

Panasonic

Upgrade Software

Operating Instructions

Model No. **WJ-ASC960**



Before attempting to connect or operate this product,
please read these instructions carefully and save this manual for future use.

No model number suffix is shown in this manual.

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Introduction

■ Overview

The WJ-ASC960 is a software upgrade package for the WJ-MPU955A, and can be installed on top of the WJ-MPU955A CPU. Refer to WJ-MPU955A Operating Instructions. The WJ-ASC960 software creates a distributed IP-based network platform with one or more WJ-MPU955A CPU working together to form a large-scale security system. It also offers a single CPU, not only to handle GX encoder and decoder*1 device-based digital video operations, but also SX matrix*2 device-based analog video operations.

GX System is high quality video imaging systems offering complete management of medium and large-scale installations. The WJ-ASC960 is capable of managing up to 64 CPU units. GX System is truly network-based systems, and all the devices in the system are connected through IP-based networks.

*1 GX encoder and decoder: WJ-GXE900, WJ-GXD900 series (NTSC model only)

*2 SX matrix : System850 or WJ-SX650 512 x 64 Full Matrix System

Note: GX System is supported by NTSC model only.

■ Purpose

This document provides end users with product information about the following.

- WJ-ASC960 software package
- WJ-SX650 512 x 64 Full Matrix System and GX System

■ Precaution

We recommend that you refer all tasks related to the system installation to qualified service personnel or system installers.

We recommend that you make a note of all your system settings and save them. This will help you if you are required to change the system configuration, or if an unexpected event or failure occurs.

We encourage you to obtain and read all the related documents referenced on page 4, and become familiar with the CPU unit and other related devices and software.

■ Cautions about the Network Environment

GX System is IP network-based. Creating a reliable network is the key to a successful system. Please note that the encoder device sends a multicast stream (9.2 Mbps max. X 4 streams). Obtain confirmation from the network administrator that this bandwidth usage will not cause a network failure.

Note: MPEG2 Encoder (WJ-GXE900) and MPEG2 Decoder (WJ-GXD900) support the NTSC model only.

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■ Software License (Licence)

This product includes a software component that is licensed by GNU Lesser General Public License (LGPL). For more details, refer to readme.txt file in the CD-ROM.

■ WJ-GXE900/GXD900 Version

To use WJ-GXE900 and WJ-GXD900 devices with WJ-MPU955A equipped with WJ-ASC960, the devices' firmware must be version 2.00 or later.

The version is displayed on the home page of either device when accessed via a web browser. Please refer to MPEG2 Encoder WJ-GXE900, MPEG2 Decoder WJ-GXD900 Operating Instructions.

If the version is earlier than 2.00, please contact your sales representative.

■ References

- ① WJ-MPU955A Operating Instructions
- ② WJ-ASC960 Admin Console User's Guide
- ③ WJ-ASC960 Installation Guide
- ④ MPEG2 Encoder WJ-GXE900, MPEG2 Decoder WJ-GXD900 Operating Instructions.

Terms and Definitions

■ Video Switching

Video switching is an operation that connects a video input port to a video output port within a video switch node. Because the switching occurs within the same node, the operation is certain to occur.

■ Video Routing

Video routing is an operation that connects a video source device with a video destination device across one or more video switch nodes. The video routing operation requires available video links to complete its task.

■ Video Switch Node

A video switch node is a device or a group of devices that are capable of performing a video switch from any of its video inputs to any of its video outputs. In the WJ-ASC960 based system, there are three types of video switch nodes: GX switch node, SX850 switch node, and SX650 switch node.

GX switch node is formed with MPEG2 encoder devices and MPEG2 decoder devices. (NTSC model only)

SX850 switch node is formed with WJ-SX850 matrix switch devices, matrix control devices, matrix OSD devices and matrix digital I/O devices.

SX650 switch node is formed with WJ-SX650 matrix switch devices.

■ Video Link

A video link is a connection that can pass video from one video switch node to another. It can only transfer video in one specified direction. In a WJ-ASC960 based system, a video link can be found in the following locations:

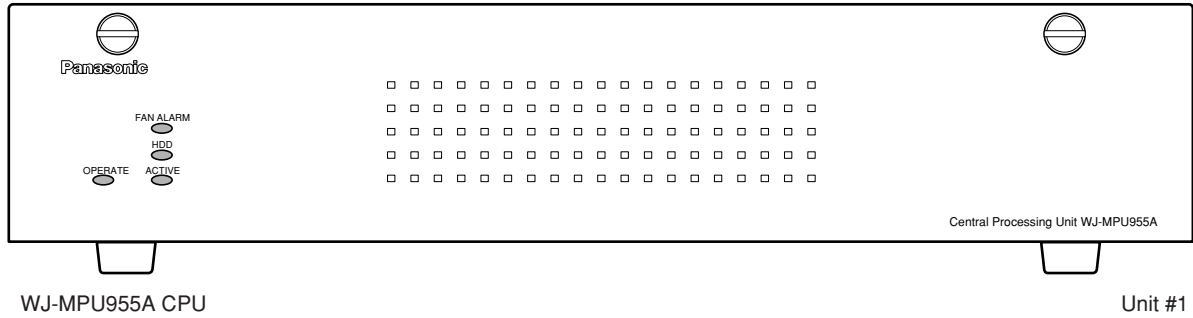
- From SX850 matrix switch device outputs to GX encoder inputs
- From SX850 matrix switch device outputs of one switch node to SX850 matrix switch device inputs of another one
- From GX decoder devices to SX850 matrix switch device inputs
- From SX650 matrix switch device outputs to GX encoder inputs
- From SX650 matrix switch device outputs of one switch node to SX650 matrix switch device inputs of another one
- From GX decoder devices to SX650 matrix switch device inputs
- From SX650 matrix switch device outputs to SX850 matrix switch device inputs
- From SX850 matrix switch device outputs to SX650 matrix switch device outputs

■ Video Path

A video path is a connection between video source and video destination, which consists of one or more video links.

System Unit

System unit refers to a CPU device or a set of active and standby CPUs. The CPU is a computer that manages all the system resources and system devices within a system domain. In a WJ-ASC960-based system, the CPU refers to a WJ-MPU955A CPU.

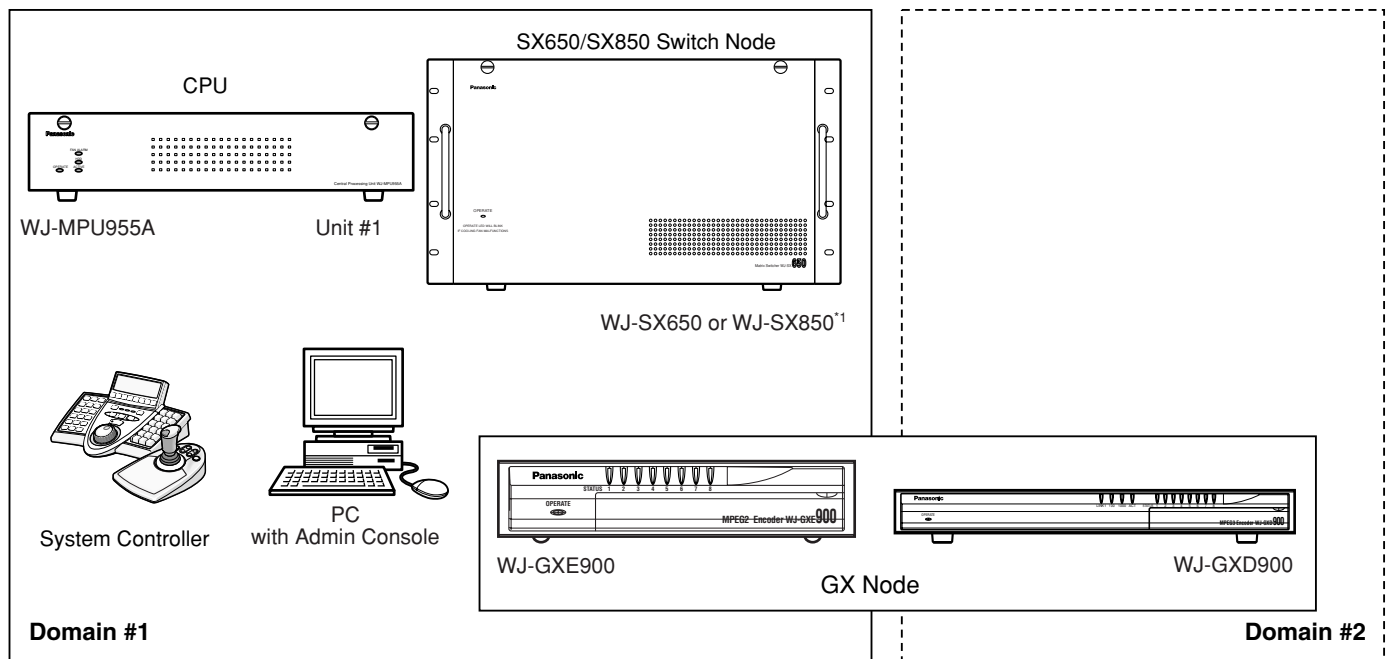


System Unit

System Domain

A system domain is an entity that contains one system unit, up to 64 system controllers, only one GX switch node, and only one SX850 or SX650 switch node. The domain is capable of performing system tasks as an independent entity, or working with other domains to create a distributed network security system. In a WJ-ASC960 based system, the system assigns its domain number equal to its unit number.

An SX650/SX850 switch node is always inside a system domain, while a GX switch node can be across more than one domain, as shown in the following diagram.

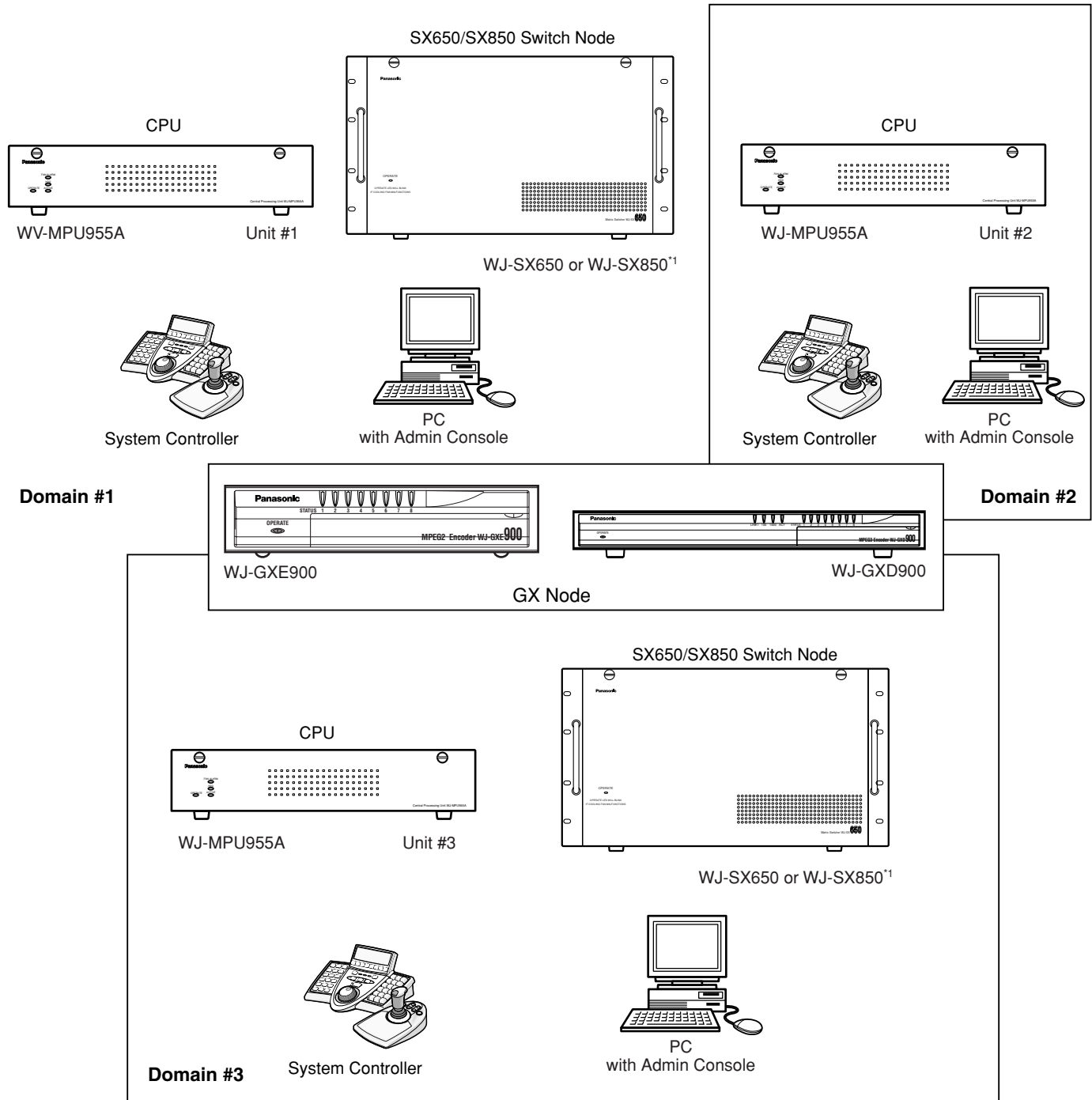


*1 WJ-SX650 needs WJ-PB65E01.
WJ-SX650 and WJ-SX850 cannot be set in the same domain.

System Domain Diagram

System

A system is a collection of one or more system domains.



*1 WJ-SX650 needs WJ-PB65E01.
WJ-SX650 and WJ-SX850 cannot be set in the same domain.

System Diagram

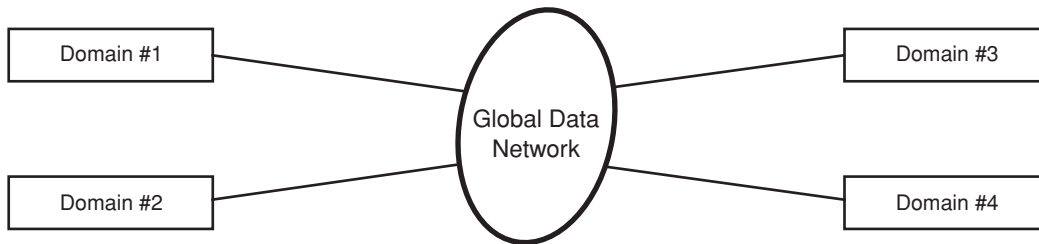
Connect between System Components

The WJ-MPU955A Operating Instructions describes the connection between the WJ-MPU955A CPU with system controllers, a CPU switch unit, digital video encoder devices, digital video decoder devices, and layer 3 network switch units. If you are not familiar with the above, we recommend that you read “Connect with System Devices” section of the WJ-MPU955A Operating Instructions first.

This section will focus on new devices and connections that only associate with the WJ-ASC960 system.

■ Global Data Network and System Domains

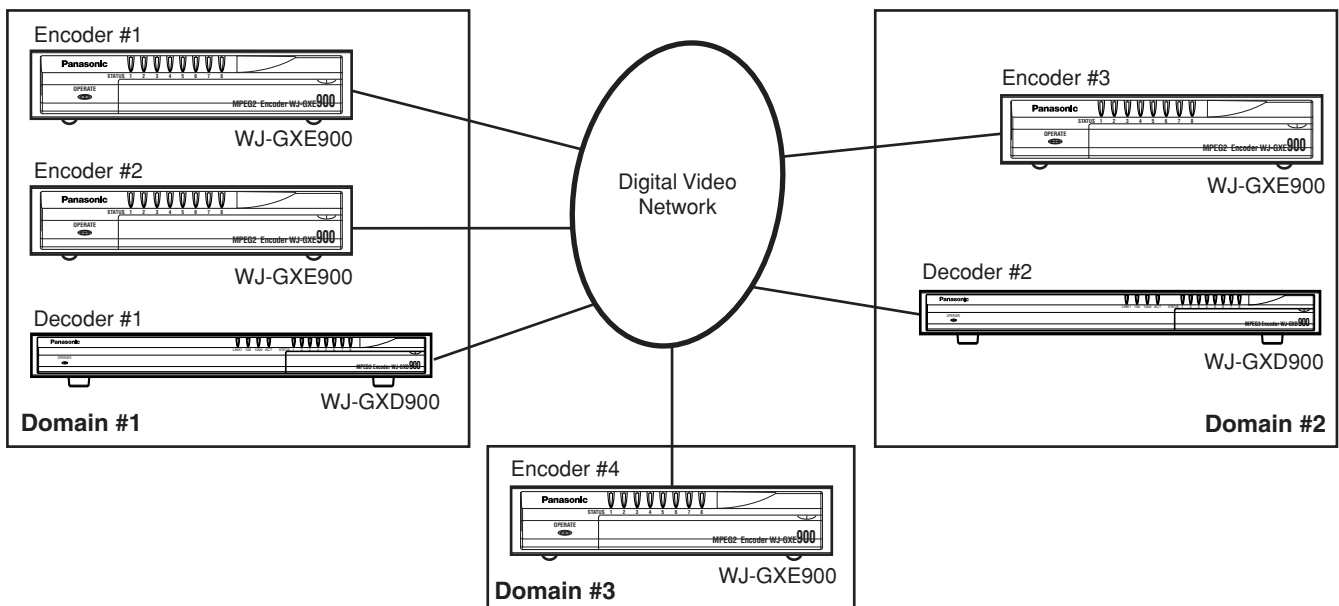
The global data network is an IP-based network that connects two or more system domains together. The network is also called system data control network. The system domains use this network to pass system control and operation commands, as well as system data information, between domains.



Global Data Network Diagram

■ Global Network and System Domains

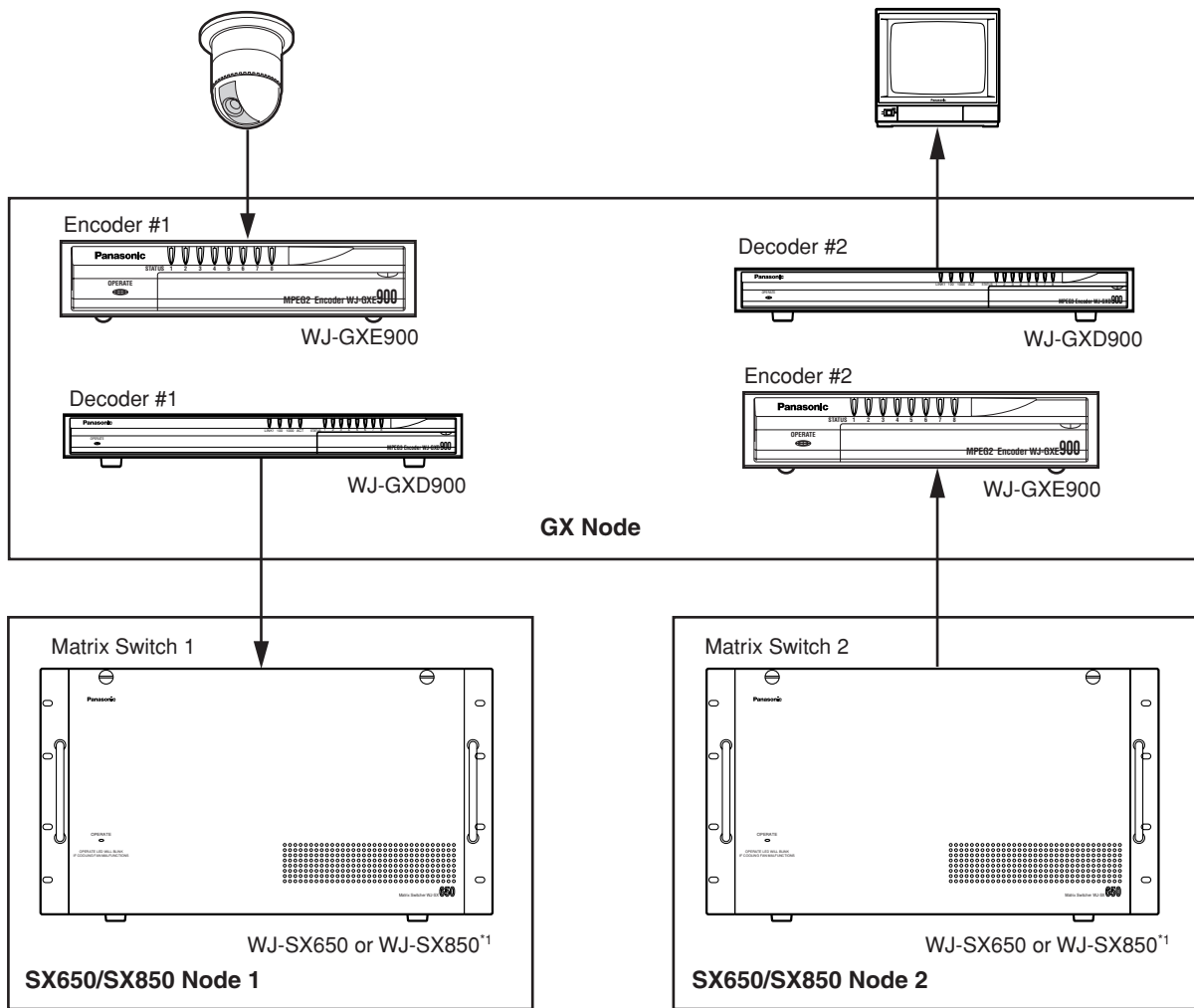
As stated on page 6, the WJ-ASC960 system only has one GX switch node. The digital video network is an IP-based network, which is created to transmit digital video streams within a system domain or cross multiple system domains. It is part of the GX switch node, which consists of all the GX encoder and decoder devices. When designing a new system, we recommend that you separate the global data network and digital video network.



Digital Video Network Diagram

■ Video Link Network and Video Switch Nodes

The video link network consists of one or more video links, which connect one video switch node to another, and passes analog video across different video switch nodes. The following diagrams show a sample of a video link network in a WJ-ASC960 system.



*1 WJ-SX650 needs WJ-PB65E01.
WJ-SX650 and WJ-SX850 cannot be set in the same domain.

Video Link Network Diagram

As shown in the above diagram, a video link has its own direction. You can find video links from digital decoder devices to matrix video device inputs, from matrix video device outputs to digital encoder devices, and between one matrix video device and another one. In the case of video links between two matrix video devices, these two matrix video devices must be in different video switch nodes.

■ Global System Controllers

Only Panasonic Ethernet type controllers (i.e. WV-CU950) can act as a global controller when global operators login. You can refer page 27 for creating global (system) operators. To get connection information for system controllers, please refer to WJ-MPU955A Operating Instructions.

■ Global Database

The system uses global database to setup multiple domains based system. The WJ-ASC960 system with version v4.2 and up should use WJ-ASC960 Admin Console V4.2 for both local database and global database setup.

■ WJ-ASC960 Admin Console for Global Setup

The administration tool WJ-ASC960 V4.2 is database management software for multiple domain based system setup. The software operates in the Microsoft Windows environment. If users are familiar with previous versions of Panasonic system, we used to have separated global administration tool software just for global database. With WJ-ASC960 V4.2 and up, the global administration tool software is not required for global database setup.

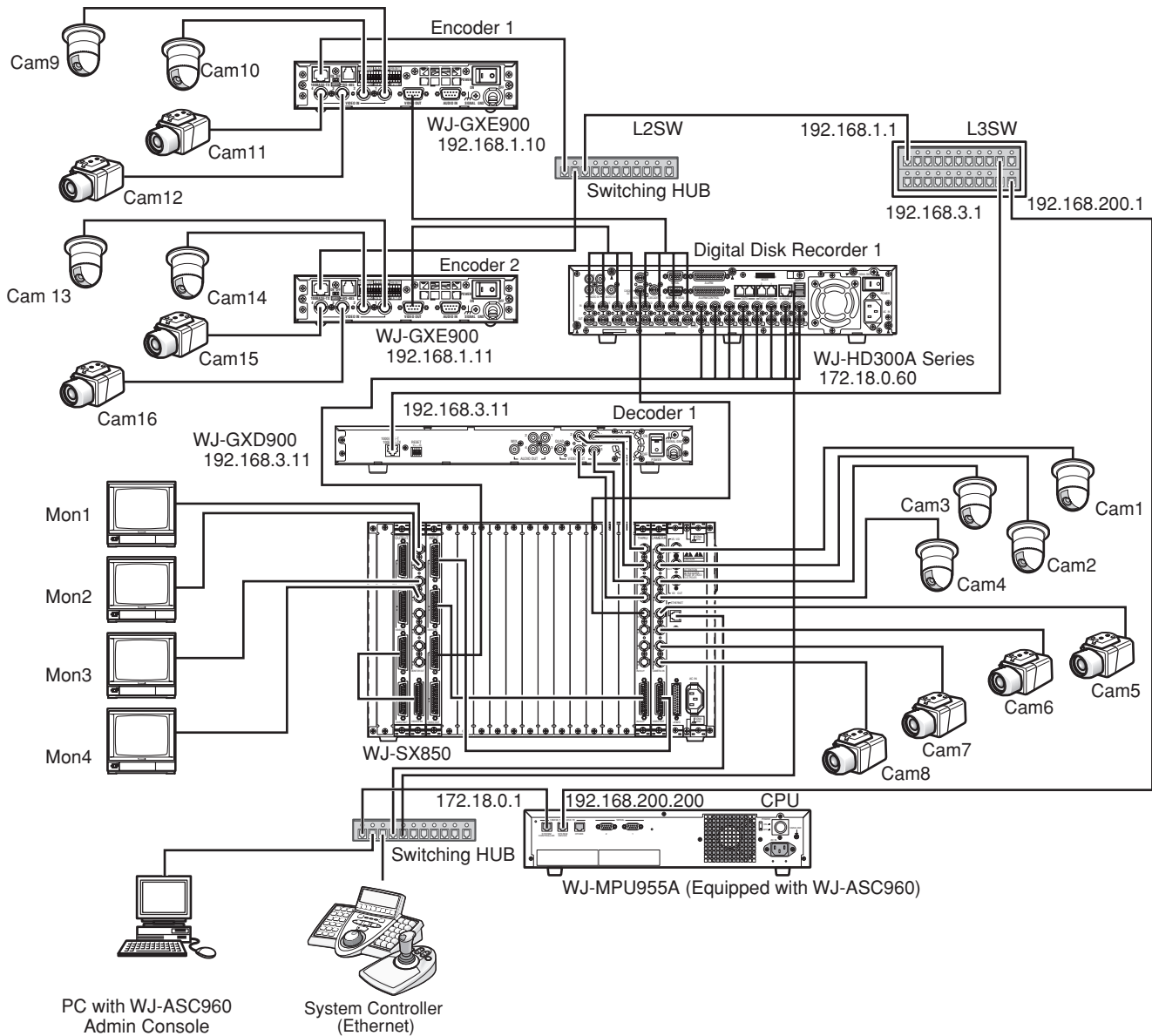
The WJ-ASC960 Admin Console should connect to the system's global data network. It should be able to reach each system domain's CPU units.

System Examples

The following sub-sections provide three sample system architectures to help system engineers setup a WJ-ASC960 system.

■ Single System Domain with Both GX and SX850 Switch Node

The following system contains one GX switch node and one SX850 switch node. The GX switch node consists of two WJ-GXE900 encoders and one WJ-GXD900 decoder. The SX850 switch node contains a WJ-SX850 matrix frame box with WJ-PB85X08 (MXCONT), WJ-PB85C16, WJ-PB85M16(MXSW), and WJ-PB85T08(MXOSD) boards. There are four video links from WJ-GXD900 decoder to WJ-PB85C16 video inputs. The system also has WV-CU950 controllers for system or local operators, and a PC station with WJ-ASC960 Admin Console. The system's WJ-MPU955A CPU must have the WJ-ASC960 upgrade software installed in order to perform all of the system functions. The sample Local database – 01=hybrid850.adm-and sys.ini file – 01A=sys.ini-for Administration Console are provided on the CD-ROM. The sample Global database - #=hybrid850.gdm - for Admin is provided on the CD-ROM. Also refer to Appendix 1.



● Encoder WJ-GXE900 Setup

- Refer to WJ-GXE900 Operational Manual to set following configuration through the Web browser.

Encoder #	Operation Mode	IP Address	Subnet Mask	Default Gateway	DNS	Rotary Switch
1	Main CPU mode	192.168.1.10	255.255.255.0	192.168.1.1	0.0.0.0	0-0-1
2	Main CPU mode	192.168.1.11	255.255.255.0	192.168.1.1	0.0.0.0	0-0-2

● Decoder WJ-GXD900 Setup

- Refer to WJ-GXD900 Operational Manual to set following configuration through the Web browser.

Decoder #	Operation Mode	IP Address	Subnet Mask	Default Gateway	DNS	Rotary Switch
1	Main CPU mode	192.168.3.11	255.255.255.0	192.168.3.1	0.0.0.0	0-1-0

Note: The rotary dip-switch valued should not be same as Encoder's one.

● L3SW Setup

- Set the following IP Address to each port.

Port #	IP Address	Connection
1	192.168.1.1	Encoder #1,2
2	192.168.3.1	Decoder #1
3	192.168.200.1	MPU955A

- Valid the IGMP V2 due to support Multicast messages.

● Card Cage WJ-SX850 Setup

- Refer to WJ-SX850 Operational Manual to set following configuration.

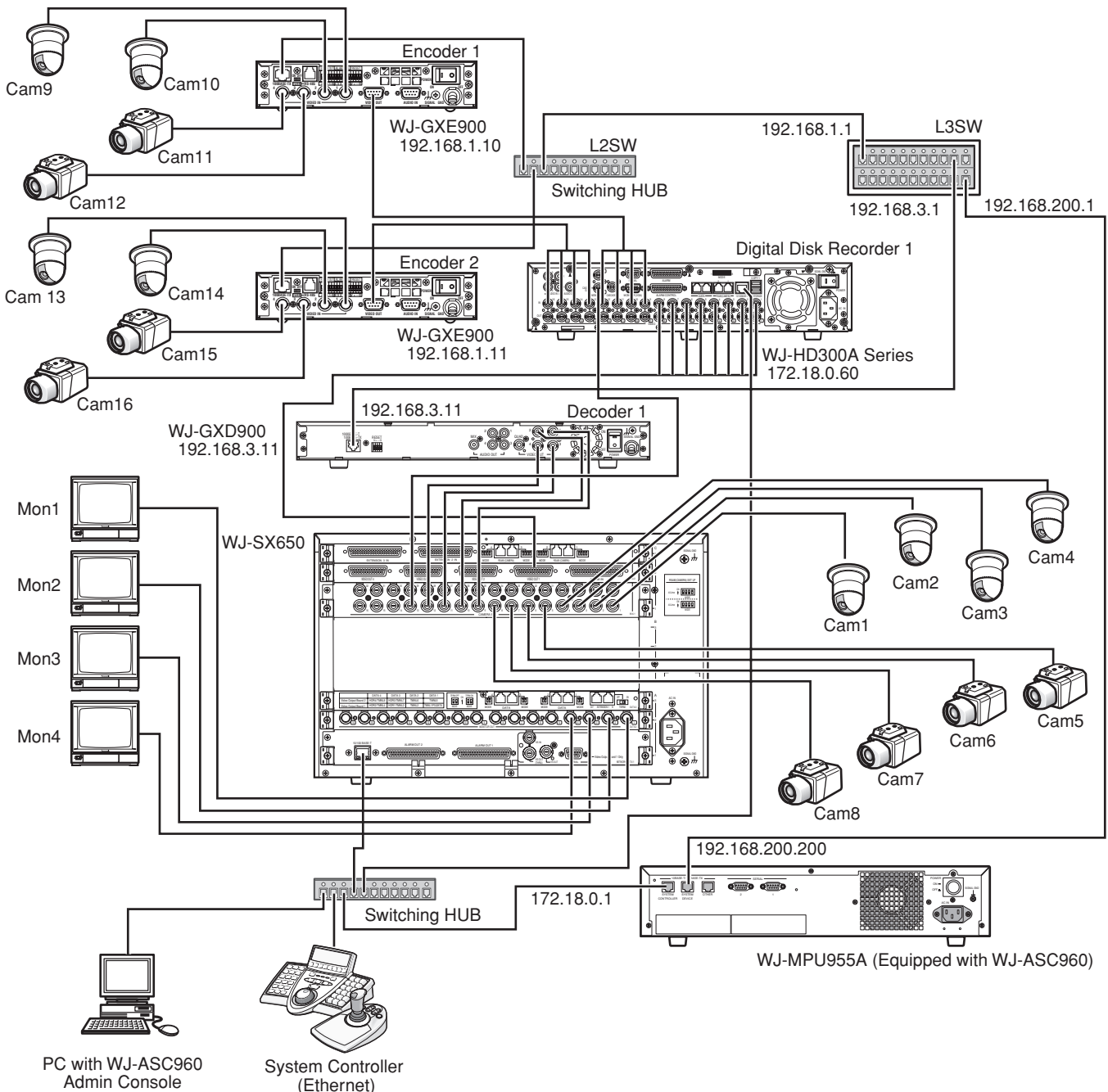
Slot #	Board name/model #	Rotary Switch	Qty
–	LCPU	0-2-0	Included
1	WJ-PB85X08	0-0	1
2	WJ-PB85Y08	–	1
15	WJ-PB85C16	0-0	1
16	WJ-PB85T08	0-0	1
17	WJ-PB85M16	0-0	1
–	WJ-CA85L05(Multiple Video cable)	–	3

● Digital Disk Recorder HD300A Series Setup

Digital Disk Recorder#	Line Speed	HTTP Port Number	DHCP	IP Address
1	AUTO	00080	OFF	172.018.000.060
Subnet Mask	Gateway	Unit Address (System)	Unit Address (Controller)	
255.255.000.000	000.000.000.000	001	001	

■ Single System Domain with Both GX and SX650 Switch Node

The following system contains one GX switch node and one SX650 switch node. GX switch node consists of two WJ-GXE900 encoders and one WJ-GXD900 decoder. SX650 switch node contains a WJ-SX650 matrix switcher input, output and a WJ-PB65E01 network board. There are four video links from WJ-GXD900 decoder to WJ-SX650 input board. The system also has WV-CU950 controllers for system or local operators, and a PC station with WJ-ASC960 Admin Console. The system's WJ-MPU955A CPU must have the WJ-ASC960 upgrade software installed in order to perform all of the system functions. The sample Local database – 01=hybrid650.adm-and sys.ini file – 01A=sys.ini-for Administration Console are provided on the CD-ROM. The sample Global database - #=hybrid650.gdm - for Admin is provided on the CD-ROM. Also refer to Appendix 3.



● **Encoder WJ-GXE900 Setup**

Same as System850 description

● **Decoder WJ-GXD900 Setup**

Same as System850 description

● **L3SW Setup**

Same as System850 description

● **WJ-SX650 Setup**

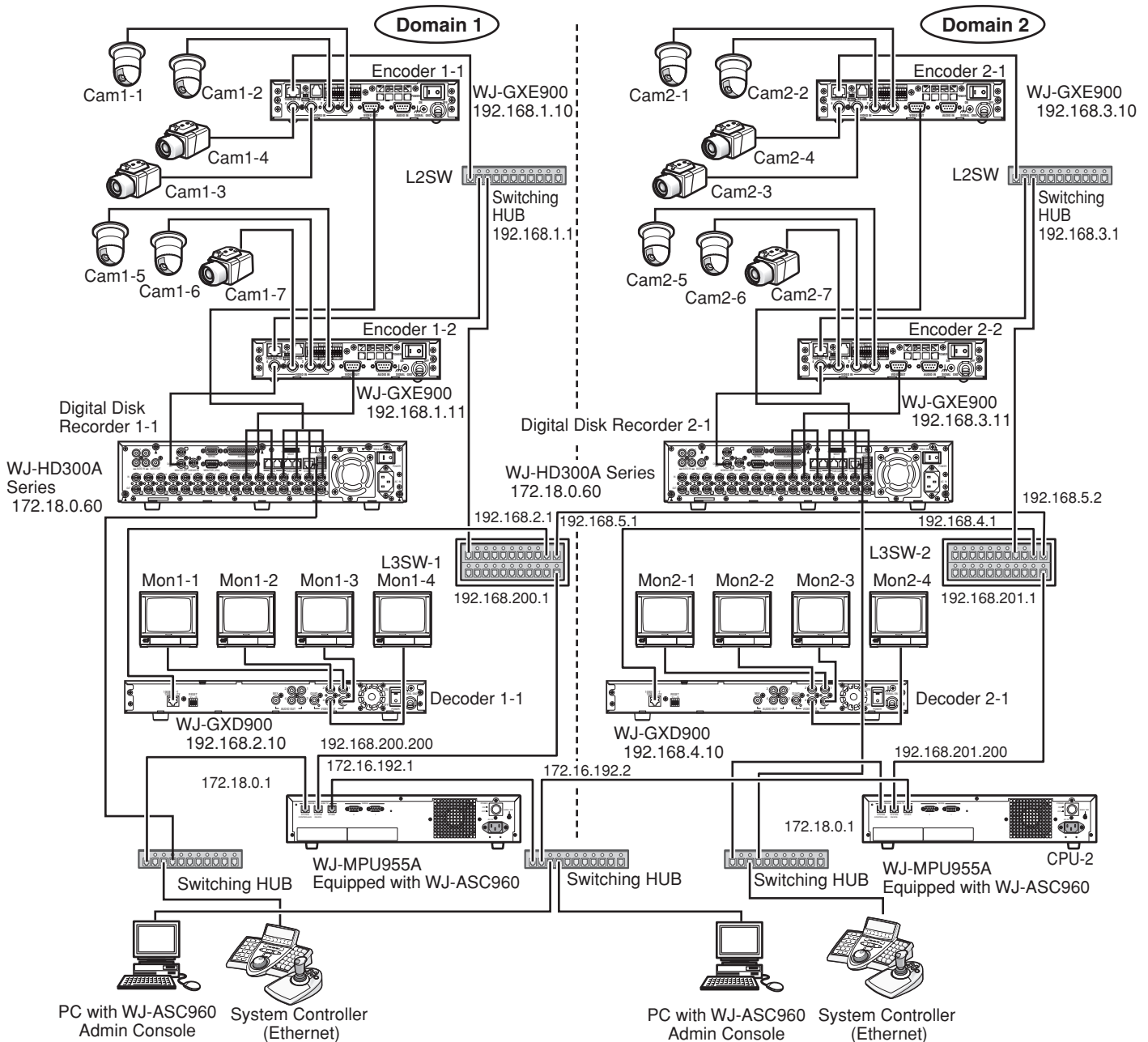
Slot #	Board name	Rotary Switch/Mode	Qty
C	Video Input Board	0	1
B			
A	Video Output Board with Network Board	Output Board (1)	1

● **Digital Disk Recorder HD300A Series Setup**

Same as System850 description

Multiple System Domains with Single GX Switch Node

The following system includes two system domains. Each system domain has its own GX switch node. The system domain has two WJ-GXE900 encoders and one WJ-GXD900 decoder. It contains a domain WJ-MPU955A CPU with the WJ-ASC960 upgrade software installed. Within the domain, a PC with WJ-ASC960 Admin Console software installed is required to configure resources and operations within the domain. The two system domains can work independently as standalone systems. The sample Local database – 01=multi_1.adm, 02=multi_2.adm -and sys.ini file – 01A=sys.ini, 02A=sys.ini -for Administration Console are provided on the CD-ROM. The sample Global database - #=multi.gdm - for Admin is provided on the CD-ROM. Also refer to Appendix 2.



● Encoder WJ-GXE900 Setup

- Refer to WJ-GXE900 Operational Manual to set following configuration through the Web browser.

Encoder #	Operation Mode	IP Address	Subnet Mask	Default Gateway	DNS	Rotary Switch
1-1	Main CPU mode	192.168.1.10	255.255.255.0	192.168.1.1	0.0.0.0	0-0-1
1-2	Main CPU mode	192.168.1.11	255.255.255.0	192.168.1.1	0.0.0.0	0-0-2
2-1	Main CPU mode	192.168.3.10	255.255.255.0	192.168.3.1	0.0.0.0	0-0-3
2-2	Main CPU mode	192.168.3.11	255.255.255.0	192.168.3.1	0.0.0.0	0-0-4

Encoder #	MULTICAST IP ADDRESS FOR SETUP in System Setup page
1-1	239.192.255.2(default)
1-2	239.192.255.2(default)
2-1	239.192.255.3
2-2	239.192.255.3

● Decoder WJ-GXD900 Setup

- Refer to WJ-GXD900 Operational Manual to set following configuration through the Web browser.

Decoder #	Operation Mode	IP Address	Subnet Mask	Default Gateway	DNS	Rotary Switch
1-1	Main CPU mode	192.168.2.10	255.255.255.0	192.168.2.1	0.0.0.0	0-1-0
2-1	Main CPU mode	192.168.4.10	255.255.255.0	192.168.4.1	0.0.0.0	0-1-1

Decoder #	MULTICAST IP ADDRESS FOR SETUP in System Setup page
1-1	239.192.255.2(default)
2-1	239.192.255.3

Note: The rotary dip-switch valued should not be same as Encoder's one.

● L3SW-1 Setup

- Set the following IP Address to each port.

Port #	IP Address	Connection
1	192.168.1.1	Encoder #1-1,1-2
2	192.168.2.1	Decoder #1-1
3	192.168.5.1	Link to L3SW-2
4	192.168.200.1	CPU-1

- Valid the IGMP V2 due to support Multicast messages.

● L3SW-2 Setup

- Set the following IP Address to each port.

Port #	IP Address	Connection
1	192.168.3.1	Encoder #2-1, 2-2
2	192.168.4.1	Decoder #2-1
3	192.168.5.2	Link to L3SW-1
4	192.168.201.1	CPU-2

- Valid the IGMP V2 due to support Multicast messages.

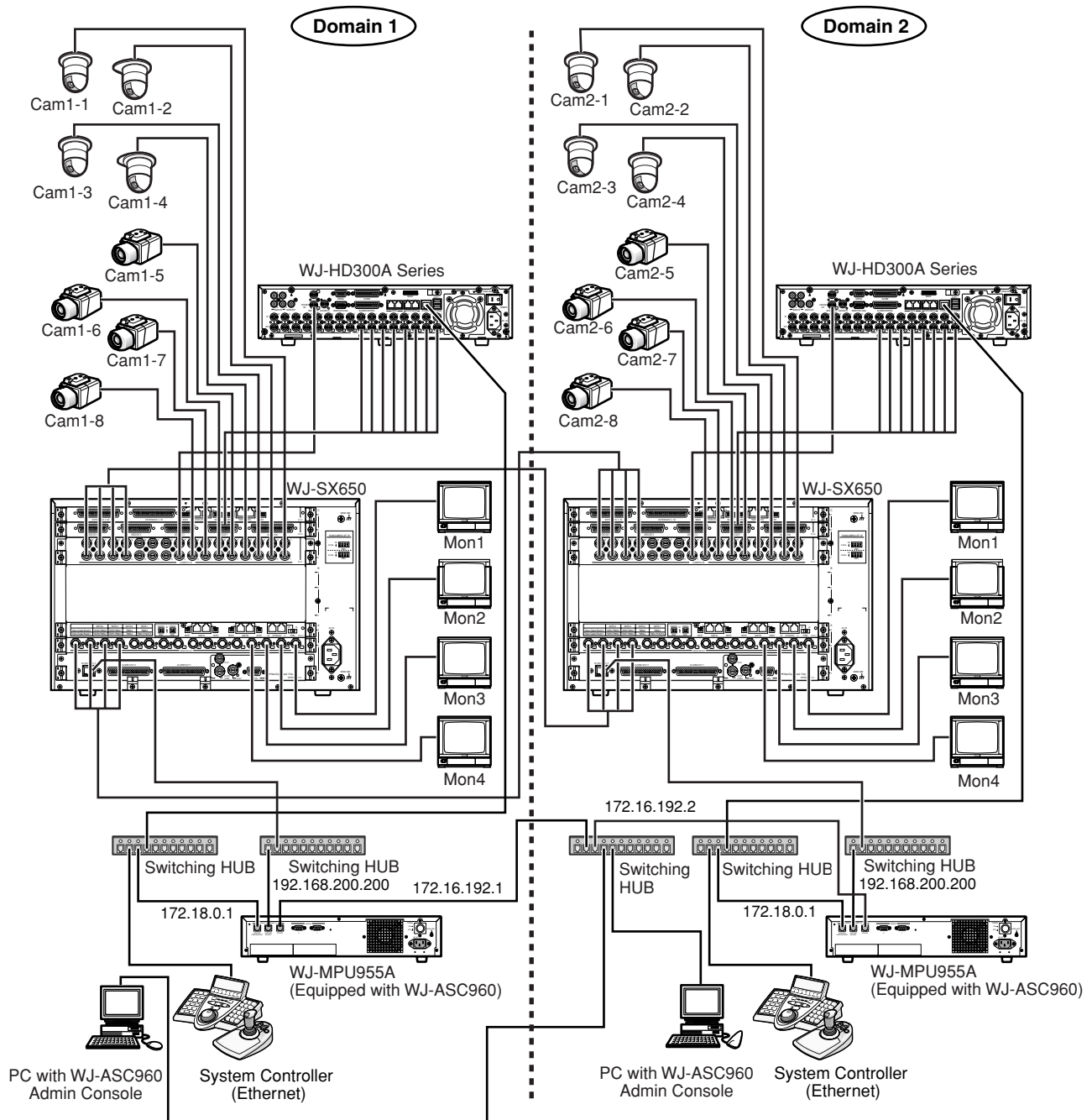
● Digital Disk Recorder HD300A Series Setup

Digital Disk Recorder#	Line Speed	HTTP Port Number	DHCP	IP Address
1-1	AUTO	00080	OFF	172.018.000.060
2-1	AUTO	00080	OFF	172.018.000.060

Subnet Mask	Gateway	Unit Address (System)	Unit Address (Controller)
255.255.000.000	000.000.000.000	001	001
255.255.000.000	000.000.000.000	001	001

Multiple System Domains with Single SX650 Switch Node

The following system includes two system domains. Each system domain has its own SX650 switch node. The system domain has two WJ-SX650 matrix switchers. It contains a domain WJ-MPU955A CPU with the WJ-ASC960 upgrade software installed. Within the domain, a PC with WJ-ASC960 Admin Console software installed is required to configure resources and operations within the domain. The two system domains can work independently as standalone systems. The sample Local database – 01=multi650_1.adm, 02=multi650_2.adm -and sys.ini file – 01A=sys.ini, 02A=sys.ini -for Administration Console are provided on the CD-ROM. The sample Global database - #=multi650.gdm - for Admin is provided on the CD-ROM. Also refer to Appendix 4.



● WJ-SX650 Setup

Slot #	Board name	Rotary Switch/Mode	Qty
C	Video Input Board	0	1
B			
A	Video Output Board with Network Board	Output Board (1)	1

● Digital Disk Recorder HD300A Series Setup

Same as Single System Domain with Both GX and SX850 Switch Node on page 12

System Setup

■ Define a System Domain

● Number of System Domains

By definition, each system domain must have a WJ-MPU955A CPU. If it is a redundant system, it must have two WJ-MPU955A CPUs. The system can consist of up to 64 system domains.

● Domain and Unit ID Assignments

For each CPU, you must assign a Unit ID. Once a Unit ID is assigned, the system will refer to its Domain ID equal to this Unit ID.

● Enter Unit ID in the WJ-ASC960 Admin Console

In the WJ-ASC960 Admin Console main screen, select **CPU Units** on the **Domain** menu. The **CPU System Configuration** screen will be activated. Then, enter the **Unit(s)** information into the fields provided. In the following table, we used the example on page 15 to show what information you would need to enter.

Unit ID	Main IPA [A]	Backup IPA [B]	Unit Name	Size
1	172.16.192.1	–	Domain 1	Enhanced
2	172.16.192.2	–	Domain 2	Enhanced

● Enter Unit ID in the System Configuration File

In each WJ-MPU955A CPU, there is a system configuration file named SYS.INI. You can view and edit the file through WJ-ASC960 Admin Console. For each new system domain that is set up, you need to enter the correct ID in the [UNIT] section of the SYS.INI file. The following is the text from the SYS.INI file's [UNIT] section.

```
[UNIT]
***{ The unit ID should be the same as the one defined in }
***{ the Global Admin database for this unit.           }
***{ For single-unit systems, use ID=1. (ID=0 is invalid) }
ID=1
```

■ Define a Video Switch Node

● GX Switch Node

A GX switch node consists of one or more video decoder devices (WJ-GXD900) and video encoder devices (WJ-GXE900). A GX switch node can be in a single system domain or across multiple system domains. Currently, the system only supports one GX switch node, and the node ID is always set to zero by the system software.

● GX Switch Node and its Domain

For each GX switch node, there can be many encoder and decoder devices. In the case of a single domain system, such as the system on page 11, all the encoder and decoder devices will be assigned to that domain.

The GX node can split into multiple system domains. In the case of a multiple domain system, the system designer has to decide which domain the encoder and decoder devices should belong to.

For the system on page 15, we decided that encoder 1-1, encoder 1-2, and decoder 1-1 are in domain 1, while encoder 2-1, encoder 2-2, and decoder 2-1 are in domain 2.

In general, we recommend that you should search for a nearby CPU and assign encoder or decoder devices to the same domain ID of the CPU.

● Enter Encoders and Decoders in the WJ-ASC960 Admin Console

After deciding the domain ID for each encoder and decoder, the next step is to enter the encoder and decoder device information in the WJ-ASC960 Admin Console for the domain.

In the WJ-ASC960 Admin Console **GX DEVICES** screen, we need to configure the devices here.

Since these devices are part of the digital node, select **GX** from the **Switch Nodes** command on the **Domain** menu. Following are the sample data for encoder and decoder devices:

ID	I/F	IPA	EA	Encoder Input Ports	Decoder Output Ports	GXDIN Input Ports	GXDOU Output Ports	GXOSD Output Ports	Address [SW1]		
									A	B	C
2	0	192.168.1.10	00:00:00:00:00:00	9 - 12	–	9 - 12	9 - 12	–	0	0	1
3	0	192.168.1.11	00:00:00:00:00:00	13 - 16	–	13 - 16	13 - 16	–	0	0	2
4	0	192.168.3.1	00:00:00:00:00:00	–	1 - 4	–	–	1 - 4	0	1	0

For detail configuration information, users should refer to WJ-MPU955A Operating Instructions.

● SX850 Switch Node

SX850 switch node consists of one or more WJ-SX850 cages with WJ-PB85C16/WJ-PB85M16 (MXSW) and other matrix controllers (WJ-SX850). SX850 switch node can only be located within a system domain, and cannot cross over multiple domains. Currently, the system only supports up to one SX850 switch node in a single system domain, and the node ID is always set to its domain ID by the system software.

● SX850 Switch Node and its Domain

For each SX850 switch node, there can be many matrix switch, matrix controller, and matrix OSD devices. In case of a single domain system, such as the system on page 11, all the matrix controller devices will be assigned to that domain.

In case of a multiple domain system, the system designer has to decide which domain the matrix controller devices should belong to.

● Enter SX850 FRAMES in the WJ-ASC960 Admin Console

After deciding the domain ID for each SX850 matrix controller, the next step is to enter the information in the WJ-ASC960 Admin Console for the domain.

In the WJ-ASC960 Admin Console, **SX850 FRAMES** screen, we need to configure the devices. Since these devices are part of the SX850 node, select **SX850** from the **Switch Nodes** command on the **Domain** menu. Following are the sample data for matrix controller devices:

ID	I/F	IPA	Boot	MXCONT	MXOSD	MXSW		MXALM	LCPU Address		
						Input	Output		SW12	SW10	SW9
1	1	172.18.0.100	15010426.sr	1-128	1-128	1-256	1-32	-	0	2	0

● SX650 Switch Node

SX650 switch node consists of one more WJ-SX650 matrix switcher with WJ-PB65E01 network board. SX650 switch node can only be located within a system domain, and cannot cross over multiple domains. Currently, the system only supports up to one SX650 switch node in a single system domain, and node ID is always set to its domain ID by the system software.

● SX650 Switch Node and its Domain

In case of a single domain system, all the WJ-SX650 matrix switcher with WJ-PB65E01 network board will be assigned to that domain.

In case of a multiple domain system, the system designer has to decide which domain all the WJ-SX650 matrix switcher with WJ-PB65E01 network board should belong to.

● Enter SX650 SUBNODES in the WJ-ASC960 Admin Console

After deciding the domain ID for each WJ-SX650 matrix switcher, the next step is to enter the information in the WJ-ASC960 Admin Console for the domain.

In the WJ-ASC960 Admin Console, **SX650 SUBNODES** screen, we need to configure the devices. Since these devices are part of the SX650 node, select **SX650** from the **Switch Nodes** command on the **Domain** menu. Following are the sample data for WJ-SX650 matrix switcher.

ID	IF	IPA	BRIDGE	CONTROL	OSD	SWITCH		ALARM	Address [MODE]				EA
						Input	Output		5	6	7	8	
1	1	172.18.0.100	-	1 - 256	1 - 32	1 - 256	1 - 32	-	OFF	OFF	ON	OFF	00.00.00.00.00.00

■ How to Identify a Video Switch Link

● Links between an SX650/SX850 Node and a GX Node

In order to pass video from one switch node to another, video links are required. Page 11 gave an example of a system with video links. In general, you can find video links in the following conditions:

- From a video decoder device to an SX650/SX850 matrix switch input
- From an SX650/SX850 matrix switch output to a video encoder device

The above video links can connect two video switch nodes within the same system domain or different system domains.

● Links between two SX650/SX850 Switch Nodes

In general, you can find video links from a matrix switch output to a matrix switch input. These links must cross two different system domains.

● Enter Video Links in the WJ-ASC960 Admin Console (Global database)

In the WJ-ASC960 Admin Console main screen, select **Routing** on the **Domain** menu. The **LINK** screen will be activated. Then, enter the **video link(s)** information into the fields provided. In the following table, we used the example on page 11 to show what information you would need to enter.

Link ID	Enable	Video Source			Video Destination			Navigation Cost
		Unit ID	Port	Switch	Unit ID	Switch	Port	
1	✓	1	GX	1	1	SX850	9	1
2	✓	1	GX	2	1	SX850	10	1
3	✓	1	GX	3	1	SX850	11	1
4	✓	1	GX	4	1	SX850	12	1

In the above video link table, users are able to enable or disable a video link. When disabled, the system will not use that link in its video routing operation.

Also in the above video link table, the destination unit ID and source unit ID are the same. They also can be different in a multiple domain system.

In the example on page 15, there is no video link in the GX system, and users can skip this configuration.

■ Define System Operators

● System Operators

System operators are also called global operators or system users. In order to seize a system resource, such as a camera in a foreign domain, the system requires a global operator. When a global operator logs into a system controller, it becomes a global controller.

The global operator is subject to unit partitioning restrictions, where within their domain, she/he will act like a local super user.

● Enter Global Operators in the WJ-ASC960 Admin Console (Global Database)

In the WJ-ASC960 Admin Console main screen, select **Operators** → **Records** on the **Components** menu. The **OPERATORS** screen will be activated. Then, enter the **operator(s)** information into the fields provided. For global operator(s), you can select one of the four global class levels.

User ID	Password	Priority	Timeout	Name	Class
500	500	2	00:00:00	Global Operator 1	20: Global Level 0
100	123	10	00:00:00	Global Operator 2	20: Global Level 0

● Enter Operator to Unit Partitioning in the WJ-ASC960 Admin Console

In the WJ-ASC960 Admin Console main screen, select **Operator** → **Records** on the **Components** menu. The **OPERATORS** screen will be activated. Then, select the **Unit** tab and check the partitioning you want to apply to a global operator.

■ Additional GX Switch Node Setup

● Setup Multicast IP Address for Encoder and Decoder Devices

The following steps are required to set up the multicast IP address for each system domain Encoder and Decoder. Using the WJ-ASC960 Global Admin tool PC, launch Internet Explorer.

- 1) <http://xxx.xxx.xxx.xxx>
Enter the IP address (such as xxx.xxx.xxx.xxx) of the WJ-GXE900 or WJ-GXD900 in the address box of the Web browser and press the ENTER key. The top page will be displayed.
- 2) Click the 'SYSTEM' button in the left column on the top page.
The authentication dialog window will be displayed. Enter a user name whose access level is 1 (ADMINISTRATOR) and a password, and click the [OK] button. When authenticated, SYSTEM setup page will be displayed
- 3) Set the IP address into MULTICAST IP ADDRESS FOR SETUP by following table.

Unit ID	MULTICAST IP ADDRESS
1 (Default)	239.192.255.2 (Default)
2	239.192.255.3
3	239.192.255.4
4	239.192.255.5
5	239.192.255.6
62	239.192.255.63
63	239.192.255.64
64	239.192.255.65

- 4) All WJ-GXE900 and WJ-GXD900s are needed to set up the same MULTICAST IP ADDRESS FOR SETUP.

■ Upgrade MPU955A CPU to ASC960

To upgrade a standalone WJ-MPU955A system to a distributed WJ-ASC960 system, please refer to MPEG2 Encoder WJ-GXE900, MPEG2 Decoder WJ-GXD900 Operating Instructions. With this upgrade, you can create a multiple domain system that forms a large scale system.

Main Features

■ System Operator Functions

● Operator Log On and Off

Each system operator is assigned a user ID and password by a global system administrator. A user ID and password are required for any operators to log on to the system. System administrators can decide to automatically log operators off if there is no activity for a pre-defined time period.

● Operator Priority

The global administrator can assign a priority to each operator. When two operators compete for system resources, only the operator with the higher priority gets the resources.

■ Global Video Switch and Video Routing

This function allows operators to switch video from one video source to another, if the permission is granted. For multiple operators competing for the same resource, it only allows the highest priority operator to perform this function. The next highest priority operator gains control when the highest priority operator releases the resource. Here is a sample operation to switch video from local camera number 1 in domain 1, to another camera number 1 in domain 2, on a local monitor number 1.

1. Login to System Controller: Enter 500 for ID and enter 500 for password (Global Operator).
2. Select monitor 1: Enter 1 and press MONITOR key.
3. Select local camera 1: Enter 1 and press CAMERA key.
4. Select global camera 1 (Unit2's camera 1): Enter 200001 and press CAMERA key.

Note: Format: Unit (Domain) id (2) + Camera number (1). **E.g. 200001 (Unit 2, Camera 1)**
(Note that first entry digit must be non-zero, and must not exceed eight digits).

Note: Only Global Operator can access foreign domain resources.

Please note that first entry digit must be non-zero, and must not exceed 2 digits. Also, entry will overflow if the domain ID entered is greater than 64.

■ Global Video Camera Control and Operation

● Global Camera Seize

Operators must seize a camera in order to perform camera operations. After Global Video Switch and Video Routing (refer to page 26), you can seize a camera 200001, which means a camera in domain 2 with a camera ID of 1.

● Camera Control

The system provides operators with camera control functions. The supported functions are: pan, tilt, zoom, focus, and iris.

● Camera Operation

The system provides operators with the following camera operation functions:

- Camera menu control
- Camera preset call and programming
- Camera receiver control

■ Global Video Recorder Control and Operation

● Global Recorder Selection

Operators must seize a digital disk recorder in order to perform recorder operations. After Global Video Switch and Video Routing (refer to page 26), you can seize a recorder 200001, which means a recorder in domain 2 with a recorder ID of 1.

● Recorder Basic Operation

The system provides operators with the following video recorder functions:

- Recording
- Playback, pause, and stop
- Fast-forward and rewind playback at different speeds
- Video input channel selection
- Multiscreen segment switching

● Recorder Search Functions

The system provides operators with the following recorder search functions:

- Date-and-time search playback
- Recording event search (Thumbnail or list search)
- VMD search (Video motion detection search)

● Recorder Menu Functions

The system provides operators with the following recorder menu functions:

- Recorder setup menu
- Disk selection menu
- A – B repeat playback menu
- Filter cancellation menu

● Recorder Instant Playback Operation

The system provides operators with the instant playback operation for a seized global camera.

■ Global Tour Sequences

● Local Monitor Seize

The system allows global operators to start and control a tour sequence from another system domain. Before tour sequence operation, a local monitor must be seized. Here is the sample procedure to seize local monitor number 1 in domain 1:

1. Login to System Controller: Enter 500 for ID and enter 500 for password (Global Operator).
2. Select monitor 1: Enter 1 and press MONITOR key.

● Tour Sequence Operation

Tour sequence operations include start, stop, pause, run, next step, and previous step. Here is the sample to start a tour sequence:

Run global tour sequence 1(Domain 2's tour sequence 1):
Enter 20010001 and press TOURSEQ key.

Notes:

- Format: Domain id (2) + Area number (1) +Tour number (1). **E.g. 20010001**
- Only Global Operator can access foreign domain resources.

Please note that the first entry digit must be non-zero, and must not exceed 2 digits. Also, the entry will overflow if the domain ID entered is greater than 64.

The WJ-ASC960 can execute 20 tour sequence steps per second. If the WJ-ASC960 is asked to perform more than 20 steps in a single second, it will automatically form 20-step groups, and alternate their execution over a period of two or more seconds.

■ Alarm Export to other Domains

● Alarm Export Function

This function allows administrators to assign an alarm export to another system domain.

● Assign Alarm Export in WJ-ASC960 Admin Console

In the WJ-ASC960 Admin main screen, select **Components** → **Alarms** → **Records** → **Export** tab. From there, you can add, delete, and edit an alarm to be exported to multiple system domains (units). The alarm ID has the following format:

Domain (Unit) id (2) + Alarm id (1). **E.g. 20001**

In the above format, the domain ID has up to 2 digits and its range is from 1 ... 64. The domain ID here is also called alarm source domain, which means that the alarm originates from that domain.

● Setup an Exported Alarm in WJ-ASC960 Admin Console

After creating an alarm to be exported to a destination domain, an administrator must enter the alarm information into the destination domain alarm database using its WJ-ASC960 Admin Console.

In the WJ-ASC960 Admin Console main menu, select **Records** from the **Alarm** command on the **Components** menu. For alarm source, select the source type Global Alarm and ID to 20001 (in the above case).

You should also go to the alarm target screen and action screen to complete your normal alarm setup.

■ System Wide Log View

The system supports the following system logs:

- Operator log
- Alarm log

In the WJ-ASC960 Admin Console main screen select the **Tools, Logs, and System** links to view system wide user logs and alarm logs.

Troubleshooting

Before contacting technical support, please check the following symptoms and their possible causes and solutions. If the solutions suggested do not solve the problem, or if the symptom is not listed below, contact your installer or sales representative.

■ Global Operation-Related problems

Symptom	Possible cause / Possible solution	Reference page
Global Operator fails to login	<p>Check whether global database has been updated for this operator.</p> <p>Users typed correct password.</p>	WJ-ASC960 Installation Guide
Global Operator fails to select a global camera	Check whether the global operator subjects to the camera unit partitioning.	P. 24
	Check whether you enter a correct unit id for the global camera.	P. 26
Global Operator fails to start a global tour sequence	Check whether the global operator subjects to the tour sequence unit partitioning.	P. 24
	Check whether you enter a correct unit id for the global-tour sequence.	P. 28

■ Video Switch Node-Related problems

Symptom	Possible cause / Possible solution	Reference page
No video switch between monitors in analog node and cameras in digital node	Check the video link direction in the “Routing Configuration” screen of the global admin. Video links on the decoder side should be the source node and matrix side should be the destination side.	P. 23

Standard Accessories

CD-ROM	1
Installation Guide	1
Certification Label	1

Note: The files specified below are included on the CD-ROM.

- Operating Instructions (pdf)
- Administration Console

Appendix

■ Appendix 1

This appendix indicates the contents of the sample database – 01=hybrid850.adm – , - #=hybrid850.gdm - that is included on the CD-ROM.

Admin Console sample Local database (01=hybrid850.adm) work sheet

[GX DEVICES]

ID	I/F	IPA	EA	Encoder Input Ports	Decoder Output Ports	GXDIN Input Ports	GXDOUT Output Ports	Address		
								A	B	C
2	0	192.168.1.10	00:00:00:00:00:00	9 - 12	–	9 - 12	9 - 12	0	0	1
3	0	192.168.1.11	00:00:00:00:00:00	13 - 16	–	13- 16	13- 16	0	0	2
4	0	192.168.3.11	00:00:00:00:00:00	–	1 - 4	–	–	0	1	0

Note: GX DEVICES' ID should be upper number than SX850 FRAMES' one.

[SX850 FRAMES]

ID	I/F	IPA	Boot	MXCONT	MXOSD	MXSW		MXALM	LCPU Address		
						Input	Output		SW12	SW10	SW9
1	1	172.18.0.100	15010426.sr	1-128	1-128	1-256	1-32	–	0	2	0

[CAMERAS]

ID	Logical #	Control		Video		Compensation	Bitrate	Model	OSD	
		Switch	Port	Switch	Port				Title	MXCONT/ MXOSD
1	1	SX850	1	SX850	1	Short	–	WV-CS954	C 1	MXOSD
2	2	SX850	2	SX850	2	Short	–	WV-CS954	C 2	MXOSD
3	3	SX850	3	SX850	3	Short	–	WV-CS954	C 3	MXOSD
4	4	SX850	4	SX850	4	Short	–	WV-CS954	C 4	MXOSD
5	5	SX850	5	SX850	5	Short	–	WV-CS954	C 5	MXOSD
6	6	SX850	6	SX850	6	Short	–	WV-CS954	C 6	MXOSD
7	7	SX850	7	SX850	7	Short	–	WV-CS954	C 7	MXOSD
8	8	SX850	8	SX850	8	Short	–	WV-CS954	C 8	MXOSD
9	9	GX	9	GX	9	Short	6.144	WV-CS954	C 9	–
10	10	GX	10	GX	10	Short	6.144	WV-CS954	C 10	–
11	11	GX	11	GX	11	Short	6.144	WV-CS954	C 11	–
12	12	GX	12	GX	12	Short	6.144	WV-CS954	C 12	–
13	13	GX	13	GX	13	Short	6.144	WV-CS954	C 13	–
14	14	GX	14	GX	14	Short	6.144	WV-CS954	C 14	–
15	15	GX	15	GX	15	Short	6.144	WV-CS954	C 15	–
16	16	GX	16	GX	16	Short	6.144	WV-CS954	C 16	–

[CONTROLLERS]

ID	Area	Priority	Boot File	Model	IPA	EA	Port
1	0	3	-	WV-CU950	172.18.0.200	00:80:45:AB:CD:EF	-

Note: Actual MAC address that is indicated on a product should be entered to EA field.

[MONITORS]

ID	Area	Local	Switch	Port
1	0	1	SX850	1
2	0	2	SX850	2
3	0	3	SX850	3
4	0	4	SX850	4

[OPERATORS]

User ID	Password	Priority	Timeout	Name	Class
100	100	100	00:00:00	Normal	1: Normal
955	955	3	00:00:00	Super	2: Super

[DIGITAL RECORDER]

ID	Logical	Model	Video		IPA	Unit Address	Digital Bitrate	Channels	Cam
			Switch	Port					
1	1	WJ-HD316A	SX850	13	172.18.0.60	1	-	1	1
								2	2
								3	3
								4	4
								5	5
								6	6
								7	7
								8	8
								9	9
								10	10
								11	11
								12	12
								13	13
								14	14
								15	15
								16	16

Admin sample Global database (#=hybrid850.gdm) work sheet

[CPU System Configuration]

Unit ID	Main IPA	Backup IPA	Unit Name	Size
1	172.18.0.1	-	Domain 1	Enhanced

[LINK]

Link ID	Enable	Video Source			Video Destination			Navigation Cost
		Unit ID	Port	Switch	Unit ID	Switch	Port	
1	✓	1	GX	1	1	SX850	9	1
2	✓	1	GX	2	1	SX850	10	1
3	✓	1	GX	3	1	SX850	11	1
4	✓	1	GX	4	1	SX850	12	1

[OPERATORS]

User ID	Password	Priority	Timeout	Name	Class
500	500	2	00:00:00	Global Operator	20: Global Level 0

sys.ini configuration (01A=sys.ini)

```
[INTERFACES]
***{ Number of interfaces in the system }
Numinterfaces=3
***{ Interface Definitions }
***{ Interface<Number>=<IPA>,<SUBNET MASK>,<BOOT SERVER IPA> }
***{ !! Note: The InterfaceX IPAs must match the MainX CPU }
***{ hardware settings in order for the System to }
***{ operate correctly!! }
***{ MainA CPU }
Interface0=192.168.200.200,255.255.255.0,192.168.200.200
Interface1=172.18.0.1,255.255.0.0,172.18.0.1
Interface2=172.16.192.1,255.255.0.0,172.16.192.1
***{ MainB CPU }
*Interface0=192.168.200.201,255,255,255,0,192.168.200.201
*Interface1=172.18.0.2,255.255.0.0,172.18.0.2
*Interface2=172.16.192.2,255.255.0.0,172.16.192.2

[FRAMES]
***{ MX Frame definition from Admin file }
***{ MXSW has format <num_rows>,<num_cols>,<interface_num> }
***{ All others use <num_functions>,<interface_num> }
***{ All 0's used for digital-only systems. }
MXSWFunction=1,1,1
MXCONFunction=1,1
MXOSDFunction=1,1
MXDIOFunction=1,1
MXRMSFunction=0,0

[PROCS]
***{ Process Interface Assignments }
***{ Format: <Process Name>=<interface_num> }
***{ Set these three to the interface_num of the Ethernet keyboards: }
Keybp=1
Mxconts=1
Mxpfw=1
***{ Set Swcpu to the interface_num of the MainCPU: }
Swcpu=1
***{ Set UnitManager to the same interface_num for all system CPUs: }
UnitManager=2
***{ Set CSntp to the interface_num for EXTERNAL SNTP operation: }
CSntp=2
***{ Set SSntp to the same interface_num for all system CPUs: }
SSntp=2
***{ Set SNMPAgent to the same interface_num for all system CPUs: }
SNMPAgent=2

[OSD]
***{ Initial OSD display position }
***{ Alarm text is placed on the General Status line. }
***{ Format: <DisplayItemPosition>=<x-position>,<y-position> }
TimeDatePosition=1,1
CamTitlePosition=1,16
MonStatusPosition=1,15
GenStatusPosition=1,14
```

```

***{ Time-Date, Camera Title and Camera ID Controls }
***{ Code 2 takes effect only if source is MXOSD }
***{ Format: <Control Name>=<control code> }
***{ control code 0 - OFF }
***{ control code 1 - ON }
***{ control code 2 - By Operator }

```

TimeDateControl=2

CamTitleControl=2

CamIDControl=2

```

***{ Time and Date display format }
***{ Format: TimeDateFormat=<format> }
***{ format 0 - DD/MM/YYYY }
***{ format 1 - MM/DD/YYYY }
***{ format 2 - DD/Mmm/YYYY }
***{ format 3 - YYYY/MM/DD }
***{ format 4 - Mmm/DD/YYYY }
***{ format 5 - DD/MM/'YY }
***{ format 6 - MM/DD/'YY }
***{ format 7 - DD/Mmm/'YY }
***{ format 8 - 'YY/MM/DD }
***{ format 9 - Mmm/DD/'YY }

```

TimeDateFormat=1

```

***{ Time-Hour Display format }
***{ Format: TimeHourFormat=<format> }
***{ format 0 - 12 Hour }
***{ format 1 - 24 Hour }

```

TimeHourFormat=0

[UNIT]

```

***{ The unit ID should be the same as the one defined in }
***{ the Global Admin database for this unit. }
***{ For single-unit systems, use ID=1. (ID=0 is invalid) }

```

ID=1

[LOG]

```

***{ This section is optional. It is not required unless }
***{ System defaults are not acceptable. Delete the }
***{ single asterisks below to make this section active. }
***{ Log generation/save characteristics }
***{ Format: <LogFileName>=<Minutes>,<Days> }
***{ Minutes = Frequency to copy to HD (1 - 30 min) }
***{ Note: Values outside this range = 1 min. }
***{ Days = days to save on HD (5 - 30) }
***{ Mode = 0 - off (default) }
***{ 1 - on }

```

UserLog=10,7,1

SwLog=10,7,0

AlarmLog=10,7,1

VideoLossLog=10,7,1

[RS232ALARM]

```

***{ This section is optional. It is not required unless }
***{ System defaults are not acceptable. Delete the }
***{ single asterisks below to make this section active. }
***{ Enable/Disable Serial Alarms by port }
***{ Note: Port 2 is dedicated to redundant communication }

```

```

***{ if REDUNDANT:YES is selected by front panel }
***{ switch. }
***{ Format: AlarmPort=<port 1>,<port 2> }
***{ port # = use "1" to indicate desired port (only one) }
***{ port # = use "0" to indicate ports not desired }
*AlarmPort=1,0

[ALARMTEXTDISPLAY]
***{ This section is optional. It is not required unless }
***{ System defaults are not acceptable. Delete the }
***{ single asterisks below to make this section active. }
***{ Alarm Text Display format }
***{ Format: AlarmTextDisplay=<option> }
***{ option 0 - Display Alarm Text only }
***{ option 1 - Display both Alarm Text (20 chars) }
***{ and Action Text (20 chars) }
*AlarmTextDisplay=0

[SYSTEM]
***{ This section is optional. It is not required unless }
***{ System defaults are not acceptable. Delete the }
***{ single asterisks below to make this section active. }
***{ Format: Keyboards=<num of controllers on this unit> }
***{ Cameras=<num of cameras on this unit> }
***{ Monitors=<num of monitors on this unit> }
*Keyboards=64
*Cameras=1024
*Monitors=256

[ROUTING]
***{ This section is optional to the system. It is only required for external gateway. }
***{ Only one default gateway entry is allowed! }
***{ Format: default=<gateway IPA> }
default=192.168.200.1
*** Network entries must be grouped together although any number of entries is allowed. }
*** Format: network=<destination>,<gateway>,<netmask> }
*network=64.0.0.0,192.168.200.44,255.0.0.0
*network=88.0.0.0,192.168.200.88,255.0.0.0
*network=33.5.0.0,192.168.200.66,255.0.0.0
*network=64.0.0.0,192.168.200.55,255.0.0.0
*** Host entries must be grouped together although any number of entries is allowed. }
*** Format: host=<destination>,<gateway> }
*host=33.44.55.66,192.168.200.66
*host=11.22.33.44,192.168.200.44

[SNTP]
***{ This section is optional. It is not required unless }
***{ System defaults are not acceptable. Delete the }
***{ single asterisks below to make this section active. }
***{ This section lists user-defined client SNTP values, }
***{ sync rates and an external server address. }
***{ }
***{ Format: (VALUES INTERNAL TO THIS UNIT) }
***{ ClientMode=<mode> (act as an SNTP client) }
***{ modes: 0 - Internal (default) }

```

```

***{          1 - Unicast          }
***{          2 - Anycast         }
***{          3 - Broadcast        }
***{ ServerMode=<mode> (to expose its timestamp to }
***{          other units)        }
***{          modes: 0 - Off       }
***{          1 - On (default)     }
***{ InternalFrequency=<time frequency of sync (secs)> }
***{          -default is 600 sec (10 min) }
***{ }
***{ (VALUES FOR EXTERNAL CONNECTION) }
***{ NTPServerIPA=<IPA> of SNTP server }
***{          -for Unicast mode only; optional for }
***{          modes 0,2,3. }
***{ ExternalFrequency=<time frequency of sync (secs)> }
***{          -default is 18000 sec (5 hrs) }
***{ TZOffset=<hour> time zone offset from GMT }
***{          (+,-12 in integer values) }
***{ DaylightSaving=<on/off> (applies for the local }
***{          time zone) }
***{          on/off: 0 - off }
***{          1 - on }

```

```

*ClientMode=1
*ServerMode=1
*InternalFrequency=600
*NTPServerIPA=192.168.200.XXX
*ExternalFrequency=18000
*TZOffset=5
*DaylightSaving=1

```

```

[ERRORP]
ErrorLevel=3

```

■ Appendix 2

This appendix indicates the contents of the sample database – 01=multi_1.adm, 02=multi_2.adm, #=multi.gdm – that is included on the CD-ROM.

Admin Console sample database (01=multi_1.adm) work sheet for Unit 1

[GX DEVICES]

ID	I/F	IPA	EA	Encoder Input Ports	Decoder Output Ports	GXDIN Input Ports	GXDOU Output Ports	Address		
								A	B	C
1	0	192.168.1.10	00:00:00:00:00:00	1 - 4	–	1 - 4	1 - 4	0	0	1
2	0	192.168.1.11	00:00:00:00:00:00	5 - 8	–	5 - 8	5 - 8	0	0	2
3	0	192.168.2.10	00:00:00:00:00:00	–	1 - 4	–	–	0	1	0

[CAMERAS]

ID	Logical #	Control		Video		Compensation	Bitrate	Model	OSD Title
		Switch	Port	Switch	Port				
1	1	GX	1	GX	1	Short	6.144	WV-CS954	C 1
2	2	GX	2	GX	2	Short	6.144	WV-CS954	C 2
3	3	GX	3	GX	3	Short	6.144	WV-CS954	C 3
4	4	GX	4	GX	4	Short	6.144	WV-CS954	C 4
5	5	GX	5	GX	5	Short	6.144	WV-CS954	C 5
6	6	GX	6	GX	6	Short	6.144	WV-CS954	C 6
7	7	GX	7	GX	7	Short	6.144	WV-CS954	C 7

[CONTROLLERS]

ID	Area	Priority	Boot File	Model	IPA	EA	Port
1	0	3	–	WV-CU950	172.18.0.200	00:80:45:AB:CD:EF	–

Note: Actual MAC address that is indicated on a product should be entered to EA field.

[MONITORS]

ID	Area	Local	Switch	Port
1	0	1	GX	1
2	0	2	GX	2
3	0	3	GX	3
4	0	4	GX	4

[OPERATORS]

ID	Password	Priority	Timeout	Name	Class
100	100	100	00:00:00	Normal	1: Normal
955	955	3	00:00:00	Super	2: Super

[DIGITAL RECORDER]

ID	Logical	Model	Video		IPA	Unit Address	Digital Bitrate	Channels	Cam
			Switch	Port					
1	1	WJ-HD316A	GX	8	172.18.0.60	1	6.144	1	1
								2	2
								3	3
								4	4
								5	5
								6	6
								7	7
								-	-
								-	-
								-	-
								-	-
								-	-
								-	-

Admin Console sample database (02=multi_2.adm) work sheet for Unit2

[GX DEVICES]

ID	I/F	IPA	EA	Encoder Input Ports	Decoder Output Ports	GXDIN Input Ports	GXDOU Output Ports	Address		
								A	B	C
1	0	192.168.3.10	00:00:00:00:00:00	1 - 4	-	1 - 4	1 - 4	0	0	3
2	0	192.168.3.11	00:00:00:00:00:00	5 - 8	-	5 - 8	5 - 8	0	0	4
3	0	192.168.4.10	00:00:00:00:00:00	-	1 - 4	-	-	0	1	1

Note: Actual MAC address that is indicated on a product should be entered to EA field.

[CAMERAS]

ID	Logical #	Control		Video		Compensation	Bitrate	Model	OSD	
		Switch	Port	Switch	Port				Title	MXCONT/MXOSD
1	1	GX	1	GX	1	Short	6.144	WV-CS954	C 1	–
2	2	GX	2	GX	2	Short	6.144	WV-CS954	C 2	–
3	3	GX	3	GX	3	Short	6.144	WV-CS954	C 3	–
4	4	GX	4	GX	4	Short	6.144	WV-CS954	C 4	–
5	5	GX	5	GX	5	Short	6.144	WV-CS954	C 5	–
6	6	GX	6	GX	6	Short	6.144	WV-CS954	C 6	–
7	7	GX	7	GX	7	Short	6.144	WV-CS954	C 7	–

[CONTROLLERS]

ID	Area	Priority	Boot File	Model	IPA	EA	Port
1	0	3	–	WV-CU950	172.18.0.200	00:80:45:AB:CD:EF	–

Note: Actual MAC address that is indicated on a product should be entered to EA field.

[MONITORS]

ID	Area	Local	Switch	Ports
1	0	1	GX	1
2	0	2	GX	2
3	0	3	GX	3
4	0	4	GX	4

[OPERATORS]

ID	Password	Priority	Timeout	Name	Class
100	100	100	00:00:00	Normal	1: Normal
955	955	3	00:00:00	Super	2: Super

[DIGITAL RECORDER]

ID	Logical	Model	Video		IPA	Unit Address	Digital Bitrate	Channels	Cam
			Switch	Port					
1	1	WJ-HD316A	GX	8	172.18.0.60	1	6.144	1	1
								2	2
								3	3
								4	4
								5	5
								6	6
								7	7
								-	-
								-	-
								-	-
								-	-
								-	-
								-	-

Admin Console sample Global database (#=multi.gdm) work sheet for Unit 1

[Units]

Unit ID	Main IPA [A]	Backup IPA [B]	Unit Name	Size
1	172.16.192.1	-	Domain 1	Enhanced
2	172.16.192.2	-	Domain 2	Enhanced

[System User]

User ID	Password	Priority	Timeout	Name	Class
500	500	2	00:00:00	Global Operator	20: Global Level 0
501	501	2	00:00:00	Global Operator	20: Global Level 0

sys.ini configuration for Unit1 (01A=sys.ini)

```
[INTERFACES]
***{ Number of interfaces in the system }
Numinterfaces=3
***{ Interface Definitions }
***{ Interface<Number>=<IPA>,<SUBNET MASK>,<BOOT SERVER IPA> }
***{ !! Note: The InterfaceX IPAs must match the MainX CPU }
***{ hardware settings in order for the System to }
***{ operate correctly!! }
***{ MainA CPU }
Interface0=192.168.200.200,255.255.255.0,192.168.200.200
Interface1=172.18.0.1,255.255.0.0,172.18.0.1
Interface2=172.16.192.1,255.255.0.0,172.16.192.1
***{ MainB CPU }
*Interface0=192.168.200.201,255,255,255,0,192.168.200.201
*Interface1=172.18.0.2,255.255.0.0,172.18.0.2
*Interface2=172.16.192.2,255.255.0.0,172.16.192.2

[FRAMES]
***{ MX Frame definition from Admin file }
***{ MXSW has format <num_rows>,<num_cols>,<interface_num> }
***{ All others use <num_functions>,<interface_num> }
***{ All 0's used for digital-only systems. }
MXSWFunction=0,0,0
MXCONFunction=0,0
MXOSFunction=0,0
MXDIOFunction=0,0
MXRMSFunction=0,0

[PROCS]
***{ Process Interface Assignments }
***{ Format: <Process Name>=<interface_num> }
***{ Set these three to the interface_num of the Ethernet keyboards: }
Keybp=1
Mxconts=1
Mxpfw=1
***{ Set Swcpu to the interface_num of the MainCPU: }
Swcpu=1
***{ Set UnitManager to the same interface_num for all system CPUs: }
UnitManager=2
***{ Set CSntp to the interface_num for EXTERNAL SNTP operation: }
CSntp=2
***{ Set SSntp to the same interface_num for all system CPUs: }
SSntp=2
***{ Set SNMPAgent to the same interface_num for all system CPUs: }
SNMPAgent=2

[OSD]
***{ Initial OSD display position }
***{ Alarm text is placed on the General Status line. }
***{ Format: <DisplayItemPosition>=<x-position>,<y-position> }
TimeDatePosition=1,1
CamTitlePosition=1,16
```

```

MonStatusPosition=1,15
GenStatusPosition=1,14
***{ Time-Date, Camera Title and Camera ID Controls      }
***{ Code 2 takes effect only if source is MXOSD          }
***{ Format: <Control Name>=<control code>                }
***{   control code 0 - OFF                               }
***{   control code 1 - ON                               }
***{   control code 2 - By Operator                       }

```

TimeDateControl=2

CamTitleControl=2

CamIDControl=2

```

***{ Time and Date display format                          }
***{ Format: TimeDateFormat=<format>                      }
***{   format 0 - DD/MM/YYYY                              }
***{   format 1 - MM/DD/YYYY                              }
***{   format 2 - DD/Mmm/YYYY                             }
***{   format 3 - YYYY/MM/DD                              }
***{   format 4 - Mmm/DD/YYYY                             }
***{   format 5 - DD/MM/'YY                               }
***{   format 6 - MM/DD/'YY                               }
***{   format 7 - DD/Mmm/'YY                             }
***{   format 8 - 'YY/MM/DD                               }
***{   format 9 - Mmm/DD/'YY                             }

```

TimeDateFormat=1

```

***{ Time-Hour Display format                              }
***{ Format: TimeHourFormat=<format>                      }
***{   format 0 - 12 Hour                                 }
***{   format 1 - 24 Hour                                 }

```

TimeHourFormat=0

[UNIT]

```

***{ The unit ID should be the same as the one defined in }
***{   the Global Admin database for this unit           }
***{ For single-unit systems, use ID=1. (ID=0 is invalid) }

```

ID=1

[LOG]

```

***{ This section is optional. It is not required unless  }
***{   System defaults are not acceptable. Delete the   }
***{   single asterisks below to make this section active. }
***{ Log generation/save characteristics                 }
***{ Format: <LogFileName>=<Minutes>,<Days>               }
***{   Minutes = Frequency to copy to HD (1 - 30 min)    }
***{   Note: Values outside this range = 1 min.         }
***{   Days = days to save on HD (5 - 30)               }
***{   Mode = 0 - off (default)                          }
***{   1 - on                                             }

```

UserLog=10,7,1

SwLog=10,7,0

AlarmLog=10,7,1

VideoLossLog=10,7,1

[RS232ALARM]

```

***{ This section is optional. It is not required unless }
***{   System defaults are not acceptable. Delete the   }
***{   single asterisks below to make this section active. }

```

```

***{ Enable/Disable Serial Alarms by port          }
***{ Note: Port 2 is dedicated to redundant communication }
***{   if REDUNDANT:YES is selected by front panel   }
***{   switch.                                       }
***{ Format: AlarmPort=<port 1>,<port 2>             }
***{   port # = use "1" to indicate desired port (only one) }
***{   port # = use "0" to indicate ports not desired   }
*AlarmPort=1,0

[ALARMTEXTDISPLAY]
***{ This section is optional. It is not required unless }
***{ System defaults are not acceptable. Delete the }
***{ single asterisks below to make this section active. }
***{ Alarm Text Display format                         }
***{ Format: AlarmTextDisplay=<option>                 }
***{   option 0 - Display Alarm Text only              }
***{   option 1 - Display both Alarm Text (20 chars)   }
***{   and Action Text (20 chars)                     }
*AlarmTextDisplay=0

[SYSTEM]
***{ This section is optional. It is not required unless }
***{ System defaults are not acceptable. Delete the }
***{ single asterisks below to make this section active. }
***{ Format: Keyboards=<num of controllers on this unit> }
***{   Cameras=<num of cameras on this unit>           }
***{   Monitors=<num of monitors on this unit>         }
*Keyboards=64
*Cameras=1024
*Monitors=256

[ROUTING]
***{ This section is optional to the system. It is only required for external gateway. }
***{ Only one default gateway entry is allowed! }
***{ Format: default=<gateway IPA> }
default=192.168.200.1
*** Network entries must be grouped together although any number of entries is allowed. }
*** Format: network=<destination>,<gateway>,<netmask> }
*network=64.0.0.0,192.168.200.44,255.0.0.0
*network=88.0.0.0,192.168.200.88,255.0.0.0
*network=33.5.0.0,192.168.200.66,255.0.0.0
*network=64.0.0.0,192.168.200.55,255.0.0.0
*** Host entries must be grouped together although any number of entries is allowed. }
*** Format: host=<destination>,<gateway> }
*host=33.44.55.66,192.168.200.66
*host=11.22.33.44,192.168.200.44

[SNTP]
***{ This section is optional. It is not required unless }
***{ System defaults are not acceptable. Delete the }
***{ single asterisks below to make this section active. }
***{ This section lists user-defined client SNTP values, }
***{ sync rates and an external server address. }
***{ }
***{ Format: (VALUES INTERNAL TO THIS UNIT) }
***{ ClientMode=<mode> (act as an SNTP client) }

```

```

***{          modes: 0 - Internal (default)          }
***{          1 - Unicast                          }
***{          2 - Anycast                          }
***{          3 - Broadcast                         }
***{ ServerMode=<mode> (to expose its timestamp to  }
***{       other units)                            }
***{       modes: 0 - Off                          }
***{          1 - On (default)                      }
***{ InternalFrequency=<time frequency of sync (secs)> }
***{       -default is 600 sec (10 min)            }
***{ }                                              }
***{ (VALUES FOR EXTERNAL CONNECTION)             }
***{ NTPServerIP=<IPA> of SNTP server              }
***{       -for Unicast mode only; optional for    }
***{       modes 0,2,3.                            }
***{ ExternalFrequency=<time frequency of sync (secs)> }
***{       -default is 18000 sec (5 hrs)           }
***{ TZOffset=<hour> time zone offset from GMT     }
***{       (+,-12 in integer values)              }
***{ DaylightSaving=<on/off> (applies for the local }
***{       time zone)                             }
***{       on/off: 0 - off                        }
***{          1 - on                              }
*ClientMode=1
*ServerMode=1
*InternalFrequency=600
*NTPServerIP=192.168.200.XXX
*ExternalFrequency=18000
*TZOffset=5
*DaylightSaving=1

[ERRORP]
ErrorLevel=3

```

sys.ini configuration for Unit2 (02A=sys.ini)

```

[INTERFACES]
***{ Number of interfaces in the system          }
Numinterfaces=3
***{ Interface Definitions                      }
***{ Interface<Number>=<IPA>,<SUBNET MASK>,<BOOT SERVER IPA> }
***{ !! Note: The InterfaceX IPAs must match the MainX CPU }
***{       hardware settings in order for the System to    }
***{       operate correctly!!                             }
***{ MainA CPU }
Interface0=192.168.201.200,255.255.255.0,192.168.201.200
Interface1=172.18.0.1,255.255.0.0,172.18.0.1
Interface2=172.16.192.2,255.255.0.0,172.16.192.2
***{ MainB CPU }
*Interface0=192.168.200.201,255.255.255.0,192.168.200.201
*Interface1=172.18.0.2,255.255.0.0,172.18.0.2
*Interface2=172.16.192.2,255.255.0.0,172.16.192.2

[FRAMES]
***{ MX Frame definition from Admin file          }

```

```

***{ MXSW has format <num_rows>,<num_cols>,<interface_num> }
***{ All others use <num_functions>,<interface_num> }
***{ All 0's used for digital-only systems. }
MXSWFunction=0,0,0
MXCONFunction=0,0
MXOSDFunction=0,0
MXDIOFunction=0,0
MXRMSFunction=0,0

[PROCS]
***{ Process Interface Assignments }
***{ Format: <Process Name>=<interface_num> }
***{ Set these three to the interface_num of the Ethernet keyboards: }
Keybp=1
Mxconts=1
Mxpfw=1
***{ Set Swcpu to the interface_num of the MainCPU: }
Swcpu=1
***{ Set UnitManager to the same interface_num for all system CPUs: }
UnitManager=2
***{ Set CSntp to the interface_num for EXTERNAL SNTP operation: }
CSntp=2
***{ Set SSntp to the same interface_num for all system CPUs: }
SSntp=2
***{ Set SNMPAgent to the same interface_num for all system CPUs: }
SNMPAgent=2

[OSD]
***{ Initial OSD display position }
***{ Alarm text is placed on the General Status line. }
***{ Format: <DisplayItemPosition>=<x-position>,<y-position> }
TimeDatePosition=1,1
CamTitlePosition=1,16
MonStatusPosition=1,15
GenStatusPosition=1,14
***{ Time-Date, Camera Title and Camera ID Controls }
***{ Code 2 takes effect only if source is MXOSD }
***{ Format: <Control Name>=<control code> }
***{ control code 0 - OFF }
***{ control code 1 - ON }
***{ control code 2 - By Operator }
TimeDateControl=2
CamTitleControl=2
CamIDControl=2
***{ Time and Date display format }
***{ Format: TimeDateFormat=<format> }
***{ format 0 - DD/MM/YYYY }
***{ format 1 - MM/DD/YYYY }
***{ format 2 - DD/Mmm/YYYY }
***{ format 3 - YYYY/MM/DD }
***{ format 4 - Mmm/DD/YYYY }
***{ format 5 - DD/MM/'YY }
***{ format 6 - MM/DD/'YY }
***{ format 7 - DD/Mmm/'YY }
***{ format 8 - 'YY/MM/DD }

```

```

***{ format 9 - Mmm/DD/'YY }
TimeDateFormat=1
***{ Time-Hour Display format }
***{ Format: TimeHourFormat=<format> }
***{ format 0 - 12 Hour }
***{ format 1 - 24 Hour }
TimeHourFormat=0

[UNIT]
***{ The unit ID should be the same as the one defined in }
***{ the Global Admin database for this unit. }
***{ For single-unit systems, use ID=1. (ID=0 is invalid) }
ID=2

[LOG]
***{ This section is optional. It is not required unless }
***{ System defaults are not acceptable. Delete the }
***{ single asterisks below to make this section active. }
***{ Log generation/save characteristics }
***{ Format: <LogFileName>=<Minutes>,<Days> }
***{ Minutes = Frequency to copy to HD (1 - 30 min) }
***{ Note: Values outside this range = 1 min. }
***{ Days = days to save on HD (5 - 30) }
***{ Mode = 0 - off (default) }
***{ 1 - on }
UserLog=10,7,1
SwLog=10,7,0
AlarmLog=10,7,1
VideoLossLog=10,7,1

[RS232ALARM]
***{ This section is optional. It is not required unless }
***{ System defaults are not acceptable. Delete the }
***{ single asterisks below to make this section active. }
***{ Enable/Disable Serial Alarms by port }
***{ Note: Port 2 is dedicated to redundant communication }
***{ if REDUNDANT:YES is selected by front panel }
***{ switch. }
***{ Format: AlarmPort=<port 1>,<port 2> }
***{ port # = use "1" to indicate desired port (only one) }
***{ port # = use "0" to indicate ports not desired }
*AlarmPort=1,0

[ALARMTEXTDISPLAY]
***{ This section is optional. It is not required unless }
***{ System defaults are not acceptable. Delete the }
***{ single asterisks below to make this section active. }
***{ Alarm Text Display format }
***{ Format: AlarmTextDisplay=<option> }
***{ option 0 - Display Alarm Text only }
***{ option 1 - Display both Alarm Text (20 chars) }
***{ and Action Text (20 chars) }
*AlarmTextDisplay=0

[SYSTEM]
***{ This section is optional. It is not required unless }

```



```

***{ System defaults are not acceptable. Delete the }
***{ single asterisks below to make this section active. }
***{ Format: Keyboards=<num of controllers on this unit> }
***{ Cameras=<num of cameras on this unit> }
***{ Monitors=<num of monitors on this unit> }
*Keyboards=64
*Cameras=1024
*Monitors=256

```

[ROUTING]

```

***{ This section is optional to the system. It is only required for external gateway. }
***{ Only one default gateway entry is allowed! }
***{ Format: default=<gateway IPA> }
default=192.168.201.1
*** Network entries must be grouped together although any number of entries is allowed. }
*** Format: network=<destination>,<gateway>,<netmask> }
*network=64.0.0.0,192.168.200.44,255.0.0.0
*network=88.0.0.0,192.168.200.88,255.0.0.0
*network=33.5.0.0,192.168.200.66,255.0.0.0
*network=64.0.0.0,192.168.200.55,255.0.0.0
*** Host entries must be grouped together although any number of entries is allowed. }
*** Format: host=<destination>,<gateway> }
*host=33.44.55.66,192.168.200.66
*host=11.22.33.44,192.168.200.44

```

[SNTP]

```

***{ This section is optional. It is not required unless }
***{ System defaults are not acceptable. Delete the }
***{ single asterisks below to make this section active. }
***{ This section lists user-defined client SNTP values, }
***{ sync rates and an external server address. }
***{ }
***{ Format: (VALUES INTERNAL TO THIS UNIT) }
***{ ClientMode=<mode> (act as an SNTP client) }
***{ modes: 0 - Internal (default) }
***{ 1 - Unicast }
***{ 2 - Anycast }
***{ 3 - Broadcast }
***{ ServerMode=<mode> (to expose its timestamp to }
***{ other units) }
***{ modes: 0 - Off }
***{ 1 - On (default) }
***{ InternalFrequency=<time frequency of sync (secs)> }
***{ -default is 600 sec (10 min) }
***{ }
***{ (VALUES FOR EXTERNAL CONNECTION) }
***{ NTPServerIPA=<IPA> of SNTP server }
***{ -for Unicast mode only; optional for }
***{ modes 0,2,3. }
***{ ExternalFrequency=<time frequency of sync (secs)> }
***{ -default is 18000 sec (5 hrs) }
***{ TZOffset=<hour> time zone offset from GMT }
***{ (+,-12 in integer values) }
***{ DaylightSaving=<on/off> (applies for the local }
***{ time zone) }
***{ on/off: 0 - off }

```

```
***{          1 - on          }
```

```
*ClientMode=1
```

```
*ServerMode=1
```

```
*InternalFrequency=600
```

```
*NTPServerIP=192.168.200.XXX
```

```
*ExternalFrequency=18000
```

```
*TZOffset=5
```

```
*DaylightSaving=1
```

```
[ERRORP]
```

```
ErrorLevel=3
```

■ Appendix 3

This appendix indicates the contents of the sample database – 01=hybrid650.adm, – #=hybrid650.gdm – that is included on the CD-ROM.

Admin Console sample database (01=hybrid650.adm) work sheet for Unit 1

[GX DEVICES]

ID	I/F	IPA	EA	Encoder Input Ports	Decoder Output Ports	GXDIN Input Ports	Address		
							A	B	C
2	0	192.168.1.10	00:80:45:AA:AA:AA	9 - 12	–	9 - 12	0	0	1
3	0	192.168.1.11	00:80:45:BB:BB:BB	13 - 16	–	13 - 16	0	0	2
4	0	192.168.3.11	00:80:45:EE:EE:EE	–	1 - 4	–	0	1	0

Note: Actual MAC address that is indicated on a product should be entered to EA field.

[SX650 SUBNODES]

ID	I/F	IP Address	BRIDGE	CONTROL	OSD	SWITCH	ALARM	Address [MODE]			
								5	6	7	8
1	1	172.18.0.100		1-256	1-32	1-256, 1-32		5 OFF	6 OFF	7 ON	8 OFF

[CAMERAS]

ID	Logical #	Control		Video		Compensation	Bitrate	Model	OSD Title
		Switch	Port	Switch	Port				
1	1	SX650	1	SX650	1	Short	–	WJ-CS954	C 1
2	2	SX650	2	SX650	2	Short	–	WJ-CS954	C 2
3	3	SX650	3	SX650	3	Short	–	WJ-CS954	C 3
4	4	SX650	4	SX650	4	Short	–	WJ-CS954	C 4
5	5	SX650	5	SX650	5	Short	–	WJ-CS954	C 5
6	6	SX650	6	SX650	6	Short	–	WJ-CS954	C 6
7	7	SX650	7	SX650	7	Short	–	WJ-CS954	C 7
8	8	SX650	8	SX650	8	Short	–	WJ-CS954	C 8
9	9	GX	9	GX	9	Short	6.144	WJ-CS954	C 9
10	10	GX	10	GX	10	Short	6.144	WJ-CS954	C 10
11	11	GX	11	GX	11	Short	6.144	WJ-CS954	C 11
12	12	GX	12	GX	12	Short	6.144	WJ-CS954	C 12
13	13	GX	13	GX	13	Short	6.144	WJ-CS954	C 13
14	14	GX	14	GX	14	Short	6.144	WJ-CS954	C 14
15	15	GX	15	GX	15	Short	6.144	WJ-CS954	C 15
16	16	GX	16	GX	16	Short	6.144	WJ-CS954	C 16

[CONTROLLERS]

ID	Area	Priority	Boot File	Model	IPA	EA	Port
1	0	3	–	WV-CU950	172.18.0.200	00:80:45:AB:CD:EF	–

Note: Actual MAC address that is indicated on a product should be entered to EA field.

[MONITORS]

ID	Area	Local	Switch	Port
1	0	1	SX650	1
2	0	2	SX650	2
3	0	3	SX650	3
4	0	4	SX650	4

[OPERATORS]

ID	Password	Priority	Timeout	Name	Class
100	100	100	00:00:00	Normal	1: Normal
955	955	3	00:00:00	Super	2: Super

[DIGITAL RECORDER]

ID	Logical	Model	Video		IPA	Unit Address	Digital Bitrate	Channels	Cam
			Switch	Port					
1	1	WJ-HD316A	SX650	13	172.18.0.60	1	–	1	1
								2	2
								3	3
								4	4
								5	5
								6	6
								7	7
								8	8
								9	9
								10	10
								11	11
								12	12
								13	13
								14	14
								15	15
								16	16

Admin sample Global database (#=hybrid650.gdm) work sheet

[CPU System Configuration]

Unit ID	Main IPA [A]	Backup IPA [B]	Unit Name	Size
1	172.18.0.1	-	Unit 1	Enhanced

[LINK]

Link ID	Enable	Video Source			Video Destination			Navigation Cost
		Unit ID	Switch	Port	Unit ID	Switch	Port	
1	✓	1	GX	1	1	SX650	9	1
2	✓	1	GX	2	1	SX650	10	1
3	✓	1	GX	3	1	SX650	11	1
4	✓	1	GX	4	1	SX650	12	1

[OPERATORS]

User ID	Password	Priority	Timeout	Name	Class
500	500	2	00:00:00	Global Operator	20: Global Level 0

sys.ini configuration (01 A=sys.ini)

```
[INTERFACES]
***{ Number of interfaces in the system }
Numinterfaces=3
***{ Interface Definitions }
***{ Interface<Number>=<IPA>,<SUBNET MASK>,<BOOT SERVER IPA> }
***{ !! Note: The InterfaceX IPAs must match the MainX CPU }
***{ hardware settings in order for the System to }
***{ operate correctly!! }
***{ MainA CPU }
Interface0=192.168.200.200,255.255.255.0,192.168.200.200
Interface1=172.18.0.1,255.255.0.0,172.18.0.1
Interface2=172.16.192.1,255.255.0.0,172.16.192.1
***{ MainB CPU }
*Interface0=192.168.200.201,255.255.255.0,192.168.200.201
*Interface1=172.18.0.2,255.255.0.0,172.18.0.2
*Interface2=172.16.192.2,255.255.0.0,172.16.192.2

[FRAMES]
***{ MX Frame definition from Admin file }
***{ MXSW has format <num_rows>,<num_cols>,<interface_num> }
***{ All others use <num_functions>,<interface_num> }
***{ All 0's used for digital-only systems. }
MXSWFunction=1,1,1
MXCONFunction=1,1
MXOSFunction=1,1
MXDIOFunction=1,1
MXRMSFunction=0,0

[PROCS]
***{ Process Interface Assignments }
***{ Format: <Process Name>=<interface_num> }
***{ Set these three to the interface_num of the Ethernet keyboards: }
Keybp=1
Mxconts=1
Mxpfw=1
***{ Set Kexs to the interface_num of the RS485 Expansion Unit: }
Kexs=1
***{ Set Swcpu to the interface_num of the MainCPU: }
Swcpu=1
***{ Set UnitManager to the same interface_num for all system CPUs: }
UnitManager=2
***{ Set CSntp to the interface_num for EXTERNAL SNTP operation: }
CSntp=2
***{ Set SSntp to the same interface_num for all system CPUs: }
SSntp=2
***{ Set SNMPAgent to the same interface_num for all system CPUs: }
SNMPAgent=2

[OSD]
***{ Initial OSD display position }
***{ Alarm text is placed on the General Status line. }
***{ Format: <DisplayItemPosition>=<x-position>,<y-position> }
```

```

TimeDatePosition=1,1
CamTitlePosition=1,16
MonStatusPosition=1,15
GenStatusPosition=1,14
***{ Time-Date, Camera Title and Camera ID Controls }
***{ Code 2 takes effect only if source is MXOSD }
***{ Format: <Control Name>=<control code> }
***{ control code 0 - OFF }
***{ control code 1 - ON }
***{ control code 2 - By Operator }
TimeDateControl=2
CamTitleControl=2
CamIDControl=2
***{ Time and Date display format }
***{ Format: TimeDateFormat=<format> }
***{ format 0 - DD/MM/YYYY }
***{ format 1 - MM/DD/YYYY }
***{ format 2 - DD/Mmm/YYYY }
***{ format 3 - YYYY/MM/DD }
***{ format 4 - Mmm/DD/YYYY }
***{ format 5 - DD/MM/'YY }
***{ format 6 - MM/DD/'YY }
***{ format 7 - DD/Mmm/'YY }
***{ format 8 - 'YY/MM/DD }
***{ format 9 - Mmm/DD/'YY }
TimeDateFormat=1
***{ Time-Hour Display format }
***{ Format: TimeHourFormat=<format> }
***{ format 0 - 12 Hour }
***{ format 1 - 24 Hour }
TimeHourFormat=0

[UNIT]
***{ The unit ID should be the same as the one defined in }
***{ the Global Admin database for this unit. }
***{ For single-unit systems, use ID=1. (ID=0 is invalid) }
ID=1

[RMS]
***{ This section is optional. It is not required unless }
***{ System defaults are not acceptable. Delete the }
***{ single asterisks below to make this section active. }
***{ Required only for PSDIC RMS }
*NumDedicatedRecorders=0
*NumBackupRecorders=0
*Review=0,0,0
*Backup=0,0,0
*IdleSource=0
*Links=0,0

[LOG]
***{ This section is optional. It is not required unless }
***{ System defaults are not acceptable. Delete the }
***{ single asterisks below to make this section active. }

```

```

***{ Log generation/save characteristics }
***{ Format: <LogFileName>=<Minutes>,<Days> }
***{ Minutes = Frequency to copy to HD (1 - 30 min) }
***{ Note: Values outside this range = 1 min. }
***{ Days = days to save on HD (5 - 30) }
***{ Mode = 0 - off (default) }
***{ 1 - on }
UserLog=10,7,1
SwLog=10,7,0
AlarmLog=10,7,1
VideoLossLog=10,7,1

[RS232ALARM]
***{ This section is optional. It is not required unless }
***{ System defaults are not acceptable. Delete the }
***{ single asterisks below to make this section active. }
***{ Enable/Disable Serial Alarms by port }
***{ Note: Port 2 is dedicated to redundant communication }
***{ if REDUNDANT:YES is selected by front panel }
***{ switch. }
***{ Format: AlarmPort=<port 1>,<port 2> }
***{ port # = use "1" to indicate desired port (only one) }
***{ port # = use "0" to indicate ports not desired }
*AlarmPort=1,0

[ALARMTEXTDISPLAY]
***{ This section is optional. It is not required unless }
***{ System defaults are not acceptable. Delete the }
***{ single asterisks below to make this section active. }
***{ Alarm Text Display format }
***{ Format: AlarmTextDisplay=<option> }
***{ option 0 - Display Alarm Text only }
***{ option 1 - Display both Alarm Text (20 chars) }
***{ and Action Text (18 chars) }
*AlarmTextDisplay=0

[SYSTEM]
***{ This section is optional. It is not required unless }
***{ System defaults are not acceptable. Delete the }
***{ single asterisks below to make this section active. }
***{ Format: Keyboards=<num of controllers on this unit> }
***{ Cameras=<num of cameras on this unit> }
***{ Monitors=<num of monitors on this unit> }
*Keyboards=64
*Cameras=1024
*Monitors=256

[ROUTING]
***{ This section is optional to the system. It is only required for external gateway. }
***{ Only one default gateway entry is allowed! }
***{ Format: default=<gateway IPA> }
default=192.168.200.1
*** Network entries must be grouped together although any number of entries is allowed. }
*** Format: network=<destination>,<gateway>,<netmask> }

```



```

*network=64.0.0.0,192.168.200.44,255.0.0.0
*network=88.0.0.0,192.168.200.88,255.0.0.0
*network=33.5.0.0,192.168.200.66,255.0.0.0
*network=64.0.0.0,192.168.200.55,255.0.0.0
*** Host entries must be grouped together although any number of entries is allowed.   }
*** Format: host=<destination>,<gateway>                                           }
*host=33.44.55.66,192.168.200.66
*host=11.22.33.44,192.168.200.44

```

[SNTP]

```

***{ This section is optional. It is not required unless           }
***{ System defaults are not acceptable. Delete the             }
***{ single asterisks below to make this section active.       }
***{ This section lists user-defined client SNTP values,       }
***{ sync rates and an external server address.                }
***{                                                            }
***{ Format: (VALUES INTERNAL TO THIS UNIT)                     }
***{ ClientMode=<mode> (act as an SNTP client)                 }
***{     modes: 0 - Internal (default)                           }
***{         1 - Unicast                                         }
***{         2 - Anycast                                         }
***{         3 - Broadcast                                       }
***{ ServerMode=<mode> (to expose its timestamp to              }
***{     other units)                                           }
***{     modes: 0 - Off                                         }
***{         1 - On (default)                                    }
***{ InternalFrequency=<time frequency of sync (secs)>          }
***{     -default is 600 sec (10 min)                            }
***{                                                            }
***{ (VALUES FOR EXTERNAL CONNECTION)                           }
***{ NTPServerIPA=<IPA> of SNTP server                           }
***{     -for Unicast mode only; optional for                    }
***{     modes 0,2,3.                                           }
***{ ExternalFrequency=<time frequency of sync (secs)>          }
***{     -default is 18000 sec (5 hrs)                           }
***{ TZOffset=<hour> time zone offset from GMT                   }
***{     (+,-12 in integer values)                               }
***{ DaylightSaving=<on/off> (applies for the local              }
***{     time zone)                                             }
***{     on/off: 0 - off                                         }
***{         1 - on                                             }

```

```

*ClientMode=1
*ServerMode=1
*InternalFrequency=600
*NTPServerIPA=192.168.200.XXX
*ExternalFrequency=18000
*TZOffset=5
*DaylightSaving=1

```

```

[ERRORP]
ErrorLevel=3

```

■ Appendix 4

This appendix indicates the contents of the sample database – 01=multi650_1.adm, 02=multi650_2.adm, #=multi650.gdm – that is included on the CD-ROM.

Admin Console sample Local database (01=multi650_1.adm) work sheet for Unit 1

[SX650 SUBNODES]

ID	I/F	IP Address	BRIDGE	CONTROL	OSD	SWITCH	ALARM	Address [MODE]			
								5	6	7	8
1	0	192.168.200.100		1-256	1-32	1-256, 1-32		OFF	OFF	OFF	OFF

[CAMERAS]

ID	Logical #	Control		Video		Compensation	Bitrate	Model	OSD Title
		Switch	Port	Switch	Port				
1	1	SX650	1	SX650	1	Short	–	WJ-CS954	C 1
2	2	SX650	2	SX650	2	Short	–	WJ-CS954	C 2
3	3	SX650	3	SX650	3	Short	–	WJ-CS954	C 3
4	4	SX650	4	SX650	4	Short	–	WJ-CS954	C 4
5	5	SX650	5	SX650	5	Short	–	WJ-CS954	C 5
6	6	SX650	6	SX650	6	Short	–	WJ-CS954	C 6
7	7	SX650	7	SX650	7	Short	–	WJ-CS954	C 7
8	8	SX650	8	SX650	8	Short	–	WJ-CS954	C 8

[CONTROLLERS]

ID	Area	Priority	Boot File	Model	IPA	EA	Port
1	0	3	–	WV-CU950	172.18.0.200	00:80:45:AB:CD:EF	–

Note: Actual MAC address that is indicated on a product should be entered to EA field.

[MONITORS]

ID	Area	Local	Switch	Port
1	0	1	SX650	1
2	0	2	SX650	2
3	0	3	SX650	3
4	0	4	SX650	4

[OPERATORS]

ID	Password	Priority	Timeout	Name	Class
100	100	100	00:00:00	Normal	1: Normal
955	955	3	00:00:00	Super	2: Super

[DIGITAL RECORDER]

ID	Logical	Model	Video		IPA	Unit Address	Digital Bitrate	Channels	Cam
			Switch	Port					
1	1	WJ-HD316A	SX650	9	172.18.0.60	1	-	1	1
								2	2
								3	3
								4	4
								5	5
								6	6
								7	7
								8	8
								-	-
								-	-
								-	-
								-	-
								-	-

Admin Console sample Local database (02=multi650_2.adm) work sheet for Unit2

[SX650 SUBNODES]

ID	I/F	IP Address	BRIDGE	CONTROL	OSD	SWITCH	ALARM	Address [MODE]			
1	0	192.168.200.100		1-256	1-32	1-256, 1-32		5	6	7	8
								OFF	OFF	OFF	OFF

[CAMERAS]

ID	Logical #	Control		Video		Compensation	Bitrate	Model	OSD Title
		Switch	Port	Switch	Port				
1	1	SX650	1	SX650	1	Short	-	WJ-CS954	C 1
2	2	SX650	2	SX650	2	Short	-	WJ-CS954	C 2
3	3	SX650	3	SX650	3	Short	-	WJ-CS954	C 3
4	4	SX650	4	SX650	4	Short	-	WJ-CS954	C 4
5	5	SX650	5	SX650	5	Short	-	WJ-CS954	C 5
6	6	SX650	6	SX650	6	Short	-	WJ-CS954	C 6
7	7	SX650	7	SX650	7	Short	-	WJ-CS954	C 7
8	8	SX650	8	SX650	8	Short	-	WJ-CS954	C 8

[CONTROLLERS]

ID	Area	Priority	Boot File	Model	IPA	EA	Port
1	0	3	–	WV-CU950	172.18.0.200	00:80:45:AB:CD:EF	–

Note: Actual MAC address that is indicated on a product should be entered to EA field.

[MONITORS]

ID	Area	Local	Switch	Port
1	0	1	SX650	1
2	0	2	SX650	2
3	0	3	SX650	3
4	0	4	SX650	4

[OPERATORS]

ID	Password	Priority	Timeout	Name	Class
100	100	100	00:00:00	Normal	1: Normal
955	955	3	00:00:00	Super	2: Super

[DIGITAL RECORDER]

ID	Logical	Model	Video		IPA	Unit Address	Digital Bitrate	Channels	Cam
			Switch	Port					
1	1	WJ-HD316A	SX650	9	172.18.0.60	1	–	1	1
								2	2
								3	3
								4	4
								5	5
								6	6
								7	7
								8	8
								–	–
								–	–
								–	–
								–	–
								–	–

Admin sample Global database (#=multi650.gdm) work sheet

[CPU System Configuration]

Unit ID	Main IPA [A]	Backup IPA [B]	Unit Name	Size
1	172.16.192.1	–	Unit 1	Enhanced
2	172.16.192.2	–	Unit 2	Enhanced

[LINK]

Link ID	Enable	Video Source			Video Destination			Navigation Cost
		Unit ID	Switch	Port	Unit ID	Switch	Port	
1	✓	1	SX650	13	2	SX650	13	1
2	✓	1	SX650	14	2	SX650	14	1
3	✓	1	SX650	15	2	SX650	15	1
4	✓	1	SX650	16	2	SX650	16	1
5	✓	2	SX650	13	1	SX650	13	1
6	✓	2	SX650	14	1	SX650	14	1
7	✓	2	SX650	15	1	SX650	15	1
8	✓	2	SX650	16	1	SX650	16	1

[OPERATORS]

User ID	Password	Priority	Timeout	Name	Class
500	500	2	00:00:00	Global Operator	20: Global Level 0
501	501	2	00:00:00	Global Operator	20: Global Level 0

sys.ini configuration for Unit1 (01 A=sys.ini)

```
[INTERFACES]
***{ Number of interfaces in the system }
Numinterfaces=3
***{ Interface Definitions }
***{ Interface<Number>=<IPA>,<SUBNET MASK>,<BOOT SERVER IPA> }
***{ !! Note: The InterfaceX IPAs must match the MainX CPU }
***{ hardware settings in order for the System to }
***{ operate correctly!! }
***{ MainA CPU }
Interface0=192.168.200.200,255.255.255.0,192.168.200.200
Interface1=172.18.0.1,255.255.0.0,172.18.0.1
Interface2=172.16.192.1,255.255.0.0,172.16.192.1
***{ MainB CPU }
*Interface0=192.168.200.201,255.255.255.0,192.168.200.201
*Interface1=172.18.0.2,255.255.0.0,172.18.0.2
*Interface2=172.16.192.2,255.255.0.0,172.16.192.2

[FRAMES]
***{ MX Frame definition from Admin file }
***{ MXSW has format <num_rows>,<num_cols>,<interface_num> }
***{ All others use <num_functions>,<interface_num> }
***{ All 0's used for digital-only systems. }
MXSWFunction=0,0,0
MXCONFunction=0,0
MXOSFunction=0,0
MXDIOFunction=0,0
MXRMSFunction=0,0

[PROCS]
***{ Process Interface Assignments }
***{ Format: <Process Name>=<interface_num> }
***{ Set these three to the interface_num of the Ethernet keyboards: }
Keybp=1
Mxconts=1
Mxpfw=1
***{ Set Kexs to the interface_num of the RS485 Expansion Unit: }
Kexs=1
***{ Set Swcpu to the interface_num of the MainCPU: }
Swcpu=1
***{ Set UnitManager to the same interface_num for all system CPUs: }
UnitManager=2
***{ Set CSntp to the interface_num for EXTERNAL SNTP operation: }
CSntp=2
***{ Set SSntp to the same interface_num for all system CPUs: }
SSntp=2
***{ Set SNMPAgent to the same interface_num for all system CPUs: }
SNMPAgent=2

[OSD]
***{ Initial OSD display position }
***{ Alarm text is placed on the General Status line. }
***{ Format: <DisplayItemPosition>=<x-position>,<y-position> }
```

```

TimeDatePosition=1,1
CamTitlePosition=1,16
MonStatusPosition=1,15
GenStatusPosition=1,14
***{ Time-Date, Camera Title and Camera ID Controls }
***{ Code 2 takes effect only if source is MXOSD }
***{ Format: <Control Name>=<control code> }
***{ control code 0 - OFF }
***{ control code 1 - ON }
***{ control code 2 - By Operator }
TimeDateControl=2
CamTitleControl=2
CamIDControl=2
***{ Time and Date display format }
***{ Format: TimeDateFormat=<format> }
***{ format 0 - DD/MM/YYYY }
***{ format 1 - MM/DD/YYYY }
***{ format 2 - DD/Mmm/YYYY }
***{ format 3 - YYYY/MM/DD }
***{ format 4 - Mmm/DD/YYYY }
***{ format 5 - DD/MM/'YY }
***{ format 6 - MM/DD/'YY }
***{ format 7 - DD/Mmm/'YY }
***{ format 8 - 'YY/MM/DD }
***{ format 9 - Mmm/DD/'YY }
TimeDateFormat=1
***{ Time-Hour Display format }
***{ Format: TimeHourFormat=<format> }
***{ format 0 - 12 Hour }
***{ format 1 - 24 Hour }
TimeHourFormat=0

[UNIT]
***{ The unit ID should be the same as the one defined in }
***{ the Global Admin database for this unit. }
***{ For single-unit systems, use ID=1. (ID=0 is invalid) }
ID=1

[LOG]
***{ This section is optional. It is not required unless }
***{ System defaults are not acceptable. Delete the }
***{ single asterisks below to make this section active. }
***{ Log generation/save characteristics }
***{ Format: <LogFileName>=<Minutes>,<Days> }
***{ Minutes = Frequency to copy to HD (1 - 30 min) }
***{ Note: Values outside this range = 1 min. }
***{ Days = days to save on HD (5 - 30) }
***{ Mode = 0 - off (default) }
***{ 1 - on }
UserLog=10,7,1
SwLog=10,7,0
AlarmLog=10,7,1
VideoLossLog=10,7,1

```

[RS232ALARM]

```
***{ This section is optional. It is not required unless      }
***{ System defaults are not acceptable. Delete the         }
***{ single asterisks below to make this section active.    }
***{ Enable/Disable Serial Alarms by port                   }
***{ Note: Port 2 is dedicated to redundant communication   }
***{ if REDUNDANT:YES is selected by front panel           }
***{ switch.                                                }
***{ Format: AlarmPort=<port 1>,<port 2>                    }
***{ port # = use "1" to indicate desired port (only one) }
***{ port # = use "0" to indicate ports not desired        }
*AlarmPort=1,0
```

[ALARMTEXTDISPLAY]

```
***{ This section is optional. It is not required unless    }
***{ System defaults are not acceptable. Delete the         }
***{ single asterisks below to make this section active.    }
***{ Alarm Text Display format                              }
***{ Format: AlarmTextDisplay=<option>                       }
***{ option 0 - Display Alarm Text only                     }
***{ option 1 - Display both Alarm Text (20 chars)          }
***{ and Action Text (20 chars)                             }
*AlarmTextDisplay=0
```

[SYSTEM]

```
***{ This section is optional. It is not required unless    }
***{ System defaults are not acceptable. Delete the         }
***{ single asterisks below to make this section active.    }
***{ Format: Keyboards=<num of controllers on this unit>    }
***{ Cameras=<num of cameras on this unit>                  }
***{ Monitors=<num of monitors on this unit>                 }
*Keyboards=64
*Cameras=1024
*Monitors=256
```

[ROUTING]

```
***{ This section is optional to the system. It is only required for external gateway. }
***{ Only one default gateway entry is allowed! }
***{ Format: default=<gateway IPA> }
default=192.168.200.1
*** Network entries must be grouped together although any number of entries is allowed. }
*** Format: network=<destination>,<gateway>,<netmask> }
*network=64.0.0.0,192.168.200.44,255.0.0.0
*network=88.0.0.0,192.168.200.88,255.0.0.0
*network=33.5.0.0,192.168.200.66,255.0.0.0
*network=64.0.0.0,192.168.200.55,255.0.0.0
*** Host entries must be grouped together although any number of entries is allowed. }
*** Format: host=<destination>,<gateway> }
*host=33.44.55.66,192.168.200.66
*host=11.22.33.44,192.168.200.44
```

[SNTP]

```
***{ This section is optional. It is not required unless    }
***{ System defaults are not acceptable. Delete the         }
```



```

***{ single asterisks below to make this section active. }
***{ This section lists user-defined client SNTP values, }
***{ sync rates and an external server address. }
***{ }
***{ Format: (VALUES INTERNAL TO THIS UNIT) }
***{ ClientMode=<mode> (act as an SNTP client) }
***{ modes: 0 - Internal (default) }
***{ 1 - Unicast }
***{ 2 - Anycast }
***{ 3 - Broadcast }
***{ ServerMode=<mode> (to expose its timestamp to }
***{ other units) }
***{ modes: 0 - Off }
***{ 1 - On (default) }
***{ InternalFrequency=<time frequency of sync (secs)> }
***{ -default is 600 sec (10 min) }
***{ }
***{ (VALUES FOR EXTERNAL CONNECTION) }
***{ NTPServerIP=<IPA> of SNTP server }
***{ -for Unicast mode only; optional for }
***{ modes 0,2,3. }
***{ ExternalFrequency=<time frequency of sync (secs)> }
***{ -default is 18000 sec (5 hrs) }
***{ TZOffset=<hour> time zone offset from GMT }
***{ (+,-12 in integer values) }
***{ DaylightSaving=<on/off> (applies for the local }
***{ time zone) }
***{ on/off: 0 - off }
***{ 1 - on }
***{ }
*ClientMode=1
*ServerMode=1
*InternalFrequency=600
*NTPServerIP=192.168.200.XXX
*ExternalFrequency=18000
*TZOffset=5
*DaylightSaving=1

```

```

[ERRORP]
ErrorLevel=3

```

sys.ini configuration for Unit2 (02 A=sys.ini)

```

[INTERFACES]
***{ Number of interfaces in the system }
Numinterfaces=3
***{ Interface Definitions }
***{ Interface<Number>=<IPA>,<SUBNET MASK>,<BOOT SERVER IPA> }
***{ !! Note: The InterfaceX IPAs must match the MainX CPU }
***{ hardware settings in order for the System to }
***{ operate correctly!! }
***{ MainA CPU }
Interface0=192.168.200.200,255.255.255.0,192.168.200.200
Interface1=172.18.0.1,255.255.0.0,172.18.0.1
Interface2=172.16.192.2,255.255.0.0,172.16.192.2

```

```

***{ MainB CPU }
*Interface0=192.168.200.201,255.255.255.0,192.168.200.201
*Interface1=172.18.0.2,255.255.0.0,172.18.0.2
*Interface2=172.16.192.2,255.255.0.0,172.16.192.2

[FRAMES]
***{ MX Frame definition from Admin file }
***{ MXSW has format <num_rows>,<num_cols>,<interface_num> }
***{ All others use <num_functions>,<interface_num> }
***{ All 0's used for digital-only systems. }
MXSWFunction=0,0,0
MXCONFunction=0,0
MXOSFunction=0,0
MXDIOFunction=0,0
MXRMSFunction=0,0

[PROCS]
***{ Process Interface Assignments }
***{ Format: <Process Name>=<interface_num> }
***{ Set these three to the interface_num of the Ethernet keyboards: }
Keybp=1
Mxconts=1
Mxpfw=1
***{ Set Kexs to the interface_num of the RS485 Expansion Unit: }
Kexs=1
***{ Set Swcpu to the interface_num of the MainCPU: }
Swcpu=1
***{ Set UnitManager to the same interface_num for all system CPUs: }
UnitManager=2
***{ Set CSntp to the interface_num for EXTERNAL SNTP operation: }
CSntp=2
***{ Set SSntp to the same interface_num for all system CPUs: }
SSntp=2
***{ Set SNMPAgent to the same interface_num for all system CPUs: }
SNMPAgent=2

[OSD]
***{ Initial OSD display position }
***{ Alarm text is placed on the General Status line. }
***{ Format: <DisplayItemPosition>=<x-position>,<y-position> }
TimeDatePosition=1,1
CamTitlePosition=1,16
MonStatusPosition=1,15
GenStatusPosition=1,14
***{ Time-Date, Camera Title and Camera ID Controls }
***{ Code 2 takes effect only if source is MXOSD }
***{ Format: <Control Name>=<control code> }
***{ control code 0 - OFF }
***{ control code 1 - ON }
***{ control code 2 - By Operator }
TimeDateControl=2
CamTitleControl=2
CamIDControl=2
***{ Time and Date display format }

```

```

***{ Format: TimeDateFormat=<format> }
***{ format 0 - DD/MM/YYYY }
***{ format 1 - MM/DD/YYYY }
***{ format 2 - DD/Mmm/YYYY }
***{ format 3 - YYYY/MM/DD }
***{ format 4 - Mmm/DD/YYYY }
***{ format 5 - DD/MM/'YY }
***{ format 6 - MM/DD/'YY }
***{ format 7 - DD/Mmm/'YY }
***{ format 8 - 'YY/MM/DD }
***{ format 9 - Mmm/DD/'YY }
TimeDateFormat=1
***{ Time-Hour Display format }
***{ Format: TimeHourFormat=<format> }
***{ format 0 - 12 Hou }
***{ format 1 - 24 Hour }
TimeHourFormat=0

[UNIT]
***{ The unit ID should be the same as the one defined in }
***{ the Global Admin database for this unit. }
***{ For single-unit systems, use ID=1. (ID=0 is invalid) }
ID=2

[LOG]
***{ This section is optional. It is not required unless }
***{ System defaults are not acceptable. Delete the }
***{ single asterisks below to make this section active. }
***{ Log generation/save characteristics }
***{ Format: <LogFileName>=<Minutes>,<Days> }
***{ Minutes = Frequency to copy to HD (1 - 30 min) }
***{ Note: Values outside this range = 1 min. }
***{ Days = days to save on HD (5 - 30) }
***{ Mode = 0 - off (default) }
***{ 1 - on }
UserLog=10,7,1
SwLog=10,7,0
AlarmLog=10,7,1
VideoLossLog=10,7,1

[RS232ALARM]
***{ This section is optional. It is not required unless }
***{ System defaults are not acceptable. Delete the }
***{ single asterisks below to make this section active. }
***{ Enable/Disable Serial Alarms by port }
***{ Note: Port 2 is dedicated to redundant communication }
***{ if REDUNDANT:YES is selected by front panel }
***{ switch. }
***{ Format: AlarmPort=<port 1>,<port 2> }
***{ port # = use "1" to indicate desired port (only one) }
***{ port # = use "0" to indicate ports not desired }
*AlarmPort=1,0

```

[ALARMTEXTDISPLAY]

```
***{ This section is optional. It is not required unless }
***{ System defaults are not acceptable. Delete the }
***{ single asterisks below to make this section active. }
***{ Alarm Text Display format }
***{ Format: AlarmTextDisplay=<option> }
***{ option 0 - Display Alarm Text only }
***{ option 1 - Display both Alarm Text (20 chars) }
***{ and Action Text (20 chars) }
*AlarmTextDisplay=0
```

[SYSTEM]

```
***{ This section is optional. It is not required unless }
***{ System defaults are not acceptable. Delete the }
***{ single asterisks below to make this section active. }
***{ Format: Keyboards=<num of controllers on this unit> }
***{ Cameras=<num of cameras on this unit> }
***{ Monitors=<num of monitors on this unit> }
*Keyboards=64
*Cameras=1024
*Monitors=256
```

[ROUTING]

```
***{ This section is optional to the system. It is only required for external gateway. }
***{ Only one default gateway entry is allowed! }
***{ Format: default=<gateway IPA> }
default=192.168.201.1
*** Network entries must be grouped together although any number of entries is allowed. }
*** Format: network=<destination>,<gateway>,<netmask> }
*network=64.0.0.0,192.168.200.44,255.0.0.0
*network=88.0.0.0,192.168.200.88,255.0.0.0
*network=33.5.0.0,192.168.200.66,255.0.0.0
*network=64.0.0.0,192.168.200.55,255.0.0.0
*** Host entries must be grouped together although any number of entries is allowed. }
*** Format: host=<destination>,<gateway> }
*host=33.44.55.66,192.168.200.66
*host=11.22.33.44,192.168.200.44
```

[SNTP]

```
***{ This section is optional. It is not required unless }
***{ System defaults are not acceptable. Delete the }
***{ single asterisks below to make this section active. }
***{ This section lists user-defined client SNTP values, }
***{ sync rates and an external server address. }
***{ }
***{ Format: (VALUES INTERNAL TO THIS UNIT) }
***{ ClientMode=<mode> (act as an SNTP client) }
***{ modes: 0 - Internal (default) }
***{ 1 - Unicast }
***{ 2 - Anycast }
***{ 3 - Broadcast }
***{ ServerMode=<mode> (to expose its timestamp to }
***{ other units) }
***{ modes: 0 - Off }
***{ }
```

```

***{           1 - On (default) }
***{ InternalFrequency=<time frequency of sync (secs)> }
***{ -default is 600 sec (10 min) }
***{ }
***{ (VALUES FOR EXTERNAL CONNECTION) }
***{ NTPServerIPA=<IPA> of SNTP server }
***{ -for Unicast mode only; optional for }
***{ modes 0,2,3. }
***{ ExternalFrequency=<time frequency of sync (secs)> }
***{ -default is 18000 sec (5 hrs) }
***{ TZOffset=<hour> time zone offset from GMT }
***{ (+,-12 in integer values) }
***{ DaylightSaving=<on/off> (applies for the local }
***{ time zone) }
***{ on/off: 0 - off }
***{ 1 - on }
*ClientMode=1
*ServerMode=1
*InternalFrequency=600
*NTPServerIPA=192.168.200.XXX
*ExternalFrequency=18000
*TZOffset=5
*DaylightSaving=1

[ERRORP]
ErrorLevel=3

```

Information on Disposal for Users of Waste Electrical & Electronic Equipment (private households)



This symbol on the products and/or accompanying documents means that used electrical and electronic products should not be mixed with general household waste.

For proper treatment, recovery and recycling, please take these products to designated collection points, where they will be accepted on a free of charge basis. Alternatively, in some countries you may be able to return your products to your local retailer upon the purchase of an equivalent new product.

Disposing of this product correctly will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling. Please contact your local authority

for further details of your nearest designated collection point.

Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

For business users in the European Union

If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information.

Information on Disposal in other Countries outside the European Union

This symbol is only valid in the European Union.

If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.

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