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AV over IP Video Wall Control Commands

Applies to KD-IP822, KD-IP922, KD-IP1022 Models



Introduction

Video walls within your Key Digital AV over IP system may be controlled/managed from control system or PC using the commands in this document.

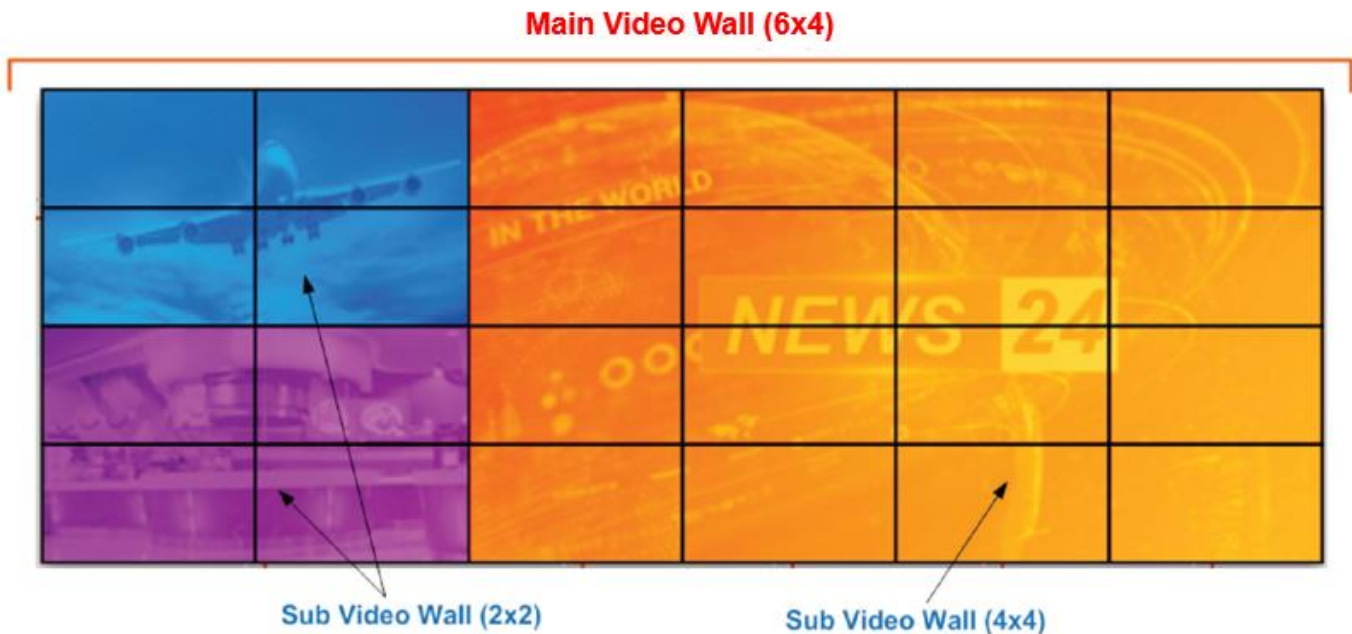
Video walls are initially added to your AV over IP system using KDMS Pro software.

Then, use the “sub” video wall control commands to manage the layout(s) within the video wall.

The sub video wall commands are as follows, and should be sent in the following sequence:

1. SPOxxSWVy
 - a. Set number of sub video wall vertical displays (y) to output/decoder xx
2. SPOxxSWHy
 - a. Set number of sub video wall horizontal displays (y) to output/decoder xx
3. SPOxxSWPy
 - a. Set sub video wall position (y) to output/decoder xx
4. SPOxxVWE
 - a. Enable video wall with settings as applied in commands 1, 2, and 3
5. SPOxxSIyy
 - a. Outputs/decoder xx select input/encoder yy

Example: 6Hx4V main video wall containing two 2Hx2V and one 4Hx4V sub video walls



Control Interface

In Key Digital’s 4K AV over IP system, any encoder or decoder may be the control interface. Send commands to the Main IP address of the desired unit and it will forward commands to the needed decoder or encoder.

Recommendations

- Do not use Encoder # 1 as your control interface. Encoder 1 is regularly parsed by KDMS software while open
- Choose an encoder / decoder that is not already used by your control system to control your AV over IP routing matrix.
- Use a unique encoder / decoder as the control interface per video wall.

For example, if your system has standard AV over IP matrixing plus 2 video walls; reserve Encoder 1 as the interface with KDMS Pro, use Encoder 2 as the control interface for the matrixing commands, use Encoder 3 as the control interface for video wall 1, and use Encoder 4 as the control interface for video wall 2.

Initial Setup

The follow commands are sent from KDMS Pro when the video wall is added and the configuration file is loaded to the system. These commands establish the dimensions of the Main video wall.

There is no need to send the commands again.

SPO01VWE SPO01VID1 SPO01MWH4 SPO01MWW4 SPO01MWP1	SPO02VWE SPO02VID1 SPO02MWH4 SPO02MWW4 SPO02MWP2	SPO03VWE SPO03VID1 SPO03MWH4 SPO03MWW4 SPO03MWP3	SPO04VWE SPO04VID1 SPO04MWH4 SPO04MWW4 SPO04MWP4
1	2	3	4
SPO05VWE SPO05VID1 SPO05MWH4 SPO05MWW4 SPO05MWP5	SPO06VWE SPO06VID1 SPO06MWH4 SPO06MWW4 SPO06MWP6	SPO07VWE SPO07VID1 SPO07MWH4 SPO07MWW4 SPO07MWP7	SPO08VWE SPO08VID1 SPO08MWH4 SPO08MWW4 SPO08MWP8
5	6	7	8
SPO09VWE SPO09VID1 SPO09MWH4 SPO09MWW4 SPO09MWP9	SPO10VWE SPO10VID1 SPO10MWH4 SPO10MWW4 SPO10MWP10	SPO11VWE SPO11VID1 SPO11MWH4 SPO11MWW4 SPO11MWP11	SPO12VWE SPO12VID1 SPO12MWH4 SPO12MWW4 SPO12MWP12
9	10	11	12
SPO13VWE SPO13VID1 SPO13MWH4 SPO13MWW4 SPO13MWP13	SPO14VWE SPO14VID1 SPO14MWH4 SPO14MWW4 SPO14MWP14	SPO15VWE SPO15VID1 SPO15MWH4 SPO15MWW4 SPO15MWP15	SPO16VWE SPO16VID1 SPO16MWH4 SPO16MWW4 SPO16MWP16
13	14	15	16

Example: Four 2x2 sub video walls

The following commands must be received for each decoder each time the video wall layout changes.

Top Left has selected Input 01. Top Right has selected input 02. Bottom Left has selected input 03. Bottom right has selected input 04.

SPO01SWV2 SPO01SWH2 SPO01SWP1 SPO01VWE SPO01SI01 1	SPO02SWV2 SPO02SWH2 SPO02SWP2 SPO02VWE SPO02SI01 2	SPO03SWV2 SPO03SWH2 SPO03SWP1 SPO03VWE SPO03SI02 3	SPO04SWV2 SPO04SWH2 SPO04SWP2 SPO04VWE SPO04SI02 4
SPO05SWV2 SPO05SWH2 SPO05SWP3 SPO05VWE SPO05SI01 5	SPO06SWV2 SPO06SWH2 SPO06SWP4 SPO06VWE SPO06SI01 6	SPO07SWV2 SPO07SWH2 SPO07SWP3 SPO07VWE SPO07SI02 7	SPO08SWV2 SPO08SWH2 SPO08SWP4 SPO08VWE SPO08SI02 8
SPO09SWV2 SPO09SWH2 SPO09SWP1 SPO09VWE SPO09SI03 9	SPO10SWV2 SPO10SWH2 SPO10SWP2 SPO10VWE SPO10SI03 10	SPO11SWV2 SPO11SWH2 SPO11SWP1 SPO11VWE SPO11SI04 11	SPO12SWV2 SPO12SWH2 SPO12SWP2 SPO12VWE SPO12SI04 12
SPO13SWV2 SPO13SWH2 SPO13SWP3 SPO13VWE SPO13SI03 13	SPO14SWV2 SPO14SWH2 SPO14SWP4 SPO14VWE SPO14SI03 14	SPO15SWV2 SPO15SWH2 SPO15SWP3 SPO15VWE SPO15SI04 15	SPO16SWV2 SPO16SWH2 SPO16SWP4 SPO16VWE SPO16SI04 16

Example: Sub 4x4

The following sets of commands need to be received for each decoder each time the video wall layout changes.

The video wall has selected input 01.

SPO01SWV4 SPO01SWH4 SPO01SWP1 SPO01VWE SPO01SI01 1	SPO02SWV4 SPO02SWH4 SPO02SWP2 SPO02VWE SPO02SI01 2	SPO03SWV4 SPO03SWH4 SPO03SWP3 SPO031VWE SPO03SI01 3	SPO04SWV4 SPO04SWH4 SPO04SWP4 SPO04VWE SPO04SI01 4
SPO05SWV4 SPO05SWH4 SPO05SWP5 SPO05VWE SPO05SI01 5	SPO06SWV4 SPO06SWH4 SPO06SWP6 SPO06VWE SPO06SI01 6	SPO07SWV4 SPO07SWH4 SPO07SWP7 SPO07VWE SPO07SI01 7	SPO08SWV4 SPO08SWH4 SPO08SWP8 SPO08VWE SPO08SI01 8
SPO09SWV4 SPO09SWH4 SPO09SWP9 SPO09VWE SPO09SI01 9	SPO10SWV4 SPO10SWH4 SPO10SWP10 SPO10VWE SPO10SI01 10	SPO11SWV4 SPO11SWH4 SPO11SWP11 SPO11VWE SPO11SI01 11	SPO12SWV4 SPO12SWH4 SPO12SWP12 SPO12VWE SPO12SI01 12
SPO13SWV4 SPO13SWH4 SPO13SWP13 SPO13VWE SPO13SI01 13	SPO14SWV4 SPO14SWH4 SPO14SWP14 SPO14VWE SPO14SI01 14	SPO15SWV4 SPO15SWH4 SPO15SWP15 SPO15VWE SPO15SI01 15	SPO16SWV4 SPO16SWH4 SPO16SWP16 SPO16VWE SPO16SI01 16

Example: 3x3 sub video wall with 7 individual displays

The following sets of commands need to be received for each decoder each time the video wall layout changes.

The 3x3 video wall has selected input 01. The other displays have been configured as a 1x1 video wall and select inputs 02 through 08.

SPO01SWV3 SPO01SWH3 SPO01SWP1 SPO01VWE SPO01SI01 1	SPO02SWV3 SPO02SWH3 SPO02SWP2 SPO02VWE SPO02SI01 2	SPO03SWV3 SPO03SWH3 SPO03SWP3 SPO03VWE SPO03SI01 3	SPO04SWV1 SPO04SWH1 SPO04SWP1 SPO04VWE SPO04SI02 4
SPO05SWV3 SPO05SWH3 SPO05SWP4 SPO05VWE SPO05SI01 5	SPO06SWV3 SPO06SWH3 SPO06SWP5 SPO06VWE SPO06SI01 6	SPO07SWV3 SPO07SWH3 SPO07SWP6 SPO06VWE SPO07SI01 7	SPO08SWV1 SPO08SWH1 SPO08SWP1 SPO08VWE SPO08SI03 8
SPO09SWV3 SPO09SWH3 SPO09SWP7 SPO09VWE SPO09SI01 9	SPO10SWV3 SPO10SWH3 SPO10SWP8 SPO10VWE SPO10SI01 10	SPO11SWV3 SPO11SWH3 SPO11SWP9 SPO11VWE SPO11SI01 11	SPO12SWV1 SPO12SWH1 SPO12SWP1 SPO12VWE SPO12SI04 12
SPO13SWV1 SPO13SWH1 SPO13SWP1 SPO13VWE SPO13SI05 13	SPO14SWV1 SPO14SWH1 SPO14SWP1 SPO14VWE SPO14SI06 14	SPO15SWV1 SPO15SWH1 SPO15SWP1 SPO15VWE SPO15SI07 15	SPO16SWV1 SPO16SWH1 SPO16SWP1 SPO16VWE SPO16SI08 16

Complete API

- Commands are not case-sensitive
- Spaces are shown for clarity; commands should NOT have any spaces
- All commands must end with a carriage return
- After a new command is received, an acknowledgement should be received from the unit/system
- Send to the Main IP address, port 23.
- If using TeraTerm / PuTTY, use Other / Raw, not Telnet

Help Command (H). Returns entire API in readable format

```
-----  
--                               Key Digital Systems HELP                               --  
-----  
--      KD-IP922ENC          F/W Version : BV1.01.01, MV1.05.06, AV0.04.05      --  
--  
-- PN      : Power On      --  
-- PF      : Power Off     --  
-- H       : Help          --  
-- STA     : Show Global System Status      --  
-- STPIxx  : Show Video Input xx Status     --  
-- STPIxxxx : Show Video Input xxxx Status  --  
-- STPOxx  : Show Video Output xx Status    --  
-- STPOxxxx : Show Video Output xxxx Status --  
--  
-- Video Output Setup Command ( xxxx=[0~1024], yyyy=[1~1024] ) --  
-- SPO xxxx SI yyyy : Set Output xxxx to Video Input yyyy      --  
-- SPO xx yy       : Set Output xx to Video Input yy           --  
-- xxByy.         : Set Output xx to Video Input yy           --  
-- Bxyy          : Set Output xx to Video Input yy           --  
-- SPO xxxx SIU   : Set Output xxxx Video Input Up           --  
-- SPO xxxx SID   : Set Output xxxx Video Input Down          --  
-- SPOASI yyyy    : Set All Outputs to Video Input yyyy       --  
-- SPO A yy       : Set All Outputs to Video Input yyyy       --  
-- yyAll.         : Set All Outputs to Video Input yy         --  
-- SPOASIU        : Set All Outputs to Video Input Up         --  
-- SPOASID        : Set All Outputs to Video Input Down        --  
-- SPOAPT         : Set All Outputs to Pass Through           --  
-- SPO xxxx VM E/D : Set Output xxxx Video Mute Enabled/Disabled --  
-- SPO xxxx ON/OFF : Set Output xxxx ON/OFF                   --  
-- SPO xxxx DBG ON/OFF : Set Output xxxx Debug Mode ON/OFF    --  
-- SPOA VM E/D     : Set All Outputs Video Mute Enabled/Disabled --  
-- SPOA ON/OFF     : Set All Outputs ON/OFF                   --  
-- SPOA DBG ON/OFF : Set All Outputs Debug Mode ON/OFF        --  
--  
-- Video Wall Setup Command xxxx=[0~1024], yyyy=[0~9999] ) --  
-----
```

```

-- SPO xxxx VWE/D      : Set Video Wall E=Enable/D=Disable      --
-- SPO xxxx VID yy     : Set Group ID of Video Wall            --
-- SPO xxxx MWH yy     : Set Number of Horizontal Main Display y=[1~10] --
-- SPO xxxx MWV yy     : Set Number of Vertical Main Display y=[1~10] --
-- SPO xxxx MWP yyy    : set Position of Main Display yyy=[1~100] --
-- SPO xxxx SWH yy     : Set Number of Horizontal Sub Display y=[1~10] --
-- SPO xxxx SWV yy     : Set Number of Vertical Sub Display y=[1~10] --
-- SPO xxxx SWP yyy    : set Position of Sub Display yyy=[1~100] --
-- SPO xxxx BWL yyyy   : Set Bazel Width(mm) by yyyy=[1~9999] --
-- SPO xxxx BHL yyyy   : Set Bazel Height(mm) by yyyy=[1~9999] --
-- SPO xxxx SWL yyyy   : Set Screen Width(mm) by yyyy=[1~9999] --
-- SPO xxxx SHL yyyy   : Set Screen Height(mm) by yyyy=[1~9999] --
-- SPO xxxx MSL yyy    : Move Screen Position to Left yyy=[0~480] --
-- SPO xxxx MSR yyy    : Move Screen Position to Right yyy=[0~480] --
-- SPO xxxx MSU yyy    : Move Screen Position to Up yyy x=[0~270] --
-- SPO xxxx MSD yyy    : Move Screen Position to Down yyy=[0~270] --
-- SPO xxxx SUH yyyy   : Scale Up Horizontal Screen by yyyy=[0~9999] --
-- SPO xxxx SUV yyyy   : Scale Up Verical Screen by yyyy=[0~9999] --
-- SPO xxxx SRR y      : Set Screen Rotation by y=[0:0', 1:180', 2:270'] --
-- SPO xxxx VFC y      : Set Screen Resolution Scaling by y=[0~2] --
--                      [0:bypass, 1:1080p, 2:720p] --
--
--
-- IP922ENC Audio Setup Command ( xxxx=[0~1024,A] A=All ) --
-- SPE xxxx AS y       : Set Input xxxx Audio Source to y [1=HDMI, 2=EXT.] --
-- SPE xxxx AF y       : Set Input xxxx Audio Format to y [1=MONO, 2=STEREO]--
-- SPE xxxx AFGET      : Get Input xxxx Audio Format --
-- SPE xxxx AV yy      : Set Input xxxx Audio Volume to yy=[00-99],U,D --
-- SPE xxxx AB yy      : Set Input xxxx Audio Balance to yy=[00-40],U,D --
-- SPE xxxx AL yy      : Set Input xxxx Audio Bass to yy=[00-24],U,D --
-- SPE xxxx AM yy      : Set Input xxxx Audio Middle to yy=[00-24],U,D --
-- SPE xxxx AH yy      : Set Input xxxx Audio Treble to yy=[00-24],U,D --
-- SPE xxxx AD yy      : Set Input xxxx Audio Delay to yy=[00-99],U,D --
-- SPE xxxx A E/D      : Set Input xxxx Audio Mute E=Enabled/D=Disabled --
--
--
-- IP922DEC Audio Setup Command ( xxxx=[0~1024,A] A=All ) --
-- SPD xxxx AF y       : Set Output xxxx Audio Format to y [1=MONO,2=STEREO]--
-- SPD xxxx AFGET      : Get Output xxxx Audio Format --
-- SPD xxxx AV yy      : Set Output xxxx Audio Volume to yy=[00-99],U,D --
-- SPD xxxx AB yy      : Set Output xxxx Audio Balance to yy=[00-40],U,D --
-- SPD xxxx AL yy      : Set Output xxxx Audio Bass to yy=[00-24],U,D --
-- SPD xxxx AM yy      : Set Output xxxx Audio Middle to yy=[00-24],U,D --
-- SPD xxxx AH yy      : Set Output xxxx Audio Treble to yy=[00-24],U,D --
-- SPD xxxx AD yy      : Set Output xxxx Audio Delay to yy=[00-99],U,D --
-- SPD xxxx A E/D      : Set Output xxxx Audio Mute Enabled/Disabled/Toggle --
--
--
-- IP922DEC Video Setup Command ( xx/xxx/xxxx=[0000~1024,A] A=All ) --

```



```

-- SPD xxxx VS y : Set Output xxxx Video Source to y [1=IP, 2=Local] --
--
-- MC Network Setup Command( xxx=[000-255], zzzz=[0001~9999], y=[1~3] )--
-- SPCETIPA xxx.xxx.xxx.xxx : Set Host IP Address to xxx.xxx.xxx.xxx --
-- SPCETIPM xxx.xxx.xxx.xxx : Set Net Mask to xxx.xxx.xxx.xxx --
-- SPCETIPR xxx.xxx.xxx.xxx : Set Route IP Address to xxx.xxx.xxx.xxx --
-- SPCETIPP zzzz : Set TCP/IP Port to zzzz --
-- SPCETDCP E/D : Set DHCP E=Enable/D=Disable --
-- SPCETIPB : Apply New Network Config --
-- SPCETLN x y : Set LAN Port x Speed to y=[1=1G,2=100K] --
--
-- Video over IP Network Setup Command(xxx=[000-255], y=[1~2]) --
-- SPAETMOD y : Set IP mode by y [1=AutoIP, 2=Static] --
-- SPAETIPA xxx.xxx.xxx.xxx : Set Host IP Address to xxx.xxx.xxx.xxx --
-- SPAETIPM xxx.xxx.xxx.xxx : Set Net Mask to xxx.xxx.xxx.xxx --
-- SPAETIPR xxx.xxx.xxx.xxx : Set Route IP Address to xxx.xxx.xxx.xxx --
-- SPAETIPB : Apply New Network Config --
--
-- Control I/O Port Setup Command ( x=[0~3], y=[0~9], z=[0001-9999] ) --
-- SPB x CM y : Set Control Mode of I/O Port x=[1~3] by y --
-- [1=IP922 Control, 2=Compass Control, 3=Open API, 4=Control Ext.] --
-- SPB x PC y : Set Port Configuration of I/O Port x=[1~3] by y --
-- [0=None, 1=IR IN, 2=IR OUT, 3=RS232, 4=TRIGGER IN, 5=TRIGGER OUT] --
-- SPB 1 IRS y : Set IR Source by y [1=IR Sensor, 2=Serial IR ] --
-- SPB x RSB y : Set RS232 Baud Rate of I/O Port x=[2~3] by y bps --
-- [0=115200, 1=57600, 2=38400, 3=19200, 4=9600, 5=4800]--
-- SPB x RSL y : Set RS232 Data Length of I/O Port x=[2~3] by y=[7~8] --
-- SPB x RSP y : Set RS232 Parity Bit of I/O Port x=[2~3] by y=[0~2] --
-- [0=None, 1=Odd, 2=Even] --
-- SPB x RSS y : Set RS232 Stop Bit of I/O Port x=[2~3] by y=[1~2] --
-- SPB x OSL y : Set Output Level of I/O Port x by y [1=MIN ~ 7=MAX] --
-- SPB x TCP zzzz : Set TCP Port of I/O Port x[0=I/O Port Cfg.] by zzzz--
-- SPB x IGD zzz : Set IR IN/RS232 RxD Group ID of I/O Port x by zzz --
-- SPB x OGD zzz : Set IR OUT/RS232 TxD Group ID of I/O Port x by zzz --
--
-- System Control Setup Command ( xx=[0000-1024], y=[1~4], z=[0-4] ) --
-- SPC DN ccccccccccccccc : Set Device Name --
-- SPC SID xxxx : Set System Group ID xxxx for Multicast,[0000=Unicast]--
-- SPCFB E/D : Set Panel Button E/D (E=Enable,D=Disable) at IP922DEC--
-- SPCDF : Reset to Factory Default All --
-----

```

Unit Status Command (STA). Returns unit status and settings in readable format:

```
-----  
--                               Key Digital Systems Status                               --  
-----  
--      KD-IP922ENC      F/W Version : BV1.01.01, MV1.05.06, AV0.04.05      --  
--  
-- Device Name = Input 1, System ID = 0001      --  
-- Power = ON , Forced HPD = OFF, MMS mode = 0, 0 DC=000      --  
--  
-- Master Controller Network Setting Status      --  
-- MAC Address = 60:89:b1:90:06:b6      --  
-- Host IP Address = 192.168.001.005      --  
-- Net Mask = 255.255.000.000      --  
-- Router IP Address = 192.168.001.001      --  
-- TCP Port = 0023, DHCP = Disable , Link = ON      --  
-- LAN1 = 1G-BT, LAN2 = 100BT      --  
--  
-- Video over IP Network Setting Status      --  
-- MAC Address = 60:89:b1:91:06:b6      --  
-- IP Mode = Static      --  
-- Host IP Address = 192.168.001.006      --  
-- Net Mask = 255.255.000.000      --  
-- Router IP Address = 192.168.001.001      --  
--  
-- Control I/O Ports Status      --  
-- Main : TCP = 4580      --  
-- I/01: CM=Compass , CFG=IR OUT ,OSL=7, RS=057600-8-0-0 , IRS=2      --  
--      TCP=4581, IGD=0001, OGD=0002      --  
-- I/02: CM=Compass , CFG=RS232 ,OSL=7, RS=000000-11-0-0 , IRS=2      --  
--      TCP=4582, IGD=0003, OGD=0004      --  
-- I/03: CM=Compass , CFG=IR OUT ,OSL=7, RS=000000-11-0-0 , IRS=2      --  
--      TCP=4583, IGD=0005, OGD=0006      --  
--  
--      Video Input Status      --  
-- 0001: DN=INPUT 1 , MAC=60:89:b1:90:06:b6, GID=0001, LINK=ON      --  
--      IP=192.168.001.005 , VA=HDMI, HPD=ON ,HCP=OFF , AUD=2CH PCM      --  
--      AS=HDMI, AV=99, AB=20, AL=12, AM=12, AH=12, AD=00, MUTE=OFF      --  
-----
```

System Status Command (STAA). Returns status of all units within system in readable format:

```
-----  
--                               Key Digital Systems Status                               --  
-----  
--      KD-IP922ENC           F/W Version : BV1.01.01, MV1.05.06, AV0.04.05      --  
--  
-- Device Name = Input 1, System ID = 0001                                     --  
-- Power = ON , Forced HPD = OFF, MMS mode = 0, 0  DC=000                       --  
--  
-- Master Controller Network Setting Status                                     --  
-- MAC Address = 60:89:b1:90:06:b6                                           --  
-- Host IP Address = 192.168.001.005                                         --  
-- Net Mask = 255.255.000.000                                                --  
-- Router IP Address = 192.168.001.001                                       --  
-- TCP Port = 0023,  DHCP = Disable , Link = ON                               --  
-- LAN1 = 1G-BT, LAN2 = 100BT                                               --  
--  
-- Video over IP Network Setting Status                                       --  
-- MAC Address = 60:89:b1:91:06:b6                                           --  
-- IP Mode = Static                                                           --  
-- Host IP Address = 192.168.001.006                                         --  
-- Net Mask = 255.255.000.000                                                --  
-- Router IP Address = 192.168.001.001                                       --  
--  
-- Control I/O Ports Status                                                 --  
-- Main : TCP = 4580                                                         --  
-- I/O1: CM=Compass , CFG=IR OUT ,OSL=7, RS=057600-8-0-0 , IRS=2             --  
--      TCP=4581, IGD=0001, OGD=0002                                         --  
-- I/O2: CM=Compass , CFG=RS232 ,OSL=7, RS=000000-11-0-0 , IRS=2             --  
--      TCP=4582, IGD=0003, OGD=0004                                         --  
-- I/O3: CM=Compass , CFG=IR OUT ,OSL=7, RS=000000-11-0-0 , IRS=2             --  
--      TCP=4583, IGD=0005, OGD=0006                                         --  
--  
-- IP922ENC Video Input Status                                             --  
-- 0001: DN=INPUT 1 , MAC=60:89:b1:90:06:b6, GID=0001, LINK=ON             --  
--      IP=192.168.001.005 , VA=HDMI, HPD=ON ,HCP=OFF , AUD=2CH PCM           --  
--      AS=HDMI, AV=99, AB=20, AL=12, AM=12, AH=12, AD=00, MUTE=OFF           --  
-- 0002: DN=INPUT 2 , MAC=60:89:b1:98:ff:02, GID=0002, LINK=ON             --  
--      IP=192.168.001.007 , VA=HDMI, HPD=ON ,HCP=ON , AUD=2CH PCM           --  
--      AS=HDMI, AV=99, AB=20, AL=12, AM=12, AH=12, AD=00, MUTE=OFF           --  
-- 0003: DN=INPUT 3 , MAC=60:89:b1:90:00:2e, GID=0003, LINK=ON             --  
--      IP=192.168.001.009 , VA=HDMI, HPD=ON ,HCP=ON , AUD=2CH PCM           --  
--      AS=HDMI, AV=99, AB=20, AL=12, AM=12, AH=12, AD=00, MUTE=OFF           --  
-- 0004: DN=INPUT 4 , MAC=60:89:b1:90:00:27, GID=0004, LINK=ON             --  
--      IP=192.168.001.011 , VA=HDMI, HPD=ON ,HCP=ON , AUD=2CH PCM           --  
--      AS=HDMI, AV=99, AB=20, AL=12, AM=12, AH=12, AD=00, MUTE=OFF           --
```

```
--
-- IP922DEC Video Output Status
-- 0001: DN=OUTPUT 1 , MAC=60:89:b1:92:00:10, GID=0001, LINK=ON --
-- IP=192.168.001.013, IN=0001, OUT=ON , HPD=ON , HCP=OFF, DG=OFF--
-- AV=99, AB=20, AL=12, AM=12, AH=12, AD=00, MUTE=OFF --
-- VW=OFF, VID=00, MWH=01, MWV=01, MWP=001, SWH=01, SWV=01 --
-- SWP=001, BWL=0001, BHL=0001, SWL=0001, SHL=0001, MSL=000 --
-- MSR=000, MSU=000, MSD=000, SUH=0001, SUV=0001, SRR=1, VFC=1 --
-- 0002: DN=OUTPUT 2 , MAC=60:89:b1:92:18:92, GID=0002, LINK=ON --
-- IP=192.168.001.015, IN=0002, OUT=ON , HPD=ON , HCP=OFF, DG=OFF--
-- AV=99, AB=20, AL=12, AM=12, AH=12, AD=00, MUTE=OFF --
-- VW=OFF, VID=00, MWH=01, MWV=01, MWP=001, SWH=01, SWV=01 --
-- SWP=001, BWL=0001, BHL=0001, SWL=0001, SHL=0001, MSL=000 --
-- MSR=000, MSU=000, MSD=000, SUH=0001, SUV=0001, SRR=1, VFC=1 --
-- 0003: DN=OUTPUT 3 , MAC=60:89:b1:92:00:a3, GID=0003, LINK=ON --
-- IP=192.168.001.017, IN=0003, OUT=ON , HPD=ON , HCP=OFF, DG=OFF--
-- AV=99, AB=20, AL=12, AM=12, AH=12, AD=00, MUTE=OFF --
-- VW=OFF, VID=00, MWH=01, MWV=01, MWP=001, SWH=01, SWV=01 --
-- SWP=001, BWL=0001, BHL=0001, SWL=0001, SHL=0001, MSL=000 --
-- MSR=000, MSU=000, MSD=000, SUH=0001, SUV=0001, SRR=0, VFC=1 --
-- 0004: DN=OUTPUT 4 , MAC=60:89:b1:9a:00:34, GID=0004, LINK=ON --
-- IP=192.168.001.019, IN=0004, OUT=ON , HPD=ON , HCP=OFF, DG=OFF--
-- AV=99, AB=20, AL=12, AM=12, AH=12, AD=00, MUTE=OFF --
-- VW=OFF, VID=00, MWH=02, MWV=02, MWP=001, SWH=01, SWV=01 --
-- SWP=001, BWL=0001, BHL=0001, SWL=0001, SHL=0001, MSL=000 --
-- MSR=000, MSU=000, MSD=000, SUH=0000, SUV=0000, SRR=0, VFC=1 --
-----
```

API Status (STAA) pertaining to Video Wall

```
-- IP922DEC Video Output Status
-- 0001: DN=OUTPUT 1 , MAC=60:89:b1:92:00:10, GID=0001, LINK=ON --
-- IP=192.168.001.013, IN=0001, OUT=ON , HPD=ON , HCP=OFF, DG=OFF--
-- AV=99, AB=20, AL=12, AM=12, AH=12, AD=00, MUTE=OFF --
-- 1 VW=OFF, 2 VID=00, 3 MWH=01, 4 MWV=01, 5 MWP=001, 6 SWH=01, 7 SWV=01 --
-- 8 SWP=001, BWL=0001, BHL=0001, SWL=0001, SHL=0001, MSL=000 --
-- MSR=000, MSU=000, MSD=000, SUH=0001, SUV=0001, SRR=1, VFC=1 --
```

1. Video Wall On / Off
2. Video Wall ID Number
3. Main (physical) wall horizontal displays
4. Main (physical) wall vertical displays
5. Main (physical) wall position
6. Sub wall horizontal displays
7. Sub wall vertical displays
8. Sub wall position