GeFei

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MIO MVS-IP Quad Multi-viewer system

User manual V1.1

Gefei Tech Co.,Ltd

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1. Description

Based on Mini BOX platform, MIO MVS-IP is a high-quality four viewers display system. It supports 10Gbps uncompressed IP multi-cast IP stream, based SMPTE2022-6. Up to 4 channels HD/SD SDI signal input or 3ch. 3G SDI. It provides the HDMI + HDSDI duplicated output, and IP streaming output, image same as SDI output , HDMI output can reach 1920 x1080p, HDSDI output can reach 1080 p 50/60.

MIO MVS-IP can be conveniently and flexibly set to monitor such as display input resolution, AFD information, safety frame. It supports multiple resolution output, provide video and audio detection and alarm, such as black Field, frozen and audio overweight, It supports SNMP. It can be real-time managed and monitored by Network, via Ethernet.

MIO MVS-IP widely used in the studio, video conference center, broadcast prison see room, outside, multimedia dispatching command center and so on the many kinds of applications

2. Features

- Based SMPTE2022-6, compatible with a variety of formats signal adaptive input.
- Support HDMI+HDSDI+IP output system.
- Support the same input signal displaying in different windows
- Provide build-in web server to control whole system via RJ45 interface
- Audio signals from input source are selectable to be embedded into HDMI or HDSDI output signal on the web control page
- Flexible output options: 4:3, 16:9, customized aspect ratio
- Editable one program UMD and up to 8 channel audio meters display
- Provides several kinds of timer: air timer and countdown timers, analog and digital clocks types
- Mark key signal/signals to find it/them rapidly in one complicated layout
- Support user-define the border color of each channel separately or cancel border display
- Support format display of input signal and AFD information display
- Video/audio auto detection and alarming, such as video loss, video frozen, video black, audio silence, audio overload with high rate of accuracy
- Two forms of alarm: text alarm and icon alarm
- Support customized layout to preset various layouts for different application, such as studio, OB van, production room and so on

3. Special Notice

1. In order to avoid network traffic congestion, please do not submit parameters before the last modification is applied.
2. In order to avoid hardware loose contact caused by continuous operations on the front panel, please do your second operation after you have gotten the first operation result.
3. Generally, it will spend about three seconds to get the results after you submit. The time relates with the monitor type. If the time is too long (over 7seconds), maybe there is something abnormal with the working status of hardware (overheating for example), please wait patiently.
4. Do not plug the HDMI connector without power-down.
5. Without the professional technological guidance from our company, users are not permitted to re-plug the modules away from the chassis or debug the internal operation .We do not undertake any obligation or responsibility of intentional destroy to the machine.
6. Build-in Web server to control MIO MVS-IP easily by your computer via Ethernet. Please make sure IP address of MIO MVS-IP is in the same network segment as your computer. In addition, the IP and Mac address of MVS are unique value in Ethernet.
7. Windows OS is strongly recommend with Internet Explorer.exe or Firefox.
8. User can also upgrade system under the label "Network". Before the upgrade, the anti-virus software and firewall should be closed to make sure that the upgrade data is transmitted to Multi-viewer system without rejection. Power and network cannot be cut off during upgrading.
9. Please set all channels to input inner test signal without waveform display before upgrade. Therefore, it will take less time to upgrade the system.
10. If the current output resolution of HDMI signal is not compatible with your monitor, you can change the output resolution on the web control server.

4. Panel Description

4.1Buttons Definition

Template/Default: Key press and release 2 ~ 3s. You can call up the template. Key press and release 10~ 12s . The parameters on the web page will be restored to default ones, including IP address and user password. The default IP address is 192.168.1.76, and default password is 000000 (six zeros).

Restart: Using a pushpin to press the button, the Mini box will restart. The function of the button equals to turn off, and then turn on the Mini box.

4.2Right Panel

DC IN: Standard power, 12V, 1A

HDMI/DVI-OUT: Via DVI-I interface (female) to output DVI-D and HDMI signal. Although the device adopts DVI output interface, the HDMI signal can be obtained by using a DVI to HDMI adapter or cable. In HDMI mode, the SDI audio signals are embedded into HDMI signal.

The output resolution can be configured as below.

1024x768x60p, 1280x720x50p/60p

1280x768x60p, 1280x800x60p

1280x1024x60p, 1360x768x60p

1400x1050x60p, 1600x900x60p

1680x1050x60p, 1920x1080x50i/60i

1920x1080x50p/60p,

Note: Via web server, user can select the audio channels from HD/SD-SDI signal to embed into CH1&CH2 of HDMI output signal. See the function details about Audio output.

Network: RJ45 interface with 10/100/1000M auto-detection. And the default IP address is 192.168.1.76. and default password is 000000 (six zeros),The web server is remote control interface.

GPI/RS232: Serial port. Reserved.

4.3Left panel

PWR: Power indicator, the indicator shows green as the power is working normally.

LC/UPC SFP+: Uncompressed IP multi-cast streaming. Supports various resolutions:

SD: 480i 59.94, 576i 50

HD: 720p 50Hz/59.94Hz/60Hz, 1080i 50Hz/59.94Hz /60Hz,

1080p 24Hz/25Hz /30Hz, 1080p 50Hz/59.94Hz /60Hz

SDI Output: BNC interface, support below format:

720p50/59/60, 1080i50/59/60, 1080p50/59/60

Note: SDI output image is same as HDMI, just duplicated. When SDI output format is set, IP output image is same as SDI, duplicated too.

IN1 & IN2 & IN3 & IN4: Signal indicator, the indicator shows green as the video is locked with no errors. Correspondence between: IN1→SDI IN1, IN2→SDI IN2, IN3→SDI IN3, IN4→SDI IN4

5. How to Use the Remote Control Software

5.1Attention before Use

Multi-viewer system has a built-in WEBSERVER, so user can configure it by Internet Explorer easily and quickly when connecting RJ45 interface of MVS with one straight-through cable.

First step: you need to login 192.168.1.76/config.html to open physical configuration of MIO MVS-IP, such as editing the names of input sources and setting the position for screens.

Second step: Login 192.168.1.76 to open general web control of MIO MVS-IP. There are several web labels, which are System, Alarm, User, Network, and Help.

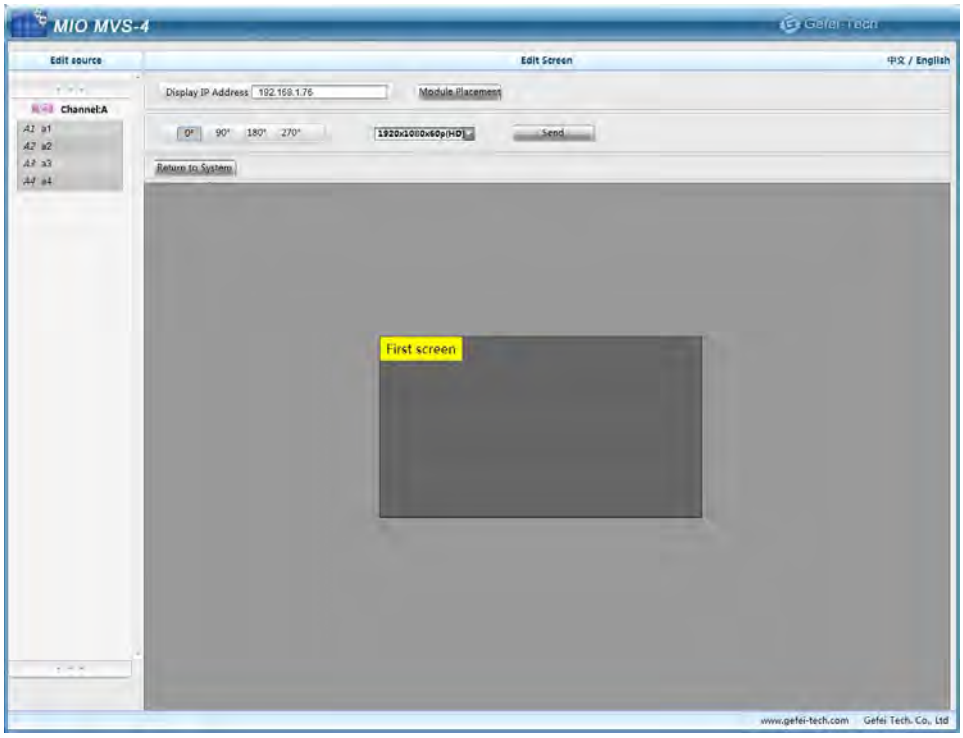
The default IP address: 192.168.1.76.

The default user name: admin

The default password: 000000

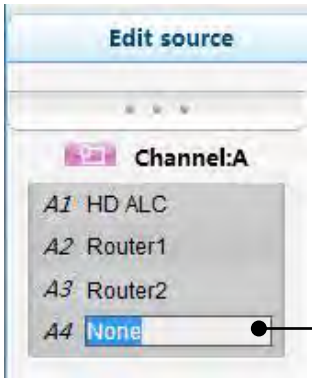
5.2Basic Physical Configuration

Open IE browser on Client PC, and input "http://192.168.1.76/config.html" in location bar to open web page of Physical Configuration. The page show as below.



5.2.1 Edit Input Source

Edit name of input source for each input card on the left of web page.



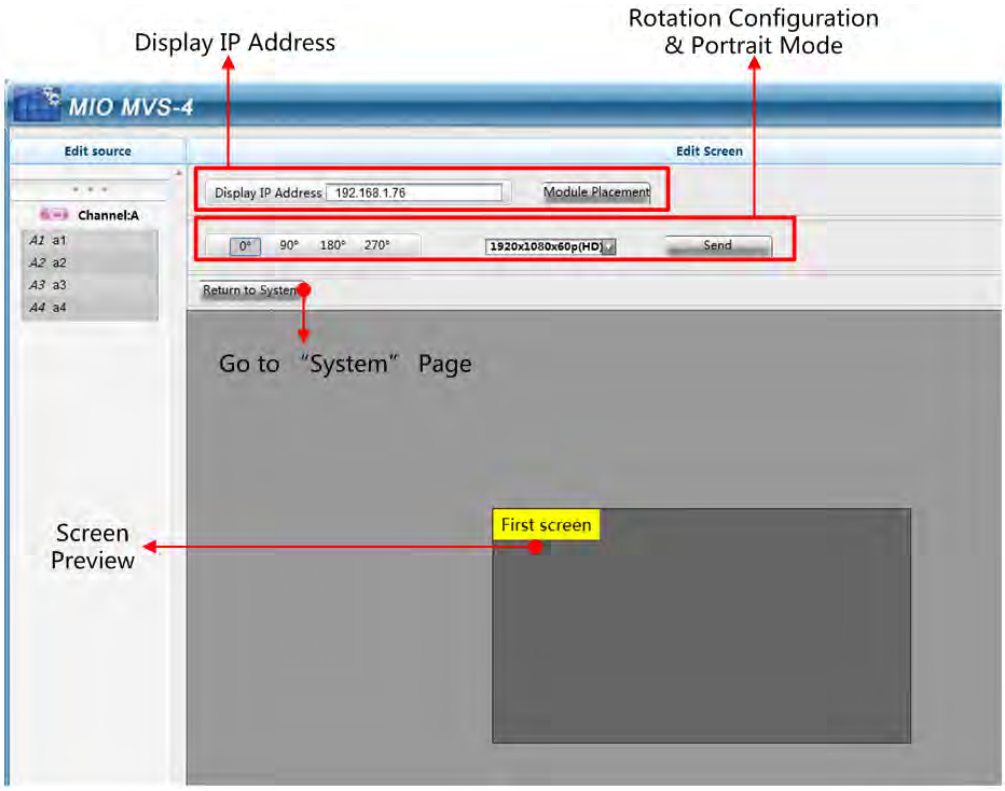
Double click each bar to edit individual name for each input source

The table of relationship between input source and inserted slots:

The signal name of A1 is the one inputted via SDI IN1 interface, and so does A2, A3 and A4.

Interface	Source Name on Web page
SDI IN1	A1
SDI IN2	A2
SDI IN3	A3
SDI IN4	A4

5.2.2 Rotate Screen



Display IP address: Show the IP address of quad-viewer output system, read only.

Return to System: To release current name of input sources and arrangement of screens and jump to web page of 192.168.1.76

Rotation Configuration (Portrait Mode): Output can be rotated by four different angles. Based on actual installment direction of screen, you can select the appropriate one.

0° : No rotation angle. And it's the default settings. Click "0° ", select a output resolution (there are only 1080p 50 and 60 provided on this page), and then click "Send". The unit will restart itself automatically. After it goes back to work, more output resolutions can be configured on the "System" page.

90° : Output is rotated clockwise by 90° and make it portrait mode. With non-default output mode, the system only provides 1920x1080p 50 and 60. Click "90° ", select a output resolution, and then click "Send". The unit will restart itself automatically. After it goes back to work, you can only create two video channels on the "System" page, not four channels any more.

180° : Output is rotated clockwise by 180° and make it upside down. With non-default output mode, the system only provides 1920x1080p 50 and 60. Click "180° ", select a output resolution, and then click "Send". The unit will restart itself automatically. After it goes back to work, you can only

create two video channels on the "System" page, not four channels any more.

270° : Output is rotated clockwise by 270° and make it portrait mode. With non-default output mode, the system only provides 1920x1080p 50 and 60. Click "270° ", select a output resolution, and then click "Send". The unit will restart itself automatically. After it goes back to work, you can only create two video channels on the "System" page, not four channels any more.

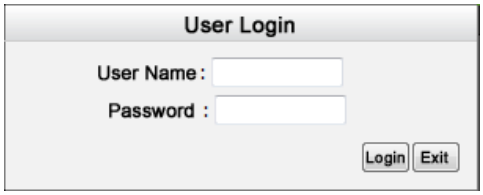
5.3General Configuration

You do not need to install the client software. Open the IE Browser, and input the IP address in the location bar to open the user interface. Default IP address is: http://192.168.1.76.

Here appears a dialogue box for user login. Please input user name and initial password. Then click "login", you will enter into the actual control interface.

User name: admin;

Password: 000000.



5.3.1 Function Overview

There are several labels at the top of the web page: System, Alarm, User, Network, and Help.

System: To design the output display layout via creating or deleting windows, clock, Logo, UMD and other display elements.

Alarm: The system supplies audio and video detection, such as audio overload, audio silence, video frozen, video black, and signal loss. Each alarm threshold can set to meet your needs.

User: The system supports user name called admin. The initial password is 000000 which can be changed, and new password will take effect when user logs in next time.

Network: To modify the IP address and upgrade the firmware. The modification will take effect after restart the machine.

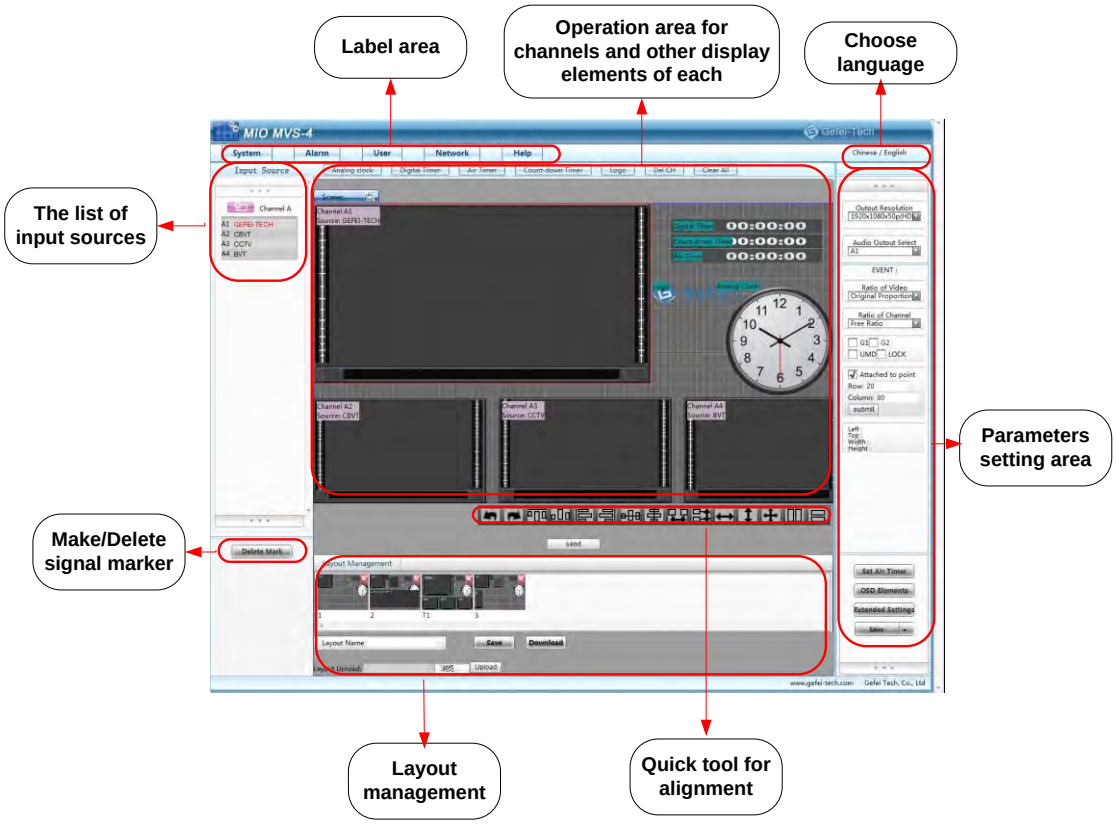
Helps: To show the versions of each firmware here.

5.3.2 System Settings

You can accomplish the basic configuration in the System Settings, which includes the following

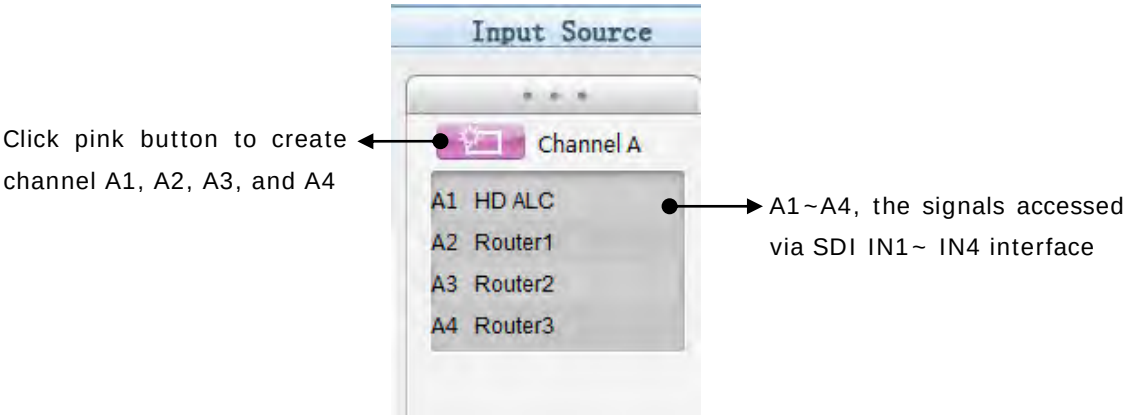
functions: to create or delete the channels, to add the clock and logo, to align selected channels via the quick tools, to undo the previous operations, and to set the parameters, such as output resolutions, aspect ratio, extended configuration and so on.

The descriptions are in detail as follows.

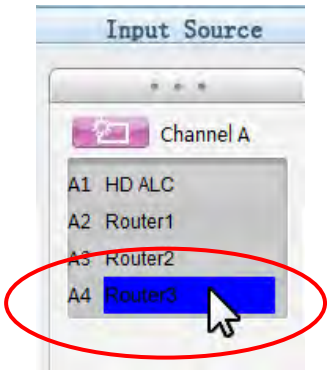


Create a Channel

According to the settings on web page of Physical Configuration, system detects the name of input source for each input card and makes a list of them.



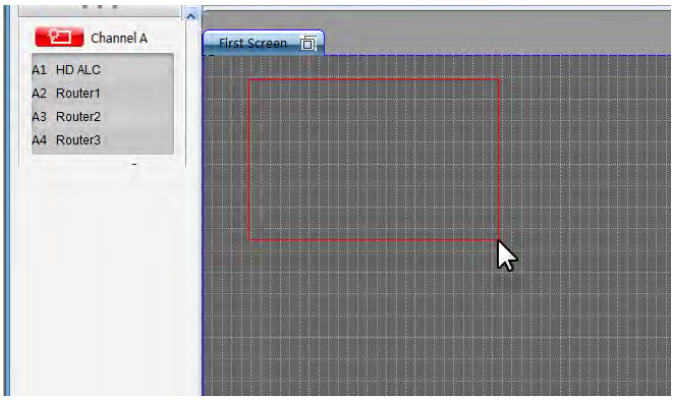
Steps to create a certain video channel:



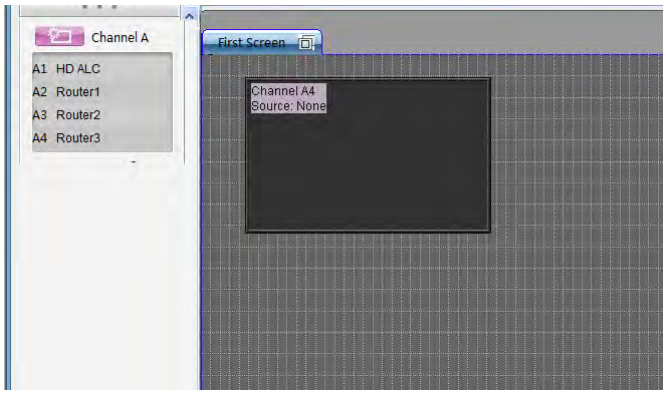
Step 1-Click the needed channel in the list of signal sources. For example, if the needed channel is A4, click the bar of "Router3", which turns blue.

Step 2-Click pink button

Step 3-Hold the mouse and drag a frame from top to bottom on the target screen.

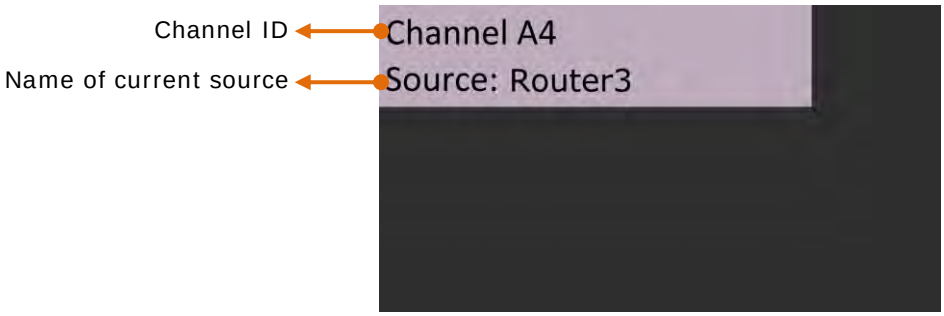


Step 4-Release the mouse. System creates a channel A4 as the size and position of the frame. You can change the size and position of the channel freely afterwards.



Note: If skip step 1 and operate by step 2 directly, then the channels will be created in the order of number 1 to number 4.

Channel A4 is created as below.

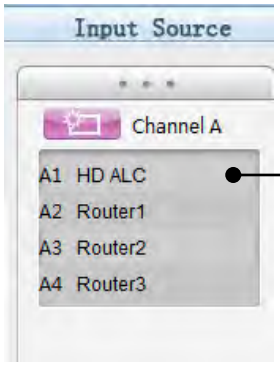


For each virtual channel, it shows two details.

1, Channel ID. Each channel has exclusive Channel ID;

2, Name of input source displaying in this channel currently, for example, "Router3";

5.3.2.1 Choose Input Source



Sources accessed via SDI IN1~IN4, which can be displayed freely in channel A1, A2, A3, and A4.

Steps to appoint input source to video channel

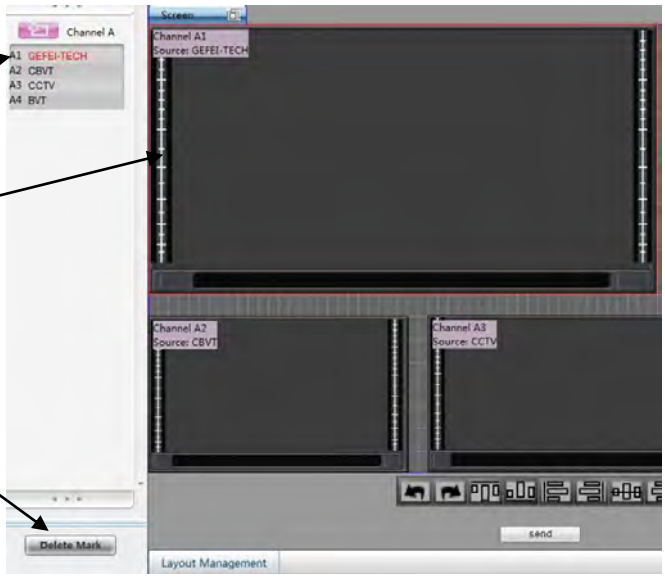
Step 1-Use the mouse to choose a needed input source in the list, and drag it out,

Step 2-Drag the signal out of the list until it located on the target channel, and then release the mouse.

5.3.2.2 Make/Delete Signal Marker

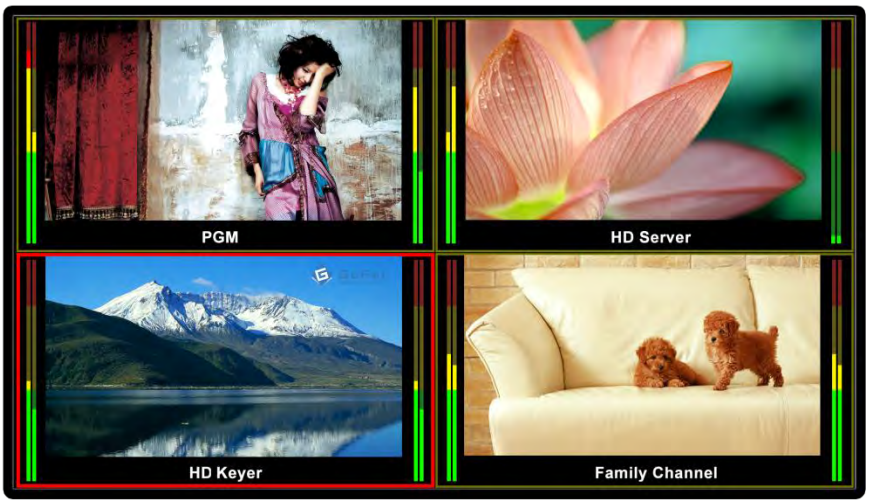
Key signal can be marked with red font. Meanwhile, the channel whose current source is key signal will be marked with red border, in order to locate it quickly in a complicated layout, even after a series of position adjustment.

Name of key source is marked with red font in the list. In addition, the channel, which uses this signal as the current display source, appears red border, not only on the web, but on the actual output as well. You can remove the signal marker by using "Delete Marker" button.



Note: 1. multiple signals can be marked at same times.

2. On actual output, the channel, which uses the signal as the current display source, appears red border.



5.3.2.3 Create Clock/Timer/Logo

Besides video channels, the following objects can be created:

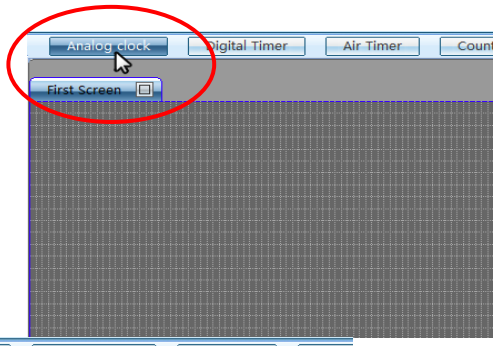
Analog Clock, Digital Timer, Countdown Timer, Air Timer, and Logo

You can create one of Analog Clock/ Digital Timer/ Count-down Timer/ Air Timer/ Logo on the screen.

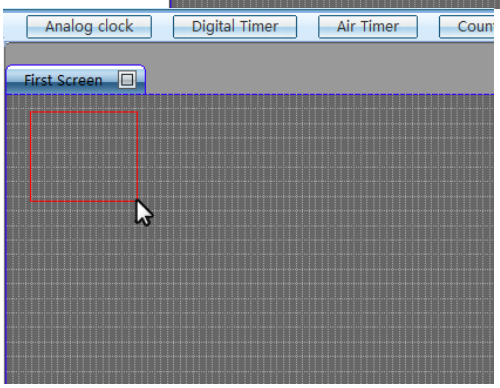
The size of Logo and Analog Clock cannot be changed. You can change the size of Digital Timer, Countdown Timer, and Air Timer freely.

Here are steps to create an Analog Clock/ Digital Timer/ Count-down Timer/ Air Timer/ Logo. Take Analog Clock as an example.

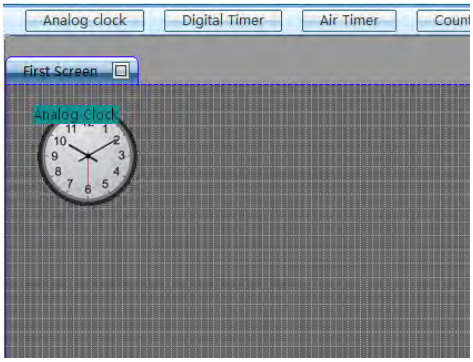
Step 1- Click the button of the needed object. For example, click the button of "Analog Clock".



Step 2- And hold the mouse from top to bottom to drag a frame on the target screen.



Step 3- Release the mouse. Then System creates an analog clock as the position of the frame with fixed size. You can change the position of the clock freely. Other objects are created as the same way.



5.3.2.4 Delete an Object

Choose the unnecessary objects (channels/ clock/ Timer/ LOGO), and then press the button "Del CH" The selected one will be deleted immediately. The hot key is "Delete" on keyboard.

5.3.2.5 Clear All

Press the button "Clear All", clear up all the objects on the screen.

5.3.2.6 Screen

There are various functions in this area. The main are following:

1. Display all the channels ,clock, timer and logo;
2. Adjust the position of the clock and logo with a mouse in this area;
3. Adjust the position and size by dragging the edge of channels with a mouse in this area;
4. Adjust the position and size of audio meters and UMD of each channel by dragging the edge of each audio meter or UMD with a mouse in this area;
5. Choose one or more objects in this area, before you change its parameters or take further

operation.

6. Any video channel can be moved directly and simply from one screen to another screen in real-time.

5.3.2.7 Channel level

Channel overlap, you can click the right mouse button, select channel level up and down

5.3.2.8 Quick Tools

There are various quick tools for creating various layouts.

Do & Undo

: Undo, hotkey is "Ctrl+Z".

: Do, hotkey is "Ctrl+Y".

Alignment tools

All operations among these windows will aligned to the last selected one.

: Align Top

: Align Bottom

: Align Left

: Align Right

: Align Horizontal Center

: Align Vertical Center

: Horizontal Average

: Vertical Average

: Overspread with horizontal equal width

: Overspread with vertical equal height

The buttons below are not only for channels, but also for UMD & Audio Meters as well. The selected audio meter is adjusted according to another one in the same channel. The buttons below cannot be applied for audio meters from different channels.

: Equal Width

: Equal Height

: Equal Width & Height.

Except these alignment tools, the software supports hotkey on the keyboard, such as direction key

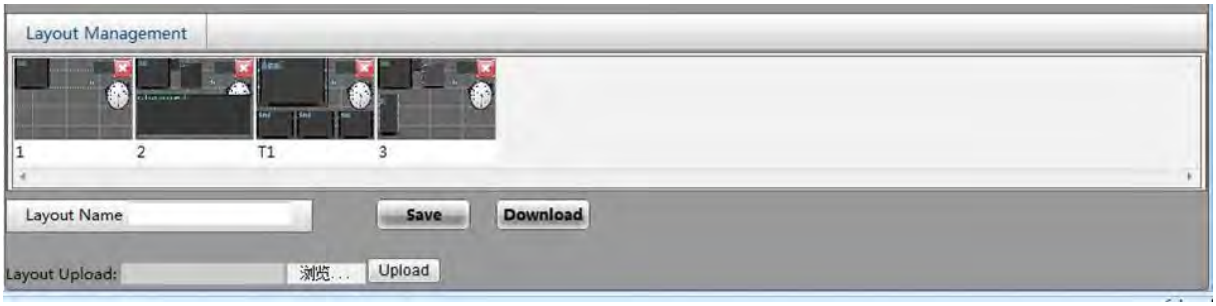
"↑ ↓ ← →", in order to move channels in this area.

Full Screen

Choose one channel and double click it. Click the "send" button, the selected channel will output in full screen mode. When you want to quit the full screen mode, please use hot key "Ctrl+Z" or click .

5.3.2.9 Layout Management

The system allows customers to save multiple user-defined layouts. The max number of layouts is 10 for the customer. Layouts can be saved or applied at any time.



Save Layout

Enter the name of layout in the blank area and click "Save" button. The layout is saved as a thumbnail in the layout management area. The layouts of both screens are saved together at the same time. Click the thumbnail apply the relevant layout.

If the name of the layout is already existed, the newly saved layout will take place of the old one.

Edit Layout

Click the thumbnail of the needed layout, and adjust the layout, as you needed. After all the operation, click "save" button.

Delete Layout

: Delete button

Click delete button on the top of each layout thumbnail to delete the unnecessary layout.

Download Layout File

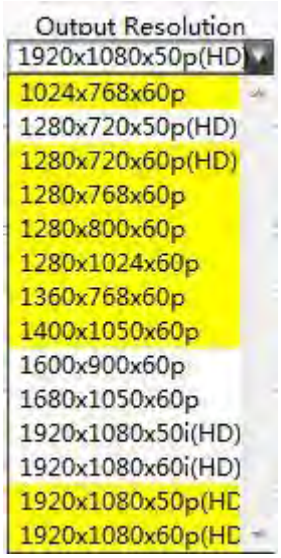
Click "Download" button and save the layouts you just designed in form of a BIN file. All the layouts in layout setting area are saved as one file, so they cannot be downloaded individually.

Upload Layout File

Click "Browse" button to find and upload the layout file you have downloaded before. After a massage box appears to inform successful uploading, please refresh the page, and then layouts will appear in layout display area as thumbnails. In addition, apply a layout by clicking its relevant thumbnail. Note that the latest uploaded layouts will replace the original one.

5.3.2.10 HDMI/HDSDI Output Resolution

HDMI Output Resolution



Choose output resolution in the drop-down list.

HDMI output interface provides EDID detection from the monitor. Moreover, the resolutions from EDID are highlighted in the dropdown list. See the picture shown above. The output resolution of HDMI signal is up to 1920x1080p.

Supports output resolutions as following:

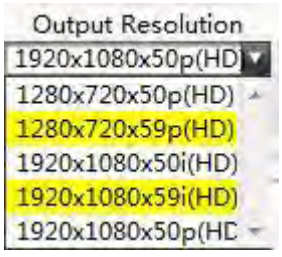
1024x768x60p，1280x720x50p/60p，1280x768x60p

1280x800x60p，1280x1024x60p，1360x768x60p

1400x1050x60p，1600x900x60p，1680x1050x60p

1920x1080x50i/60i，1920x1080x50p/60p，

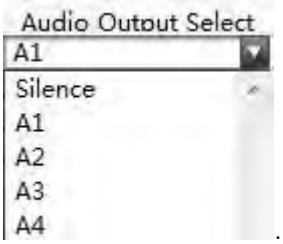
HDSDI Output Resolution



Check the box "

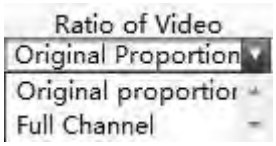
", please restart the unit to make it work under HDSDI-output mode. After the unit goes back to work, please refresh the web page. The output format of HDSDI signal can be configured to be 720 p 50/59.94, 1080 i 50/59.94, or 1080 p 50. The HDMI output has video and audio signal at the same time.

5.3.2.11 Audio Output Settings



The names of input sources are list in the drop-down list, and then choose one of them. When the input source is HD/SD signal, eight channels HD/SD audio signals can be embedded into the HDMI and HDSDI output signal.

5.3.2.12 Ratio of Video

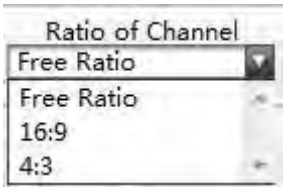


This function aims to adjust aspect ratio of video image. There are two types of video display: Full channel and Original proportion.

Full channel means the video image will cover the entire channel and ignore the aspect ratio of video signal.

Original proportion means the video image always keeps the aspect ratio of video signal even though the ratio of the channel or the size of UMD and Audio meters are changed. So for SD input signal, the aspect ratio of video image is 4:3； And for HD input signal, it is 16:9.

5.3.2.13 Ratio of Channel



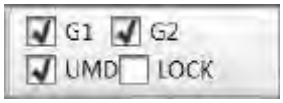
This function aims to adjust aspect ratio of virtual channel. Aspect ratio contains 4:3, 16:9, and Free Ratio.

4:3-The size of channels can be changed following the aspect ratio of 4:3.

16:9- The size of channels can be changed following the aspect ratio of 16:9.

Free Ratio- The size of channels can be changed freely following any aspect ratio.

5.3.2.14 UMD & Audio Meters Display



Check the box "UMD". It will be shown within the channel, otherwise, not. The system supports the UMD display. The further configuration can be completed the configuration of "OSD Elements" on

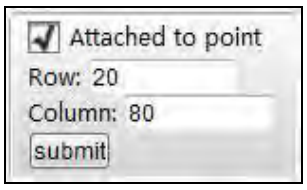
right-bottom of web page.

Check the box "G1", and audio meters of G1 from HD/SD signal will be displayed within the channel, otherwise, not.

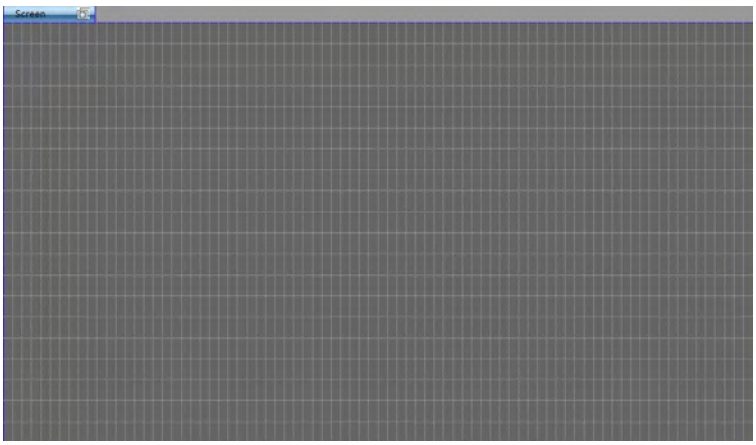
Check the box "G2", and audio meters ofG2 from HD/SD signal will be displayed within the channel, otherwise, not.

Check the box "Locked". The audio meters and UMD are locked with widow. So the audio meters or UMD can't be operated separately. Otherwise, can.

5.3.2.15 Attach to point

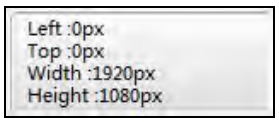


If checking the box, there will be horizontal and vertical lines across the screen. So objects are moved or adjusted by attaching to point or align to the line. You can set the rows and columns to change the amount of lines and density of the cross points.



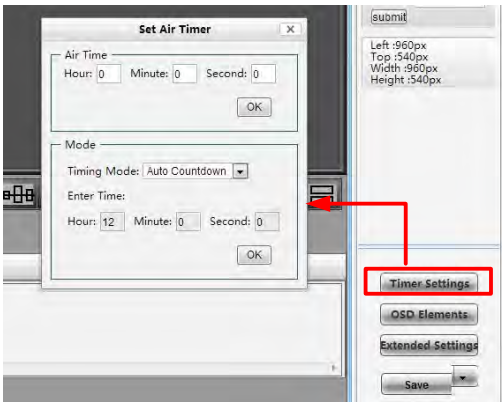
If un-checking the box, there will be no lines across the screen. Therefore, objects are moved or adjusted freely.

5.3.2.16 Position and Size



Choose one object, the values of the channel's coordinates, width and height are shown on the right of web page, which are for read only, and cannot be adjusted so far.

5.3.2.17 Set Air Timer



Click "Timer Settings". There appears Air time and Mode.

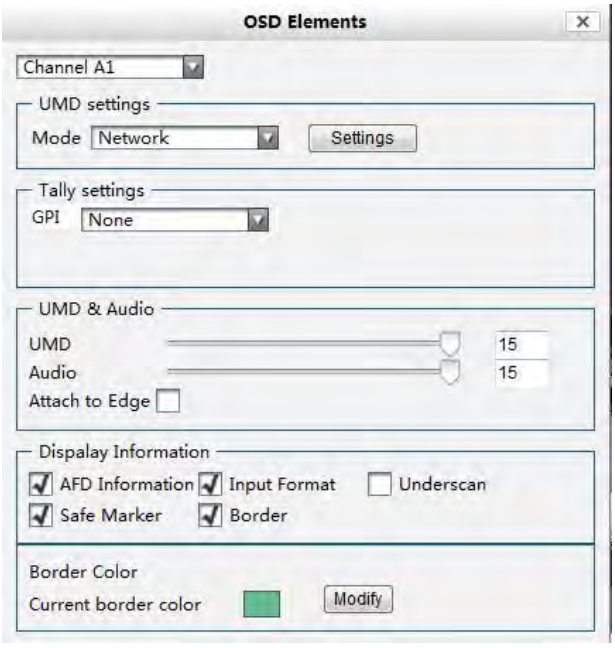
Air time: it has hour, minute and second parameters. After your change the parameters, click "OK".

Mode: it works by auto countdown and GPI trigger. Auto countdown is the interval time between air timer and current timer. GPI trigger needs you to enter the countdown time and it starts via GPI.

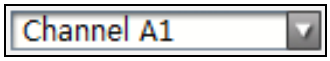
Note: GPI trigger is a low level.

5.3.2.18 OSD Elements

Click the button "OSD Elements", prompting the dialog box as following:

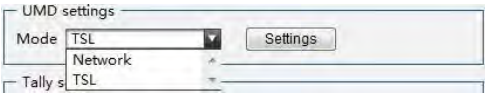


Do select the needed channel or all channels in the drop-down list before every operation.

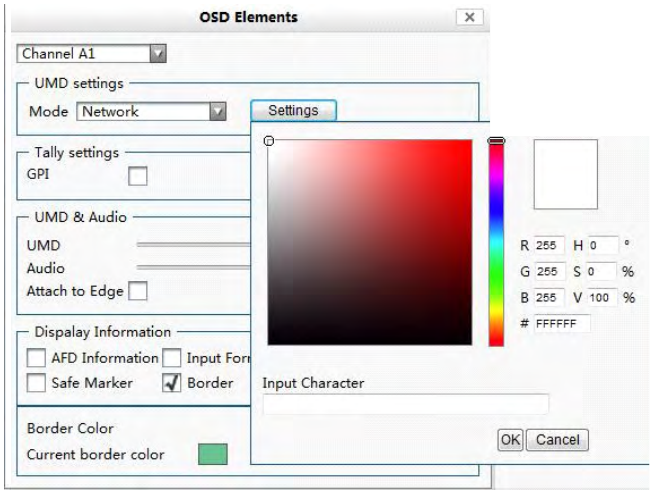


UMD Settings

First, select the needed channel in the drop-down list. The system supports the single programmable UMD display. Two kinds of UMD mode are provided. They are static UMD via text upload and dynamic UMD via TSL protocol.



1) Static UMD: Choose "Network" in the drop-down list, and click "Settings".



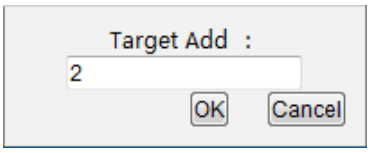
Upload UMD Text

Type the characters in blank bar, change color of characters. Click "OK" to submit characters after all parameters are settled and all characters will be displayed in UMD bar.

To clear the UMD

Enter a "space", and then click "OK", the character in UMD bar will be cleared.

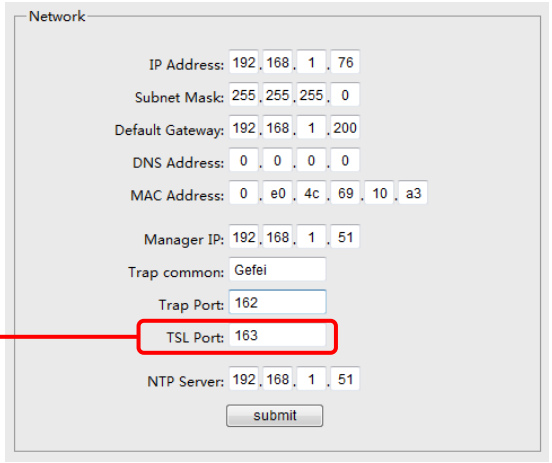
2) Dynamic UMD: Choose "TSL" in the drop-down list and click "Settings".



Dynamic UMD of MIO MVS-IP is achieved by Ethernet.

Here are a few steps to achieve dynamic UMD:

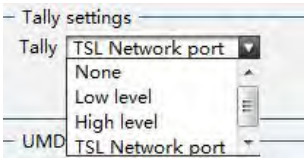
First, set the TSL port on Network page to be the same as the ones of TSL Tallyman. The default value is 163. Enter the new port value in the blank area, click "OK", and then restart the unit. After it goes back to work, the new TSL port value takes effect.



The same as control device, such as TSL Tallyman
Do restart the unit after changing port value.

Second, set the target address for selected channel to receive the data from TSL Tallyman. Please make sure there is no same target address for the channels, that is, each target address has unique value for each channel.

Tally Settings



Two kinds of Tally mode are provided. They are Static Tally and Dynamic Tally.

Choose "None" in the drop-down list

The Tally function is disabled and Tally turns gray.

Via GPI-Static Tally

Static Tally is applied with DB15 interface. Based on the GPI lever for Tally, you can choose Low lever or high lever in the drop-down list.

1) Choose "Low level" in the drop-down list to enable static Tally.

When there comes a low-level GPI, the TALLY area will turn light red; otherwise, dark red. Low level is the voltage which higher than -5V and Lower than 0V. Users can choose the modified channel from drop-down list.

If there is not a low-level GPI signal, the Tally area will turn dark red.

If there is a low-level GPI signal provided, the Tally area will turn light red.

2) Choose "High level" in the drop-down list to enable static Tally.

The function is reserved

3) Via Ethernet-Dynamic Tally

Choose "TSL Network" in the drop-down list

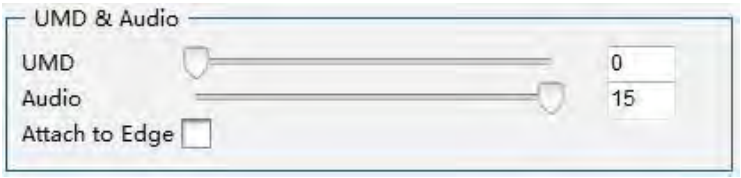
The dynamic Tally is the same as dynamic UMD.

Here are a few steps to achieve dynamic Tally:

First, set the TSL port on Network page to be the same as the ones of TSL Tallyman. The default value is 163. Enter the new port value in the blank area, click "OK", and then restart the unit. After it goes back to work, the new TSL port value takes effect.

Second, set the target address for selected channel to receive the data from TSL Tallyman. Please make sure there is no same target address for the channels, that is, each target address has unique value for each channel.

Adjustment the transparency of Audio and UMD



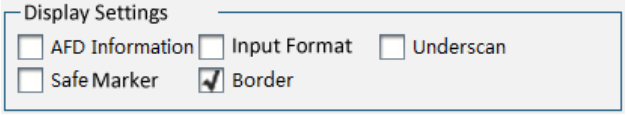
Choose the target channel or all channels from the drop -down list.

In this area, users can modify the transparency of audio meters or UMD of each channel. Choose the channel which needs to modify from the drop-down list, put the mouse on the cursor and drag it to the assigned position; or you can fill in the certain parameter ranging from 0 to 15, and press "Enter" on keyboard. "0" stands for full transparency and "15" stands for opacity

Attach to edge

Check "Attach to Edge", when the audio meters and the UMD are located at the bottom edge of the image, let the audio meters and the UMD cling to the edge which make the image be shown completely. If not, UMD and audio meters are overlaid on image.

Display settings



Choose the target channel or all channels from the drop -down list.

Check the box "AFD Information" and AFD information will be overlaid on the top of the channel, otherwise, not. AFD information is shown in the form of picture, according to the AFD code inside of input signal.

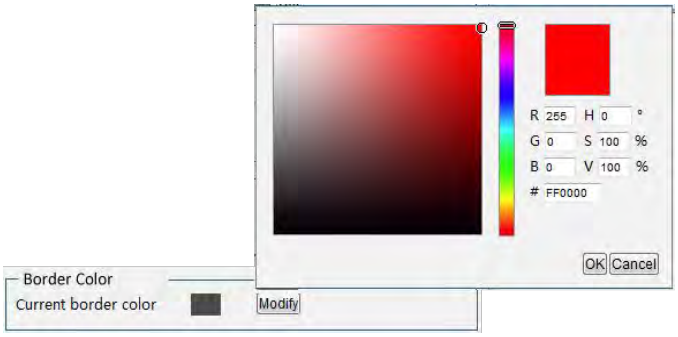
Check the box "Input Format", and input resolution will be overlaid on the top of the channel, otherwise, not. Input resolution is shown as PAL/NTSC/720p/1080i/1080p.

Check the box "Underscan" to make effect for selected channel.

Check the box "Safe Marker". The picture of SD-SDI signal is marked with 16:9 safe area markers, and the picture of HD-SDI signal is marked with 4:3 safe area markers, otherwise, not.

Check the box "Border", the selected channel is showed with border; otherwise, not. The border color of each channel can be configured freely. Please see the title below.

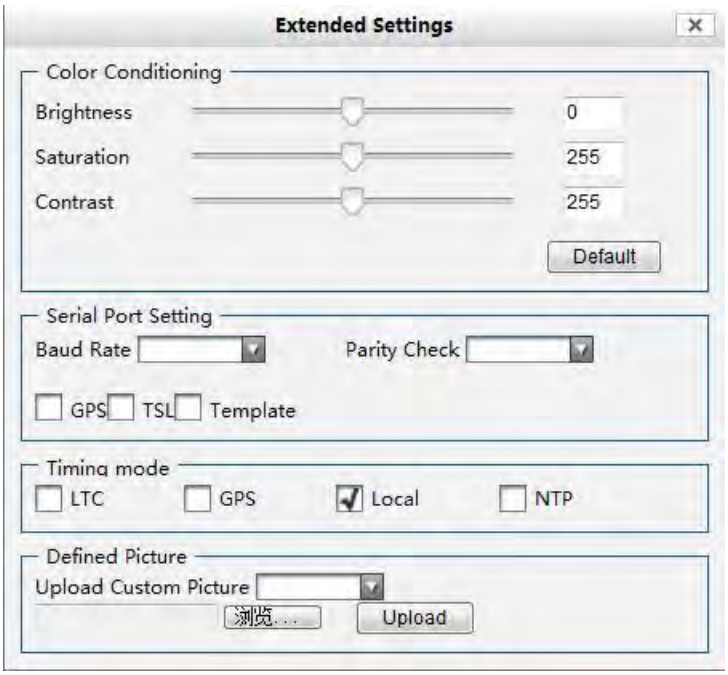
Adjust Border Color



Choose the target channel or all channels from the drop -down list, and click "Modify" to appear a color palette. Select the needed color and click "OK". Then the current border color is changed to the one you selected.

5.3.2.19 Extended Settings

Click the button "Extended Settings", prompting the dialog box as following:



Set Color Parameters

Brightness: to set the brightness and darkness of picture. The range is from -512 to 511.

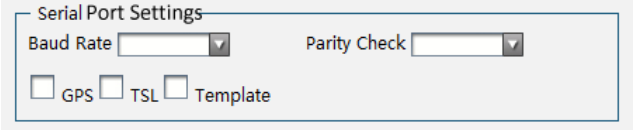
Saturation: to set the color of picture. The range is from 0 to 511.

Contrast: to adjust the clarity of picture. The range is from 0 to 511.

Restore default button: to restore the factory default settings.

Put the mouse on the cursor and drag it to the assigned position; or you can fill in the certain value, and press "Enter" on keyboard

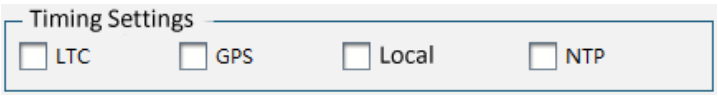
Series Ports Settings



'GPS' and "Template" is reserved

"TSL" for TSL UMD & Tally, choose "TSL" in the drop-down list under "UMD Settings" of OSE Elements, then set the address for target channel to receive the data from TSL Tallyman.

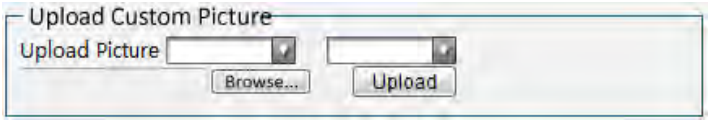
Timing Settings



LTC,GPS and NTP the function is reserved

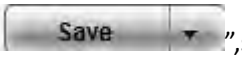
If check the box "Local", the analog clock and digital timer are controlled by computer which also accesses to the web control of MIO MVS-IP through RJ45 interface. There are two items that required notice. First, the local IP address of computer should be configured in the same network segment as MIO MVS-IP. Second, refresh the web page after checking the box "Local", in order to submit the current time of computer to MIO MVS-IP. The factory setting of timing mode is Local timing. Check the box "Local", the local timing function is enabled, otherwise, not.

Upload Custom Picture



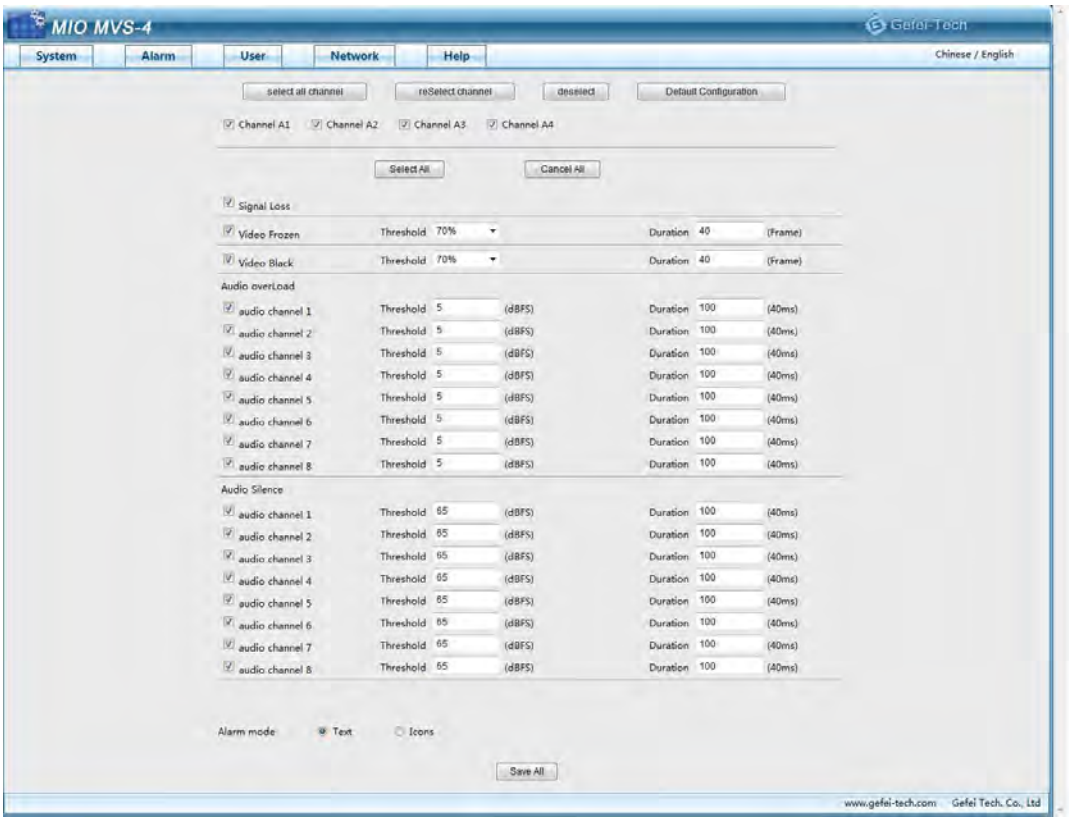
The function is reserved

5.3.2.20 Save

Click the button " 

",save "parameters setting area" parameter.

5.3.3 Detection Settings



select all channel：Check all the boxes for channels

reSelect channel：Selected will be clear, the others will be selected.

deselect：Cancel all the checks

Default Configuration：Restore Factory Setting

Select All：Check all the boxes for detection settings of selected channels

Cancel All：Cancel all the checks for detection settings of selected channels

MIO MVS-IP Series provides two kinds of warning mode: texts and small icons. And only one mode takes effect at a time. Text is shown at the bottom of each channel. Video warning icon is shown at left edge of each channel, while audio warning is at the right edge.

The video and audio input of each channel can report signal status and validity, with detection of (text and icons):

(1) Loss of signal: Loss Of Video and

(2) Video frozen: Video Frozen and

(3) Video black: Video Black and

(4) Audio overload: Audio Overload and

(5) Audio in silence: Audio In Silence and

Several channels can be configured at the same time. If the detection parameters of each channel differ from others, the configuration should be completed separately.

5.3.3.1 Audio Detection

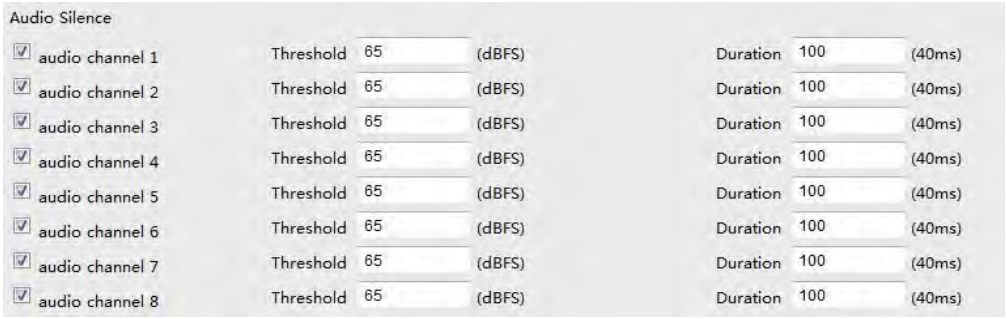
Measure unit of digital audio is dBFS（dB Full Scale）. 0dBFS is the maximum audio level, corresponding to +24dBu of analog audio.

Audio Overload

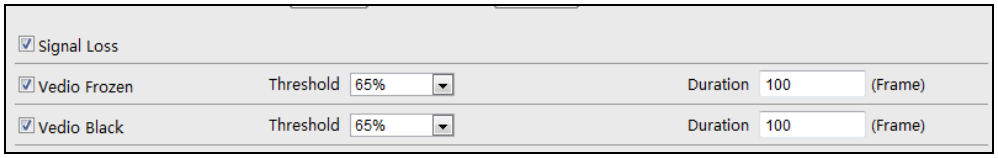
It will prompt a warning picture as soon as the audio level overloads the threshold you have settled. It provides 8 audio channels detection. And there is a box in front of each audio channel. This detection will take effect only the box is checked. The threshold and duration of detection can be configured for detection of each audio channel. The threshold means a maximum audio level. When actual volume is above this threshold, the system will prompt warning of audio overload.

Audio in Silence

It will prompt a warning picture as soon as the audio level lowers the threshold you settled. It provides 8 audio channels detection. And there is a box in front of each audio channel. This detection takes effect only if the box is checked. The threshold and duration of detection can be configured for detection of each audio channel. The threshold means a minimum audio level. When actual volume is below this threshold, the system will prompt warning of audio in silence.



5.3.3.2 Video Detection



Loss of Signal

It prompts a warning picture as soon as signal is lost. This detection takes effect only if the box is checked.

Video Frozen

It will prompt a warning picture as soon as the regular pixels ratio of the image is lower the threshold you have settled. This detection will take effect only if the box is checked. The threshold and duration of detection can be configured. The threshold means the frozen pixel percentage in one frame.

Video Black

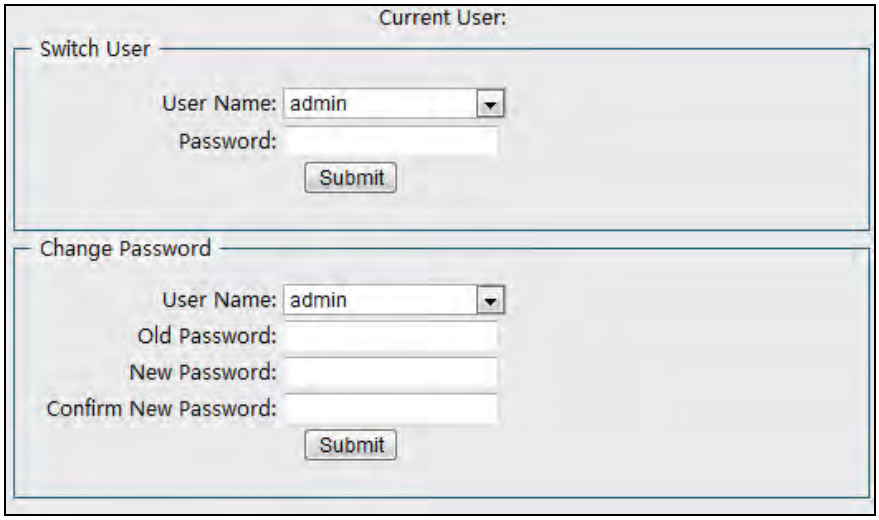
It will prompt a warning picture as soon as video level is lower the threshold. This detection will take effect only if the box is checked. The duration of detection can be configured.

5.3.4 User Configuration

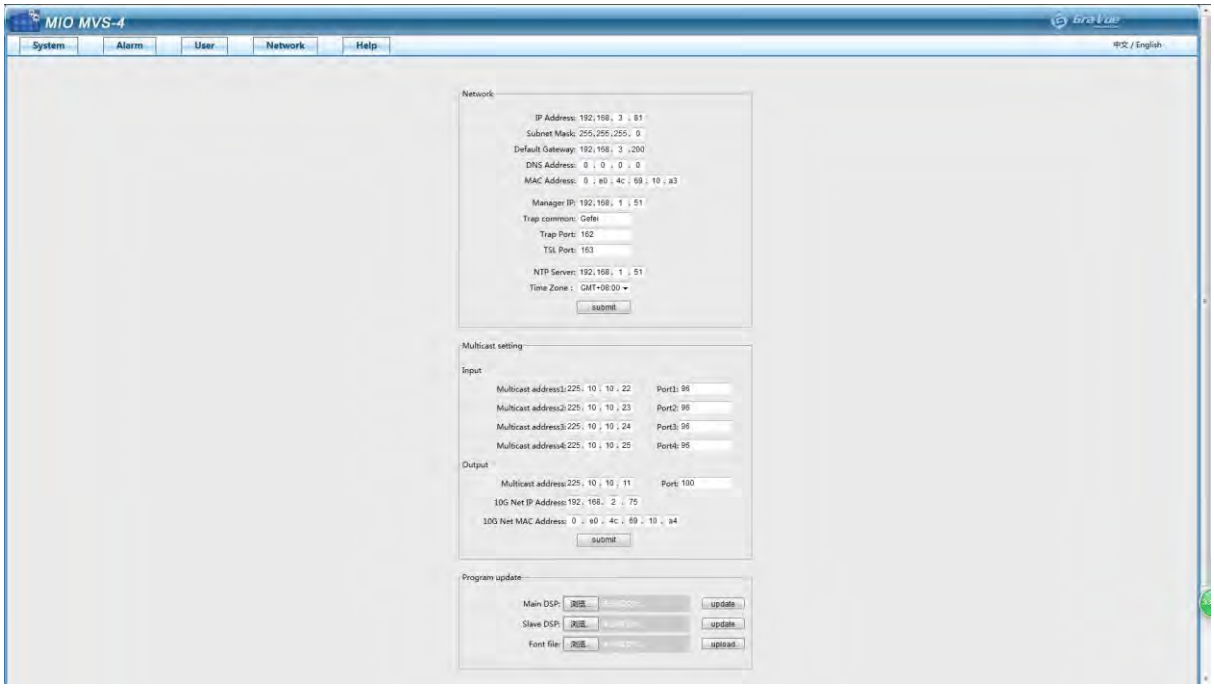
The software provides password-protected function. The initial user name is admin, and the initial

password is 000000. Users can modify the password; maximum password length is 12 bits. When you modify the password successfully, information will prompt as "The password is altered successfully. It will take effect when you login next time."

The function of download alarm diary is reserved.

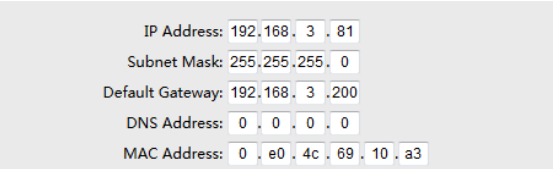


5.3.5 Network Configuration



Change IP address

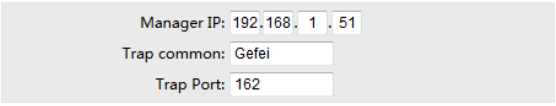
User can modify the IP address. If modified successfully, the system prompts a message box labeled "Network has been configured successfully, please turn off the power and restart the device again." Restart the device, enter the new IP address in IE address and the web software will be opened.



Change manager IP for SNMP Trap

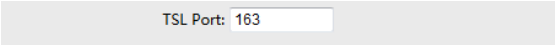
SNMP protocol can be used monitoring or voice alarm.

Configure the "Manager IP" to be the local IP address of computer for monitoring or Voice Alarm. The computer and MVS series should be in the same network segment. And Trap common and Trap port are default, Do not change them.



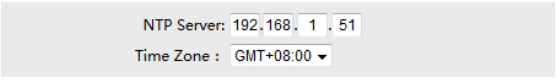
Change TSL port

MVS supports TSL 4.0 protocol, so we can configure dynamic Tally and UMD.

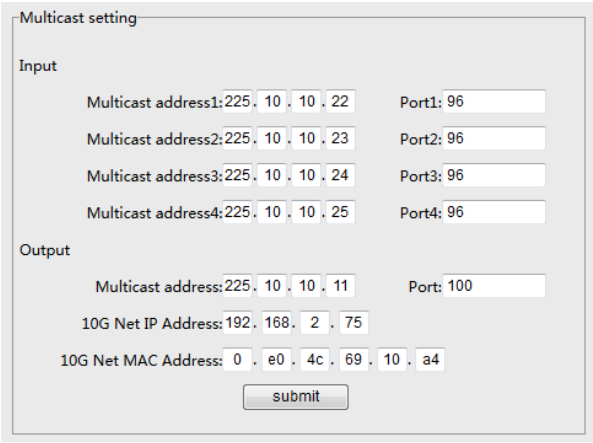


Change NTP IP for NTP Timing and World Time Zone

Configure the "NTP Server" to be the IP address of NTP server for NTP timing. And the NTP server and MIO MVS series should be in the same network segment.



Multi-cast IP Streaming Input &Output



This section contains the multicast IP input /output multicast configuration, and the physical IP address configuration of the fiber interface itself.

Input: configure input IP streaming multicast address and corresponding port number parameters.

Note: 10 GBPS is the total bandwidth, valid data is 9 GBPS. if the user input source bandwidth more than 10G, for example, 4Ch. 3G SDI signal, IP flows will appear lost package, the output image will have a problem, flash or break.

Output: configure the output IP streaming multicast address and port number, the image content is same as the content of SDI output interface.

Upgrade firmware of system

User can also upgrade system under this label. Before the upgrade, the anti-virus software and firewall have to be closed to make sure that the upgrade data is transmitted to MVS series system without rejection. Windows 2003, Windows XP, Windows Vista and Windows 7 system are strongly recommended to upgrade the system with Internet Explorer.exe.

There are two items for upgrading, such as main DSP, slave DSP , if there are new version released, we will supply 1-2 files named according to the items name. Each item should be upgraded separately one by one from main DSP. Power and network cannot be cut off during upgrading. When system is upgraded successfully, please turn off the power and restart the device again. It takes about 5minutes to upgrade slave DSP, and about 5 minutes to upgrade main DSP

Upgrade Text file for UMD font

The" Font" item means you can refresh the font style from your PC system.. So as to upgrade the software, you can update the font for Font item. The amount of data of font file must be less than 6MB. Before the upgrade, the anti-virus software and firewall have to be closed to make sure that the upgrade data is transmitted to MIO MVS-IP series system without rejection.

5.3.6 Help

Show the version of firmware.

Contact Us

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Appendix 1：AFD（SMPTE 2016-1-2007）

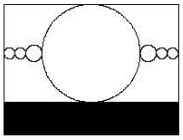
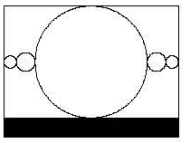
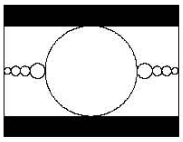
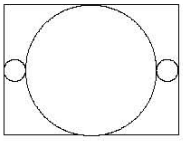
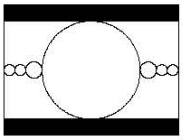
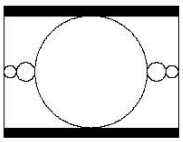
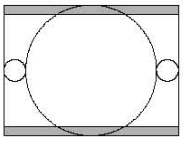
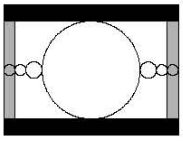
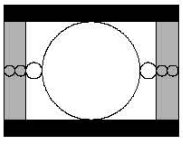
Active Format	Illustration in a 4:3 coded frame	Description
AFD = '0010' Box 16:9 (top)		Image with a 16:9 aspect ratio as letterbox at the top of a 4:3 coded frame.
AFD = '0011' Box 14:9 (top)		Image with a 14:9 aspect ratio as letterbox at the top of a 4:3 coded frame.
AFD = '0100' Box >16:9 (center)		Image with aspect ratio greater than 16:9 as a vertically centered letterbox in a 4:3 coded frame.
AFD = '1000' Full frame		Image is full frame, with an aspect ratio that is the same as the 4:3 coded frame.
AFD = '1010' 16:9 (center)		Image with a 16:9 aspect ratio as a vertically centered letterbox in a 4:3 coded frame.
AFD = '1011' 14:9 (center)		Image with 14:9 aspect ratio as a vertically centered letterbox in a 4:3 coded frame.
AFD = '1101' 4:3 (with alternative 14:9 center)		Image with a 4:3 aspect ratio and with an alternative 14:9 center in a 4:3 coded frame.
AFD = '1110' 16:9 (with alternative 14:9 center)		Image with a 16:9 aspect ratio and with an alternative 14:9 center as a vertically centered letterbox in a 4:3 coded frame.
AFD = '1111' 16:9 (with alternative 4:3 center)		Image with a 16:9 aspect ratio and with an alternative 4:3 center as a vertically centered letterbox in a 4:3 coded frame.

Figure 2 – AFD diagrammatic representations for images in a 4:3 coded frame (informative)

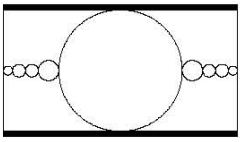
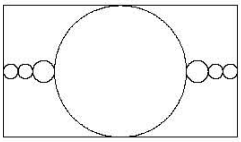
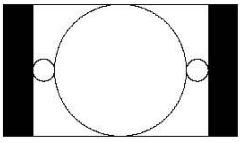
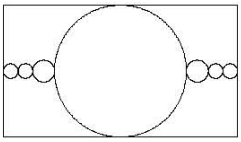
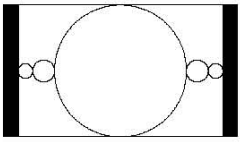
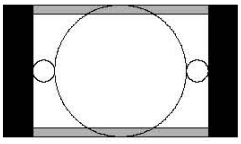
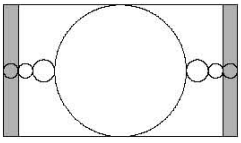
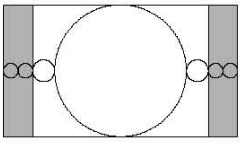
Active Format	Illustration in a 16:9 coded frame	Description
AFD = '0100' Box >16:9 (center)		Image with aspect ratio greater than 16:9 as a vertically centered letterbox in a 16:9 coded frame.
AFD = '1000' Full frame		Image is full frame, with an aspect ratio that is the same as the 16:9 coded frame.
AFD = '1001' 4:3 (center)		Image with a 4:3 aspect ratio as a horizontally centered pillarbox image in a 16:9 coded frame.
AFD = '1010' 16:9 (with complete 16:9 image protected)		Image is full frame, with a 16:9 aspect ratio and with all image areas protected.
AFD = '1011' 14:9 (center)		Image with a 14:9 aspect ratio as a horizontally centered pillarbox image in a 16:9 coded frame.
AFD = '1101' 4:3 (with alternative 14:9 center)		Image with a 4:3 aspect ratio and with an alternative 14:9 center as a horizontally centered pillarbox image in a 16:9 coded frame.
AFD = '1110' 16:9 (with alternative 14:9 center)		Image with a 16:9 aspect ratio and with an alternative 14:9 center in a 16:9 coded frame.
AFD = '1111' 16:9 (with alternative 4:3 center)		Image with a 16:9 aspect ratio and with an alternative 4:3 center in a 16:9 coded frame.

Figure 3 – AFD diagrammatic representations for images in a 16:9 coded frame (informative)

Appendix 2：Network Protocol

TCP/IP communication Port: 10001

Template： ** t1 !! ("t" is short for Template. You can recall Layout #1 to Layout #20. "1" represents layout #1 and "20" represents Layout #20. The data is decimal base)

Audio：** s=1 !! ("s" is short for sound. You can set output sound #0 to sound #4. "s=0" means set output sound be silence, "s=1" means set output sound be the sound of signal source，)

Full screen：** n=3&f=1&u=1&s=1 !!

（"n" is short for number. You can set number 1 to number 4. They respectively represent different signal source index.

"f" is short for full-screen. If you want to full screen one channel, you must set "f=1", which is very important. If you set "f=0" or don't set this parameter, there will be nothing happens.

"u" is short for UMD. You can set "u=0" or "u=1" if you have set "f=1" before. "u=1" means the channel be full screened with umd and am. To the contrary, "u=0" means the channel be full screened without umd or am. The default value is "u=0".

"s" is short for sound. You can set output sound #0 to sound #4. "s=0" means set output sound be silence, "s=1" means set output sound be the sound of signal source）

Header : **

End: !!