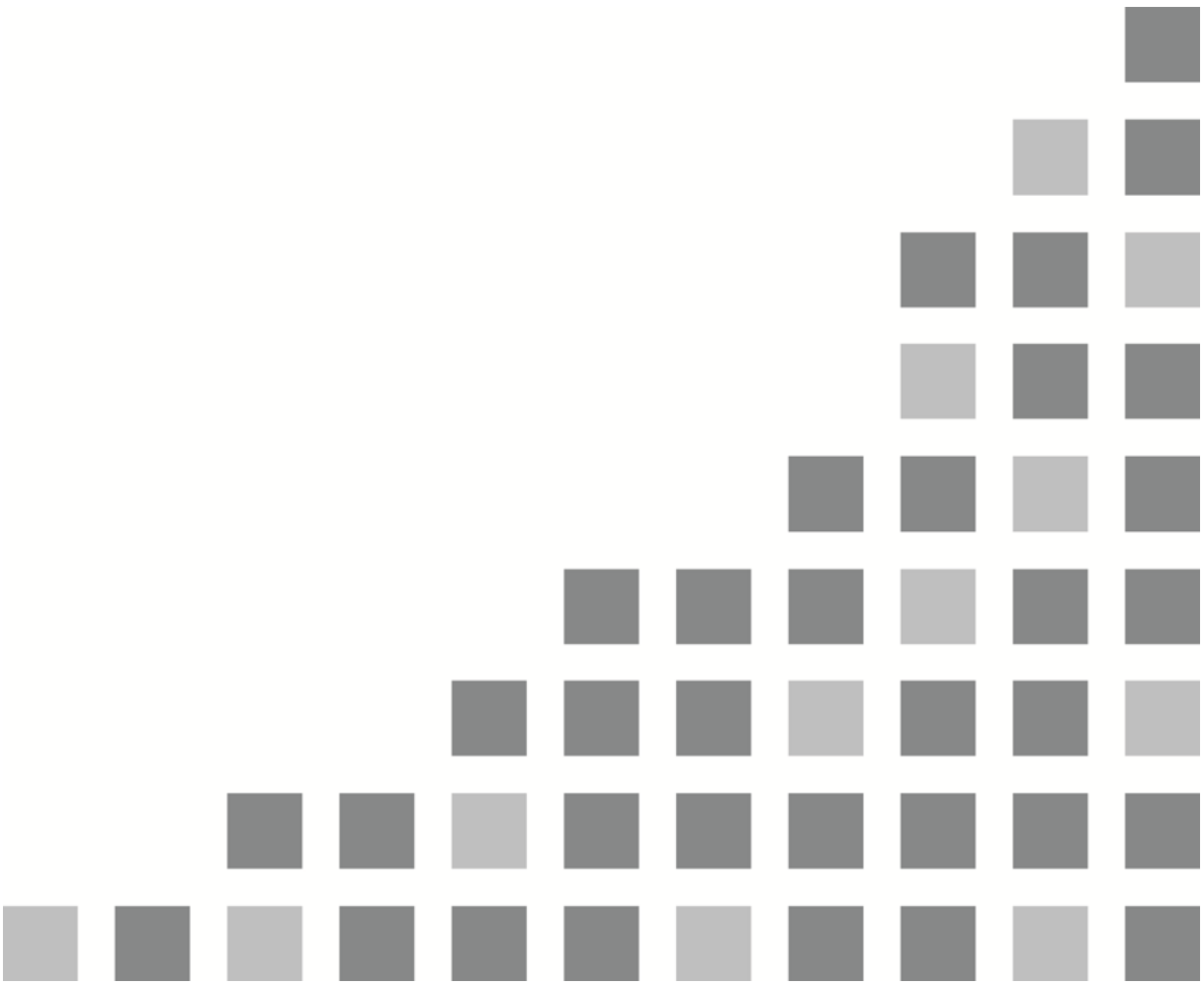
Panasonic

User Guide

AV-HS6000 Series

Plug-in Software



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<Introduction>

The AV-HS6000 series 2ME Live Switcher supports plug-in software that can be registered to include additional functionality.

The following plug-in software is preinstalled in system version 1.XX.

- AUX_IP: Allows you to select AUX output material from a remote control panel (Venetex VS-R45) connected on the network.
- GVG200: Allows you to control GVG200-protocol compliant devices connected to the serial port (RS-422) on the switcher.
- Serial Tally: Allows you to output tally information in serial communication format compatible with TSL UMD Protocol V3.1.

<Registration and Launch Setting>

You can register, delete, and set launch settings for plug-in software by pressing the <PLUG IN> button in the top menu and selecting [Plugin]→[List] tab. For details, refer to the AV-HS6000 series User Guide.

Note:
The plug-in software registration and launch setting functions are enabled in V2.00.00 and later.
In versions prior to V2.00.00, the three preinstalled plug-in software always launch automatically.

AUX IP

<Overview>

AUX IP software is a plug-in for the AV-HS6000 series 2ME Live Switcher. It allows you to select AUX output material from a remote control panel (Venetex VS-R45) connected on the network.

<Setup>

Connect the VS-R45 to the LAN port on the rear panel of the AV-HS60U1/AV-HS60U2 using a LAN cable.

A single plug-in can support six VS-R45 units, with common button assignment for all units. If connecting to multiple VS-R45 units, connect the units using a distribution hub. Configure the VS-R45 units for use with an AV-HS450.

<Configuration>

1. Configure the default gateway.
   - Press the <SYS> button in the top menu and select [SYSTEM]→[Network] tab.
   - Set [Default Gateway] in the [Network2] column to 192.168.0.1 (typically).

   The system must be rebooted to enable the settings. Switch the power supply for the switcher main frame and VS-R45 <OFF>, and then switch the power supply <ON> again.
2. Display the UX_IP plug-in registered number menu.
   - Press the <PLUG IN> button in the top menu and select [Plugin 1-6]→[AUX_IP] tab.
3. Configure the AUX_IP plug-in network.
   - Configure the VS-R45 receive IP address in the Multicast IP Address column. The default setting is “224.0.0.200”.
   - Configure the receive port number of the AV-HS60U1/AV-HS60U2 in the Port No column. The value is “60020” (fixed).
4. Configure the AV-HS6000 series AUX1 to 16 buses corresponding to the VS-R45 bus switch labels in the Bus Convert1 to Bus Convert3 columns.

VS-R45	Assignable buses
KEY	AUX1 to AUX16
PinP1	
PinP2	
DSK1	
DSK2	
AUX1	
AUX2	
AUX3	
AUX4	
PGM/A	
PGM/B	

5. Configure the material corresponding to the VS-R45 crosspoint buttons in the AUX XPT1 to AUX XPT32 columns.

Input 1-20	No Assign, SDI IN1 to SDI IN20
Input 21-32	No Assign, SDI IN21 to SDI IN32, DVI IN1, DVI IN2
Internal Source	No Assign, Still 1V, Still 1K to Still 4V, Still 4K, Clip 1V, Clip 1K to Clip 4V, Clip 4K, CBGD 1, CBGD 2, CBAR, Black
MEOut	No Assign, ME1PGM, ME1PVW, ME1CLN, ME1KEYPVW, ME2PGM, ME2PVW, ME2CLN, ME2KEYPVW, DSKPGM1, DSKPGM2, DSKPVW1, DSKPVW2, DSK1CLN to DSK4CLN, SEL_KEYPVW
MV / Special	No Assign, MV1, MV2, MV3, MV4

GVG200

<Overview>

GVG200 software is a plug-in for the AV-HS6000 series 2ME Live Switcher. It allows you to control GVG200-protocol compliant devices connected to the serial port (RS-422) on the switcher.

- Bus switching
- Button triggers (push-button control)
- Pattern switching
- Transition configuration

<Setup>

Connect a GVG200-protocol compliant device to the COM3 port or COM4 port on the rear panel of the AV-HS60U1/AV-HS60U2. For details about the pin assignment, refer to the AV-HS6000 series User Guide.

<Configuration>

1. Display the GVG Protocol plug-in registered number menu.
   ・Press the <PLUG IN> button in the top menu and select [Plugin 1-6]→[GVG200] tab.
2. Configure the serial transmission setting in the Setting column.

Port	Select the main frame COM port (MF-COM3 or MF-COM4).

* Communication settings (fixed): 8-bit data, 1 stop bit, odd parity, 38k4 baud

<GVG200 Protocol>

1. Overview
   - Communication is compatible with the GVG200 protocol.
   - The write command response will be one of the following two bytes.
     0x0180: ACK response
     0x0180: NAK response
   - The read command response uses the write command format.
   - Break command (Break signal)
     AV-HS6000 series devices can receive each command without using the break command.
2. Bus switching
   - Crosspoint Bus Command (write command)

   Selects the material on the PGM, PVW, and other buses.

Switcher Function	Byte Count	Effects Address	Command Code	Message
Program Bus	03	ME1:01 ME2:02	C1	Crosspoint#
Preset Bus	03	ME1:01 ME2:02	C2	Crosspoint#
Key1 Bus (Fill)	03	ME1:01 ME2:02	C3	Crosspoint#
Key2 Bus (Fill)	03	ME1:01 ME2:02	C4	Crosspoint#
Key3 Bus (Fill)	03	ME1:01 ME2:02	D1	Crosspoint#
Key4 Bus (Fill)	03	ME1:01 ME2:02	D2	Crosspoint#
DSK1 Bus (Fill)	03	00	C1	Crosspoint#
DSK2 Bus	03	00	C2	Crosspoint#
DSK3 Bus	03	00	C3	Crosspoint#
DSK4 Bus	03	00	C4	Crosspoint#
AUX1 Bus	03	07	C1	Crosspoint#
to	to	to	to	to
AUX16 Bus	03	07	D0	Crosspoint#

- Crosspoint Bus Command (read command)

Obtains the selection status of material on the PGM, PVW, and other buses.

Switcher Function	Byte Count	Effects Address	Command Code	Message
Program Bus	03	ME1:01 ME2:02	41	Crosspoint#
Preset Bus	03	ME1:01 ME2:02	42	Crosspoint#
Key1 Bus (Fill)	03	ME1:01 ME2:02	43	Crosspoint#
Key2 Bus (Fill)	03	ME1:01 ME2:02	44	Crosspoint#
Key3 Bus (Fill)	03	ME1:01 ME2:02	51	Crosspoint#
Key4 Bus (Fill)	03	ME1:01 ME2:02	52	Crosspoint#
DSK1 Bus (Fill)	03	00	41	Crosspoint#
DSK2 Bus (Fill)	03	00	42	Crosspoint#
DSK3 Bus (Fill)	03	00	43	Crosspoint#
DSK4 Bus (Fill)	03	00	44	Crosspoint#
AUX1 Bus	03	07	41	Crosspoint#
to	to	to	to	to
AUX16 Bus	03	07	50	Crosspoint#

<Crosspoint#>

Crosspoint#	Source	
00h to 1Fh	SDI IN1 to 32	
20h to 21h	DVI IN1 to 2	
30h	Still1V	
31h	Still1K	
32h	Still2V	
33h	Still2K	
34h	Still3V	
35h	Still3K	
36h	Still4V	
37h	Still4K	
40h	Clip1V	
41h	Clip1K	
42h	Clip2V	
43h	Clip2K	
44h	Clip3V	
45h	Clip3K	
46h	Clip4V	
47h	Clip4K	
50h	Color Bar	
51h	Color BackGround1	
52h	Color BackGround2	
53h	Black	
60h	ME1PGM	*1
61h	ME1PVW	*1
62h	ME1CLN	*1
63h	ME1KEYPVW	*1

Crosspoint#	Source	
64h	ME2PGM	*1
65h	ME2PVW	*1
66h	ME2CLN	*1
67h	ME2KEYPVW	*1
68h	DSKPGM1	*1
69h	DSKPGM2	*1
6Ah	DSKPVW1	*1
6Bh	DSKPVW2	*1
6Ch	DSK1CLN	*1
6Dh	DSK2CLN	*1
6Eh	DSK3CLN	*1
6Fh	DSK4CLN	*1
70h	SEL_KEYPVW	*1

*1: Selectable using an AUX bus only.

3. Button Trigger (Transition Pushbutton Select Command)

Performs the same operation as a button push on the panel (if in the On state, pushing the button transitions to the Off state, and vice versa).

Switcher Function	Byte Count	Effects Address	Command Code	Message
Auto	03	ME1:01 ME2:02	FB	1B
Cut	03	ME1:01 ME2:02	FB	1C
DSK1 Trans	03	00	FB	18
DSK2 Trans	03	00	FB	19
DSK3 Trans	03	00	FB	1A
DSK4 Trans	03	00	FB	1B
KEY1 Trans	03	00	FB	20
KEY2 Trans	03	00	FB	21
KEY3 Trans	03	00	FB	22
KEY4 Trans	03	00	FB	23
FTB	03	00	FB	1F

4. Pattern Switching (Wipe Pattern Select Command)

Selects a BKGD wipe pattern.

Function	Byte Count	Effects Address	Command Code	Message
Wipe Pattern	03	ME1:01 ME2:02	C8	Wipe No#

“Wipe No” is the number displayed in the wipe pattern icon on the wipe pattern screen on the AV-HS6000 series menu display.

5. Transition Configuration

- Transition mode (Transition Mode Control Command)

Selects the transition target (BKGD, KEY1-4).

Function	Byte Count	Effects Address	Command Code	Message
Transition Mode Control Command	03	ME1:01 ME2:02	CA	Mode Byte

Mode Byte

Bit 7 (MSB)	Don't Care
Bit 6	Don't Care
Bit 5	Don't Care
Bit 4	0=KEY4 unselected, 1=KEY4 selected
Bit 3	0=KEY3 unselected, 1=KEY3 selected
Bit 2	0=BKGD unselected, 1=BKGD selected
Bit 1	0=KEY1 unselected, 1=KEY1 selected
Bit 0 (LSB)	0=KEY2 unselected, 1=KEY2 selected

- Auto transition time (Transition Rate Control Command)

Configures the BKGD, KEY, DSK, and AUX transitions.

Function	Byte Count	Effects Address	Command Code	Message
BKGD, KEY1-4	05	ME1:01 ME2:02	CC	Rate Bytes
DSK1-4	05	00	CC	Rate Bytes
AUX1-4	05	07	CC	Rate Bytes

The transition time can be configured by specifying a duration of 0-999 frames.
If none of the BKGD and KEY1-4 commands are selected, all are presumed to be selected (BKGD, KEY1-4).

Rate Bytes

Byte 1: Indicates the designated target and 1st time digit (10^2 digit).

Bit 7 (MSB)	0=time change only (fixed)
Bit 6	0=BKGD unselected, 1=BKGD selected
Bit 5	KEY1/DSK1/AUX1: 0=unselected, 1=selected
Bit 4	KEY2/DSK2/AUX2: 0=unselected, 1=selected
Bit 3 to Bit 0 (LSB)	1st time digit (10^2 digit) value 0-9 (0000 to 1001)

Byte 2: Indicates the designated target and 2nd time digit (10^1 digit).

Bit 7 (MSB)	Don't Care
Bit 6	Don't Care
Bit 5	KEY3/DSK3/AUX3: 0=unselected, 1=selected
Bit 4	KEY4/DSK4/AUX4: 0=unselected, 1=selected
Bit 3 to Bit 0 (LSB)	2nd time digit (10^1 digit) value 0-9 (0000 to 1001)

Byte 3: Indicates the designated target and 3rd time digit (10^0 digit).

Bit 7 (MSB)	Don't Care
Bit 6	Don't Care
Bit 5	Don't Care
Bit 4	Don't Care
Bit 3 to Bit 0 (LSB)	3rd time digit (10^0 digit) value 0-9 (0000 to 1001)

Serial tally

<Overview>

Serial tally software is a plug-in for the AV-HS6000 series 2ME Live Switcher. It allows you to output tally information in serial communication format compatible with TSL UMD Protocol V3.1.

<Setup>

Connect a tally generator to the COM1 port or COM2 port on the rear panel of the AV-HS60U1/AV-HS60U2. For details about the pin assignment, refer to the AV-HS6000 series User Guide.

<Configuration>

1. Display the Serial Tally Control plug-in registered number menu.
   Press the <PLUG IN> button in the top menu and select [Plugin 1-6]→[Serial tally] tab.
2. Configure the serial transmission setting in the Port Setting column.

Port	Select the main frame COM port (MF-COM1 or MF-COM2).
Timing	Set the interval between retransmissions in the range 1 to 10 seconds.

   * Communication settings (fixed): 8-bit data, 1 stop bit, even parity, 38k4 baud
3. Specify the IDs for TSL UMD V3.1 in the Status and Tally columns to check the transmission data.
   Status column

ID	Set the ID for TSL UMD v3.1 in the range 0 to 126.
Source ID	Displays the Source ID corresponding to the specified ID parameter.
Source Name	Displays the Source Name corresponding to the specified ID parameter.

   Tally column

Tally1 to Tally4	Displays tally information for Tally Group1 to Tally Group4 corresponding to the specified ID parameter.
Test	Setting Test to ON transmits the Tally1 to Tally4 information for the specified ID parameter for testing.

<TSL UMD V3.1 Mapping>

Header (1 byte) ID (0 to 126) +80h	ID (0 to 126)	Source ID
	0	-
	1-32	SDIIN1-32
	33-34	DVIIN1,2
	35-50	-
	51	CBGD1
	52	CBGD2
	53	CBAR
	54	Black
	55-62	Still1-4V/K
	63-70	CLIP1-4V/K
	71-86	AUX1-16
	87-97	-
	98	ME1PGM
	99	ME1PVW
	100	ME1CLN
	101	ME1KEYPVW
	102	ME2PGM
	103	ME2PVW
	104	ME2CLN
	105	ME2KEYPVW
	106-113	-
	114	DSKPGM1
	115	DSKPGM2
	116	DSKPVW1
	117	DSKPVW2
	118	DSK1CLN
	119	DSK2CLN
	120	DSK3CLN
	121	DSK4CLN
	122	SEL_KEYPVW
	123-126	MV1-4
Control (1 byte)	Bit0: Tally Group1 (1=On, 0=Off) Bit1: Tally Group2 (1=On, 0=Off) Bit2: Tally Group3 (1=On, 0=Off) Bit3: Tally Group4 (1=On, 0=Off) Bit4: 1 Bit5: 1 Bit6: 0 Bit7: 0	
Display Data (16 bytes)	Name of material on multi-view display	