx DRP. This information is needed to set the IP address of the Control Computer. In this example the MEMRECAM fx DRP IP address is 172.21.40.4 and the subnet mask is 255.255.0.0 Press the MENU button to return to the SYSTEM MENU.

-	TOP MENU < SYSTEM	MENU < INFORMATION >
	Model	MEMRECAM fx-K3
	Version	1.20 K4 2002/03/15 15:23:06
	CID	1010
	MEMORY SIZE	4.0 GB
	Hardware Revision	DCD-BBB-BBC-AC0
	Network	Stand alone
	IP address	172.21.40.4 / 255.255.0.0
	MAC address	00:05:61:10:00:0a
	FC NodeName	20:00:00:05:61:10:00:09
Re	turn to SYSTEM MENU	

4) In the **SYSTEM MENU**, use the **UP/DOWN** keys to select the **SYSTEM SETUP** row and press the **RIGHT** key to enter the **SYSTEM SETUP** sub menu.

TOP MENU < SYSTEM	MENU >
ID	000
DATE,TIME	2002/02/27 15:24:33
IBOX DISPLAY	ON OFF
CAFM DISPLAY	ON OFF
FRAME DISPLAY	Frame Time Memory%
D-VGA VIDEO	ON OFF
IBOX Settings ►	
TRIGGER MENU >	
♦ SYSTEM SETUP ►	
INFORMATION >	
ress SET for SYSTEM SETUP MENU	

SYSTEM MENU - SYSTEM SETUP

5) In the SYSTEM SETUP sub menu, use the UP/DOWN keys to select the Network row and press the SET key to enable editing. Use the LEFT/RIGHT keys to select Ethernet (a black box highlights the selection). Press the SET key to confirm the setting. Use the UP/DOWN keys to select the REBOOT row and press the SET key to reboot and apply changes.



Network Connection Sub Menu

■ PC hardware requirements to operate Smart Capture/fx Link software

PC	IBM PC compatible (DOS/V), single processor				
CPU	Pentium III 750 MHz or higher (with MMX)				
	(Recommended Pentium IV 2.5GHz or higher, compression and display processing				
	speed depends on CPU capability)				
Memory	256MB RAM or higher (recommended 512MB or higher)				
Graphics	Full color, 1024×768 resolution or higher (recommended 1280×1024 or higher)				
os	Windows NT 4.0 Service Pack 5 or higher, Windows 2000 Professional,				
	Windows XP Professional, Internet Explorer 5.0 Service Pack 2 or higher				
Hard Disk	Minimum 42MB of disk space for program, 512MB or higher.				
	Smart Capture requires an NTFS volume for data storage. Depending on the number				
	of cameras, frames saved and number of projects 120GB of disk space or higher is				
	recommended.				
Network	Ethernet (IEEE8023u 100BASE-TX)				
CD Drive	1 (for installation)				

Compression and display processing speeds depend on CPU capability. There should be sufficient free disk space for data. Depending on the PC configuration and hardware version, Smart Capture may not operate well under conditions as listed above. (Consult your retail outlet for recommended PC systems).

Note: Refer to the Smart Capture/fx Link software Operation Manuals for handling and operation of the control computer.

- Control Computer Ethernet connectivity setup
 - 1) On your computer desktop right click the icon "My Network Places". Click on **Properties**.



2) In the "Network and Dial-up Connections" window right click **on Local Area Connection**. Click on **Properties**.

File Edit View Favorites	Tools Advanced Help		
🖨 Back 🔹 🔿 👻 🖹 🔞 Sear	ch 🔁 Folders 🎯 History	n n n n	
Address 📴 Network and Dial-up Co	onnections		
	Name 🛆		Туре
	📴 Make New Connection		
	Local Area Connection		LAN
Network and Dial- up Connections	Local Area Connection	Disable Status	.AN
		Create Shortcut	_
Local Area Connection		Delete	
		Rename	
Type: LAN Connection			-

 In the "Local Area Connection Properties" window highlight Internet Protocol (TCP/IP). Click the [Properties] button.

Intel(R) PRO/1	00 VE Network Connection	
		Configure
components checked	are used by this connection:	
🗹 🍞 NWLink NetB	lios	1
🗹 🍞 NW Link IPX/	SPX/NetBIOS Compatible Tra	insport Proto
🗹 🏹 Internet Proto	col (TCP/IP)	2
	1	
•		
Install	Uninstall N	Properties
10. 0.00		5
Description		The default
Description Transmission Contr wide area network across diverse inter	ol Protocol/Internet Protocol. protocol that provides commu rconnected networks.	nication
Description Transmission Contr wide area network across diverse inter	ol Protocol/Internet Protocol. protocol that provides commu rconnected networks.	nication

4) In the "Internet Protocol (TCP/IP) Properties" window click the Use the following IP address radio button. Enter an IP Address using the same Network ID and Subnet Mask as the *MEMRECAM* fx DRP. The host portion must be different than the *MEMRECAM* fx address and could be any number from 1 to 254. In this example we set the computer IP address to 172.21.40.1 (Network ID 172.21.0.0 & Host ID 0.0.40.1) and the Subnet Mask was 255.255.0.0. Click the [OK] button.

ternet Protocol (TCP/IP) Prope	erties ?
General	
You can get IP settings assigned a this capability. Otherwise, you need the appropriate IP settings.	utomatically if your network supports I to ask your network administrator for
C Obtain an IP address automa	tically
$\square \odot$ Use the following IP address:	
IP address:	172 . 21 . 40 . 1
S <u>u</u> bnet mask:	255.255.0.0
Default gateway:	
C Obtain DNS server address a	utomatically
	r addresses:
Preferred DNS server:	· · · ·
Alternate DNS server:	· · · ·
	Ad <u>v</u> anced

• Ethernet connectivity test

 The Ethernet connectivity test consists of executing the Ping command. From the Start menu click Run... In the "Run" window type cmd.



2) To run the PING command type **ping X.X.Y.Y**, where **X.X.** represents the Network ID and **.Y.Y** the Host ID of your particular *MEMRECAM* fx DRP. In this example entered **ping 172.21.40.4** and pressed the [ENTER] key.



 Ethernet connectivity has been successfully tested when the *MEMRECAM* fx DRP sends a Reply message.



4) A failure of the test is indicated when the Ping signals time out. In this example the failure occurred because the host address being pinged did not match the *MEMRECAM* fx DRP host address. Note that the ping request was sent to 172.21.40.5. The *MEMRECAM* fx DRP will only respond to ping signal sent to172. 21.40.4



PC hardware requirements to operate fx Link software

PC	IBM PC compatible (DOS/V), single processor
CPU	Pentium III 750 MHz or higher (with MMX)
	(Recommended Pentium IV 2.5GHz or higher, compression and display processing
	speed depends on CPU capability)
Memory	256MB RAM or higher (recommended 512MB or higher)
Graphics	Full color, 1024×768 resolution or higher (recommended 1280×1024 or higher)
OS	Windows NT 4.0 Service Pack 5 or higher, Windows 2000 Professional,
	Windows XP Professional, Internet Explorer 5.0 Service Pack 2 or higher
Hard Disk	Minimum 42MB of disk space for program, 512MB or higher.
	Smart Capture requires an NTFS volume for data storage. Depending on the number
	of cameras, frames saved and number of projects 120GB of disk space or higher is
	recommended.
Network	Ethernet (IEEE8023u 100BASE-TX)
CD Drive	1 (for installation)

Compression and display processing speeds depend on CPU capability. There should be sufficient free disk space for data. Depending on the PC configuration and hardware version, Smart Capture may not operate well under conditions as listed above. (Consult your retail outlet for recommended PC systems).

Note: Refer to the fx Link software Operation Manuals for handling and operation of the control computer.

• fxLink Ethernet connectivity setup

5) Open the fxLink software by double clicking the "fx Link" icon on your computer desktop.



6) In the "MEMRECAM fxLink" main window right click the **Settings** menu and select **Camera Connection via** <u>T</u>CP/IP.



7) In the "MEMRECAM fxLink" main window right click the Settings menu and select Camera Registration. In the "Camera Registration" window enter a Nickname, IP Address, CID and select the appropriate Camera Type setting for your particular MEMRECAM fx DRP. Click the ADD button and repeat as required to add additional cameras. Click the OK button to exit.

Nick Name	IP Address	Туре	CID	History -
IEMRECAM fx K3 SER1125	172.21.40.4	fx3	1010	- NICKNAMO
IEMR EC AM fx K3 SER 1185	172.21.40.5	fx3	1172	
				IP Address
				Camera Type
				🖾 fx3 💌 Help
				Add Delete
				Change

8) In the "MEMRECAM fxLink" main window right click the **CAMERA** button to establish a connection with the camera.



 In the "Select Camera" window click the check box for the desired camera. Click the **OK** button to establish a connection.

Select Camera				×
		0K		Cancel
NAME	TYPE	IP Address	ab	CAMERA
MEMRECAM fx K3 SE	fxЗ	172.21.40.4	1010	
MEMRECAM fx K3 SE	fx3	172.21.40.5	1172	

NOTE: A small camera icon appears when fxLink successfully recognizes that the camera is online. If the icon reflects a red **X** then fxLink cannot establish a connection. Ensure that the physical connection is good and that the fxLink Camera Inventory is configured correctly.