Document for System Integration

System Setup Guide

Rev	1.01
Date	2005/11/07
Author	R. Nonaka

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1. Overview

This document systematically describes the system setup of a router and a switcher by collecting scattered information.

The system setup is to make settings of S-BUS (Serial Bus) of the router and the parallel tally of DCU (Device Control Unit) of the switcher.

This document clarifies the setup of the router and the switcher, which is closely correlated each other.

Definitions of terms

This document writes a routing switcher and a video production switcher as the Router and the Switcher respectively.

To set up the Router, connect your computer to the Router and the Router control board. The setup tool you use for the setup is officially called the Routing System Setup menu, but it is called the Router Setup in this document.

Set up Switcher on the control panel. The set up tool should be the engineering setup officially but is called the Switcher Setup in this document.

The official name of the equipment that switches the Router is a control unit, which is called the Control Panel here.

For other Sony-specific product name and technical terms included in this documents, refer to the last page of this document "Descriptions of Terms (A to Z)".

1-1. System Chart

The following chart shows the basic configuration of the Router and the Switcher.

The controller board of the Router is installed to the chassis of PFV-SP in reality.



1-1. System Chart (continued)





1-2. Equipment Configuring System

The following are the outlines of equipment that configures the system. For specific product names, refer to "Descriptions of Terms (A to Z)".

(1) PFV-SP

PFV-SP indicates the peripheral devices such as an up converter, which converts SD signals to HD signals, and a down converter that converts HD signals to SD signals.

(2) Switcher

In addition to the switching of video signals, you can mix key signals and/or add special effects with the use of a DME device.

(3) Router

It is used to select video inputs, Audio inputs and inputs through RS-442A. Different from the Switcher, it cannot synthesize multiple video signals.

(4) DME device

It stands for a digital multi effect device. It is a device to add special effects to video signals There are board-type DME devices that can be built in the Switcher.

(5) SCU

It means a system control unit. It controls tallies as well as the Control Panel of the Switcher.

(6) DCU

It indicates a device control unit. It is mainly used to output parallel tallies. It can be used singly or in combination.

(7) UMD

It means an under monitor display.

It is placed under a monitor display to show the names of the signals displayed on the monitor. It is sometimes placed on top of the monitor.

Some of other manufacturers have UMDs equipped with Sony S-BUS and/or Sony Serial Tally protocol.

1-2. Equipment Configuring System (continued)

(8) Router Control Panel

It is the Control Panel to switch the input of the Router.

(9) Router Control Board

It is the board for controlling the Router, the Control Panel of the Router and UMD.

It is installed to the chassis of PFV-SP.

There are some systems that do not use this board as the Router itself provides the control function.

Turning on V-MTX with a dip switch on the board would enable you to switch inputs even if no Router is available.

Descriptions on the network connecting the devices

(1) Data LAN

100Mbps Ethernet

It is mainly used for the transfer of setup files and the image files of the frame memory of the Switcher.

(2) Control LAN100Mbps EthernetIt is used for SCU to control the Switcher and DME.The commands issued by SCU are processed by the Switcher and DME in real time.

(3) Peripheral LAN100Mbps EthernetIt is a dedicated communication channel between SCU and DCU.

(4) S-BUS

312Kbps HDLC (High-Level Data Link Control)

Network that connects the Router and its control panels to UMD

A primary station sends polling messages sequentially to multiple secondary stations to check their requests. The secondary stations cannot send the request before they receive this polling message.

2. Before Connections are Established

The SONY Router configures the system with the serial interfaces in the so-called S-BUS format in principle.

It is necessary to make the following settings at least before connecting equipment with S-BUS.

2-1. Station ID

(1) The devices to be connected with S-BUS are numbered 1 through 254.

(2) "1" is for the primary station.

The primary station may be the Router itself or the Router Control Board.

(3) "255", called a broadcast address, is not assigned to a device as its station ID because it is used for communication messages to be received by all devices.

(4) "0" does not mean anything. If it is given to a secondary station, it cannot be recognized by the primary station.

(5) Some models uses DIP switches to set the station ID while some others use buttons instead of the DIP switches.

The model BKS-R1617 will be restarted when you hold down the leftmost PROT and LOCK buttons for 5 seconds.



Hold down 4 buttons shown below while the machines is restarting up and a station ID appears.



Use 8 buttons shown below to set a station ID.

$1\ 2\ 4\ 8 16\ 32\ 64\ 128$	

2-1. Station ID (continued)

Station ID	Model Name	
1 (Primary)		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
:		
:		
254		

Prepare the following table to control the station ID.

2-1. Station ID (continued)

(5) There are following 3 types of primary stations.

(A) The Router itself works as a primary station.



(B) Routing Switcher Control Board (HKSP-R80)

As this board makes it possible to switch inputs without the Router, it is often used for comparatively small-scale systems.

The installation of the board HKSP-R81 could make the primary station redundant. If one board malfunctions, another one is automatically activated to support the

primary station.



2-1. Station ID (continued)

(C) SCU (System Control Unit) of Switcher

It is limitedly used for such purposes as connection with the AUX Bus Control Panel. The station ID of SCU can be set with the DIP switches with the description of "Station ID" on the CPU board. Its default station ID is 2.

To connect SCU only to the AUX Bus Control Panel, its station ID must be set to 1.



When the router's control panel MKS-8080/8082 that the customer already owns is used as the AUX Bus Control Panel, the SCU that functions as the primary station does not have the setup function as a secondary station. Thus, the HKSP-R80 is temporarily required for the setup.

3. Connection

The primary station provides 3 coaxial connectors called REMOTE 1. They are named as A, B1 and B2.

The S-BUS specification allows the connections of 253 secondary stations. Connecting all of them to one connector of a primary station, however, would deteriorate electric characteristics and so 3 connectors must be used.



When the HKSP-R80 in which is installed the BZR-IF830 or the PC on which is installed the BZR-240 is connected to the "A" connector of the primary station, the "B1" and "B2" connectors should be used for the secondary stations.

The "A" connector has the dedicated communication CPU. The other communication CPU controls both "B1" and "B2" connectors. To complete the processing in frame, up to 64 devices should be connected to one communication CPU.

4. When Connections are Established

When you establish S-BUS connections, turn on the devices. Now, you will be able to check the existence of the secondary stations from the primary station.

To do it, connect your computer to the primary station through RS-232C or Ethernet and operate the Router Setup with the terminal software.

To use Ethernet, you need to check the IP address of the primary station (Refer to 4-3).



4-1. Connect PC to Primary Station through RS-232C

(1) Connect your computer to the REMOTE 3 connector of the primary station with an RS-232C crossing cable. It is easy to identify the REMOTE 3 connector as it is the only male 9-pin connector among three connectors.

(2) Start the terminal software such as Tera Term.

This document uses Tera Term as an example.

When the window of Tera Term appears, click File - New connection to show the menu.



4-1. Connect PC to Primary Station with RS-232C (continued)

Select the connected serial port and click the OK button. In this example, COM1 is selected.

Tera Term: Nev	v connection Hos <u>t</u> ;	pe1650		×
	Service:	© Telnet T C <u>S</u> SH C Other	CP <u>p</u> ort#:	23
● Serial	Po <u>r</u> t:	COM1 -		
	ОК	Cancel	<u>H</u> elp	

(3) Click Setup - Serial port to show the menu.



4-1. Connect PC to Primary Station with RS-232C (continued)

Select 38400 for the Baud rate and click the OK button.

Tera Term: Serial port se	tup	×
Port:	СОМ1 💌	ок
<u>B</u> aud rate:	38400 🔽	
<u>D</u> ata:	8 bit 💌	Cancel
P <u>a</u> rity:	none 💌	
<u>S</u> top:	1 bit 💌	<u>H</u> elp
<u>Flow</u> control:	none 💌	
Transmit delay	/ <u>/c</u> har <mark>0</mark> ms	ec/ <u>l</u> ine

(4) Press Ctrl - X keys and the setup menu of the Router appears.

Press a given alphabet or move the cursor onto the item you wish to show and press the Enter key. The menu appears.

Шт	era T	erm	- C(DM1	VT.													_		×
Eile	<u>E</u> dit	<u>S</u> et	:up	Cor	ntrol	<u>W</u> ine	dow	<u>H</u> elp												
SONY	ROUT	ING	SYS	TEM	SETU	JP ME	NU			ΗК	SP-R80	V1.10)	S	TATI	ON	NUMB	ER	1	
	MODIFICATION COMMAND																			
A: C: G: I: L: N: S:	SET C SET D SET L UPDAT SET I SET P SET D CHANG SET S	ONTE ESTI EVEL E BA NDEX NDEX HYSI ESCF E CF OURC	INAT ACKU CAL RIPT ROSS	AREA ION BLE P CO MBEF ASS ION POIN SSIO	NAME NAME SIGNA NAME NT GNMEP	e Dller Ment E gro Nt	UP		B F H J R		SET SOU SET SOU SET ACT SET GLO NAME ST SET INH SET TIE CALL SE	JRCE/E JRCE M JRCE M JBAL F SAL F SAL F HIBIT E LINE SCONDA	DEST NAME JNIT PHANT Type TABL ES ARY S	TYP NUM Fom + N E Stat	E BER um ION)				
P: 1 W: 2 Z: 3	CHANG SYSTE SET U	E PA M ST NIT	ASSW TATU DET	ORD S L(ECT#	h DG ABLE	MAINT	ENAN	CE CO)mmand T X		SET CLC DISPLAY)CK / S-Bl	US CC	DMMU	NICA	TI	N			
												(Ctrl-	·X/B	:QUI	Тβ	SETUP	MEI	NU	▾

4-1. Connect PC to Primary Station with RS-232C (continued)

Notes on function keys

Some menus show the functions of function keys at the bottom of the window. Some computers have a different keyboard layout of function keys.

To execute the function of F1 shown below, for example, you may need to press F6.



To solve this problem, you must edit the file "KEYBOARD" in the folder included in the programs of Tera Term.

Press the F1 key and a key code 59 will be issued, which results in deleting the function XF1 originally assigned to this key.

By the same token, cancel the assignment of function keys from F2 to F5.

- 1		
	[X function keys]	
	; F1 key	
	:XF1=59	
	: F2 key	As
	·XF2=60	fro
	· F3 key	
	·VE2-61	
	, Ed Lou	
	, F4 Key	
	;XF4=6Z	
	; F5 key	
	;XF5=63	
ľ	-	

Assign the function keys from F6 to F10 to the key codes from 69 to 63.

;F6 key	
;F6=64	
F6=59	
;F7 key	
;F7=65	
F7=60	
;F8 key	
;F8=66	
F8=61	
;F9 key	
;F9=67	
F9=62	
;F10 key	
;F10=68	
F10=63	

4-2. Check that Secondary Stations Exist

(1) Use the F: Set Active Unit Number menu.

Specify the station IDs of secondary stations to which the primary station initiates polling (periodic call). If you specify non-existing station IDs, the response speed becomes slow as polling to other IDs will not be performed until timeout takes place. Eliminate the non-existing station IDs from the targets of polling.

Delete E on the following window.

SONY ROUTING SYSTEM SETUP MENU										HDS-	X36	00 \	/1.0	17	S.	TAT:	[ON	NUN	I BER	1		
MODIFICATION COMMAND																						
A: DISPLAY CONTROL AREA C: SET DESTINATION NAME E: SET LEVEL TABLE G: UPDATE BACKUP CONTROLLER .I. NAME STYLE(DESCRIP NAME) B: SET SOURCE/DEST TYPE D: SET SOURCE/DEST NAME D: SET SOURCE/DEST NAME D: SET SOURCE/DEST NAME																						
ACTIV	'E UN	IT	FOR	STAT	ION	NU	MBE	R		HDS-	X36	00 \	/1.0	17	S	TAT:	[ON	NUN	IBER	1		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			
00 M 00 E 00 E 00 00 00 00 00 00	EEE	EEE	EEE	E E E	EE	EEE	E E	E E E	EEE	E	E	EEE	EE	EEE	EEE	EE	EE	EEE	EEE			
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9 10 + 1 2 3 4 5 6 7 8 9 10 + 1 2 3 4 5 6 7 8 9 10 + 1 2 3 4 5 6 7 8 9 10 + 1 2 3 4 5 6 7 8 9 10 + 1 2 3 4 5 6 7 8 9 10 + 1 2 3 4 5 6 7 8 9 10 + 1 2 3 4 5 6 7 8 9 10 + 1 2 3 4 5 6 7 8 9 10 + 1 2 3 4 5 6 7 8 9 10 + 1 2 3 4 5 6 7 8 9 10 + 1 2 3 4 5 6 7 8 9 10 + 1 2 3 4 5 6 7 8 9 10 + 1 2 3 4 5 6 7 8 9 10 + 1 2 3 4 5 6 7 8 9 10 + 1 2 3 4 5 6 7 8 9 10 + 1 2 3 4 5 6 7 8 9 10 + 1 2 3 4 5 6 7 8 9 10 + 1 2 3 4 5 6 7 8 9 10 + 1 2 3 4 5 6 7 8 9 10 + 1 2 3 4 5 6 7 8 9 10 + 1 2 3 4 5 6 7 8 9 10 + 1 2 8 4 5 6 7 8 9 10 + 1 2 8 4 5 6 7 8 9 10 + 1 2 8 4 5 6 7 8 9 10 + 1 2 8 4 5 6 7 8 9 10 + 1 2 8 4 5 6 7 8 9 10 + 1 2 8 4 5 6 7 8 9 10 + 1 2 8 4 5 6 7 8 9 10 + 1 2 8 4 5 6 7 8 9 10 + 1 2 8 4 5 6 7 8 9 10 + 1 2 8 4 5 6 7 8 9 10 + 1 2 8 4 5 6 7 8 9 10 + 1 2 8 4 5 6 7 8 9 10 + 1 2 8 4 5 6 7 8 9 10 + 1 2 8 4 5 6 7 8 9 10 + 1 2 8 4 5 6 7 8 9 10 + 1 2 8 4 5 6 7 8 9 10 + 1 2 8 4 5 6 7 8 9 10 + 1 2 8 4 5 6 7 8 9 10 + 1 2 8 4 5 6 7 8 9 10 + 1 2 8 4 5 6 7 8 9 10 + 1 2 8 4 5 6 7 8 9 10 + 1 2 8 4 5 6 7 8 9 10 + 1 2 8 4 5 6 7 8 9 10 + 1 2 8 4 5 6 7 8 9 10 + 1 2 8 4 5 6 7 8 9 10 + 1 2 8 4 5 6 7 8 9 10 + 1 2 8 4 5 6 7 8 9 10 + 1 2 8 4 5 6 7 8 9 10 + 1 2 8 4 5 6 7 8 9 10 + 1 2 8 4 5 6 7 8 9 10 + 1 2 8 4 5 6 7 8 9 10 + 1 2 8 4 5 6 7 8 9 10 + 1 2 8 4 5 6 7 8 9 10 + 1 2 8 4	ROUTING SYSTEM SETUP MENU HDS- MODIFICATION COMMAND ISPLAY CONTROL AREA ET DESTINATION NAME T LEVEL TABLE POATE BACKUP CONTROLLER SAME STYLE(DESCRIP NAME) 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 2 3 4 5 6 7 8 9 10 11 + 1 3 4 5 6 7 8 9 10 11 + 1 4 6 6 7 8 9 10 11 + 1 4 6 6 7 8 9 10 11 + 1 4 6 6 7 8 10 10 10 10 10 10 10 10 10 10 10 10 10	ROUTING SYSTEM SETUP MENU HDS-X36 MODIFICATION COMMAND ISPLAY CONTROL AREA ET DESTINATION NAME TI LEVEL TABLE PDATE BACKUP CONTROLLER DATE BACKUP CONTROLLER AMF STYLF(DESCRIP NAME) E ACTIVE UNIT FOR STATION NUMBER HDS-X36 1 2 3 4 5 6 7 8 9 10 11 12 H E E E E E E E E E E E E AU E E E E E E E E E E E 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Check the station IDs in use on the list shown in 2-1.

4-2. Check that Secondary Stations Exist (continued)

(2) Z: Set Unit Detectable Menu

Check the model name of each station ID.

The secondary station with a station ID 2 shows 49 in this example, and so you can find out from the table below that its model name is BKS-R1617.

	SET	UNIT	DET	ECT4	BLE								HDS-	X3	600	١V	1.0)7	S	FAT:	ION	NU	MBEF	31
			1	2 +	3	4	5	6	7	8	9	10	11	1	21	3	14	15	16	17	18	19	20	
ļ	001-	020	M	49																				
ł	021-	·040																						
ł	041-	·060																						
I	061-	·080																						
ł	081-	·100																						
I	101-	·120																						
I	121-	·140																						
I	141-	·160																						
I	161-	180																						
I	181-	200																						
I	201-	220																						
I	221-	240																						
I	241-	·254																*	*	*	*	*	*	
		- DHC	DOC				0.00			o . P														
	41	:BKS-	-R32-	42	42	:BK	S-R3)	284	43	3:D	42- 72	Y64	164M	4	4:C	νYS 142	- Ya	232M	45	:HL)2-))2-)	K37	00	
1	46	:HDS-	-X36I	00	47	:HD	S-X3	400	4	8:B	KS-	R32	216	4	9:E	ЖS	-R1	617	50):Bł	(2-1	416	18	
1	51	:BK2-	-R32	19	52	:BK	S_R3:	220	53	3:B	KPF	-L4	1000	5	4:E	3ZR	- 11	310						

(3) R: Call Secondary Station

It shows the setup menu of the secondary station.

Since the menu appears based on the response from the secondary station, you can ensure that the secondary station is running.

CALL STATION NUMBER ? 2

SONY	ROUTING	SYSTEM	SETUP	MENU	BKS-R1617	V1.07	STATION	NUMBER 2
			M	DIFICATI	ON COMMAND			
	Н:	SET PI	HANTOM	TABLE				
	N:	SET P	ANEL TA	ABLE				
	0:	SET A	/AILABI	_E SOURCE,	/DESTINATION			
	R:	SET R	DUTE					
	1.	COPY 1	TARIF I	ATA FROM				

4-3. Connect PC to Primary Station through Ethernet

To connect your computer to the primary station, you need to know the IP address of the primary station.

You can get it by connecting your computer to the primary station with RS-232C.

When the Router Controller Board HKSP-R80 is used, set the rotary switch on the board to the position F and turn it on. The IP address appears.

The default position of this rotary switch is 0.

When you have checked the IP address, return the position of the rotary switch to 0 and then turn on the board again.

To operate this rotary switch, remove the front panel of PFV-SP3100 or PFV-SP3300 to which chassis HKSP-R80 is installed.

IP ADDRESS	=	192.168.0.5
GROUP ID	=	129
TERM PORT	=	1001
LOG PORT	=	8001
DEF GWAY	=	192.168.0.254
SNET MASK	=	255.192.0.0
OPT IP	=	192.168.0.136
OPT1 PORT	=	8002
OPT2 PORT	=	8003
TERM T OUT	=	10
SNMP_TRAP1	=	
SNMP_TRAP2	=	
GMT (+)	=	09
Contact	=	Dragon
Name	=	R80
Location	=	SONY

HDS-X3700, HDS-X3600 and HDS-X3400 have an Ethernet connector but they do not support Ethernet.

Do not use the IP address of the HKSP-R80 with its factory default value

"192.168.0.135".

Be sure to set an IP address other than that.

If several units of HKSP-R80 are used, troubles may occur as their IP address become identical.

4-4. Run BZR-2000

You can also connect BZR-2000 to the primary station through RS-232C or Ethernet as is the case with the Router Setup.

The BZR-2000 V1.4 or higher supports the Ethernet.

(1) Start BZR-2000.

Click BZR-2000 - Setup to show the Setup menu.

🚟 BZR-2000 - DATABASE1						
BZR-2000 Device System	Monitor Tools Window Help					
Setup(S)	o 💷 0. 🕤 🥥					
Save Ctrl+S Save as(A)	INHIBIT D-BASE PWD LOGOFF HELP					
Logoff(L)	Licor (Administra					
Exit (X)	Joser :Administra					

Select Serial Port (REMOTE 3) as an interface and choose an active COM Port.

Click the Connect button.

When connection is successfully established, the Connect button will be grayed out. Click the OK button to hide this window.

BZR-2000 Setup								
Primary Station Networking								
System Stations Virtual Matrix Functions Preference								
 Online 	 O Uttine O nline 							
Interface								
C Network	COM Port: COM1							
 Serial Port (REMOTE-3) 	Baud Rate: 38400bps 💌							
S-BUS (BKS-R5001)	Data: 8 bit Paritu: NONE							
Connect	Stop: 1 bit Flow Control: NONE							
	OK Cancel	Apply						

4-4. Run BZR-2000 (continued)

(2) Select the Stations tab and click the Detect button.

As a result, the model name of the primary station appears.

Now, it has become possible to carry out communications between BZR-2000 and the primary station.

BZR-2000 Setup						
Primary Station Networking						
System Stations Virtual Matrix Functions Preference						
Primary Station Model: HKSP-R80	Detect					
	Detect All Stations					

5. Initialization

5-1. Initialization

When you have configured the system for the first time, carry out the following procedures to initialize the settings of the primary station that controls S-BUS.

(1) Select R: CALL SECONDARY STATION menu.

SONY ROUTING SYSTEM SETUP MENU	HDS-X3600 V1.07	STATION NUMBER 1
MODIFICATION COMM	IAND	
A: DISPLAY CONTROL AREA C: SET DESTINATION NAME E: SET LEVEL TABLE G: UPDATE BACKUP CONTROLLER J: NAME STYLE(DESCRIP.NAME) M: SET INHIBIT TABLE O: SET TIE LINES R: CALL SECONDARY STATION	B: SET SOURCE/DEST D: SET SOURCE NAME F: SET ACTIVE UNIT I H: SET GLOBAL PHANTI L: SET PHYSICAL ASS N: SET DESCRIPTION I Q: CHANGE CROSSPOIN S: SET SOURCE ASSIG	TYPE NUMBER DM IGNMENT NAME GROUP T NMENT

(2) Enter 1, the station ID of the primary station, to STATION NUMBER.

CALL STATION NUMBER ? 1

(3) Select K: RESET TO DEFAULT TABLE menu.

SON	/ ROUTING	SYSTEM	SETUP I	MENU	H)S-X3600	V1.07	STATION	NUMBER	1
			MOD	IFICATION	COMMAND					
A: M:	SET UNIT SET MONIT	LOCATIO	ON CTION		<u>K:</u> U:	RESET T SELECT	O DEFAULT REMOTE 2	TABLE		

(4) When "Reset to Default table ? (y/n)" appears, enter "y" and initialization starts.

Reset to Default table ? (y/n)

5-2. Settings after Initialization

(1) The format of a signal name is set to Type + Number.

The same name expressed in Type + Number is automatically copied to Description Name.

(2) The names from OUT001 to OUT999 are set to Destination Name.

DESTINATION NUMBER TRANSCODE	HDS-)	X3600 V1.07	STATION NUMBER 1
17 0998=0UT993 0UT993 0995=0UT995 0UT995 0995=0UT997 0UT997 0999=0UT997 0UT999 1001= 0UT1001 1003= 0UT1003 1005- 0UT1005		=0UT994 =0UT996 =0UT998 =	17 OUT994 OUT996 OUT998 OUT1000 OUT1002 OUT1004 OUT1002

(3) The names from IN001 to IN999 are set to Source Name.

SOURCE NUMBER TRANSCODE	HDS-X3600 V1.07	STATION NUMBER 1
17 0993=IN993 IN993 0995=IN995 IN995 0997=IN997 IN997 0999=IN999 IN999 1001= IN1001 1003= IN1005	0994=IN994 0996=IN996 0998=IN998 1000= 1002= 1004= 1004=	17 IN996 IN998 IN1000 IN1002 IN1004 IN1006

(4) The initialized signal name data is also sent to the secondary stations connected through S-BUS.

When you manually enter signal names, you need to carry out the operation for sending them from the primary station to the secondary stations. Refer to 8-5.

5-3. Backup

To save the original settings, use the standard software BZR-20 supplied with the Router before carrying out initialization.

BZR-20 allows the computer to receive or send the following data.

- 1. Description name
- 2. Cross point status
- 3. Setup data of the primary station
- 4. Setup data of the secondary station

₩ BZR-20 ¥2.11	_ 🗆 🗙
Setup(<u>S</u>) File(E) Help(<u>H</u>)	
RECEIVE: PRIMARY to PC	📀 RS-232C 🔿 LAN
DescriptionF1 CrosspointF2	PrimaryF3 SecondaryF4
SEND: PC to PRIMARY	
DescriptionF5 CrosspointF6	PrimaryF7 SecondaryF8
EDIT	
DescriptionF9 CrosspointF10	Cancel(<u>C</u>) Exit(<u>E</u>)
	COM1,38400bps

Although the BZR-2000 seems not to save the cross point status, that is actually possible.

6. Layout in Matrix Space

Lay out the Router and the Switcher on a two-dimensional plane of 1024×1024 to carry out the operations of setup and/or signal switches.

Combining multiple two-dimensional planes, you can expand the two-dimensional plane to a three-dimensional space.

To identify each plane in the three-dimensional space, the concept "Level" is used.

The three-dimensional space is used by assigning different types of signals such as SD video signals, HD video signal and audio signals to each level.

For the typical application example of the level, refer to 10-1.



6-1. Layout of Router

(1) Use the R: Call Secondary Station menu.

The name of menu includes "Secondary", but you should specify 1 to it, which is the station ID of the primary station, when the primary station is used as a router.

SONY ROUTING SYSTEM SETUP MENU	HDS-X3600 V1.07 STATION NUMBER 1
MODIFICATION COMM	AND
A: DISPLAY CONTROL AREA C: SET DESTINATION NAME E: SET LEVEL TABLE G: UPDATE BACKUP CONTROLLER J: NAME STYLE(DESCRIP.NAME) M: SET INHIBIT TABLE O: SET TIE LINES R: CALL SECONDARY STATION	B: SET SOURCE/DEST TYPE D: SET SOURCE NAME F: SET ACTIVE UNIT NUMBER H: SET GLOBAL PHANTOM L: SET PHYSICAL ASSIGNMENT N: SET DESCRIPTION NAME GROUP Q: CHANGE CROSSPOINT S: SET SOURCE ASSIGNMENT
CALL STATION NUMBER ? 1	

(2) Select the A: Set Unit Location menu.



6-1. Layout of Router (continued)

The value shown in this menu indicates the location where the Router is arranged in the matrix space.



6-2. Layout of Switcher

Click Engineering Setup - the Router/Tally - Router (No. **7361**) to open the Router menu and set the Switcher on it.

(1) Select Standard (136 x 138) normally for the matrix size. When you wish to select a smaller matrix size due to the scarceness of matrix space, you may choose Compact (128 x 128).

For the signal assignment to the matrix space, refer to 6-4: Switcher Matrix (Source) and 6-5: Switcher Matrix (Destination).

(2) Select the positions that do not overlap those of other devices and set them to Source and Destination respectively.





The specification of the Switcher matrix assignment has been changed for the MVS version 5.00. Note that, when you try to use Multi Program 2, a new function added to Ver.5.00, the destinations are assigned to 4 different locations from those of the standard version. Those destinations are related to Utility-3, having new numbers 70, 85, 100 and 115.

6-3. Connection between Router and Switcher

Make the settings between the Router and the Switcher.

The settings here mean the connection of the output terminal of the Switcher to the input of the Router and vice versa.

Such settings make it possible to notify that the input from the Router is actually on air when the output of the Switcher, which has been arranged to receive signals from the Router, is broadcast.

The following is the example of the connections between the outputs 50 and 51 of the Router and the inputs 210 and 211 of the Switcher in the matrix space.

Click Engineering Setup - Router/Tally - Wiring to show the Wiring menu (No. 7363) and make the settings there.



No.	Source (Standard)	Source (Compact)
1 to 80	Primary 1 to 80	Primary 1 to 80
81	Black	Black
82	White	White
83	Color Bkgd 1	Color Bkgd 1
84	Color Bkgd 2	Color Bkgd 2
85	Frame Memory 1	Frame Memory 1
86	Frame Memory 2	Frame Memory 2
87	Frame Memory 3	Frame Memory 3
88	Frame Memory 4	Frame Memory 4
89	Frame Memory 5	Frame Memory 5
90	Frame Memory 6	Frame Memory 6
91	Frame Memory 7	Frame Memory 7
92	Frame Memory 8	Frame Memory 8
93	Color Correction 1	Color Correction 1
94	Color Correction 2	Color Correction 2
95	DME Monitor Video	DME Monitor Video
96	DME Monitor Key	DME Monitor Key
97	M/E-1 Out 1	M/E-1 Out 1
98	M/E-1 Out 2	M/E-1 Out 2
99	M/E-1 Out 3	M/E-1 Out 3
100	M/E-1 Out 4	M/E-1 Out 4
101	M/E-1 Out 5	M/E-1 Out 5
102	M/E-1 Out 6	M/E-1 Out 6
103	M/E-1 Proc Video	M/E-2 Out 1
104	M/E-1 Proc Key	M/E-2 Out 2
105	M/E-2 Out 1	M/E-2 Out 3
106	M/E-2 Out 2	M/E-2 Out 4
107	M/E-2 Out 3	M/E-2 Out 5
108	M/E-2 Out 4	M/E-2 Out 6
109	M/E-2 Out 5	M/E-3 Out 1
110	M/E-2 Out 6	M/E-3 Out 2

6-4. Switcher Matrix Assignment (Source)

No.	Source (Standard)	Source (Compact)
111	M/E-2 Proc Video	M/E-3 Out 3
112	M/E-2 Proc Key	M/E-3 Out 4
113	M/E-3 Out 1	M/E-3 Out 5
114	M/E-3 Out 2	M/E-3 Out 6
115	M/E-3 Out 3	P/P Out 1
116	M/E-3 Out 4	P/P Out 2
117	M/E-3 Out 5	P/P Out 3
118	M/E-3 Out 6	P/P Out 4
119	M/E-3 Proc Video	P/P Out 5
120	M/E-3 Proc Key	P/P Out 6
121	P/P Out 1	DME 1
122	P/P Out 2	DME 2
123	P/P Out 3	DME 3
124	P/P Out 4	DME 4
125	P/P Out 5	DME 5
126	P/P Out 6	DME 6
127	P/P Proc Video	DME 7
128	P/P Proc Key	DME 8
129	DME 1	-
130	DME 2	-
131	DME 3	-
132	DME 4	-
133	DME 5	-
134	DME 6	-
135	DME 7	-
136	DME 8	-

6-4. Switcher Matrix Assignment (Source)

No.	Bus (Standard)	Bus (MP2)	Bus (Compact)
1 to 48	Out 1 to 48	Out 1 to 48	Out 1 to 48
	Assignable Output	Assignable Output	Assignable Output
49	Monitor Out 1	Monitor Out 1	Monitor Out 1
50	Monitor Out 2	Monitor Out 2	Monitor Out 2
51	Monitor Out 3	Monitor Out 3	Monitor Out 3
52	Monitor Out 4	Monitor Out 4	Monitor Out 4
53	Monitor Out 5	Monitor Out 5	Monitor Out 5
54	Monitor Out 6	Monitor Out 6	Monitor Out 6
55	Monitor Out 7	Monitor Out 7	Monitor Out 7
56	Monitor Out 8	Monitor Out 8	Monitor Out 8
57	M/E-1 Bkgd A	M/E-1 Bkgd A	M/E-1 Bkgd A
58	M/E-1 Bkgd B	M/E-1 Bkgd B	M/E-1 Bkgd B
59	M/E-1 Utility 1	M/E-1 Utility 1	M/E-1 Utility 1
60	M/E-1 Utility 2	M/E-1 Utility 2	M/E-1 Utility 2
61	M/E-1 Key 1 Fill	M/E-1 Key 1 Fill	M/E-1 Key 1 Fill
62	M/E-1 Key 1 Source	M/E-1 Key 1 Source	M/E-1 Key 1 Source
63	M/E-1 Key 2 Fill	M/E-1 Key 2 Fill	M/E-1 Key 2 Fill
64	M/E-1 Key 2 Source	M/E-1 Key 2 Source	M/E-1 Key 2 Source
65	M/E-1 Key 3 Fill	M/E-1 Key 3 Fill	M/E-1 Key 3 Fill
66	M/E-1 Key 3 Source	M/E-1 Key 3 Source	M/E-1 Key 3 Source
67	M/E-1 Key 4 Fill	M/E-1 Key 4 Fill	M/E-1 Key 4 Fill
68	M/E-1 Key 4 Source	M/E-1 Key 4 Source	M/E-1 Key 4 Source
69	M/E-1 DME Video	M/E-1 DME Video	M/E-2 Bkgd A
70	M/E-1 DME Key	* M/E-1 Utility 3	M/E-2 Bkgd B
71	M/E-1 Ext DME	M/E-1 Ext DME	M/E-2 Utility 1
72	M/E-2 Bkgd A	M/E-2 Bkgd A	M/E-2 Utility 2
73	M/E-2 Bkgd B	M/E-2 Bkgd B	M/E-2 Key 1 Fill
74	M/E-2 Utility 1	M/E-2 Utility 1	M/E-2 Key 1 Source
75	M/E-2 Utility 2	M/E-2 Utility 2	M/E-2 Key 2 Fill
76	M/E-2 Key 1 Fill	M/E-2 Key 1 Fill	M/E-2 Key 2 Source
77	M/E-2 Key 1 Source	M/E-2 Key 1 Source	M/E-2 Key 3 Fill
78	M/E-2 Key 2 Fill	M/E-2 Key 2 Fill	M/E-2 Key 3 Source

6-5. Switcher Matrix Assignment (Destination)

No.	Bus (Standard)	Bus (MP2)	Bus (Compact)
79	M/E-2 Key 2 Source	M/E-2 Key 2 Source	M/E-2 Key 4 Fill
80	M/E-2 Key 3 Fill	M/E-2 Key 3 Fill	M/E-2 Key 4 Source
81	M/E-2 Key 3 Source	M/E-2 Key 3 Source	M/E-3 Bkgd A
82	M/E-2 Key 4 Fill	M/E-2 Key 4 Fill	M/E-3 Bkgd B
83	M/E-2 Key 4 Source	M/E-2 Key 4 Source	M/E-3 Utility 1
84	M/E-2 DME Video	M/E-2 DME Video	M/E-3 Utility 2
85	M/E-2 DME Key	* M/E-2 Utility 3	M/E-3 Key 1 Fill
86	M/E-2 Ext DME	M/E-2 Ext DME	M/E-3 Key 1 Source
87	M/E-3 Bkgd A	M/E-3 Bkgd A	M/E-3 Key 2 Fill
88	M/E-3 Bkgd B	M/E-3 Bkgd B	M/E-3 Key 2 Source
89	M/E-3 Utility 1	M/E-3 Utility 1	M/E-3 Key 3 Fill
90	M/E-3 Utility 2	M/E-3 Utility 2	M/E-3 Key 3 Source
91	M/E-3 Key 1 Fill	M/E-3 Key 1 Fill	M/E-3 Key 4 Fill
92	M/E-3 Key 1 Source	M/E-3 Key 1 Source	M/E-3 Key 4 Source
93	M/E-3 Key 2 Fill	M/E-3 Key 2 Fill	P/P Bkgd A
94	M/E-3 Key 2 Source	M/E-3 Key 2 Source	P/P Bkgd B
95	M/E-3 Key 3 Fill	M/E-3 Key 3 Fill	P/P Utility 1
96	M/E-3 Key 3 Source	M/E-3 Key 3 Source	P/P Utility 2
97	M/E-3 Key 4 Fill	M/E-3 Key 4 Fill	P/P Key 1 Fill
98	M/E-3 Key 4 Source	M/E-3 Key 4 Source	P/P Key 1 Source
99	M/E-3 DME Video	M/E-3 DME Video	P/P Key 2 Fill
100	M/E-3 DME Key	* M/E-3 Utility 3	P/P Key 2 Source
101	M/E-3 Ext DME	M/E-3 Ext DME	P/P Key 3 Fill
102	P/P Bkgd A	P/P Bkgd A	P/P Key 3 Source
103	P/P Bkgd B	P/P Bkgd B	P/P Key 4 Fill
104	P/P Utility 1	P/P Utility 1	P/P Key 4 Source
105	P/P Utility 2	P/P Utility 2	P/P DME Video
106	P/P Key 1 Fill	P/P Key 1 Fill	DME Utility 1
107	P/P Key 1 Source	P/P Key 1 Source	DME Utility 2
108	P/P Key 2 Fill	P/P Key 2 Fill	Frame Memory Source 1
109	P/P Key 2 Source	P/P Key 2 Source	Frame Memory Source 2
110	P/P Key 3 Fill	P/P Key 3 Fill	-

6-5. Switcher Matrix Assignment (Destination)

No.	Bus (Standard)	Bus (MP2)	Bus (Compact)
111	P/P Key 3 Source	P/P Key 3 Source	-
112	P/P Key 4 Fill	P/P Key 4 Fill	DME 1 Video
113	P/P Key 4 Source	P/P Key 4 Source	DME 1 Key
114	P/P DME Video	P/P DME Video	DME 2 Video
115	P/P DME Key	* P/P Utility 3	DME 2 Key
116	P/P Ext DME	P/P Ext DME	DME 3 Video
117	DME Utility 1	DME Utility 1	DME 3 Key
118	DME Utility 2	DME Utility 2	DME 4 Video
119	Frame Memory Source 1	Frame Memory Source 1	DME 4 Key
120	Frame Memory Source 2	Frame Memory Source 2	DME 5 Video
121	-	-	DME 5 Key
122	-	-	DME 6 Video
123	DME 1 Video	DME 1 Video	DME 6 Key
124	DME 1 Key	DME 1 Key	DME 7 Video
125	DME 2 Video	DME 2 Video	DME 7 Key
126	DME 2 Key	DME 2 Key	DME 8 Video
127	DME 3 Video	DME 3 Video	DME 8 Key
128	DME 3 Key	DME 3 Key	-
129	DME 4 Video	DME 4 Video	-
130	DME 4 Key	DME 4 Key	-
131	DME 5 Video	DME 5 Video	-
132	DME 5 Key	DME 5 Key	-
133	DME 6 Video	DME 6 Video	-
134	DME 6 Key	DME 6 Key	-
135	DME 7 Video	DME 7 Video	-
136	DME 7 Key	DME 7 Key	-
137	DME 8 Video	DME 8 Video	-
138	DME 8 Key	DME 8 Key	-

6-5. Switcher Matrix Assignment (Destination)

6-6. Assignable Output of Switcher

You can check the assignments of signals to the outputs of the Switcher on the Output (No. 7333), which you can show by clicking Engineering Setup - Switcher - Output.

Page 7333	Engineering Setup > Switcher > Output		
System	Out#	Output	
	17	P/P PGM1	
	18	P/P PGM1	
Panel	19	P/P PVW	
	20	P/P CLEAN	
	21	P/P K-PVW1	
Switcher	22	PST	

You can plan and manage the assignments of signals (Buses) to up to 48 assignable outputs of the Switcher on the following list.

Output	Bus	Terminal	
Number		Number	
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			

The terminal number indicates a number in the matrix space.

6-6. Assignable Output of Switcher (continued)

Output	BUS	Terminal	
Number		Number	
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43			
44			
45			
46			
47			
48			
6-6. Assignable Output of Switcher (continued)

The fo	ollowing	lists the	buses	assignab	e to t	the	outputs	of the	Switcher

Bus

	Bus			E
1	Undefined		26	M/E-2 K-PVW1
2	Color Bkgd 2		27	M/E-2 Out 5
3	Frame Memory 1		28	M/R-2 Out 6
4	Frame Memory 2		29	M/E-2 Proc Video
5	Frame Memory 3		30	M/E-2 Proc Key
6	Frame Memory 4		31	M/E-3 PGM1
7	Frame Memory 5		32	M/E-3 PVW
8	Frame Memory 6		33	M/E-3 CLEAN
9	Frame Memory 7		34	M/E-3 K-PVW1
10	Frame Memory 8		35	M/E-3 Out 5
11	Color Corrector 1		36	M/R-3 Out 6
12	Color Corrector 2		37	M/E-3 Proc Video
13	DME Monitor Video		38	M/E-3 Proc Key
14	DME Monitor Key		39	P/P PGM1
15	M/E-1 PGM1		40	P/P PVW
16	M/E-1 PVW		41	P/P CLEAN
17	M/E-1 CLEAN		42	P/P K-PVW1
18	M/E-1 K-PVW1		43	P/P Out 5
19	M/E-1 Out 5		44	P/P Out 6
20	M/R-1 Out 6		45	P/P Proc Video
21	M/E-1 Proc Video		46	P/P Proc Key
22	M/E-1 Proc Key		-	
23	M/E-2 PGM1]	-	
24	M/E-2 PVW		-	
25	M/E-2 CLEAN		-	

You can select AUX busses from 1 to 48, EDIT PVW and PST in addition to those buses.

7. Confirmation of Switching Operation

7-1. Switch Destinations on Router Setup

Open the Q: Change Cross Point menu of the Setup.

Place the cursor on the destination you want to select.

Specify the destination with a type + number or a description name to select it.

	CHANGE CROSSPOINT		HDS-X3600 V1.07	STATION NUMBER 1
I			LEVEL	_=1
I	DEST SOURCE	DEST SOURCE	DEST SOURCE	DEST SOURCE
I	OUT001 - N N001	OUT002 -IN001	OUT003 -IN003	OUT004 -IN004
I	OUT005 -ĪN005	OUT006 -IN006	OUT007 -IN007	OUT008 -IN006
I	OUT009 -IN009	OUT010 -IN010	OUT011 -IN011	OUT012 -IN012
I	OUT013 -IN013	OUT014 -IN014	OUT015 -IN015	OUT016 -IN016
I	OUT017 -IN017	OUT018 -IN018	OUT019 -IN019	OUT020 -IN020
l	OUT021 - IN021	OUT022 - IN022	OUT023 - IN023	OUT024 -IN024

7-2. Switch Destination/Source on Control Panel

The following is the example of using BKS-R1617 as the Control Panel.

(1) Setup of Control Panel

Enter the station ID of the Control Panel that you want to set to show the menu of the secondary station.

SONY ROUTING SYSTEM SETUP MENU	HDS-X3600 V1.07 STATION NUMBER 1
MODIFICATION COMMA	AND
A: DISPLAY CONTROL AREA C: SET DESTINATION NAME E: SET LEVEL TABLE G: UPDATE BACKUP CONTROLLER J: NAME STYLE(Type + Num) M: SET INHIBIT TABLE O: SET TIE LINES R: CALL SECONDARY STATION	B: SET SOURCE/DEST TYPE D: SET SOURCE NAME F: SET ACTIVE UNIT NUMBER H: SET GLOBAL PHANTOM L: SET PHYSICAL ASSIGNMENT N: SET DESCRIPTION NAME GROUP Q: CHANGE CROSSPOINT S: SET SOURCE ASSIGNMENT
CALL STATION NUMBER ? 2	

7-2. Switch Destination/Source on Control Panel (continued)

Open the N: SET PANEL TABLE menu.

SONY ROUTING SYSTEM SETUP MENU	BKS-R1617 V1.07	STATION NUMBER 2				
MODIFICATION COMMAND						
H: SET PHANTOM TABLE						
N: SET PANEL TABLE						
0: SET AVAILABLE SOURCE/D	ESTINATION					
R: SET ROUTE						
L: COPY TABLE DATA FROM						
Y: SET DISPLAY MODES						
Z: SET PANEL STATUS						

Make the settings of 16 buttons on the panel to specify their sources and destinations when you press them.

SONY ROUTING SYST	EM SETUP MENU	BKS-R1617 V1.07	STATION NUMBER 2
01 KEY= 0 N001 05 KEY=IN005 09 KEY=	02 KEY=IN002 06 KEY=IN006 10 KEY=	03 KEY=IN003 07 KEY=IN007 11 KEY=	04 KEY=IN004 08 KEY=IN008 12 KEY=
13 KEY=	14 KEY=	15 KEY=	16 KEY=
SET PANEL TABLE	(DESTINATION)		
01 KEY=OUT001 05 KEY=OUT005	02 KEY=OUT002 06 KEY=OUT006	03 KEY=OUT003 07 KEY=OUT007	04 KEY=OUT004 08 KEY=OUT008
09 KEY= 13 KEY=	10 KEY= 14 KEY=	11 KEY= 15 KEY=	12 KEY= 16 KEY=

This setting example shows that 8 sources and 8 destinations are respectively assigned to IN and OUT of the leftmost switching buttons.

Whether you operate a source button or a destination button will be described in the following.



7-2. Switch Destination/Source on Control Panel (continue)

(2) Switching Operation



When you press the DEST button at the left and it lights orange, you can select a destination.

The indicator shows the assignment of destination to each button.

When you press the DEST button, DEST or SOUR appears temporarily in the indicator at the right to show the specified mode.

When you press the DEST button and it lights green, you can select a source.



The following picture shows that selecting a button on the Control Panel changes the display of UMD as well.





7-3. Switch Destination/Source with BZR-2000

To make the selection on BZR-2000, open the Control Grid menu by clicking Tool - Control Grid.

The following picture shows that the source of OUT003 has been changed to IN005 by double-clicking on the cross point of OUT003 and IN005.



7-4. Switch Destination/Source with BZR-21

BZR-21 is the software dedicated to the selection of destinations/sources.

To use it, the computer should be connected to the primary station through RS-232C or Ethernet.

Select a destination with a button in 2 lower lines and then do a source with a button in 2 upper lines.

🚟 BZR-21 - [C:\Program Files\SONY_BP\BZR21\BZR21.INI]								
<u>File T</u> ools <u>H</u> e	<u>File T</u> ools <u>H</u> elp							
Status N Destination:	Status Level No. Type + No. Description Name Protect Status 1 Destination: 3 OUT003 OUT003 3						 5 6 7 	
Source:	6 IN	1006	IN006			4	08	
Lock Button per Source X-Y Distribution						Lock		
IN001	IN002	IN003	IN004	IN005	IN006	IN007	IN008	
IN009	IN010	INO11	IN012	IN013	INO14	IN015	IN016	
OUT001	OUT002	OUT003	OUT004	OUT005	OUT006	OUT007	OUT008	
OUT009	OUT010	OUT011	OUT012	OUT013	OUT014	OUT015	OUT016	
C:\Program Files	SONY_BP\BZ	R21\DATA\			R5232C :	COM1 / 38,4	00bps	

8. Settings of Terminal Names

Set name data (called terminal names) to the sources and destinations in the 1024 x 1024 matrix space for easier selection of signals.



It is not necessary to set terminal names to all of 1024 sources and destinations respectively. Set the names only to the terminals to which sources and/or destinations of the Routers or the Switchers are connected.

Devise and prepare the following list to manage them.

Source Terminal Name					
Source Number	Terminal Name	Terminal Name	Device		
	(Type + Number)	(Description)	Source Number		
1					
2					
3					
:					
1024					

The device source numbers are what are given to the respective Switchers and Routers. Even if you assign the number 200 and on to the Switchers in the matrix space, you should enter the first Switcher in the source number 1 column for easier identification.

8. Settings of Terminal Names (continued)

Destination Terminal Name						
Destination	Terminal Name	Terminal Name	Device			
Number	(Type + Number)	(Description)	Source Number			
1						
2						
3						
:						
1024						

8-1. Selection of Type + Number and Description Name

Using the Router, you can select either type + number or description name to set and display a terminal name.

Select it on the J: NAME STYLE menu of Setup.

This menu alternates between Type + Name and DESCRIP everything you press the J key on the keyboard.

This selection also changes simultaneously the signal name shown on the device connected to S-BUS.

The Control Panel of the Switcher does not work with it.

For the selection of the Switcher, refer to 8-4.

J: NAME STYLE(DESCRIP.NAME)

M: SET INHIBIT TABLE

S	ONY ROUTING SYSTEM SETUP MENU	HDS-X3600 V1.07 STATION NUMBER 1
l	MODIFICATI	ON COMMAND
	A: DISPLAY CONTROL AREA C: SET DESTINATION NAME E: SET LEVEL TABLE G: UPDATE BACKUP CONTROLLER J: NAME STYLE(Type + Num) M: SET INHIBIT TABLE O: SET TIE LINES R: CALL SECONDARY STATION	B: SET SOURCE/DEST TYPE D: SET SOURCE NAME F: SET ACTIVE UNIT NUMBER H: SET GLOBAL PHANTOM L: SET PHYSICAL ASSIGNMENT N: SET DESCRIPTION NAME GROUP Q: CHANGE CROSSPOINT S: SET SOURCE ASSIGNMENT
	E: SET LEVEL TABLE G: HPDATE BACKUP CONTROLLER	

8-2. Type + Number

It is a combination of 4 characters called Type and a 3-digit number. Setting 0 or 1 to the forth character of Type could show a 4-digit number.

First of all, make the settings of Type on the B: SET SOURCE/DEST TYPE menu of Setup.

SOURCE/DEST	/PHANTOM T	YPE		HDS-X3600	V1.07	STATION N	UMBER 1
TYPE: 16							
0 =IN 8= G= O=	1=OUT 9= H= P=	2= A= I= Q=	3= B= J= R=	4= C= K= S=	5= D= L= T=	6= E= M= U=	7= F= N= V=

Next, set signal names to outputs and inputs on the C: SET DESTINATION NAME or

D: SET SOURCE NAME menu.

DESTINATION NUMBER	TRANSCODE	HDS-X3600 V1.07	STATION NUMBER 1
0001=0UT001	0002=0UT002	0003=0UT003	0004=0UT004
0005=0UT005	0006=0UT006	0007=0UT007	0008=0UT008
0009=0UT009	0010=0UT010	0011=0UT011	0012=0UT012
0013=0UT013	0014=0UT014	0015=0UT015	0016=0UT016
0017=0UT017	0018=0UT018	0019=0UT019	0020=0UT020

8-3. Description Name

You may set any name in up to 16 characters.

Set signal names to outputs and inputs on the C: SET DESTINATION NAME or D: SET

SOURCE NAME menu.

h						
	DESTINATION NUM	BER TRANSCODE	HDS-X360	0 V1.07	STATION NUME	ER 1
		17		1	7	
	0001=0UT001	OUTO01	0002=OUT	002 001	002	1
	0003=0UT003	OUT003	0004=OUT	004 <u>OU</u> T	004	Í
	0005=0UT005	OUT005	0006=OUT	006 <u>OU</u> T	1006	
	0007=OUT007	OUT007	0008=OUT	008 <u>OUT</u>	008	1
	0009=0UT009	OUT009	0010=OUT	010 <u>OU</u> T	010	1
	0011=001011	011T0 1 1	0012=011	012 003	012	1

8-4. Display of Source/Destination Name on Switcher Control Panel

Click Engineering Setup - Panel - Operation on the Switcher. When the Operation (No. 7326) menu appears, select a signal name unique to the Switcher, Description or Type + Number of the Router.



To update the display of the Control Panel of the Switcher when you have changed Description Name on Setup of the Router, click Engineering Setup - Panel - Operation to show the Operation (No.7326) menu and then turn on the S-Bus Name Link button.



Note: When the S-BUS descript is selected, the display name of the switcher control panel changes from the signal names unique to the switcher (Sw'er Local) to the Description Names of the router (S-BUS descript).

8-5. Send Description Name to Control Panel of Router

When you change the settings on the primary station, the name in the Type + Number format is automatically notified to the secondary stations.

For the name in the Description format, you will have to go through a little more complicated procedure.

(1) Change the initial value to another value on the C: SET DESTINATION NAME menu.

DESTINATION NUMBER TRANSCODE	HDS-X3600 V1.07	STATION NUMBER 1
17 0001=VTR001 VVV 0003=VTR003 XXX 0005=0UT005 0UT005 0007=0UT007 0UT007 0009=0UT009 0UT009 0011=0UT011 0UT011	1 0002=VTR002 WW 0004=VTR004 YY 0006=OUT006 OUT 0008=OUT008 OUT 0010=OUT010 OUT 0012=OUT012 OUT	006 008 010 012

(2) Do the same on the D: SET SOURCE NAME menu.

SOURCE NUMBER T	RANSCODE	HDS-X3600 V1.0	7 STATION NUMBER 1
0001=CAM001 0003=CAM003 0005=IN005 0007=IN007 0009=IN009 0011=TN011	17 <u>AAA</u> <u>CCC</u> <u>IN005</u> <u>IN007</u> <u>IN009</u> TN011	0002=CAM002 0004=CAM004 0006=IN006 0008=IN008 0010=IN010 0012=IN012	17 BBB DDD IN006 IN008 IN010 IN012

(3) Group the new values on the N: SET DESCRIPTION NAME GROUP menu and then send them to the secondary stations.

Select Destination/Source names from the candidates shown in the lower part of the window and register them respectively to the upper part of the window one by one.

Delete the registered names, if necessary, with the backspace key.

Register the mixture of the destination and source names as one group.

DESCRIPTION NAME	GROUP	HDS-X3600 V1.0	7 STATION NUMBER 1
GROUP 1 (148 R 0001 CAM001 0003 CAM003 0005 IN005 0007 VTR001	EMAIN) <u>AAA</u> <u>CCC IN005</u> VVV	0002 CAM002 0004 CAM004 0006 IN006 0008 VTR002	BBB DDD IN006 WWW
0009 VTR003 0011 OUT005 0013 0015	XXX OUT005	0010 VTR004 0012 OUT006 0014 0016	<u>ŸŸŸ</u> OUT006
0001=CAM001 0003=CAM003 0005=IN005 0005=IN005	AAA CCC IN005 TN007	0002=CAM002 0004=CAM004 0006=IN006 0008=IN008	BBB DDD IN006 TN008

8-5. Send Description Name to Control Panel of Router (continued)

(4) Press the S key, enter the station ID of the destination of the secondary station and send the description name.

	0011-1N011 0013=IN013	1N011 IN013	001	2-11012 4=1N014	<u>10012</u> IN014	
I	0015=IN015	IN015	_ 001	6=IN016	IN016	
H	Please Input	Station Number= 2	2			
	F1:MOVE F2:JUMF	F3:DEST. B:G	roup L:Copy	S:Send Ctrl	I-E:RETURN TO	MENU

(5) Check the data that the Control Unit received.

Select the R: CALL SECONDARY STATION menu and enter the station ID of the secondary station.

Select the S: DISPLAY DESCRIPTION NAME menu and show the received data.

	SONY	ROUTING	SYSTEM SETUP N	MENU -		BKS-R1	617 V1.07	STATION	NUMBER	2
L	SOU	RCE								
L		name	Description			name	Description			
	0001	CAMOO1	AAA		0002	CAM002	BBB			
	0003	CAMOO3	CCC		0004	CAM004	DDD			
	0005	IN005	IN005		0006	IN006	IN006			
	0007	IN007			0008	IN008				
	0009	IN009			0010	IN010				
ll	1011	TN011			0012	TN012				

Press the right arrow key and the destination data appears.

SONY	ROUTING	SYSTEM SETUP MEN	U	BKS-R	1617 V1.07	STATION N	NUMBER 2
DES"	<u>TINATION</u>						
	name	Description		name	Description		
0001	VTR001	VVV	0002	VTR002	WWW		
0003	VTR003	XXX	0004	VTR004	YYY		
0005	OUT005	OUT005	0006	OUT006	OUT006		
0007	OUT007		0008	OUT008			
0009	OUT009		0010	OUT010			
0011	OUT011		0012	OUT012			

8-5. Send Description Name to Control Panel of Router (continued)

(6) Assign sources and destinations to the buttons on the panel on the N: SET PANEL TABLE menu.

SONY ROUTING SYSTEM SETU SET PANEL TABLE(SOURCE)	JP MENU) CONTROL D	BKS-R1617 V1. ESTINATION = YYY	07 STATION NUMBER 2
01 KEY=AAA 02 KE	Y=BBB	03 KEY=CCC	04 KEY=DDD
05 KEY= 06 KE	Y=	07 KEY=	08 KEY=
09 KEY= 10 KE	Y=	11 KEY=	12 KEY=
13 KEY= 14 KE	Y=	15 KEY=	16 KEY=
SET PANEL TABLE(DESTINA	ATION)		
01 KEY=VVV 02 KE	Y=WWW	03 KEY=XXX	04 KEY=YYY
05 KEY= 06 KE	Y=	07 KEY=	08 KEY=
US KEY= 10 KE	Y=	11 KEY=	12 KEY=
13 KET 14 KE	Υ= ····	10 KEY=	16 KEY=

Once they are assigned, the inputs of the Router change when you operate the Control Unit.

For the operation procedure, refer to "7-2. Switch Destination/Source on Control Panel".

The above-mentioned procedures may be illustrated as follows.



Control Panel

8-6. Alias Name

You can use 7 kinds of name tables in addition to Type + Number and Description Name.

The data is stored in the computer in which BZR-2000 is running.

The computer sends all of 7 kinds of alias names to the secondary stations, from which the secondary stations select a table including the necessary alias numbers and display it.

🌌 Terminal Name Config	juratior	n						
Type Level Alias	Source	Source Aliases	Destination [Destinati	on Aliases	Descripti	on Name Groups	
No. Title	No. 1	Type + Number	Description	Name	Alias1		Alias2	
1 Alias1	1	CAM001	AAA					
2 Alias2	2 0	CAM002	BBB					
3 Alias3	3 (CAM003	CCC					
	4 (CAM004	DDD					
6 Alias6	51	IN005	IN005					
7 Alias7	61	IN006	IN006					
	71	IN007	IN007					
	81	INOOS	TNOOS					

Click Engineering Setup - the Router/Tally - Router to show the Router (No.7361) menu and select an alias name on it.



You can enter 0 as a value, but 0 indicates the use of names other than the alias names.



Both Source and Destination data can be sent by one click.

Although the data is sent to the secondary stations via the primary station, the data is not stored in the primary station.

8-7. Show Terminal Name on UMD

UMD is usually placed under or above the display unit connected to one destination. It shows the destination assignment in the terminal name and/or the source to be outputted from the destination.

(1) Selection of Display Format

The following shows the setup menu of the single status display unit BKS-R3281. Specify whether the sources or the destinations should be displayed or both of them should be done.

In addition to the terminal names of the sources and the destinations, it is capable of showing character strings.

SONY	ROUTING	SYSTEM	SETUP	MENU	BKS-F	3281	V3.10	STATION	NUMBER	3
			DISPLAY	MODE SELE	CT MENU					
			1:SOURCE	E NAME	DESTINATION	NAME				
			2:SOURCE	E NAME	DESTINATION	NUMBE	ER			
			3:SOURCE	E NUMBER -	- SOURCE NAW	ΙE				
			4:	SOURCE N	AME					
			5:SOURCE	E NAME	SOURCE NAME					
			6:	STRING						

(2) Specification of Destination

On the Setup menu, specify the destination of the display unit to which UMD is connected.

When UMD is notified of the change of the source of the specified destination through S-BUS, it shows the signal name of a new source.



8-8. Import cvs Files

Set a signal name to a csv file and you can send it to the primary station using the Import function of BZR-2000.

The following shows the contents of the cvs file.

1024 source names are listed in the initial part of the file.

```
// AliasName Source
No,Description Name,Alias1,Alias2,Alias3,Alias4,Alias5,Alias6,Alias7
1,IN001,,,,,,
2,IN002,,,,,,
3,IN003,,,,,,
4,IN004,,,,,,
5,IN005,,,,,,,
6,IN005,,,,,,,
```

1024 destination names are listed in the latter part of the file.

You need to scroll the window to see the destination names.

```
1023, IN1023,,,,,,
1024, IN1024,,,,,,
// AliasName Destination
No,Description Name,Alias1,Alias2,Alias3,Alias4,Alias5,Alias6,Alias7
1,OUT001,,,,,
2,OUT002,,,,,,
3,OUT003,,,,,,
4,OUT004,,,,,,
5,OUT005,,,,,,
```

They are shown in an Excel list.

	A	В	С	D	E	F	G	Н	Ι
1	// AliasNa	me Source							
2	No	Descriptior	Alias1	Alias2	Alias3	Alias4	Alias5	Alias6	Alias7
3	1	IN001							
4	2	IN002							
5	3	IN003							
6	4	IN004							
7	5	IN005							
8	6	INIOO6							

9. Settings of Tally

The tally is the function to turn on an indicator in order to indicate that a given source, which is outputted to a destination, is on air.

Make the settings of tallies in the following order.

(1) Assign a tally type (e.g. Red (R1) to the destination from which the signals from a source are broadcast.

(2) Select one from multiple sources and output it to the destination. Arrange that one of the parallel tallies of DCU increments when a given source is selected.



When the source assigned to the parallel tally comes on air, the contact of the parallel tally is disconnected.

One of the parallel tally outputs of DCU is connected to a tally indication of a camera.

9-1. Parallel Tally

Settings of the relay output that DCU (Device Control Unit) of the Switcher provides

(1) Tally Type

Usually, there are 2 kinds of tallies.

One is the red tally indicating that a source is on air, and the other is the green tally indicating that a source will be on air next.

The Switcher Setup shows them as R1 and G1 respectively.

R2 and G2 can be used for the tallies for 2 different studios or for the yellow tally that indicates a source is being recorded to VTR instead of being on air.

To assign tally types to destinations, click Engineering Setup - the Router/Tally - Tally Enable and do it on the Tally Enable (No.7364) menu.

Page 7364	Engine > Router/1	ering Setu Tally > Tally Ena	p ble		_		
System	Enbl # 1	Destination OUT001	Level 1	Tally Type R1	Enable Tally Input	Input # <mark>1–1</mark>	
Panel							

Specify tally types (any of R1, G1, R2, G2, R3, G3, R4 or G4) to the combinations of destinations and levels in the matrix space.

A tally type is comprised with a pair of a red and a green tally and up to 8 pairs are defined. There is a menu on which you can specify a pair to use by grouping 8 pairs into a R1-R4/G1-G4 group and a R5-R8/G5-G8 group.

It is the Group Tally menu (No.7362) that you can show by clicking Engineering Setup - Router/Tally - Group Tally.



When both red and green tallies as Tally Type are respectively assigned to one Destination,

the tally may light in umber. It depends on the type of the display device.

<How to assign both red and green tallies to one Destination> 1) Click the Engineering Setup - Router/Tally - Tally Enable and then click the New

on the Tally Enable menu (No. 7364).

2) For example, select R3 as the Tally Type for one Destination.

Likewise, select G3 for the above Destination.

(The number for the red tally and that for green tally must be identical.)

Note:

When several SCUs set in the same group (Group 1-4 or Group 5-9) are connected to the same S-BUS, troubles may occur. When one SCU in the same group is updated. all the tally status of all the SCUs in the group is also updated. For example, when the SCU that is set the tally in the Group 1 and the SCU that is set tallys in the Group 2 exist in the same group, each SCU updates the status of Group 1-4 respectively.

MVS V5.00

One SCU can be output all the parallel tallies for the Group 1-8 (both Group1-4 or Group5-9).

The menu to be selected either Group1-4 or Group5-9 still remains because the S-BUS control is available only for either one of these groups.

(2) Parallel Tally

Associate a source in the matrix space with a parallel tally of DCU.

Click Engineering Setup - the Router/Tally - Parallel Tally and use the appeared Parallel Tally menu (No.7366).

Page 7366	Engi > Rou	i neerin ter/Tally >	g Setup Parallel Tally				
System	Slot #	Port #	Src/Dest	Name	Level	Tally Type	
	2	1	Src	IN001	-	R1	
	2	2	Src	IN002		R1	
Panel	2	3	Src	IN003		R1	
	2	4	Src	IN004		R1	
	2	5	Src	IN005		R1	
Switcher	2	6	Src	IN006	-	R1	
	1						

Slot number and Port number of DCU

To DCU (MKS-8700), you can install up to 5 boards to its slots (No.2 to 6).

Each board contains 54 parallel tally outputs.

Associate each parallel tally output with a source, destination and level in the matrix space.



One DCU can provide up to 270 parallel tallies.

Since it is possible to connect up to 2 DCUs, 540 parallel tallies is available in total.

(3) Master Panel

Specify the control panel that creates tallies when multiple control panels of the Switcher exist.

Make the settings so that the characters "Tally" appears even if only one control panel exists.

Page 7312 .1	<pre>Engine > System > > Panel As</pre>	Engineering Setup > System > System Config > Panel Assign								
System	Panel	1st Sw'er	2nd Sw'er	Master Panel	Operation Mode					
	PNL1	SWR1	SWR2	Tally	Single Proc					
Panel										

(4) Button Tally (Tally Button)

On the Switcher Setup, click Engineering Setup - Panel - Operation and make the settings on the appeared Operation menu (No.7326).

When you select "Independ", only the tally of the Switcher is available.



Only the tally of the switcher means that the tally is generated for the input signal that is output from the PGM OUT of the switcher.

(5) Tally Enable

DCU allows signals from outside to enable or disable its tally function.

On the Switcher Setup, click Engineering Setup - Router/Tally - Tally Enable and make the setting on the displayed Tally Enable menu (No.7364).

To use this function, select Tally Input on the Tally Enable menu and set the input to use to the Input # item.

DCU (MKS-8700) provides 102 tally inputs.



When you select **Enable** as shown above, a tally is outputted independently of external signals once an input signal is selected.

When you select **Disable**, no tally will be outputted even if an input signal is selected.

Assigning one Tally Enable to all Red tallies could select whether or not the Red tally should be displayed with a single button operation.



For your reference

(6) You can assign GPI Input to the input of DCU on the Input Config menu (No.7351), which you can open by clicking Engineering Setup - DCU - Input Config from the Switcher Setup menu.

Page 7351	Engin > DCU >	Engineering Setup > DCU > Input Config							
System	Port No	Tally/GPI Input							
	1	GPI Input 1							
<u> </u>	2	GPI Input 2							
Panel	3	No Assign							
	4	Tally Input							

Selecting Tally Input on the Tally Enable menu (No.7364), which you can open by clicking Engineering Setup - Router/Tally - Tally Enable on the Switcher Setup, would prioritize the settings here.

Page 7364	Engine > Router/1	ering Setup				
System	Enbl #	Destination	Level	Tally Type	Enable	Input #
	1	OUT007	1	R1	Tally Input	1-1
	2	OUT001	1	R1	Enable	1–2
Panel	3	OUT003	1	R1	Enable	1–3

Open the No.7351 menu and you can check that Tally Input is selected.

Port No	Tally/GPI Input
1	Tally Input
2	GPI Input 2

(8) List for design and administration

id	Slot	Port	Src/Dest	Src	or	Level	Tally	Destination	Enable
	Number	Number		Dest		(1 to	Туре		
				Name		8)	(R1 to		
							G8)		
DCU	1								
1	2	1							
2	2	2							
:	:	:							
54	2	54							
55	3	1							
:	:	:							
108	3	54							
109	4	1							
:	:	:							
162	4	54							
163	5	1							
:	:	:							
216	5	54							
217	6	1							
:	:	:							
270	6	54							
DCU	2								
271	2	1							
:	:	:							
540	6	54							

9-2. S-BUS Tally

You cannot set it on the primary station.

On the secondary station, you need to select tallies that should be displayed. Specify tallies to be outputted to the destinations in the matrix space on the Setup menu of the Switcher (refer to 9-1).

If you have changed a source to a destination in the matrix space and try to set a tally to the destination, SCU sends a message that notifies S-BUS of the change of tally.



The message is comprised of the following elements.

(1) Source Number (1 to 1024)

The input number of a new source or the number of input connected previously The third parameter of the new input source is notified when it is enabled. Upon receipt of the parameter, the machine to show the tally turns on the indicator. The third parameter of the previously connected input is notified when it is disabled. Upon receipt of the parameter, the machine to show the tally turns off the indicator.

9-2. S-BUS Tally (continue)

(2) Tally Type

You can assign any of the tally types from R1 to G8 to a destination by operating the Switcher Setup.

To one SCU, however, it is a tally of either group (a group from R1 to G4 or another group from R5 to G8) that you can assign.

When 2 SCUs, which are installed to 2 studios separately, are connected with the same S-BUS, one can use the tally types from R1 - G4 and the other can do those from R5 to G8. SCU has some limitations on the use of the tally group, but it can use all the tally types from R1 to G8 through S-BUS.

Some devices that can be connected to S-BUS, however, can support only the tally types from R1 to G4.

SCU 1 uses such tally types as R1, G1, R2, G2, R3, G3, R4 and G4.

SCU 1

S-BUS

Assign either of two tally groups (R1 - G4 or R5 - G8) as a tally type to SCU.



SCU 2 uses such tally types as R5, G5, R6, G6, R7, G7, R8 and G8.

groups are assigned to SCU, all the tally types from R1 to G8 run on S-BUS.

When 2 different tally

S-BUS Tally Enable

On the Group Tally menu, specify whether SCU should output tallies to S-BUS. Turn on the SBus Tally Enable button and the tallies are outputted.



The menu number of Group Tally is 7362.

9-3. Show Tally on UMD

There are following two methods to show tallies on UMD.

(1) UMD receives a tally status through S-BUS.

SCU issues the tally status, which is sent to all UMDs, the secondary stations, through the primary station.

When a UMD finds that it is addressed to itself, it updates its tally display.



(2) Connect UMDs to the parallel tally of DCU.

DCU is required. UMD does not need to process the tally status it received through S-BUS.



9-4. Serial Tally

The tally statuses are also sent from DCU and SCU through their RS-422A ports.

Setup

(1) Specify an RS-422 port to use.

Make the settings on the Serial Tally menu (No.7367) from Engineering Setup - Router/Tally - Serial Tally of the Switcher Setup.

Page 7367	Engineering S > Router/Tally > Seria	Engineering Setup > Router/Tally > Serial Tally							
System	Serial Tally Port	Tally Type							
	DCU1 Port1	R1	G1	-	-				
	DCU1 Port2	-	-	-	-				
Panel	DCU2 Port1	-	-	-	-				
	DCU2 Port2	-	-	-	-				
	SCU Editor Panel Port	-	-	-	-				

(2) You can specify up to 4 tally types to one serial tally port.

For the relation between tally types and destinations, refer to 9-1 (1).

R1	R2	R3	R4
G1	G2	G3	G4

When you have assigned the group 5 - 8 to the tally group on the Group Tally menu (No.7362), the display changes as follows (from R5 to G8).



9-4. Serial Tally (continued)

(3) Selection of sources in the matrix space

The serial tally uses 128 sources by selecting them from 1024 sources in the matrix space.

Make the settings on the Source Assign menu (No.7367.1) from Engineering Setup -Router/Tally - Serial Tally - Source Assign of the Switcher Setup.

You can assign different sources to the serial tally ports.





10. Expanded Functions

10-1. Level & Physical Assignment

The Router HDS-X3600 provides 64 inputs and 64 outputs.

Dividing them by 16 in/out blocks, you can use them independently for specific purposes.

This document shows an example of using 64 inputs/outputs as the Router for SD signals and that for DH signals by dividing them into 2 blocks, each of which has 32 inputs/outputs.

Requested specifications

The requested specifications for the above example are defined as follows.

(1) Divide 64 inputs x 64 outputs to 2 blocks of 32 inputs x 32 outputs.

(2) The block of physical inputs/outputs from 1 to 32 is for the processes of SD video signals.

(3) Define the SD block as Level 1.

(4) The block of physical inputs/outputs from 33 to 64 is for the processes of HD video signals.

(5) Define the HD block as Level 2.

(6) Pressing one button on the control unit of the Router could switch SD video signals to HD video signals or vise versa.



10-1. Level & Physical Assignment (continued)

Setting example

On the Physical Assignment menu, set the physical inputs from 33 to 64 in the HD video block to the numbers from 1 to 32 in the matrix space. Select the Level 2.

(1) Select the L: SET PHYSICAL ASSIGNMENT menu.



(2) Release the settings from 33 to 64 to appear.

Place the cursor on target data and press the **Ctrl** - **P** keys. The target data is deleted and the column becomes blank.

PHYSICAL NUMBER ASSIGNMENT					HDS-X3	600 V1.0	7 ST	ATION NU	MBER 1	
I	DESTI	NATION	LEVEL	_			_	_	_	
I	No.	NAME	1	2	3	4	5	6	7	8
I	0033	OUT033	0033-1	0033-2	0033-3	0033-4	0033-5	0033-6	0033-7	0033-8
I	0034	OUT034	0034-1	0034-2	0034-3	0034-4	0034-5	0034-6	0034-7	0034-8
I	0035	OUT035	0035-1	0035-2	0035-3	0035-4	0035-5	0035-6	0035-7	0035-8
I	0036	OUT036	0036-1	0036-2	0036-3	0036-4	0036-5	0036-6	0036-7	0036-8
ļ	0097	0117097	0097_1	0097_9	0007_0	0097-4	0097_6	0097_0	0097_7	0007_0

PHYSIC	AL NUMBER	ASSIGNME	NT		HDS-X3	600 V1.0	17 ST	ATION NU	IMBER 1
DESTI	NATION	LEVEL							
No.	NAME	1	2	3	4	5	6	7	8
0033	OUT033								
0034	OUT034		0034-2	0034-3	0034-4	0034-5	0034-6	0034-7	0034-8
0035	OUT035	0035-1	0035-2	0035-3	0035-4	0035-5	0035-6	0035-7	0035-8
0036	OUT036	0036-1	0036-2	0036-3	0036-4	0036-5	0036-6	0036-7	0036-8
0037	OUT097	0097 - 1	0037-2	0097-9	0037 - 4	0037-5	0097-8	0037-7	0097-8

10-1. Level & Physical Assignment (continued)

(3) Assign the physical outputs 33 - 64 to the level 2 of the destination from 1 to 32.

PHYSIC	AL NUMBER	ASSIGNME	NT		HDS-X3	600 V1.0	7 S1	TATION NU	JMBER 1
DESTI	NATION	LEVEL							
No.	NAME	1	2	3	4	5	6	7	8
0001	OUT001	0001-1	0033-1	· · · · - ·	· · · · - ·	· · · · - ·	· · · · · ·	· · · · - ·	· · · · - ·
0002	OUT002	0002-1	0034-1						
0003	OUT003	0003-1	0035-1						
0004	OUT004	0004-1	0036-1						
0005	OUT005	0005-1	0037-1						
0006	OUT006	0006-1	0038-1						
0007	0UT007	0007-1	0039-1						
	PHYSIC DESTI No. 0001 0002 0003 0004 0005 0006 0006	PHYSICAL NUMBER DESTINATION No. NAME 0001 OUT001 0002 OUT002 0003 OUT003 0004 OUT004 0005 OUT005 0006 OUT006 0007 OUT007	PHYSICAL NUMBER ASSIGNME DESTINATION LEVEL No. NAME 1 0001 OUT001 0001-1 0002 OUT002 0002-1 0003 OUT003 0003-1 0004 OUT004 0004-1 0005 OUT005 0005-1 0006 OUT007 0006-1	PHYSICAL NUMBER ASSIGNMENT DESTINATION LEVEL No. NAME 1 2 0001 OUT001 0001-1 0033-1 0002 OUT002 0002-1 0034-1 0003 OUT003 0003-1 0035-1 0004 OUT004 0004-1 0036-1 0005 OUT005 0005-1 0037-1 0006 OUT006 0006-1 0038-1 0007 OUT007 0007-1 0038-1	PHYSICAL NUMBER ASSIGNMENT DESTINATION LEVEL 3 No. NAME 1 2 3 0001 OUT001 0001-1 0033-1 0002 OUT002 0002-1 0034-1 0003 OUT003 0003-1 0035-1 0004 OUT005 0005-1 0037-1 0005 OUT005 0005-1 0037-1 0006 OUT006 0006-1 0038-1	PHYSICAL NUMBER ASSIGNMENT HDS-X3 DESTINATION LEVEL 3 4 No. NAME 1 2 3 4 0001 OUT001 0001-1 0033-1 0002 OUT002 0002-1 0034-1 0003 OUT003 0003-1 0035-1 0004 OUT004 0004-1 0036-1 0005 OUT005 0005-1 0037-1 0006 OUT006 0006-1 0038-1	PHYSICAL NUMBER ASSIGNMENT HDS-X3600 V1.0 DESTINATION LEVEL 3 4 5 No. NAME 1 2 3 4 5 0001 OUT001 0001-1 0033-1 0002 OUT002 0002-1 0034-1 0003 OUT003 0003-1 0035-1 0004 OUT004 0004-1 0036-1 0005 OUT005 0005-1 0037-1 0006 OUT006 0006-1 0038-1	PHYSICAL NUMBER ASSIGNMENT HDS-X3600 V1.07 ST DESTINATION LEVEL 3 4 5 6 No. NAME 1 2 3 4 5 6 0001 OUT001 0001-1 0033-1 <td< th=""><th>PHYSICAL NUMBER ASSIGNMENT HDS-X3600 V1.07 STATION NU DESTINATION LEVEL 3 4 5 6 7 No. NAME 1 2 3 4 5 6 7 0001 OUT001 0001-1 0033-1 </th></td<>	PHYSICAL NUMBER ASSIGNMENT HDS-X3600 V1.07 STATION NU DESTINATION LEVEL 3 4 5 6 7 No. NAME 1 2 3 4 5 6 7 0001 OUT001 0001-1 0033-1

(4) Carry out the same settings for the sources

I	PHYSIC	AL NUMBER	R ASSIGNME	NT		HDS-X3	600 V1.0	17 8	TATION N	IMBER 1
I						1100 110				
I	SOURC	E	LEVEL							
I	No.	NAME	1	2	3	4	5	6	7	8
I	0001	IN001	0001-1	0033-1	···-·					
I	0002	IN002	0002-1	0034-1						
I	0003	IN003	0003-1	0035-1						
I	0004	IN004	0004-1	0036-1						
I	0005	IN005	0005-1	0037-1						
I	0006	IN006	0006-1	0038-1						
I	0007	TN007	0007-1	0039-1	-	-	-	-	-	-

2. Operation check

Try the switching operation on the **Q**: CHANGE CROSSPOINT menu.

CHANGE CROSSPOINT		HDS-X3600 V1.07	STATION NUMBER 1
		LEVE	L=2
DEST SOURCE	DEST SOURCE	DEST SOURCE	DEST SOURCE
OUT001 - NO01	OUT002	OUT003	OUT004
OUT005	OUT006	OUT007	OUT008
OUT009	OUT010	OUT011	OUT012
OUT013	OUT014	OUT015	OUT016
OUT017 -	OUT018 -	OUT019 -	OUT020 -

10-2. Tie Line

This is a useful function to use the SD outputs from the Router as the HD signals by converting them to the HD signals with an up-converter.



To carry out the conversion, select one out of the sources 1 - 3, which are not actually connected to the destination 40.

Specify a route of the signals on the Setup menu and they actually flow to the destination.

Select the source 1 for the destination 40 and the destination 10 selects the source 1, and then the source 34 flows into the destination 40.

When the above arrangement is made on the Router Setup menu, it will be shown as below.

S	ET TIE	LINES				HKSP-R80) V1.10		STATION NUMBE	ER 1
- s	-PATHS OURCE: L1	1 SOURCE N 0001 - 0	lo. 1003	DESTINATION 0010 - 0010	No.	ROUTE:	SOURCE	No.	DESTINATION	No.
l						DESTINATION: L1	SOURCE	No. 0034	DESTINATION 0040 - 0040	No.

10-2. Tie Line (continued)

BZR-2000 shows the Tie Line status as follows.

Tie Line Configuration	JN
N Path 1 Path1 2 Path2 3 Path3 4 Path4 5 Path5 6 Path7 7 Path7 8 Path8	
9 Path9 Boute Group	
10 Path10 Source:	
Level: Destination:	
Source Destination	
👪 IN004 🔛 DUT004 Level 🔺 Dutination Court	
IN005 UUT005 DUT005 Source:	
₩ IN006 2 34:IN034 ▼ 34:IN034	
1000 1000 5 100 100 100 100 100 100 100	
B IN011 B OUT011 7 40:OUT040 ▼	
sady	//.

You cannot select the Tie Line function in the normal state of BZR-2000.

To use it, show the Functions tab on the Setup (S) menu of BZR-2000 and turn on the checkbox of Tie Line Configuration.

BZR-2000 Setup								
Primary Station Networking								
System Stations Virtual Matrix Functions Preference								
Physical Assignment Configuration								
Source Assignment Configuration								
Tie Line Configuration								
Source Monitor								

Then, the Tie Line start button appears on the tool bar.

10-3. External Bus Link

This is the function to switch the input of the Router simultaneously when you have changed the input of the Switcher.

(1) Press the External Bus Link button on the Config menu (No. 7321) from Engineering Setup - Panel - Config of the Switcher Setup.

Page 7321.3	Eng > Par > Ext	ineering Setup nel > Config ernal Bus Link				
System	Link	Master Bus	Matrix	Linked	Destination	
	1	Undefined	-		Undefined	
	2	Undefined	-		Undefined	
Panel	3	Undefined	-		Undefined	
	4	Undefined	-		Undefined	
	5	Undefined			Undefined	

(2) Press the Link Matrix Adjust button and select an area to link in the matrix space (most difficult part).

You must select a 128 x 128 area.

Page 7321.4	Engineering Setup > Panel > Config > External Bus Link > Link Matrix Adjust						
System	Matrix	Source	Des	stination	Level		
	1	1 IN001	1	OUT001	1		
Panel	Source			Destination			
	1	IN001		1 OUT(001		
Curitoher	2	IN002		2 OUT	002		
Switcher	3	IN003		3 OUT(003		
	4	IN004		4 OUT	004		
	5	IN005		5 OUT(005		
10-3. External Bus Link (continued)



(3) Show the External Bus Link menu again and enter the number of the set matrix. Press the Link Matrix Set button at the lower left corner to fix the matrix number.

Page 7321.3	Eng > Par > Ext	ineering Setup nel > Config ernal Bus Link			
System	Link	Master Bus	Matrix	Linked Destination	
	1	Undefined	1	Undefined	
	2	Undefined	-	Undefined	
Panel	3	Undefined	-	Undefined	
	4	Undefined	-	Undefined	
	5	Undefined	-	Undefined	

10-3. External Bus Link (continued)

(4) Press the Link Bus Adjust button to show the menu where you can select 2 buses to link.

Specify the bus to switch to the master bus.

Specify the bus to link in the matrix space to a destination.

Page 7321.6	Engineering Setup > Panel > Config > External Bus Link > Link Bus Adjust						
System	Link	Master Bus		Matrix	Linked	Destination	
	1	P/P Program		1	1	OUT001	
Panel	No	Internal Bus		No	Destinati	ion	
	40	P/P Program		1	1	OUT001	
Qualitations	41	P/P Preset		2	2	OUT002	
Switcher	42	P/P Key1 Fill		3	3	OUT003	
	43	P/P Key1 Source		4	4	OUT004	
		DID Kaup FILL		-		OUTOOF	

This menu simply shows sequential numbers from OUT001 to OUT 1024 in Destination without showing any description name.

You must, therefore, check the assignments of signals to the terminals from No. 1 to No. 1024 using the list created in "8. Settings of Terminal Names".

11. List of Configuration Parameters

The parameters are listed as follow to make your checking operation easier.

Id	Parameters	Contents to check	Location to check
			[in this document]
1	Unit Location	Locations where the source, the	Router Setup
		destination and the level of the	(Secondary)
		Router are arranged	Menu = A
			[6-1]
2	Source	Locations where the source, the	Switcher Setup
	Destination	destination and the level of the	Menu No.
		Switcher are arranged	= 7361
			[6-2]
3	Wiring	Connections between the outputs	Switcher Setup
		of the Switcher and the inputs of	Menu No.
		the Router or	= 7363
		Connections between the outputs	[6-3]
		of the Router to the inputs of the	
		Switcher	

11-1. Matrix Space

-			
Id	Parameters	Contents to check	Location to check
			[in this document]
1	Type + Number	The format of the name that a	Router Setup
	or Description	device connected through S-BUS	Menu = J
		shows	[8-1]
2	Type + Number	The format of the name that	Switcher Setup
	or Description	appears on the control panel of	Menu No.
		the Switcher	= 7326
			[8-4]
3	S-BUS	To reflect a new name on the	Switcher Setup
	Name Link	control panel of the Switcher	Menu No.
		when a destination name has	= 7326
		been changed on the Setup menu	[8-4]
		of the Router	
4	Alias Name Group	An alias name to be shown on the	Switcher Setup
		control panel of the Switcher	Menu No.
			= 7361
			[8-6]

11-2. Settings of Terminal Names

11-3. Settings of Tally

Id	Parameters	Contents to check	Location to check
			[in this document]
1	Tally Type	Whether a tally type (R1 to G8) is	Switcher Setup
		set to a destination in the matrix	Menu No.
		space	= 7364
			[9-1 (2)]
2	Tally Enable	Whether Enable is selected	Menu No.
		Whether Low is selected for the	= 7364
		input of Tally Input	[9-1 (4)]
3	Tally Group	Whether a correct group is	Menu No.
		selected	= 7362
		R1-G4 or R5-G8	[9-1 (2)]
4	SBus Tally	Whether S-BUS Tally is enabled	Menu No.
	Enable		= 7362
			[9-1 (2)]
5	Tally Master	Whether one of the Switcher	Menu No.
		control panels is specified as a	= 7312. 1
		tally master when multiple	[9-1 (5)]
		control panels exist	
		Even if only one control panel	
		exists, it must be specified as a	
		tally master.	
6	Button Tally	Whether System is selected	Menu No.
			= 7326
			[9-1 (6)]

12. Descriptions of Terms (A to Z)

Β

BKS : Names of the products such as control panels that switch a routing switcher The products are written as control units in manuals. Sony offers the following 5 models.

BKS-R3219 : Universal Control Unit



BKS-R1618 : Universal Control Unit



BKS-R3220: X-Y Control Unit

|--|

BKS-R1617: Multi Display Control Unit



BKS-R3216: Multi Bus Control Unit

BZR :

BZR-20: Backup software

BZR-21: Routing the Switcher remote control software

BZR-2000: Routing the Switcher system setup software

BZR-8000: System management software

BZR-8001: the Switcher setup software

BZR-8002: PFV-SP setup software

BZR-240: GUI software for the BZR-IF830, which is installed on the PC connected to the HKSP-R80.

BZR-IF830: Matrix size of 4093 inputs x 4093 outputs is available with the several units of the HKSP-R80.

D

DCU: Device Control Unit

This device, connected to SCU through a peripheral LAN, outputs parallel tallies mainly.

MKS-8700 provides up to 270 parallel tallies while MKS-2700 does 36. You can connect up to 2 DCUs to SCU through the peripheral LAN.

DSK: Down Stream Key

Key signals to be synthesized at the nearest point to the last output

DVS: SD Video Switcher

DVS-9000: 80 inputs, from 2ME to 3ME + PP(4ME) DVS-9000SF: 34 inputs, from 1ME to 2ME + Simple PP(2.5 ME)

Н

HDS-X : Product symbol for Multi Bit-Rate Routing Switchers HDS-X5800: 264 inputs x 272 outputs of matrix size (22U) HDS-X3700: 128 x 128 (8U) HDS-X3600: 64 x 64 (4U) HDS-X3400: 16 x 16 (1U)

HKSP: Product symbol for the peripheral boards to process video signals
The boards are used by installing to the PFV-SP chassis.
HKSP-R80: Routing Switcher controller
HKSP-R81: Routing Switcher controller backup
HKSP-008HD: Frame synchronizer
HKSP-300: CPU board
HKSP-313: Color corrector
HKSP-525: Down converter
HKSP-1125: Up converter

Ι

IXS: New Routers to be released in 2005 IXS-6700: 128 x 128 (8U) IXS-6600: 64 x 64 (4U)

Μ

MVS: Multi Format Video Switcher MVS-8000A: 80 inputs, from 2ME to 3ME + PP(4ME) MVS-8000ASF: 34 inputs, from 1ME to 2ME + Simple PP(2.5 ME)

Ρ

PFV-SP: Symbols of peripheral devices

There are 2 types, PFV-SP3100 and PFV-SP3300. PFV-SP3100 is a chassis of 1U in height, to which up to 4 boards can be installed. PFV-SP3300 is a chassis of 3U in height, to which up to 17 boards can be installed. For the installable boards, refer to "HKSP".

S

S-BUS: Serial BUS

It uses HDLC (High Level Data Link Control), the communication method that was popular during the 1980s, in the physical layer. An 8-bit address called a station ID is added to the beginning of a receiving/sending message.

There exists one controlling primary station that controls other secondary stations. The secondary stations can send a message only when they receive a polling message from the primary station.

SCU: System Control Unit

Unit that controls the control panel of the Switcher

It generates the statuses of tallies and outputs them to S-BUS.

It sends the statuses of tallies to DCU to make DCU output parallel tallies.

System Manager:

Its official product name is the system management software "BZPS-8000". It can save setup files of all devices in the computer except the Router. It can send image files to the frame memory of the Switcher.

U

UMD: Under Monitor Display

Usually placed under a monitor, it shows the types of outputs connected to the monitor in signal names.

When the signals are used for recording or broadcasting, it shows a red tally.

Changes

2005/11/02	Rev 1.01
2000/11/02	1007 1101

page-6	Added another System Chart.
page-11	Added explanation about router's control panel.
page-12	Added about BZR-240 and BZR-IF830.
page-19	Added about default IP address of R80.
page-20	Added about BZR-2000 V1.4.
page-24	Added BZR-2000.
page-47	Added about S-SUB Description.
page-51	Added
page-56	Added about umber tally, note and MVS V5.00.
page-58	Added about Independent mode.
page-79	Added BZR-240 and BZR-IF830.
-	About DVS-9000 changed from 3ME+PP.
-	About DVS-9000SF changed from 1ME+PP.
Page-80	About MVS-8000A changed from 3ME+PP.
-	About MVS-8000ASF changed from 1ME+PP.