DigiBird Technology Co., Ltd.

UniStream AV-over-IP

User Manual V1.0

DIGIBIRD
www.digibirdtech.com

DIGIBIRD TECHNOLOGY CO., LTD.
Email: sales@digibirdtech.com Tel: 400-820-8050

Table of Content

1 Hardware Introduction

1.1 Brief Introduction

UniStream is a network-distributed AV&KVM system to deliver streams up to 4K/60Hz, YUV 4:4:4, over 1Gbps network. With combination of light-compression codec and H.264/H.265 codec, it breaks through constrains of system scalability, delivers visual-lossless experiences within local premise, and enables AV&KVM distribution among different locations.

UniStream has 3x models based on functions differentiation, UniStream-T, UniStream-B+ and UniStream-B. Each model consists of transmitters, receivers, controllers and mounting rack.

MODELS	DESCROPTION
UniStream-T	Both DB-VC2 and H.264/H.265 codec, color sampling 4:4:4
UniStream-B+	H.264/H.265 codec, color sampling 4:4:4
UniStream-B	H.264/H.265 codec, color sampling 4:2:0

1.2 Transmitters

1.2.1 UniStream-T Series

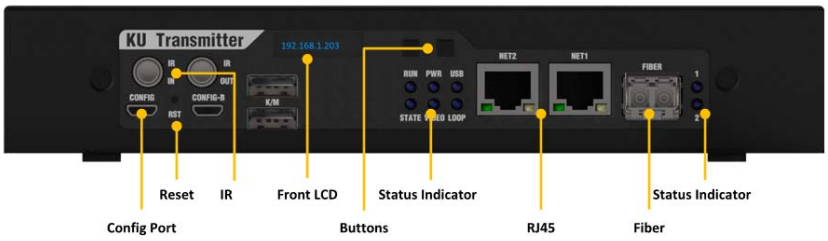
UniStream-T contains various transmitters and receivers as shown in following table:

TYPE	MODEL	INTERFACE
TRANSMITTER	Collaboration endpoint (KU) Workstation endpoint (KM) AV endpoint (VA)	HDMI, 4K-HDMI, 4K60-HDMI, DP, 4K-DP, DVI-I HDMI, 4K-HDMI, 4K60-HDMI, DP, 4K-DP, DVI-I HDMI, 4K-HDMI, 4K60-HDMI, DP, 4K-DP, DVI-I, SDI
RECEIVER	Collaboration endpoint (KU) Workstation endpoint (KM) AV endpoint (VA) Video Wall (VW)	HDMI, 4K-HDMI, DP, 4K-DP, DVI-I HDMI, 4K-HDMI, DP, 4K-DP, DVI-I HDMI, 4K-HDMI, DP, 4K-DP, DVI-I, SDI HDMI, 4K-HDMI, DP, 4K-DP, DVI-I

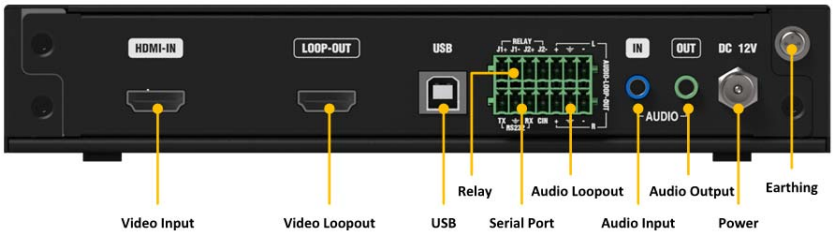
1.2.1.1 Collaboration Transmitter

Collaboration transmitter supports 1x channel audio and video encoding, 1x Keyboard and mouse control signal transmission and USB data transmission.

Front View



Rear View



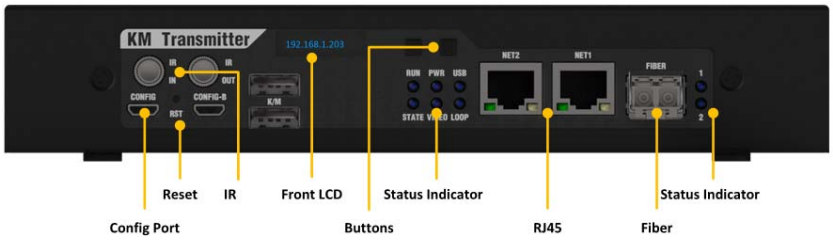
Config	Micro USB to config device
RESTORATION	Hold 5s to restore factory set
IR	IR IN: Reserved for future IR OUT: Reserved for future
LED PANEL	Display IP and MAC address
BUTTON	2x buttons, support self-define
STATUS INDICATOR	RUN: Keep flashing indicates running normally, rapid flashing indicates endpoint remain unconfigured. PWR: Power indicator, keeps flashing during working Video status indicator, keeps on when input detected Keeps on when connect with Signals Keeps on when loop-out port connected 1: Network connection status indicator, keeps on during working 2: Reserved for future
NETWORK PORT	NET1: RJ45 network port, supports POE. NET2: Reserved for future
SFP	SFP Connector, compliant with DigiBird fiber products only
VIDEO INPUT	HDMI /4K-HDMI / 4K60-HDMI / DP / 4K-DP / DVI-I
LOOP OUT	HDMI /4K-HDMI / 4K60-HDMI / DP / 4K-DP / DVI-I Loopout
KEYBOARD & MOUSE	Connect to computer for KM control
RELAY CONNECTOR	Supports 2x relay device
SERIAL	RS232 control, baud rate：9600、19200、38400、57600、115200
AUDIO	3.5mm mini-jack
AUDIO LOOPOUT	Phoenix Audio Loop out
AUDIO OUTPUT	3.5mm audio output for bilateral audio transmission
POWER	12V DC
GROUND	For power ground
OTHERS	Reserved

HDMI /4K-HDMI / 4K60-HDMI / DP / 4K-DP endpoints support embedded audio.

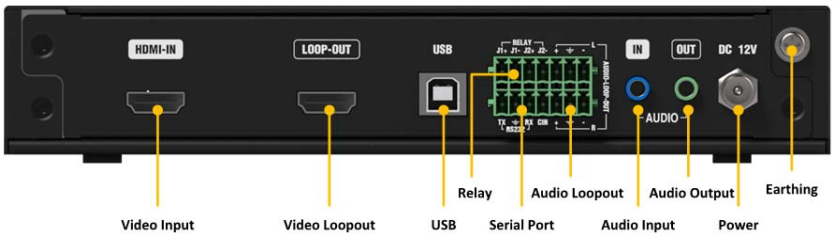
1.2.1.2 Workstation Transmitter

Workstation transmitter supports 1x channel audio and video encoding, 1x Keyboard and mouse control signal transmission.

Front View



Rear View



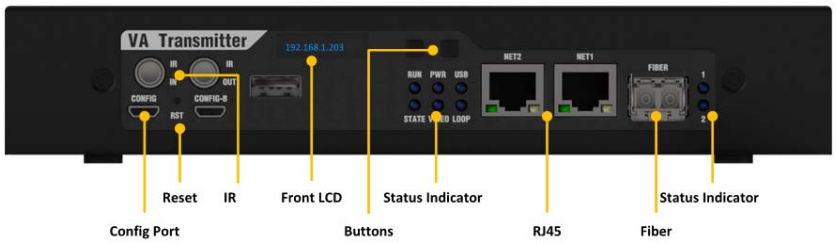
Config	Micro USB to config device
RESTORATION	Hold 5s to restore factory set
IR	IR IN: Reserved for future IR OUT: Reserved for future
LED PANEL	Display IP and MAC address
BUTTON	2x buttons, support self-define
STATUS INDICATOR	RUN: Keep flashing indicates running normally, rapid flashing indicates endpoint remain unconfigured. PWR: Power indicator, keeps flashing during working VIDEO: Video status indicator, keeps on when input detected USB: Keeps on when connect with Signals LOOP: Keeps on when loop-out port connected 1：Network connection status indicator, keeps on during working 2：Reserved for future
NETWORK PORT	NET1: RJ45 network port, supports POE. NET2: Reserved for future
SFP	SFP Connector, compliant with DigiBird fiber products only
VIDEO INPUT	HDMI /4K-HDMI / 4K60-HDMI / DP / 4K-DP / DVI-I
LOOP OUT	HDMI /4K-HDMI / 4K60-HDMI / DP / 4K-DP / DVI-I loop-out
KEYBOARD & MOUSE	Connect to computer for KM control
RELAY CONNECTOR	Supports 2x relay device
SERIAL	RS232 control, baud rate：9600、19200、38400、57600、115200
AUDIO	3.5mm mini-jack
AUDIO LOOPOUT	Phoenix Audio Loop out
AUDIO OUTPUT	3.5mm audio output for bilateral audio transmission
POWER	12V DC
GROUND	For power ground
OTHERS	Reserved

HDMI /4K-HDMI / 4K60-HDMI / DP / 4K-DP endpoints support embedded audio.

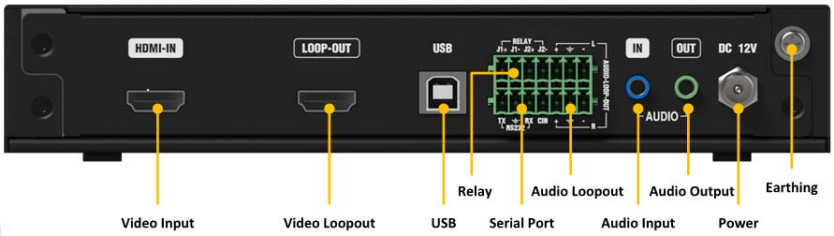
1.2.1.3 AV Transmitter

AV transmitter supports 1x channel audio and video encoding.

Front View



Rear View



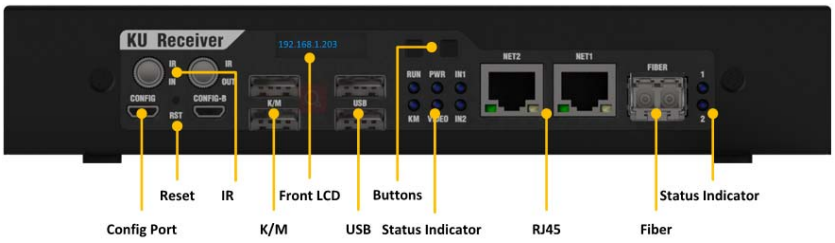
Config	Micro USB to config device
RESTORATION	Hold 5s to restore factory set
IR	IR IN: Reserved for future IR OUT: Reserved for future
LED PANEL	Display IP and MAC address
BUTTON	2x buttons, support self-define
STATUS INDICATOR	RUN： Keep flashing indicates running normally, rapid flashing indicates endpoint remain unconfigured. PWR: Power indicator, keeps flashing during working VIDEO: Video status indicator, keeps on when input detected USB: Keeps on when connect with Signals LOOP: Keeps on when loop-out port connected 1: Network connection status indicator, keeps on during working 2: Reserved for future
NETWORK PORT	NET1: RJ45 network port, supports POE. NET2: Reserved for future
SFP	SFP Connector, compliant with DigiBird fiber products only
VIDEO INPUT	HDMI /4K-HDMI / 4K60-HDMI / DP / 4K-DP / DVI-I
LOOP OUT	HDMI /4K-HDMI / 4K60-HDMI / DP / 4K-DP / DVI-I loop out
RELAY CONNECTOR	Supports 2x relay device
SERIAL	RS232 control, baud rate：9600、19200、38400、57600、115200
AUDIO	3.5mm mini-jack
AUDIO LOOPOUT	Phoenix Audio Loop out
AUDIO OUTPUT	3.5mm audio output for bilateral audio transmission
POWER	12V DC
GROUND	For power ground
OTHERS	Reserved

HDMI /4K-HDMI / 4K60-HDMI / DP / 4K-DP endpoints support embedded audio.

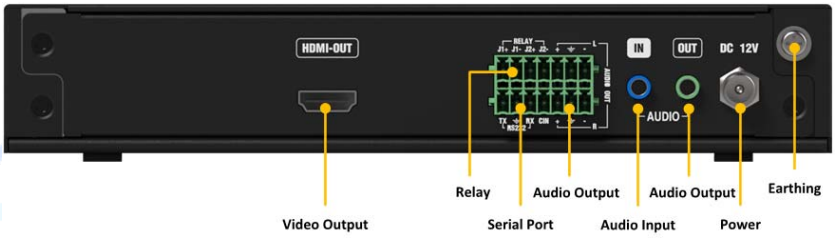
1.2.1.4 Collaboration Receiver

Workstation collaboration receiver supports transmission of 1x channel video, 1x set KM control signal and USB data, can manage remote computers at Workstation desk.

Front View



Rear View



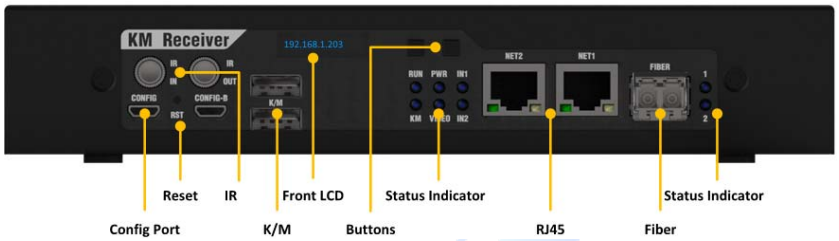
Config	Micro USB to config device
RESTORATION	Hold 5s to restore factory set
IR	IR IN: Reserved for future IR OUT: Reserved for future
KEYBOARD & MOUSE	2x USB Type A，connect to operator keyboard and mouse
USB CONNECTOR	2*USB Type A for USB data transmission
LCD PANEL	Display endpoint transmitter and receiver
BUTTON	2x buttons, support self-define
STATUS INDICATOR	RUN: Keep flashing indicates running normally, rapid flashing indicates endpoint remain unconfigured. KM: Keeps on when keyboard and mouse properly connected PWR: Power indicator, keeps flashing during working VIDEO: Video output indicator, keeps on when connecting to monitor IN1: Reserved IN2: NET2 status indicator, keeps on when working normally 1：Network indicator, keeps on when working normally 2：Fiber indicator, keeps on when working normally
NETWORK	NET1：RJ45 connector, supports POE NET2：RJ45 connector, supports POE
SFP	Reserved
VIDEO OUTPUT	HDMI /4K-HDMI / DP / 4K-DP / DVI-I
RELAY CONNECTOR	Supports 2x relay device
SERIAL	RS232 control, baud rate：9600、19200、38400、57600、115200
AUDIO	3.5mm mini-jack
AUDIO LOOPOUT	Phoenix Audio Loop out
AUDIO OUTPUT	3.5mm audio output for bilateral audio transmission
POWER	12V DC
GROUND	For power ground

HDMI /4K-HDMI / 4K60-HDMI / DP / 4K-DP endpoints support embedded audio.

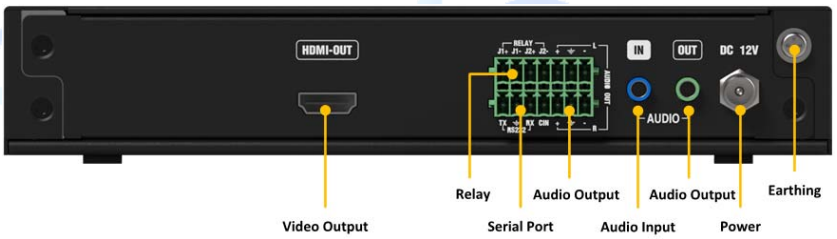
1.2.1.5 Workstation Receiver

Workstation collaboration receiver supports transmission of 1x channel video, 1x set KM control signal and USB data, can manage remote computers at Workstation desk.

Front View



Rear View



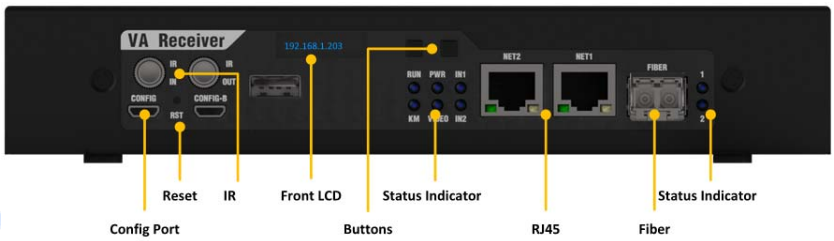
Config	Micro USB to config device
RESTORATION	Hold 5s to restore factory set
IR	IR IN: Reserved for future IR OUT: Reserved for future
KEYBOARD& MOUSE	2x USB Type A，connect to operator keyboard and mouse
USB CONNECTOR	2*USB Type A for USB data transmission
LCD PANEL	Display endpoint transmitter and receiver
BUTTON	2x buttons, support self-define
STATUS INDICATOR	RUN: Keep flashing indicates running normally, rapid flashing indicates endpoint remain unconfigured. KM: Keeps on when keyboard and mouse properly connected PWR: Power indicator, keeps flashing during working VIDEO: Video output indicator, keeps on when connecting to monitor IN1: Reserved IN2: NET2 status indicator, keeps on when working normally 1：Network indicator, keeps on when working normally 2：Fiber indicator, keeps on when working normally
NETWORK	NET1：RJ45 connector, supports POE NET2：RJ45 connector, supports POE
SFP	Reserved
VIDEO OUTPUT	HDMI /4K-HDMI / DP / 4K-DP / DVI-I
RELAY CONNECTOR	Supports 2x relay device
SERIAL	RS232 control, baud rate：9600、19200、38400、57600、115200
AUDIO	3.5mm mini-jack
AUDIO LOOPOUT	Phoenix Audio Loop out
AUDIO OUTPUT	3.5mm audio output for bilateral audio transmission
POWER	12V DC
GROUND	For power ground

HDMI /4K-HDMI / 4K60-HDMI / DP / 4K-DP endpoints support embedded audio.

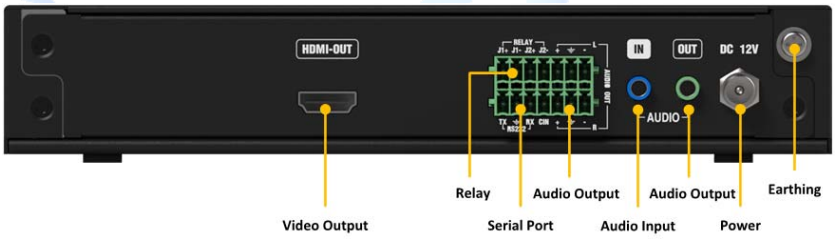
1.2.1.6 AV Receiver

AV receiver supports 1x channel video output and quad-view display at display.

Front View



Rear View



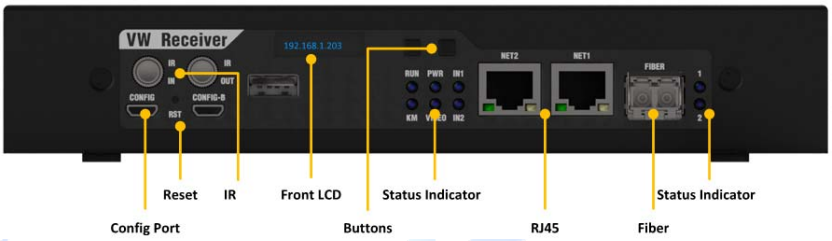
Config	Micro USB to config device
RESTORATION	Hold 5s to restore factory set
IR	IR IN: Reserved for future IR OUT: Reserved for future
LCD PANEL	Display endpoint transmitter and receiver
BUTTON	2x buttons, support self-define
STATUS INDICATOR	RUN: Keep flashing indicates running normally, rapid flashing indicates endpoint remain unconfigured. KM: Keeps on when keyboard and mouse properly connected PWR: Power indicator, keeps flashing during working VIDEO: Video output indicator, keeps on when connecting to monitor IN1: Reserved IN2: NET2 status indicator, keeps on when working normally 1：Network indicator, keeps on when working normally 2：Fiber indicator, keeps on when working normally
NETWORK	NET1：RJ45 connector, supports POE NET2：RJ45 connector, supports POE
SFP	Reserved
VIDEO OUTPUT	HDMI /4K-HDMI / DP / 4K-DP / DVI-I
RELAY CONNECTOR	Supports 2x relay device
SERIAL	RS232 control, baud rate：9600、19200、38400、57600、115200
AUDIO INPUT	Reserved
AUDIO OUTPUT	3.5mm audio output for bilateral audio transmission
POWER	12V DC
GROUND	For power ground

HDMI /4K-HDMI / 4K60-HDMI / DP / 4K-DP endpoints support embedded audio.

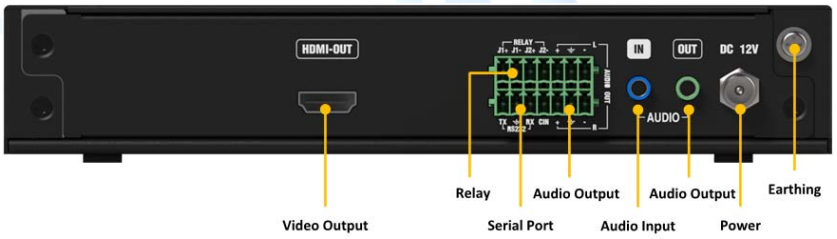
1.2.1.7 Video Wall Receiver

Video wall receiver supports 1x channel video output and video wall display management.

Front View



Rear View



Config	Micro USB to config device
RESTORATION	Hold 5s to restore factory set
IR	IR IN: Reserved for future IR OUT: Reserved for future
LCD PANEL	Display endpoint transmitter and receiver
BUTTON	2x buttons, support self-define
STATUS INDICATOR	RUN: Keep flashing indicates running normally, rapid flashing indicates endpoint remain unconfigured. KM: Keeps on when keyboard and mouse properly connected PWR: Power indicator, keeps flashing during working VIDEO: Video output indicator, keeps on when connecting to monitor IN1: Reserved IN2: NET2 status indicator, keeps on when working normally 1：Network indicator, keeps on when working normally 2：Fiber indicator, keeps on when working normally
NETWORK	NET1：RJ45 connector, supports POE NET2：RJ45 connector, supports POE
SFP	Reserved
VIDEO OUTPUT	HDMI /4K-HDMI / DP / 4K-DP / DVI-I
RELAY CONNECTOR	Supports 2x relay device
SERIAL	RS232 control, baud rate：9600、19200、38400、57600、115200
AUDIO INPUT	Reserved
AUDIO OUTPUT	3.5mm audio output
POWER	12V DC
GROUND	For power ground

HDMI /4K-HDMI / 4K60-HDMI / DP / 4K-DP endpoints support embedded audio.

1.2.2 UniStream-B+/B

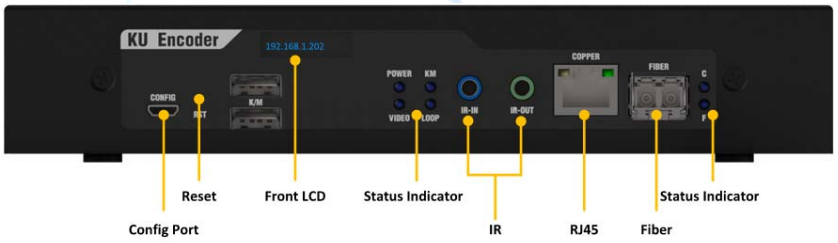
UniStream-B contains various encoders and decoders as shown in following table:

TYPE	MODEL	INTERFACE
ENCODERS	Collaboration endpoint (KU) Workstation endpoint (KM) AV endpoint (VA)	HDMI, 4K-HDMI, 4K60-HDMI, DP, 4K-DP, DVI-I HDMI, 4K-HDMI, 4K60-HDMI, DP, 4K-DP, DVI-I HDMI, 4K-HDMI, 4K60-HDMI, DP, 4K-DP, DVI-I, SDI
DECODERS	Collaboration endpoint (KU) Workstation endpoint (KM) AV endpoint (VA) Video Wall (VW)	HDMI, 4K-HDMI, DP, 4K-DP, DVI-I HDMI, 4K-HDMI, DP, 4K-DP, DVI-I HDMI, 4K-HDMI, DP, 4K-DP, DVI-I, SDI HDMI, 4K-HDMI, DP, 4K-DP, DVI-I

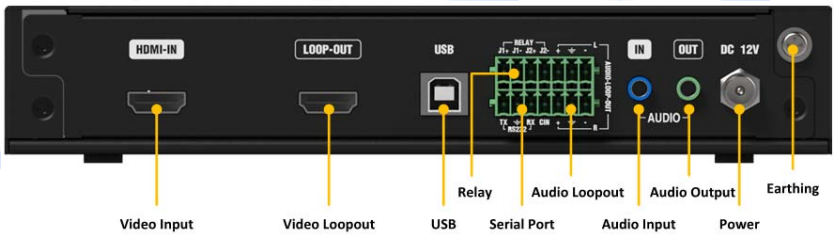
1.2.2.1 Collaboration Encoder

Collaboration encoder supports 1x channel audio and video encoding, 1x Keyboard and mouse control signal transmission and 2x USB data transmission.

Front View



Rear View



Config	Micro USB to config device
Restoration	Hold 5s to restore factory set
IR	IR IN: Reserved for future IR OUT: Reserved for future
Led Panel	Display IP and MAC address
Status Indicator	PWR: Power indicator, keeps flashing during working VIDEO: Video status indicator, keeps on when input detected KM: Keeps on when connect with Signals LOOP: Keeps on when loop-out port connected C: Network connection status indicator, keeps on during working F: Reserved for future
Network Port	COPPER: RJ45 network connector, supports POE, bit rate 1000Mbps
SFP	SFP Connector, compliant with DigiBird fiber products only
Video Input	HDMI /4K-HDMI / 4K60-HDMI / DP / 4K-DP / DVI-I
Loop Out	HDMI /4K-HDMI / 4K60-HDMI / DP / 4K-DP / DVI-I

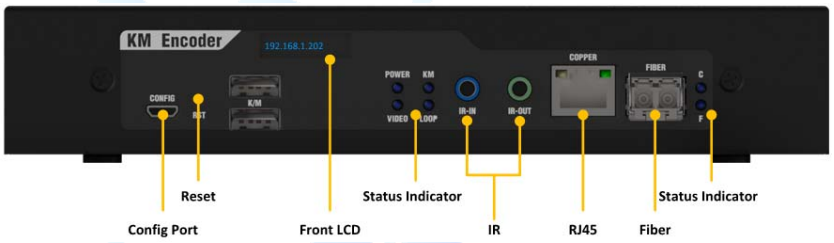
USB	Connect to computer for KM control and USB data transmission
Relay Connector	Supports 2x relay device
Serial	RS232 control, baud rate: 9600, 19200, 38400, 57600, 115200
Audio	3.5mm mini-jack
Audio Loop-out	Phoenix Audio Loop out
Audio Output	3.5mm audio output for bilateral audio transmission
Power	12V DC
Ground	For power ground
Others	Reserved

HDMI / 4K-HDMI / DP / 4K-DP endpoints support embedded audio.

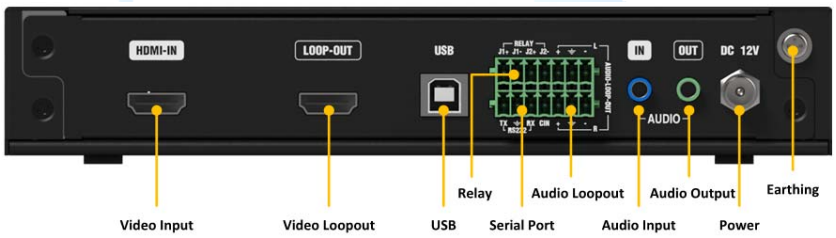
1.2.2.2 Workstation Encoder

Workstation Encoder support encoding of 1x channel video and 1x set keyboard and mouse control signal.

Front View



Rear View



Config	Micro USB to config device
Restoration	Hold 5s to restore factory set
IR	IR IN: Reserved for future IR OUT: Reserved for future
Led Panel	Display IP and MAC address
Status Indicator	PWR: Power indicator, keeps flashing during working VIDEO: Video status indicator, keeps on when input detected KM: Keeps on when connect with Signals LOOP: Keeps on when loop-out port connected C: Network connection status indicator, keeps on during working F: Reserved for future
Network Port	COPPER: RJ45 network connector, supports POE, bit rate 1000Mbps
SFP	SFP Connector, compliant with DigiBird fiber products only
Video Input	HDMI /4K-HDMI / 4K60-HDMI / DP / 4K-DP / DVI-I
Loop Out	HDMI /4K-HDMI / 4K60-HDMI / DP / 4K-DP / DVI-I
USB	Connect to computer for KM control
Relay Connector	Supports 2x relay device
Serial	RS232 control, baud rate: 9600, 19200, 38400, 57600, 115200

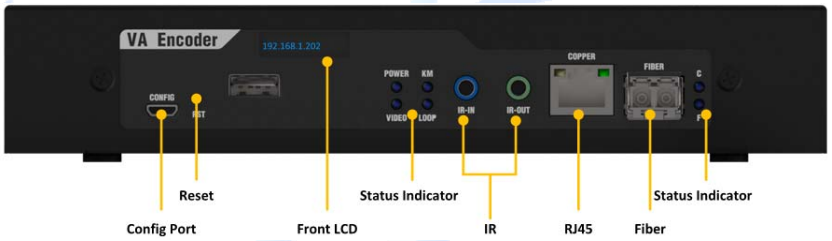
Audio	3.5mm mini-jack
Audio Loop-out	Phoenix Audio Loop out
Audio Output	3.5mm audio output for bilateral audio transmission
Power	12V DC
Ground	For power ground
Others	Reserved

HDMI / 4K-HDMI / DP / 4K-DP endpoints support embedded audio.

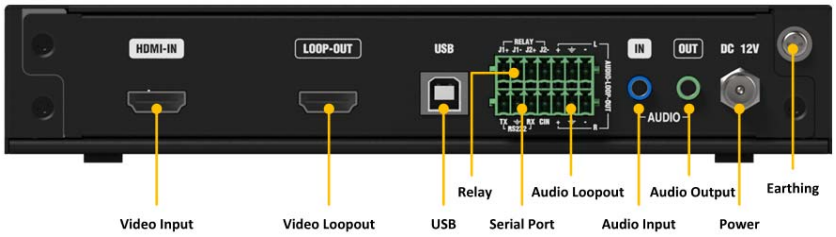
1.2.2.3 AV Encoder

AV Encoder supports encoding of 1x channel audio and video signal.

Front View



Rear View



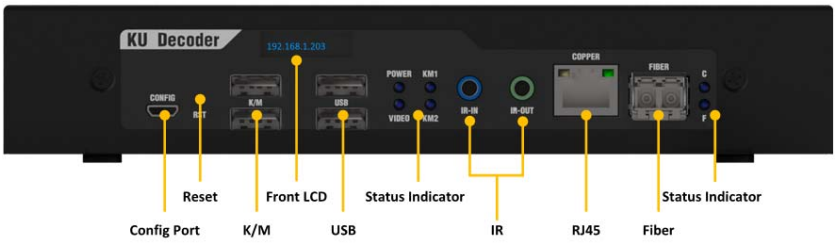
Config	Micro USB to config device
Restoration	Hold 5s to restore factory set
IR	IR IN: Reserved for future IR OUT: Reserved for future
Led Panel	Display IP and MAC address
Status Indicator	PWR: Power indicator, keeps flashing during working VIDEO: Video status indicator, keeps on when input detected KM: Keeps on when connect with Signals LOOP: Keeps on when loop-out port connected C: Network connection status indicator, keeps on during working F: Reserved for future
Network Port	COPPER: RJ45 network connector, supports POE, bit rate 1000Mbps
SFP	SFP Connector, compliant with DigiBird fiber products only
Video Input	HDMI /4K-HDMI / 4K60-HDMI / DP / 4K-DP / DVI-I
Loop Out	HDMI /4K-HDMI / 4K60-HDMI / DP / 4K-DP / DVI-I
Relay Connector	Supports 2x relay device
Serial	RS232 control, baud rate: 9600, 19200, 38400, 57600, 115200
Audio	3.5mm mini-jack
Audio Loop-out	Phoenix Audio Loop out
Audio Output	Reserved
Power	12V DC
Ground	For power ground
Others	Reserved

HDMI / 4K-HDMI / DP / 4K-DP endpoints support embedded audio.

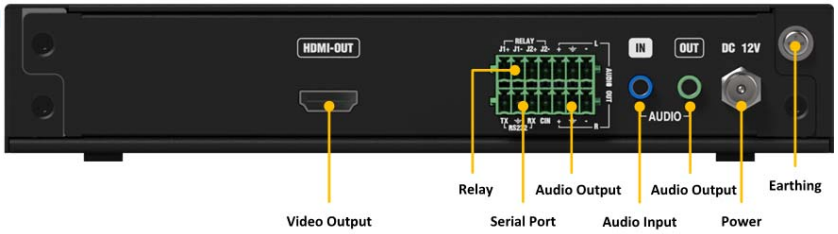
1.2.2.4 Collaboration Decoder

Workstation collaboration decoder supports decoding of 1x channel video, 1x set KM control signal and 2x USB data, can manage remote computers at Workstation desk.

Front View



Rear View



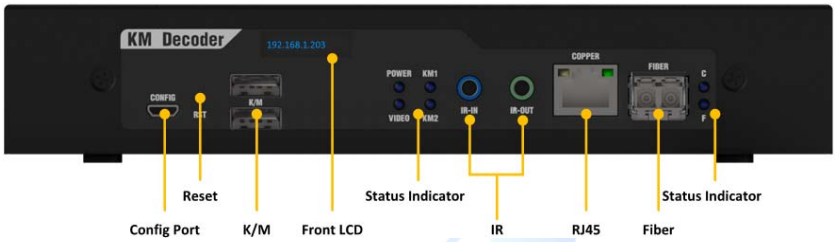
Config	Micro USB to config device
Restoration	Hold 5s to restore factory set
IR	IR IN: Reserved for future IR OUT: Reserved for future
Keyboard & Mouse	2x USB Type A， connect to operator keyboard and mouse
USB Connector	2x USB Type A for USB data transmission
Lcd Panel	Display endpoint transmitter and receiver
Status Indicator	PWR: Power indicator, keeps flashing during working VIDEO: Video status indicator, keeps on when input detected KM: Keeps on when connect with Signals LOOP: Keeps on when loop-out port connected C: Network connection status indicator, keeps on during working F: Fiber connection status indicator, keeps on during working
Network	COPPER: RJ45 network connector, supports POE, bit rate 1000Mbps
SFP	SFP Connector, compliant with DigiBird fiber products only
Video Output	HDMI /4K-HDMI / DP / 4K-DP / DVI-I
Relay Connector	Supports 2x relay device
Serial	RS232 control, baud rate：9600、19200、38400、57600、115200
Audio	3.5mm mini-jack for bilateral audio transmission
Audio Output	3.5mm audio output
Power	12V DC
Ground	For power ground

HDMI / 4K-HDMI / DP / 4K-DP endpoints support embedded audio.

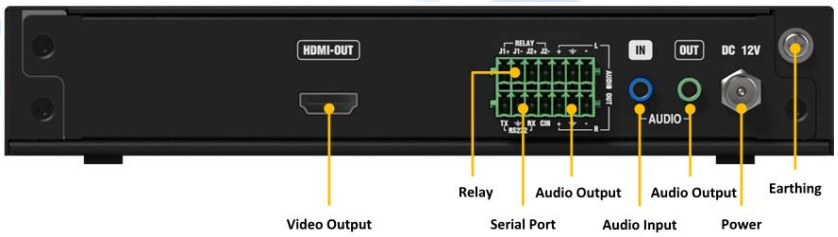
1.2.2.5 Workstation Decoder

Workstation collaboration decoder supports decoding of 1x channel video, 1x set KM control signal, can manage remote computers at Workstation desk.

Front View



Rear View



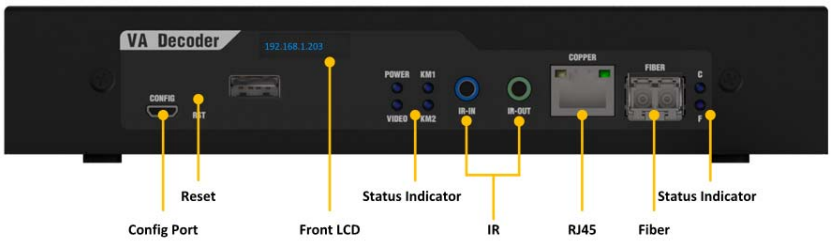
Config	Micro USB to config device
Restoration	Hold 5s to restore factory set
IR	IR IN: Reserved for future IR OUT: Reserved for future
Keyboard & Mouse	2x USB Type A，connect to operator keyboard and mouse
Lcd Panel	Display endpoint transmitter and receiver
Status Indicator	PWR: Power indicator, keeps flashing during working VIDEO: Video status indicator, keeps on when input detected KM: Keeps on when connect with Signals LOOP: Keeps on when loop-out port connected C: Network connection status indicator, keeps on during working F: F: Fiber connection status indicator, keeps on during working
Network	COPPER: RJ45 network connector, supports POE, bit rate 1000Mbps
SFP	SFP Connector, compliant with DigiBird fiber products only
Video Output	HDMI /4K-HDMI / DP / 4K-DP / DVI-I
Relay Connector	Supports 2x relay device
Serial	RS232 control, baud rate：9600、19200、38400、57600、115200
Audio	3.5mm mini-jack for bilateral audio transmission
Audio Output	3.5mm audio output
Power	12V DC
Ground	For power ground

HDMI / 4K-HDMI / DP / 4K-DP endpoints support embedded audio.

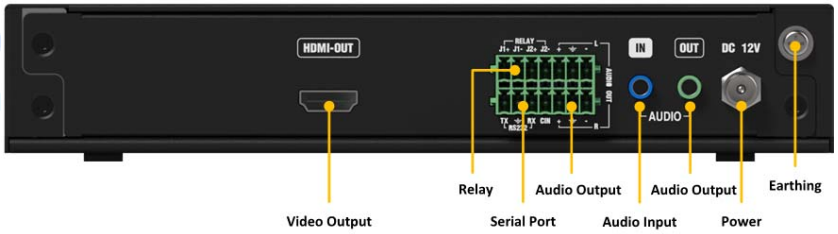
1.2.2.6 AV Decoder

AV Decoder supports decoding of 1x channel audio and video signal, and supports multiple-view display.

Front View



Rear View



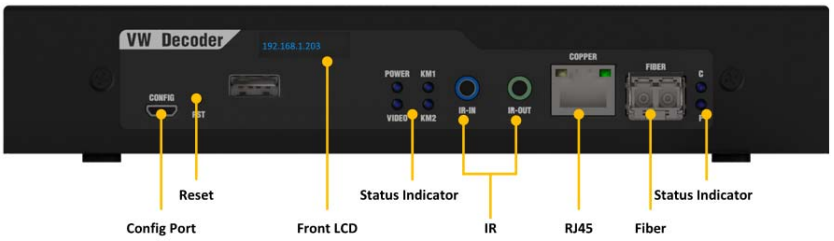
Config	Micro USB to config device
Restoration	Hold 5s to restore factory set
IR	IR IN: Reserved for future IR OUT: Reserved for future
Keyboard & Mouse	2x USB Type A， connect to operator keyboard and mouse
LCD Panel	Display endpoint transmitter and receiver (-B not support)
Status Indicator	PWR: Power indicator, keeps flashing during working VIDEO: Video status indicator, keeps on when input detected KM: Keeps on when connect with Signals LOOP: Keeps on when loop-out port connected C: Network connection status indicator, keeps on during working F: Fiber connection status indicator, keeps on during working
Network	COPPER: RJ45 network connector, supports POE, bit rate 1000Mbps
SFP	SFP Connector, compliant with DigiBird fiber products only
Video Output	HDMI /4K-HDMI / DP / 4K-DP / DVI-I
Relay Connector	Supports 2x relay device
Serial	RS232 control, baud rate：9600、19200、38400、57600、115200
Audio	Reserved
Audio Output	3.5mm audio output
Power	12V DC
Ground	For power ground

HDMI / 4K-HDMI / DP / 4K-DP endpoints support embedded audio.

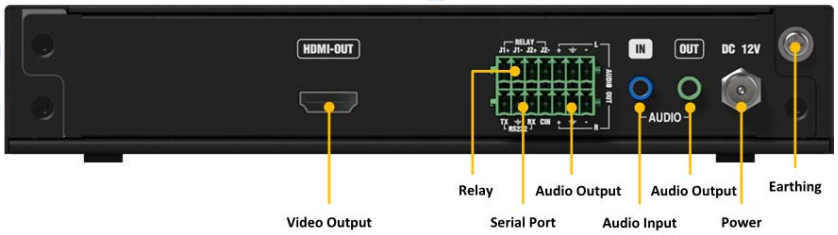
1.2.2.7 Video Wall Decoder

Video wall decoder supports 1x channel of video output, and supports management of video wall display.

Front View



Rear View



Config	Micro USB to config device
Restoration	Hold 5s to restore factory set
IR	IR IN: Reserved for future IR OUT: Reserved for future
Keyboard & Mouse	2x USB Type A， connect to operator keyboard and mouse
LCD Panel	Display endpoint transmitter and receiver (-B not support)
Status Indicator	PWR: Power indicator, keeps flashing during working VIDEO: Video status indicator, keeps on when input detected KM: Keeps on when connect with Signals LOOP: Keeps on when loop-out port connected C: Network connection status indicator, keeps on during working F: F: Fiber connection status indicator, keeps on during working
Network	COPPER: RJ45 network connector, supports POE, bit rate 1000Mbps
SFP	SFP Connector, compliant with DigiBird fiber products only
Video Output	HDMI /4K-HDMI / DP / 4K-DP / DVI-I
Relay Connector	Supports 2x relay device
Serial	RS232 control, baud rate：9600、19200、38400、57600、115200
Audio	Reserved
Audio Output	Reserved for future
Power	12V DC
Ground	For power ground

HDMI / 4K-HDMI / DP / 4K-DP endpoints support embedded audio.

1.3 System Manager

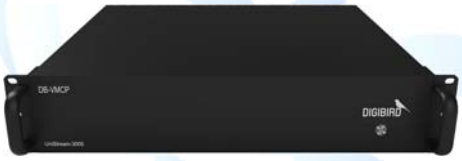
1.3.1 VMCN

VMCN is a system controller to manage the system less than 100x endpoints.

Endpoint (pcs)	Up to 100x endpoints
Port	6x Serial port connector (COM1_COM2/COM3_COM4/COM5_COM6, COM1 supports RS232/422/485 function) ，2x RJ-45 LAN port
Network	1000M，LAN x2
OS	Linux
Dimension	483x 260x 45 (length * depth * height), with mounting ear
Voltage	AC INPUT 100 -240V~, 4-1.5A, 50–60Hz
CPU	G4400
Memory	DDR4-4G*2
Disk	SSD 120G
Power	250W

1.3.2 VMCP

VMCP is a system server, which can manage up to 1000x endpoints in the system.



Endpoint (pcs)	Up to 1000x endpoints
Port	6x Serial port connector (COM1_COM2/COM3_COM4/COM5_COM6, COM1 supports RS232/422/485 function)，2x RJ-45 LAN port
Network	1000M, LAN2
OS	Linux
Dimension	483x350x89(length* depth* height), with mounting ear
Voltage	AC INPUT 100 -240V~，4-1.5A，50–60Hz
CPU	I7-7700
Memory	DDR4-4G*2
Disk	SSD 120G*2
Power	250W

1.4 Mounting

Endpoints can be housed in mounting rack or chassis, then be mounted into rack.

1.4.1 1.5U Chassis

4x endpoints can be installed into a 1.5U chassis in cards and be all powered by the chassis concurrently.

ITEM	DESCRIPTION
DIMENSION (LX DX H)	444x 206.6x 44.7(mm), without mounting ear 482.6x 206.6x 44.7(mm) with mounting ear
VOLTAGE	110-240VAC，50/60Hz
CURRENT	1.8A/115V AC; 1A/230V AC
WEIGHT	5kg (fully loaded)
CAPACITY (PCS)	4
HUMIDITY	0-50℃(working), -10 ~ 60℃ (Storage)
TEMPERATURE	10%~80% (working), 10%~90% (Storage)

1.4.2 1U Mounting Rack

1U mounting rack which can house up to 2x endpoints and power endpoints individually.

ITEM	DESCRIPTION
DIMENSION (LX DX H)	444x 200x 42.5(mm) without mounting ears 483x 200x 42.5(mm) with mounting ears
WEIGHT	1.1kg （Rack only）
CAPACITY (PCS)	2

1.5 Default Setting

Transmitter IP: 192.168.1.202

Receiver IP: NET1——192.168.1.203， NET2——192.168.1.215 (NET2 available for UniStream-T only).

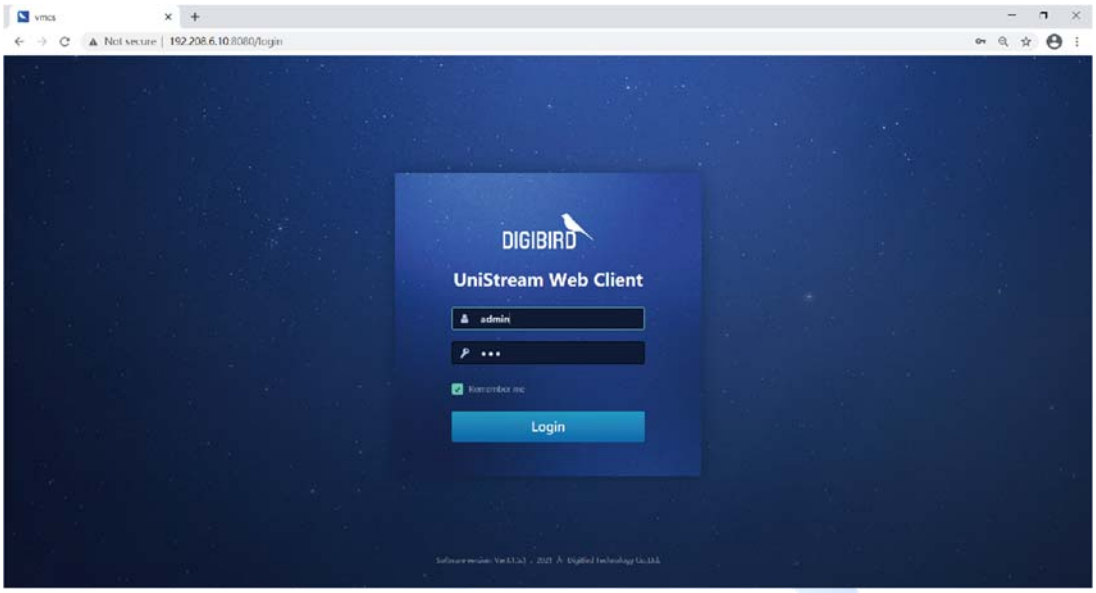
VMCN IP: LAN1——192.168.1.201、LAN2——192.168.3.201

VMCP IP: LAN1——192.168.1.201、LAN2——192.168.3.201

2 Configure Operation Interface

The system can be managed over UniStream Web-client and workstation client at monitors.
Working with VMCN or VMCP, Web-client applies to configure endpoints, appoint user access, monitor system status and upgrade the system. Chrome browser at version Version80 and later are recommended for the web control.
Workstation client serves to switch desired computers, collaborate with other operators and manage video wall display.

Run **Chrome** Browser, type the address http:/**IP Address**:8080/login, input username and password to log in. Default User Name is “admin”, default Password is “123”. The IP address refers to the IP of VMCN or VMCP.

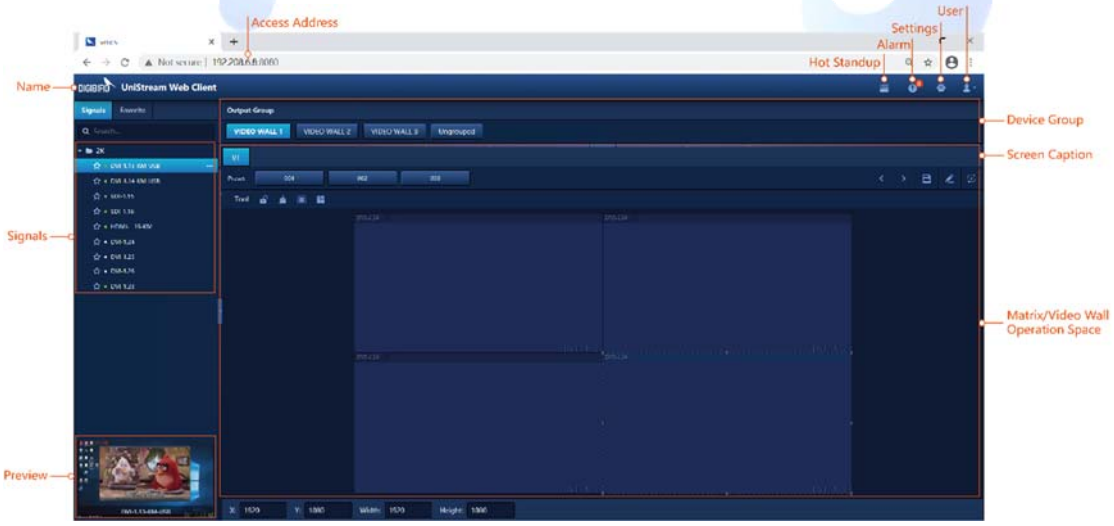


2.1 Interface

2.1.1 Dashboard Interface

At Dashboard to manage video wall display and matrix switching.

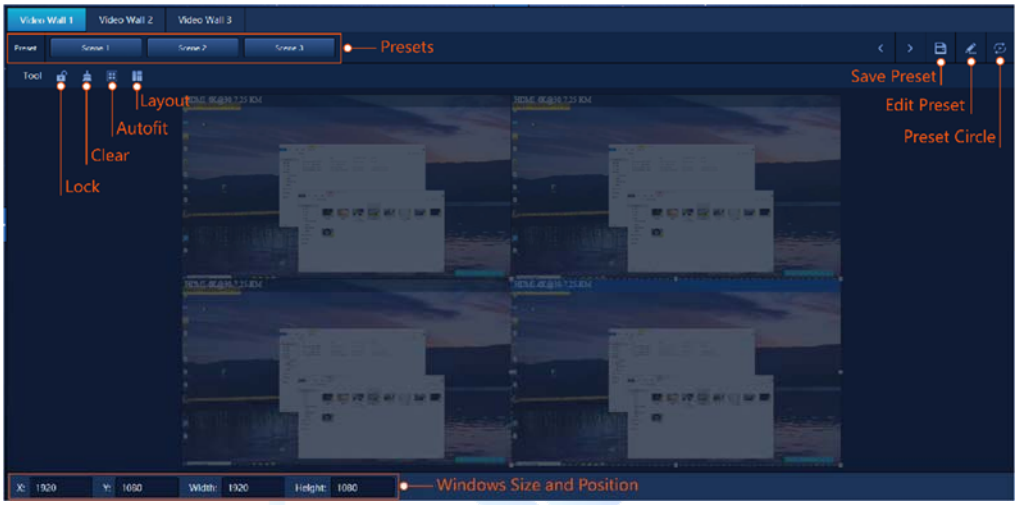
Sections and descriptions as below table:



SIGNALS	Display all Signals list as per group, including favorites Signal list.
PREVIEW	Select any Signals in the list to live preview content
OUTPUTS	Display in group as per setup
DISPLAYS	Displays of video wall or matrix under outputs group.
OPERATION	Manage video wall layout and matrix switching on desired displays

2.1.1.1 Video Wall Layout Interface

Select one group video wall at **Outputs** to manage video wall display, including recall presets, create video wall layouts, etc.



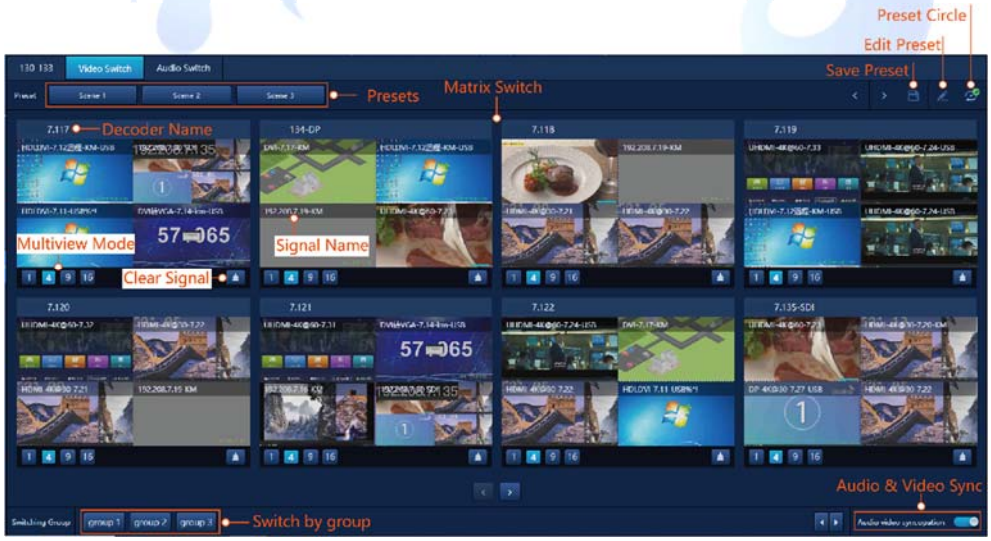
Refer [7.3 Video Wall Layout]For more detail regarding video wall management.

2.1.1.2 Matrix Switcher Interface

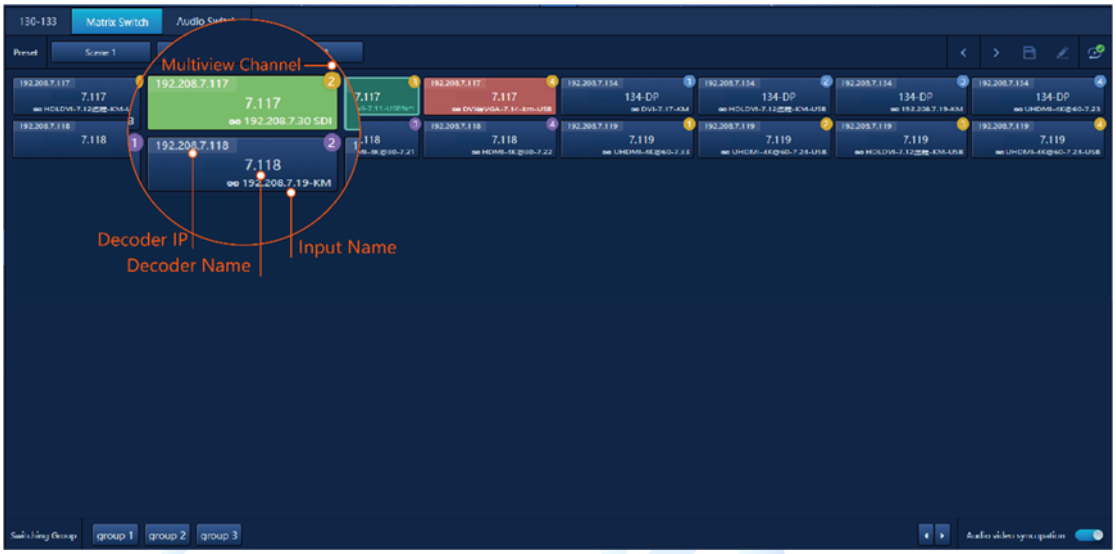
Select a group of matrix displays at Outputs to enable individual signal switching, group switching, presets recalling, etc.

Web-client offers 2x display mode, list view mode and preview mode. Default is list mode, and preview mode requires setup.

- **Preview Mode**



- **List View**



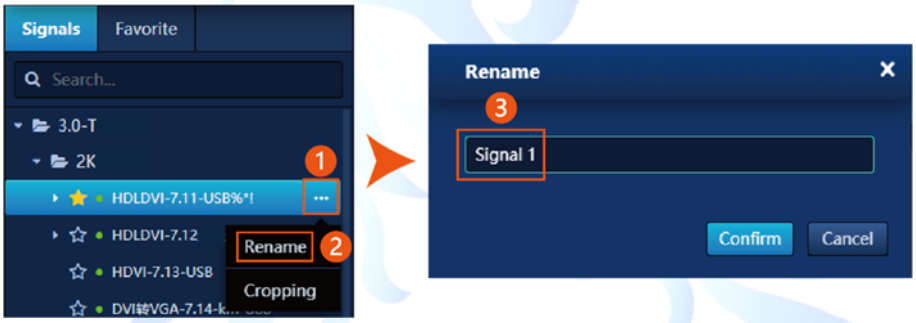
Please refer 8.2 Matrix Switching for more details regarding matrix.

2.1.1.3 Signals List

Web-client provides options for Signals searching and filtering.

1. Rename

Right click desired signal to rename it, and Confirm to save.



2. Favorite

In the signal list, hollow pentastar indicates common Signals, and solid pentastar indicates favorited Signals. Click the star can change the status.

Favorited Signals can be found under **Favorite** sheet.

3. Keyword Search

Input keyword to search desired Signals.

4. Grouping

Locate Signals by group. Refer Grouping for details.

2.1.1.4 User Management

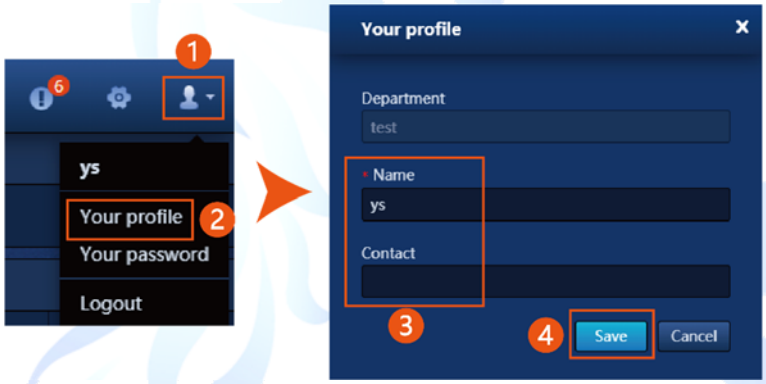
1. Revise Username

Navigate to user icon at right up corner, click the drop-down arrow to view user information.

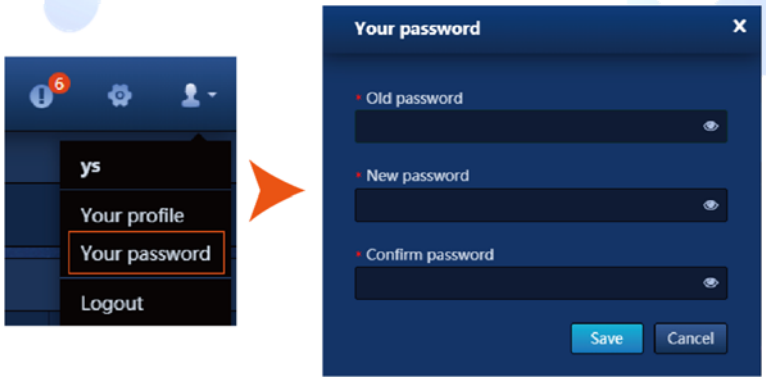
Click Personal, input revised name and Save.

2. Revise Password

Navigate to user icon at right up corner, click the drop-down arrow to view user information.



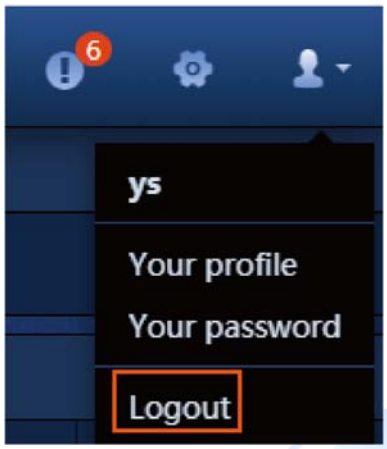
Select Password to revise.



3. Quit

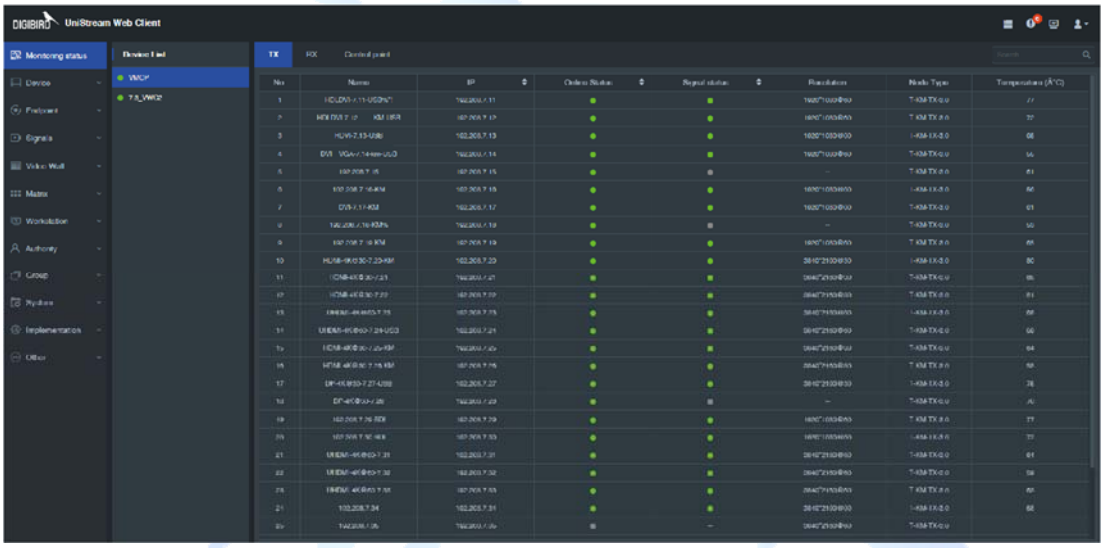
Navigate to user icon at right up corner, click the drop-down arrow to view user information.

Select Password to quit.



2.1.2 Backstage Setup

Click  icon at up right corner to enter backstage setting page.



Description of setting page interface:

Endpoints	Maintenance, configuration, rename, IP, etc.
RESIGNALS MNAGEMENT	Stream, extension, Signals label.
VIDEO WALL	Configuration, layout
MATRIX	Configuration, switching
OPERATOR	Workstation configuration, monitor.
ACCESS	User management, access inquires, access setting.
GROUP	Signals group, output group, search.
SYSTEM	Preview, network, logs, alarm, upgrade, licenses, customized resolution and maintenance.
DEPLOYMENT	Endpoints management, system configuration

2.1.3 OSD Menu

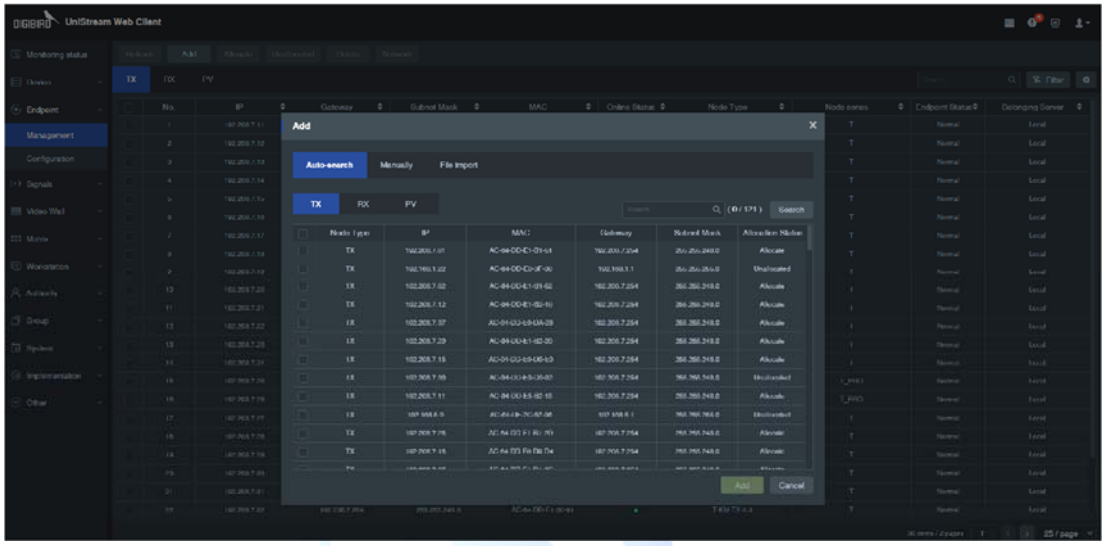
If the system contains Workstation or collaboration receivers, user can log in to operate the system at Workstation desk via OSD menu.

3 Endpoints Management

Done with cable connection of hardware, endpoints network and other parameters need be configured.

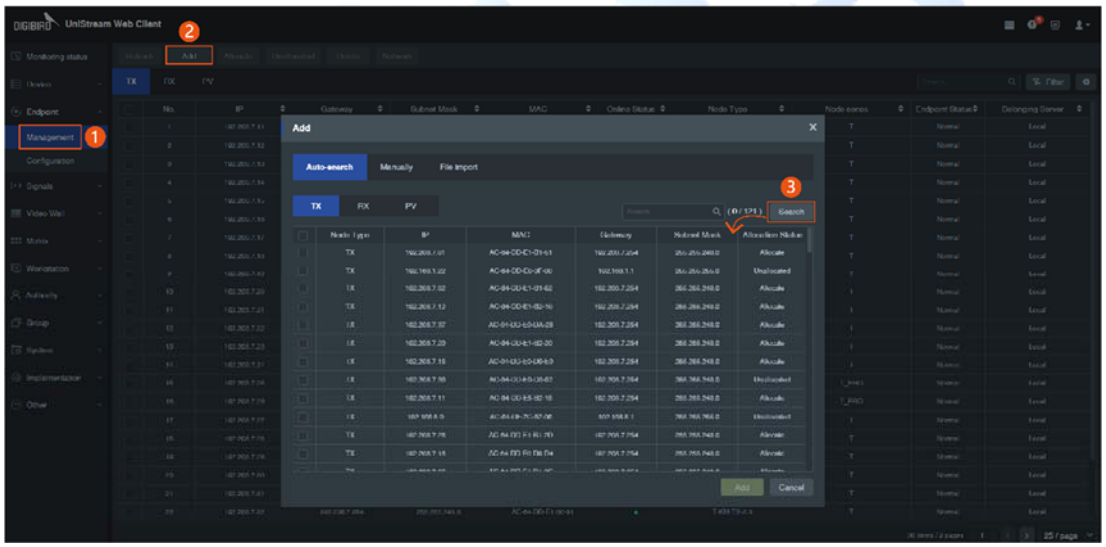
3.1 Add Nodes

There are 3x ways to add endpoints: auto search, manually and import.
Navigate to Node-Maintenance, select Add to configure.

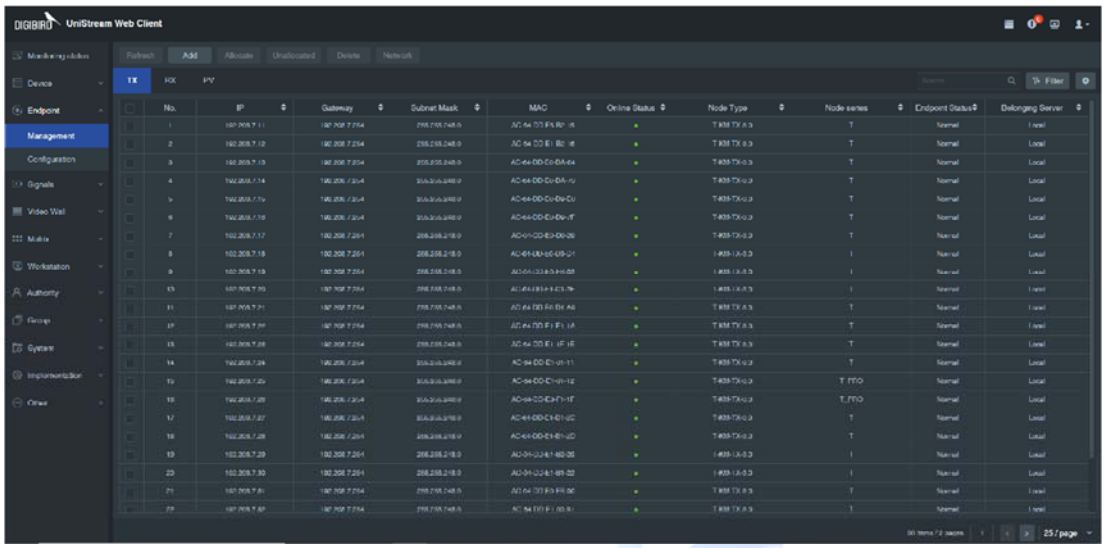


3.1.1 Auto-search

Select Auto-search to Search the endpoints that match IP address of VMCP or VMCN.
Matched endpoints will display at correspondingly sheet by Tx, Rx and Preview. It also supports search by keyword of IP.



Trigger the endpoint, Add it to the endpoints list.

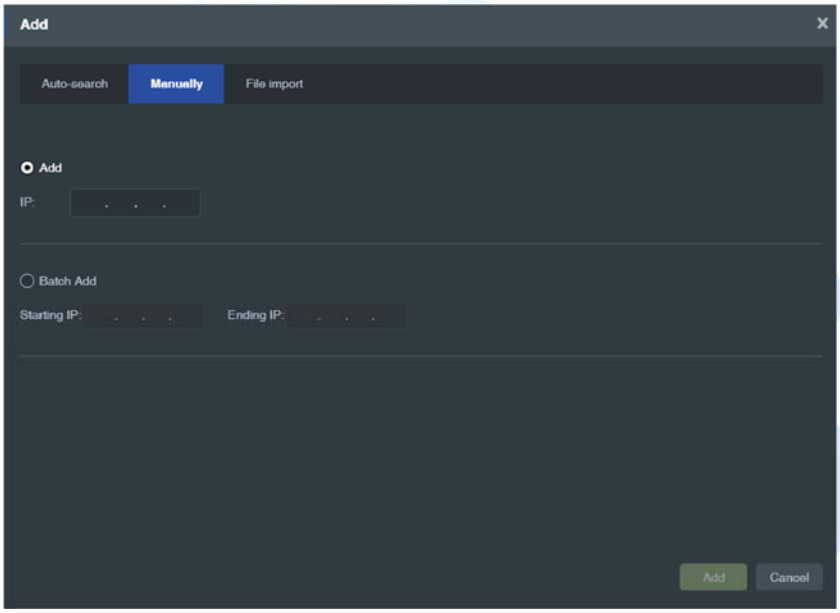


Please revise the IP of endpoints when configure it initially as default IP of endpoints is same.

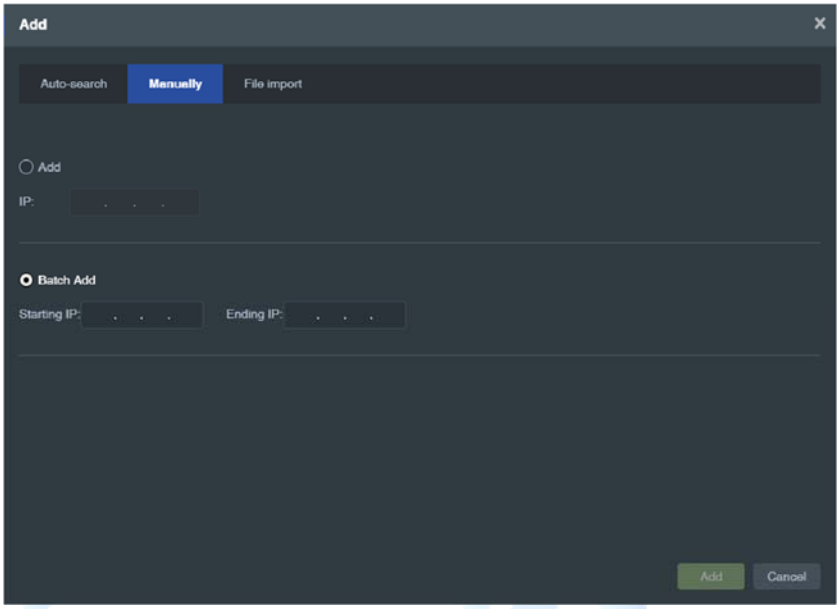
3.1.2 Manually

Navigate to Node-Maintenance, select Add to configure.

- **Add by Individual**



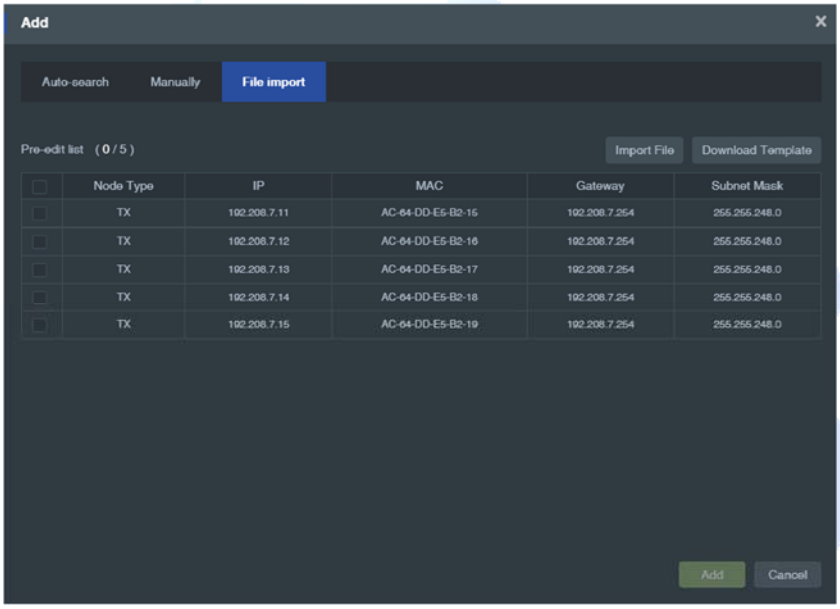
- **Batch add**



Click Add to add the endpoint to the list.

3.1.3 File Import

Batch endpoints can be added by file import.
Navigate to File Import, select Excel to import the file.



Download Template and refer it to complete information.

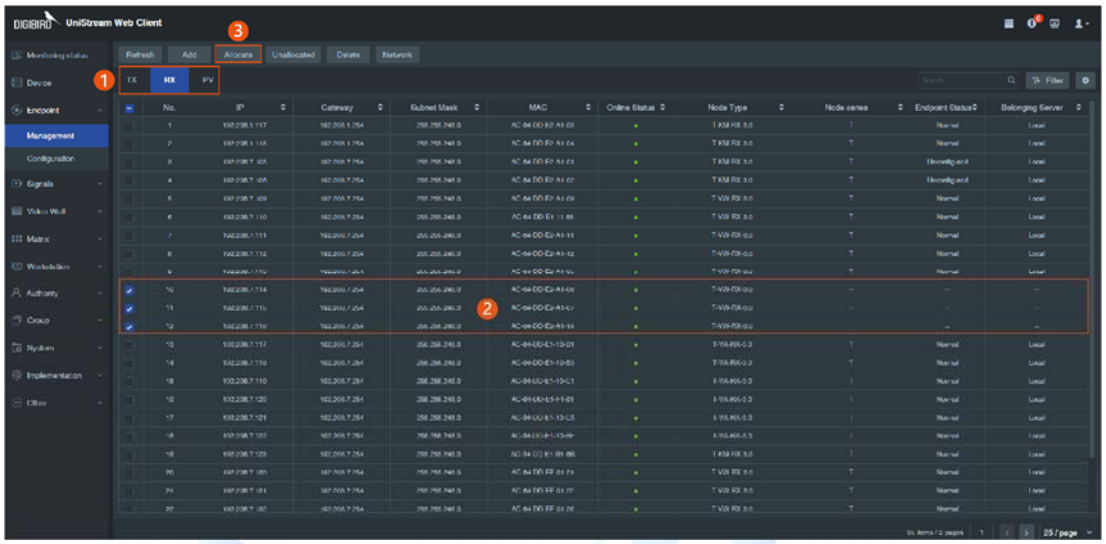
3.2 Allocate Endpoints

After being added, endpoints need to be allocated to VMCN or VMCP before being managed.

UN-ALLOCATED	Endpoint can be managed by any devices.
ALLOCATED	Endpoint can be managed by the control device.

Following steps to allocate endpoints:
Navigate to Tx, Rx or Preview sheet.

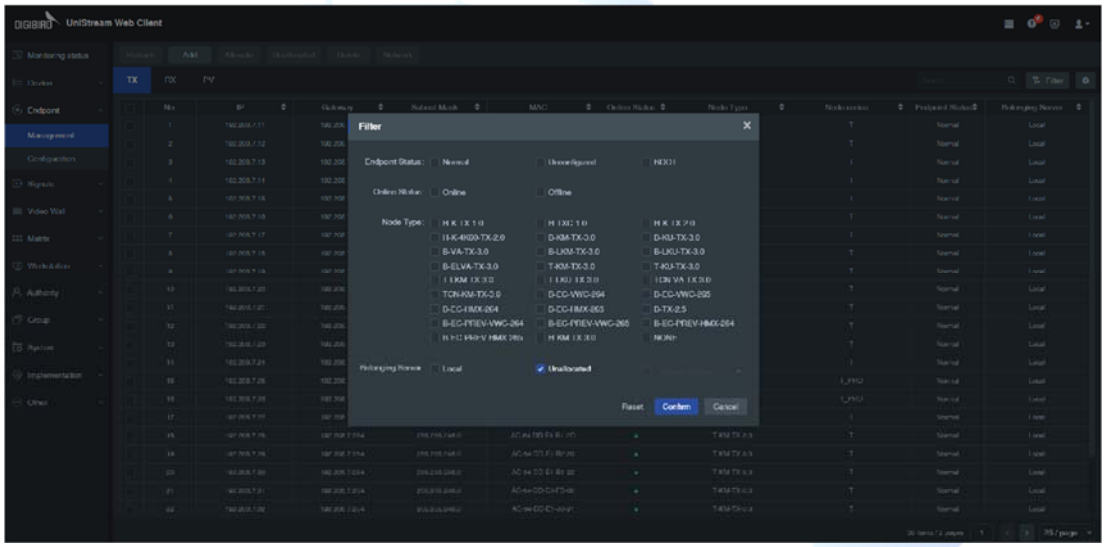
Trigger any un-allocated nodes
Allocate to current control device.



Nodes can be Filtered and be allocated to control device.

1. Select Filter to enable settings, trigger Un-allocated to the controller and Confirm to display unallocated nodes.

2. Select Allocate to put these nodes under control of this device.



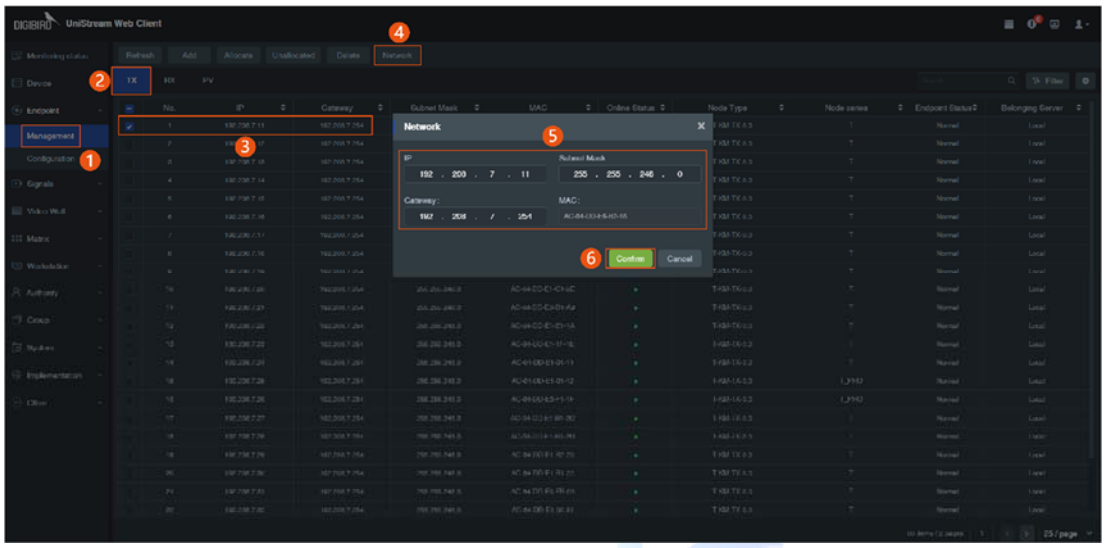
Allocated nodes have to be dismissed from current controller by selecting Unallocated before being reallocated.

3.3 Network Configuration

IP of nodes has to be modified when building the system as default IP of all nodes is same.

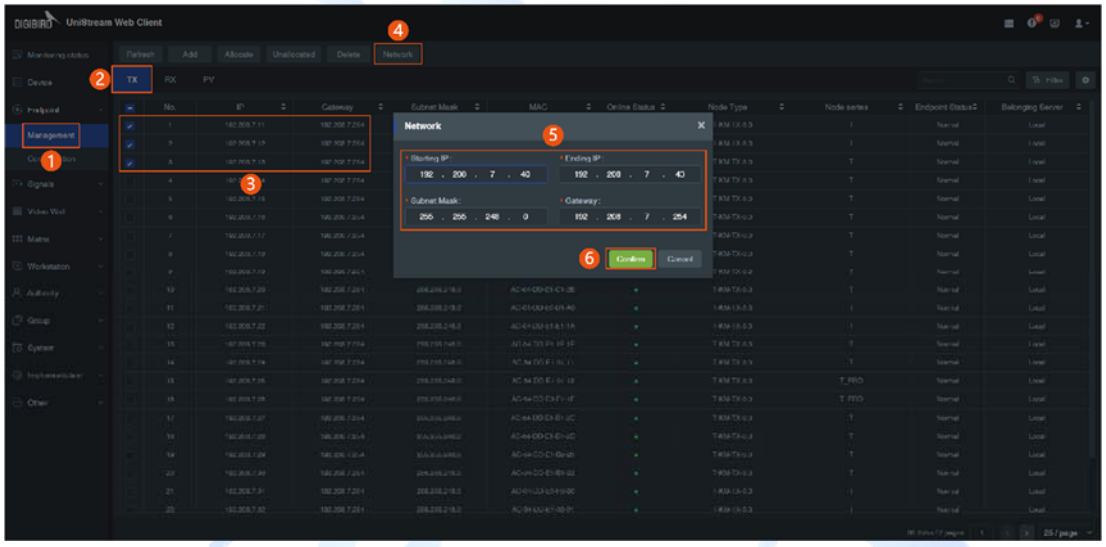
1. Modify Individually

Navigate to Maintenance and select one node at Tx, Rx or PV sheet. Select Network to input modified IP.



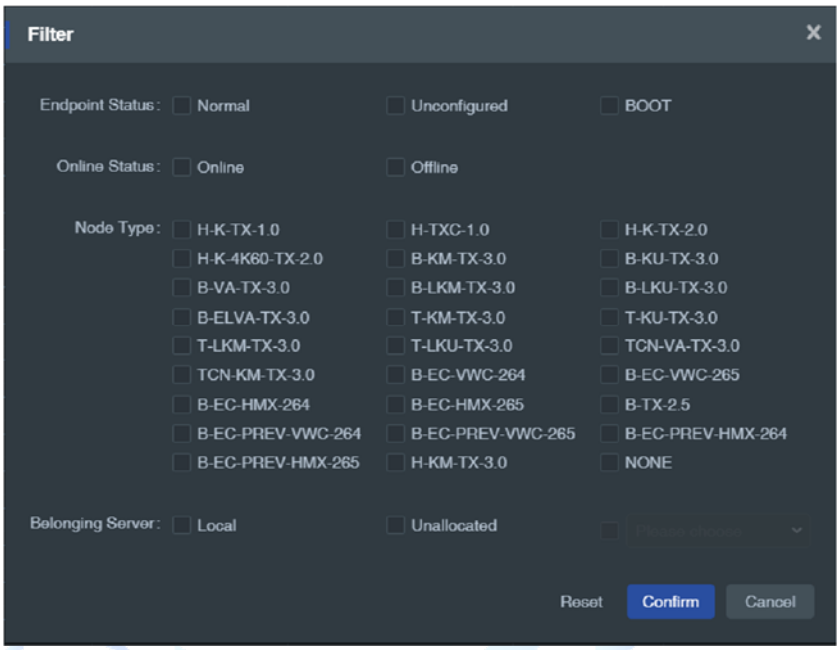
2. Modify in Batch

Navigate to Maintenance and select any nodes at Tx, Rx or PV sheet. Select Network to input start IP, end IP, and subnet.



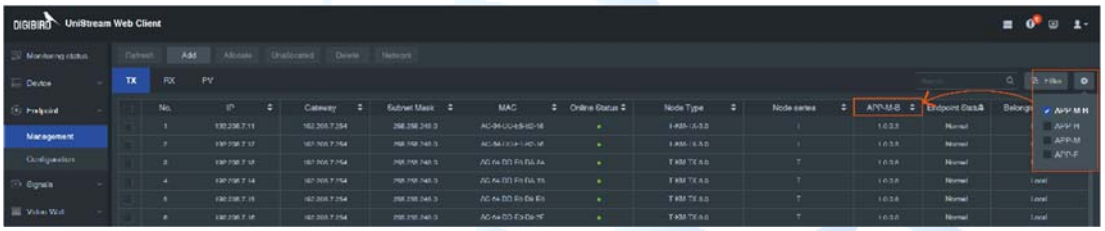
3.4 Filter

Click Filter, select filter conditions and confirm to execute.



3.5 Hide/Unhide

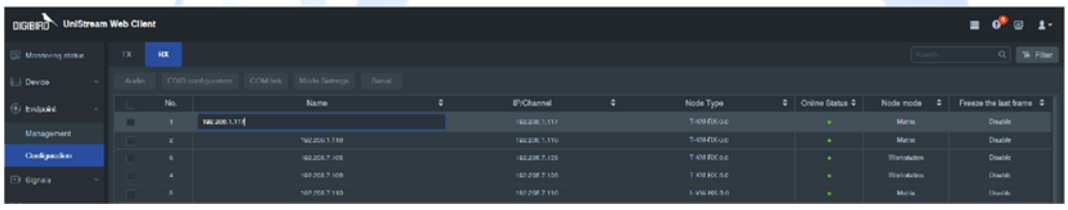
Click  and select desired title to unhide the information.



3.6 Rename

Node is named by IP address as default. It can be renamed also at will.

1. Navigate to Configuration, select one node and double click to activate editing mode.



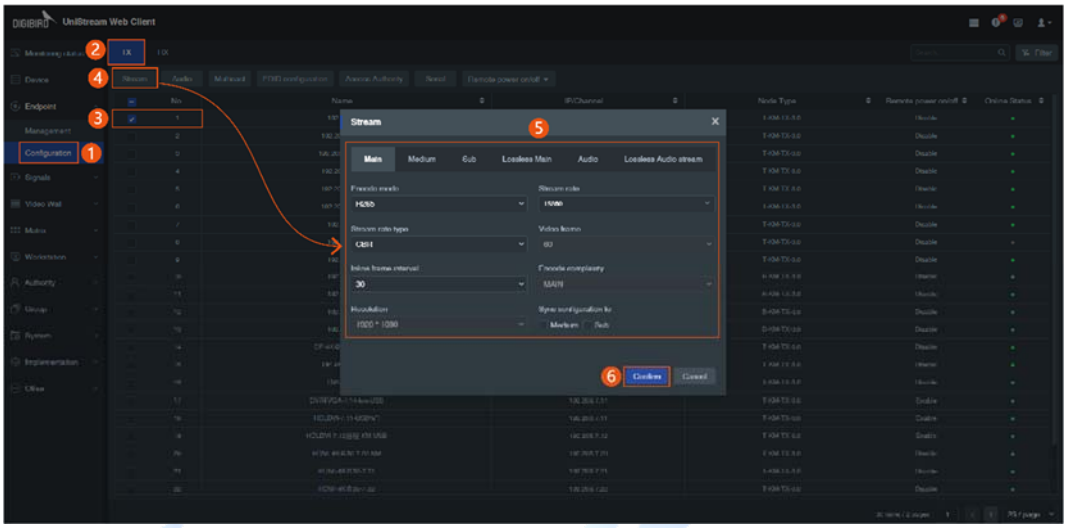
2. Input new name and confirm by click Enter key.

3.7 Stream Setting

Steps to set encoding format of transmitters.

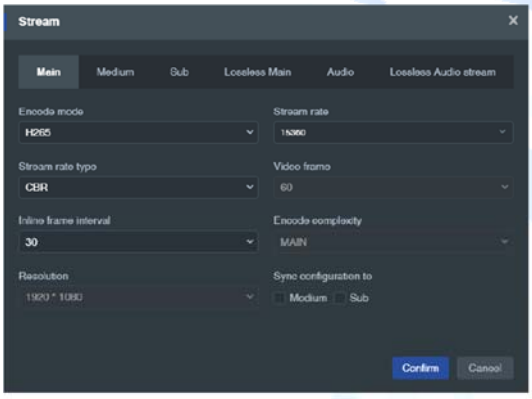
1. Navigate to Nodes Configuration, move to Tx sheet.
2. Trigger desired transmitter.
3. Select Stream Setting to call out setting page.

4. Revise desired parameter and Save.

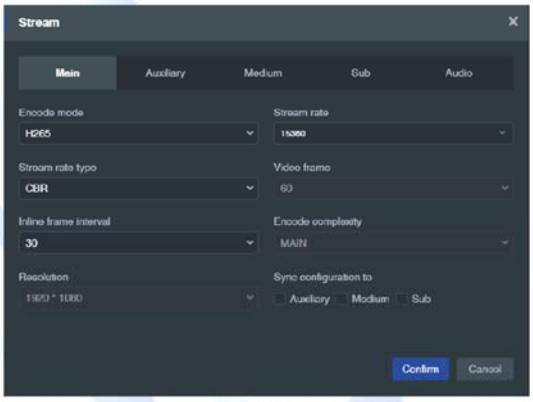


3.7.1 Main/Medium Stream

Steps of how to configure streams are as below:



T

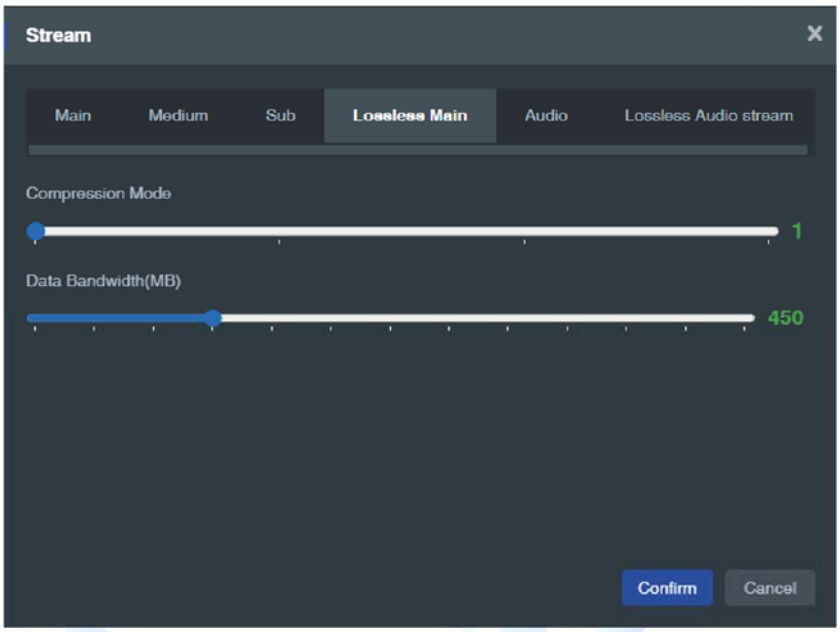


B/B+

FORMAT	Mainstream, Aux Stream and Medium Stream supports both H.264 and H.265. Substream supports H.264, H.265 and MJPEG.
DATA RATE	256-40960
TYPE	CBR or VBR
FREQUENCY	From 5 to 60
I INTERVAL	From 10-120
COMPLEXITY	If encoding type is H.264, can select BASE, MAIN or HIGH complexity.
RESOLUTION	Reserved
SYNC	Sync mainstream settings to aux, medium or sub stream.

3.7.2 Lossless Mainstream

Refer below table when configure Lossless Mainstream of UniStream-T.

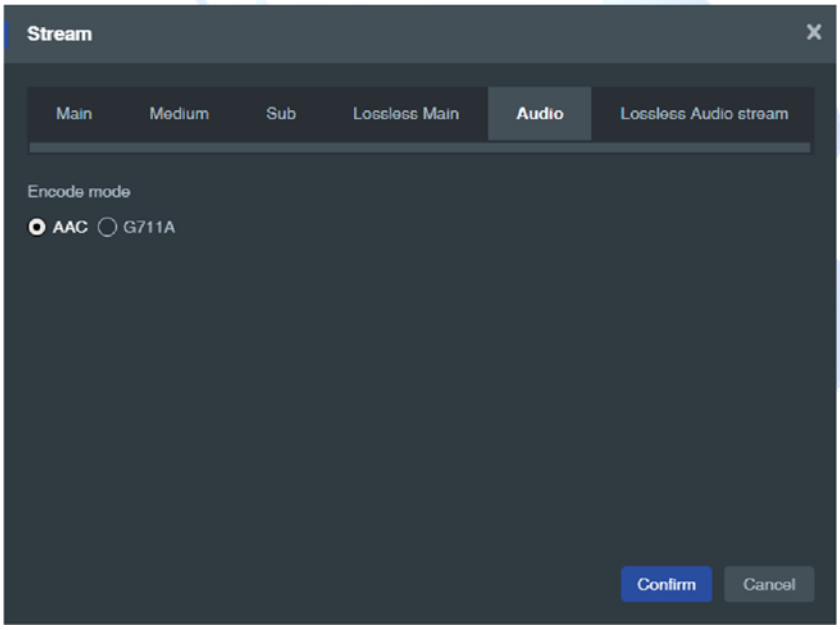


COMPRESSION	Default is 1, valid between 1 and 4
BANDWIDTH	Default is 450M, valid between 300M-900M.

Lossless sub-stream not available to set right now

3.7.3 Audio Stream

Select AAC or G711A encoding format to configure audio steam.



3.8 Audio Configuration

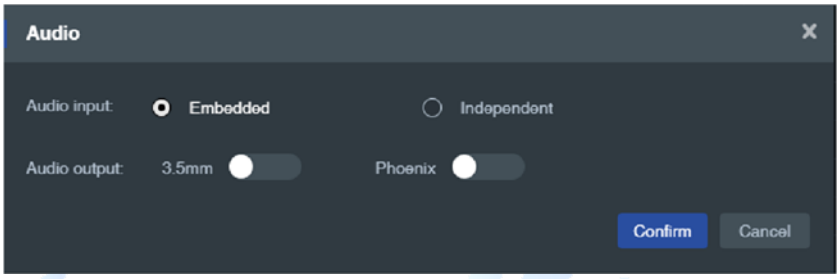
System supports bilateral transmission of audio and offers options of audio port.

1. 3.5mm mini-jack and phenix port for de-embedded audio port

2. HDMI, SDI and DP supports embedded audio. User can select embedded or de-embedded audio at web-client.

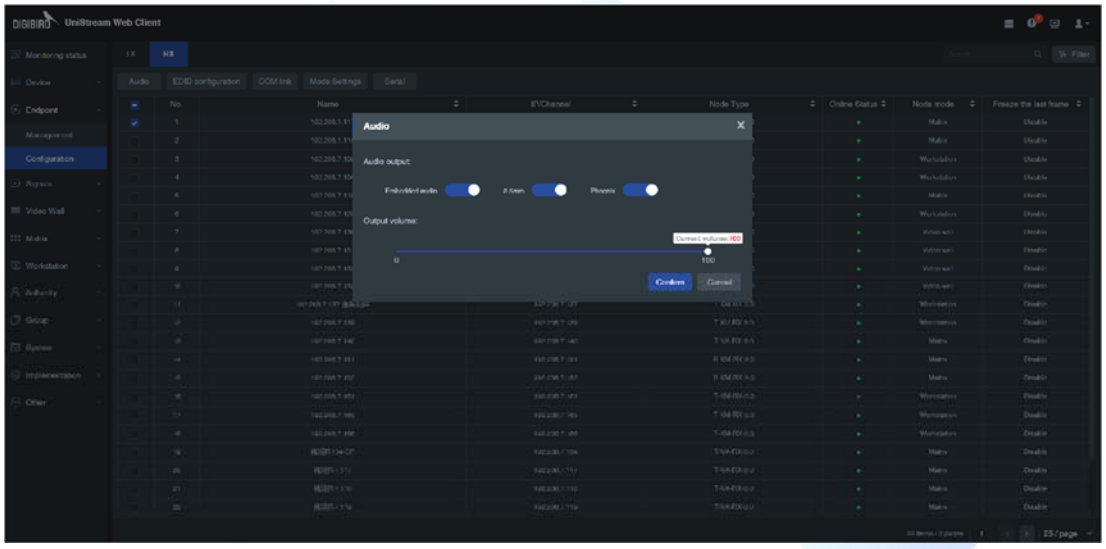
3.8.1 Audio Setting of Transmitter

Navigate to Nodes Config, move to Tx sheet, trigger one or multiple transmitters, click Audio Config to call out setting window.
Audio input supports embedded and 3.5mm mini-jack. Audio output supports 3.5mm mini-jack, and phenix port for loop-out.



3.8.2 Audio Setting of Receivers

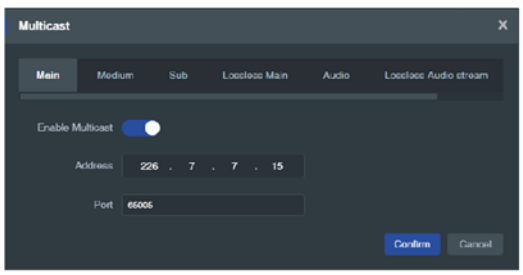
Navigate to Nodes Config, move to Rx sheet, trigger one or multiple transmitters, click Audio Config to call out setting window.
Audio output supports embedded audio, 3.5mm mini-jack and phenix port. Drag the button of audio bar to turn up or turn down audio.



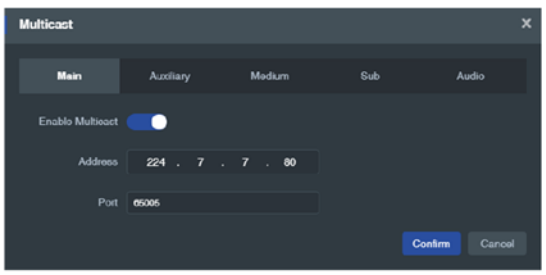
3.9 Multicast Setting

1. Single Node

Select desired node, enable or disable multicast, set multicast address and port number.



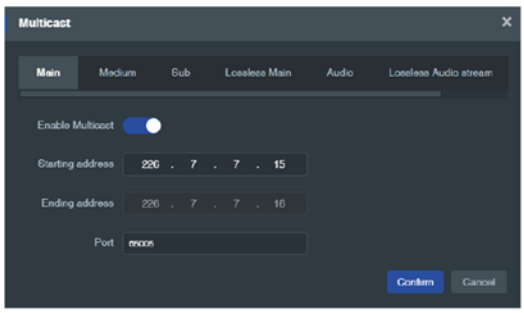
T



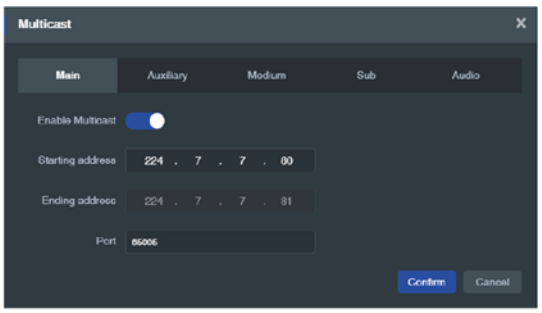
B/B+

2. Multiple Nodes Setting

Select multiple nodes, enable multicast, set starting address, ending address, and port number.



T



B/B+

MULTICAST	Blue button to enable, Grey button to disable
STARTING ADDR	Starting Address of multicast
ENDING ADDR	Ending address of multicast
PORT NO.	Modify as will

3.10 EDID Configuration

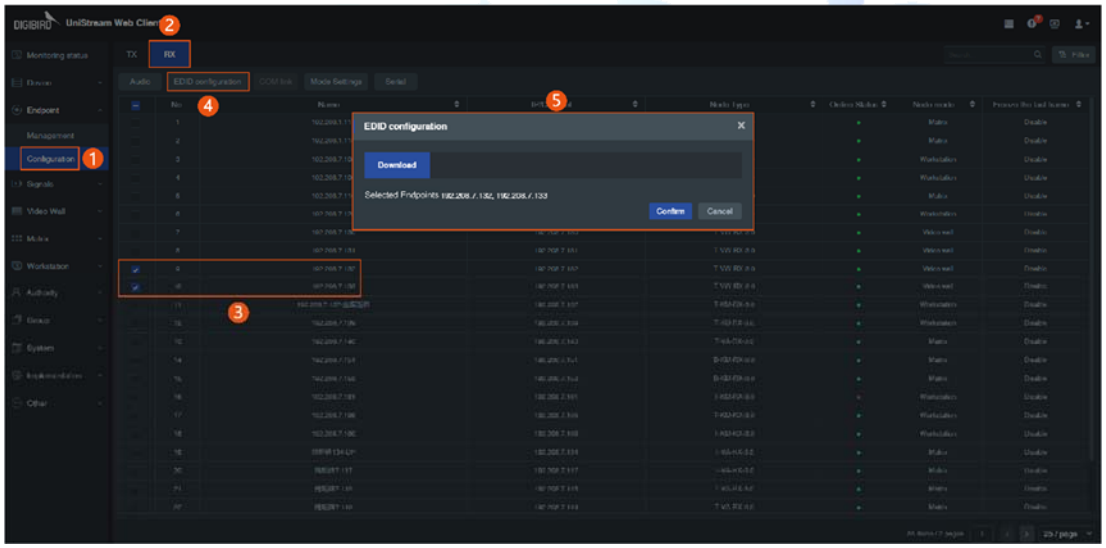
UniStream allows to configure EDID of endpoints, including read EDID and import file to revise EDID.

3.10.1 Receiver EDID

Navigate to Endpoints->Configuration, click Rx sheet, select one or multiple receivers of same type. Click EDID configure to set up.

- **EDID Download**

User can read EDID and save file at local PC.

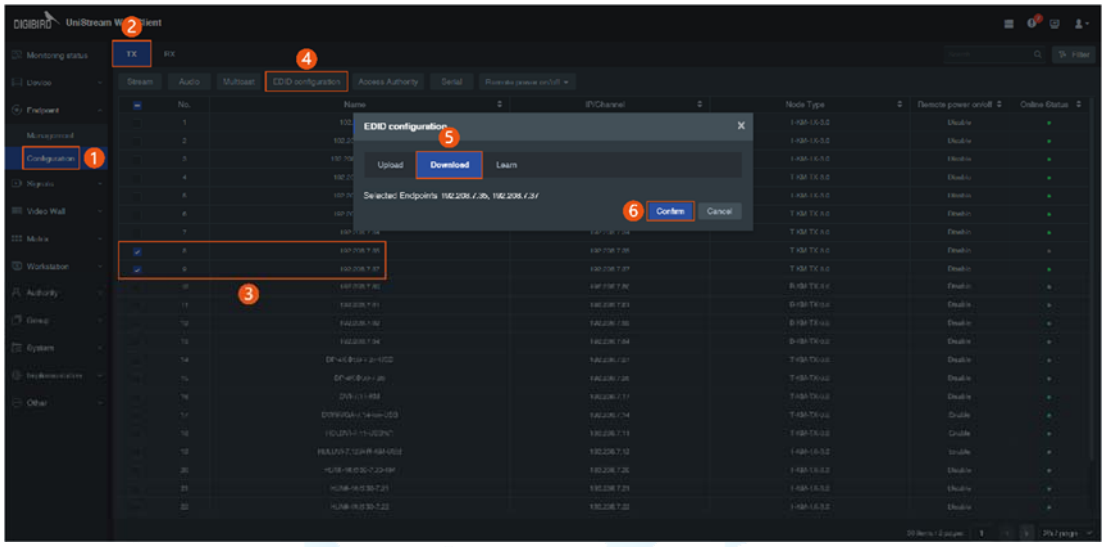


3.10.2 Transmitter EDID

Navigate to Endpoints->Configuration, click Tx sheet, select one or multiple receivers of same type. Click EDID configure to set up.

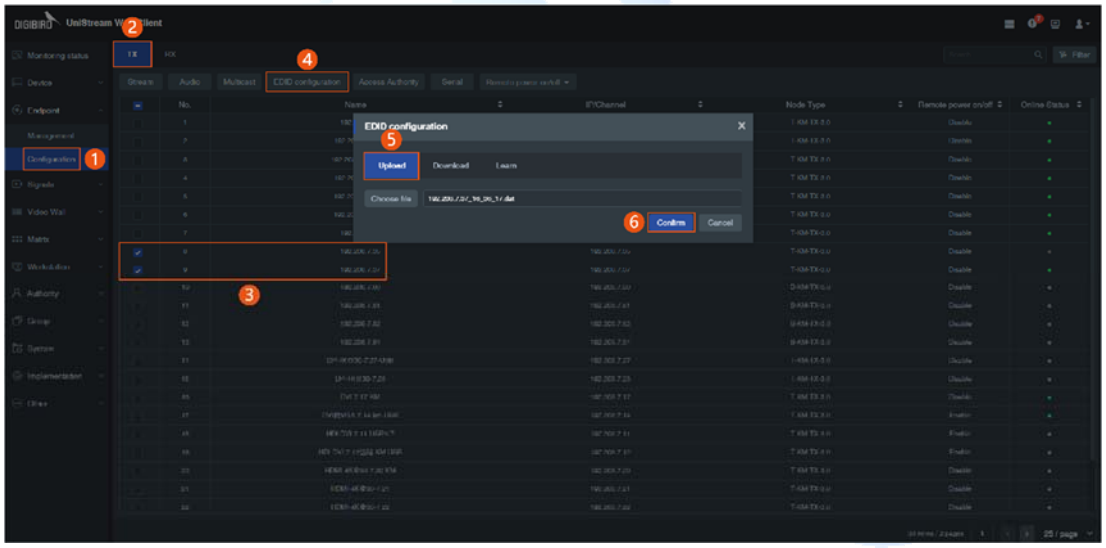
- **EDID Download**

User can read EDID and save file at local PC.



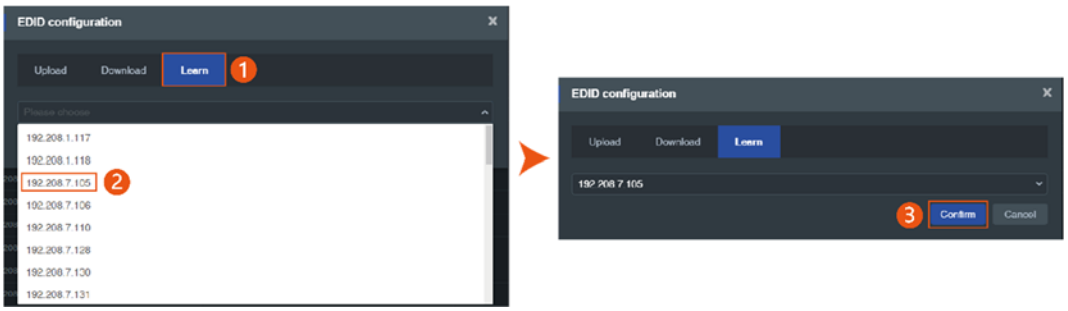
- **EDID Upload**

User can also upload EDID file to revise transmitter EDID.
At EDID Configuration menu, select Upload and click Choose File to select desired file, and Confirm to upload.



- **EDID Learn**

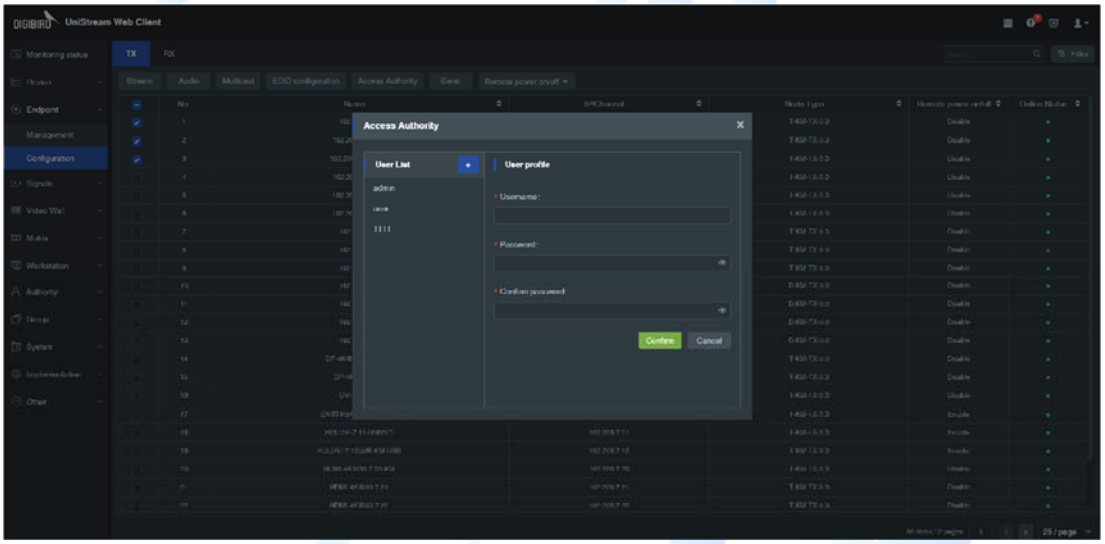
UniStream allows to revise transmitter EDID by uploading designated receiver EDID.
Click Learn at EDID Configuration, select designated receiver, Confirm to import EDID to selected transmitter.



Selected endpoints have to be same type when configure multiple units at a time.

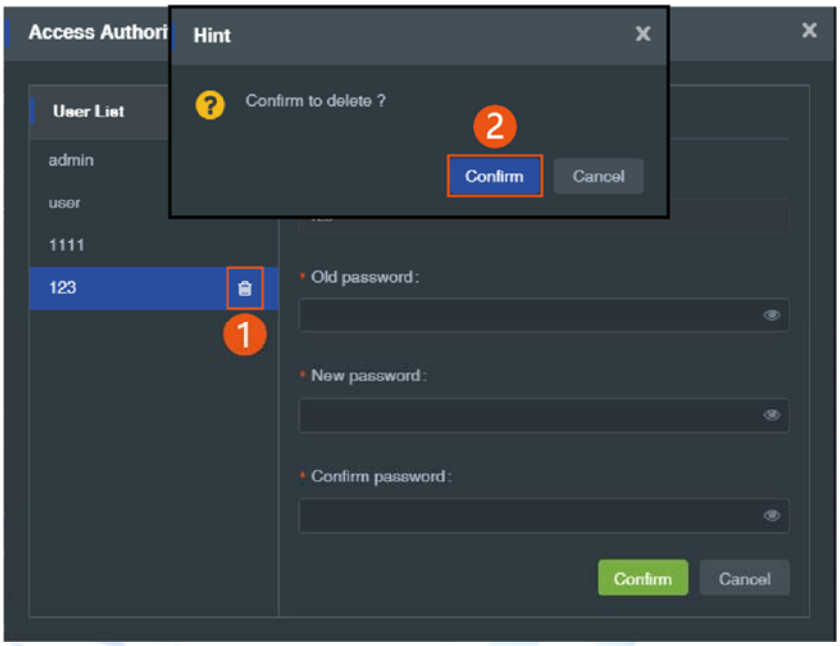
3.11 Authorities

1. Create new user. Select one or multiple transmitters, click Authority, input User Name and Password to add transmitter to user list. Username and password are required when transmitters were decoded.



2. Modify User information. Select desired user to modify.

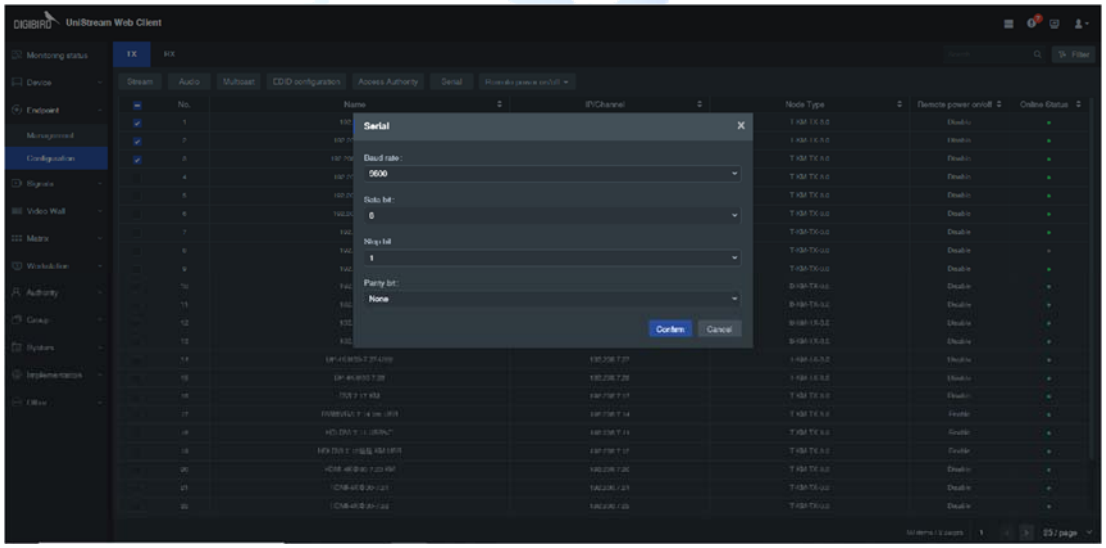
3. Delete User. Hoover the mouse cursor over user list, click icon and Confirm to delete.



3.12 Serial Setting

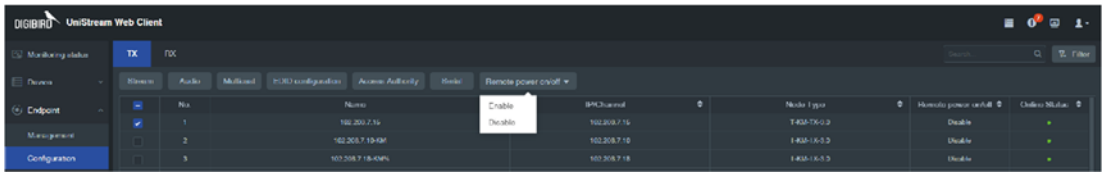
Both transmitter and receiver can be controlled by serial. For example, to turn on or off projectors and screens, which are connected to receivers.

Navigate to Node Configuration, move to Tx or Rx sheet, trigger one or multiple transmitters or receivers. Click Serial Configure, input required parameter (baud rage 9600, 19200, 38400, 57600, 115200 as options), Confirm to complete setting.



3.13 Remote Standby or Wakeup

Navigate Node Maintenance, select Tx, click Remote On/Off. Select Enable or disable at drop-down list. Therefore, operate is able to standby or wakeup remote computers.



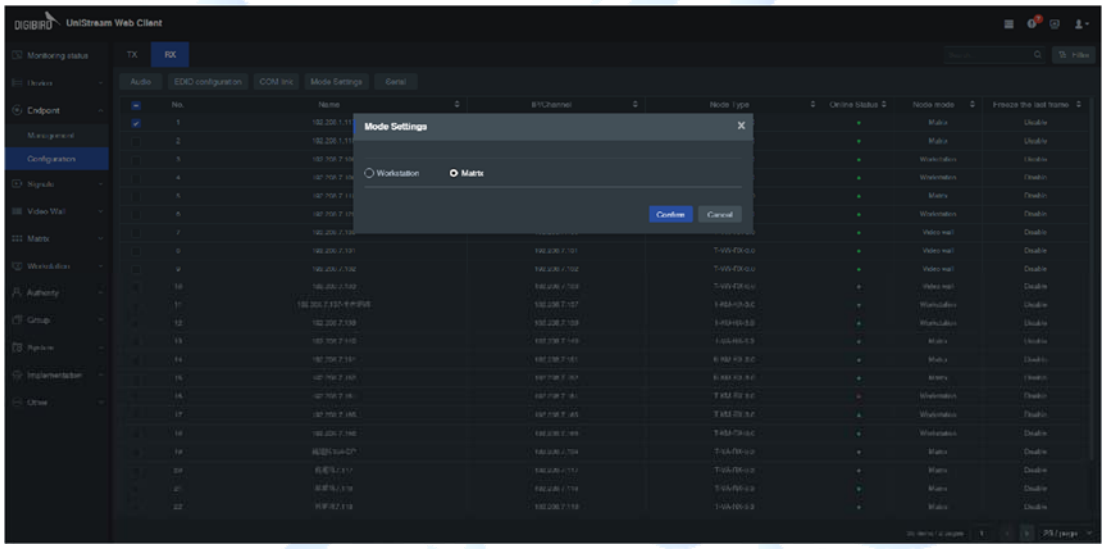
Additional On/Off card is required to be installed in computers.

3.14 Work Mode Setting

Video wall node can be set as video wall controller mode or matrix switcher mode.
Workstation receivers and collaboration receivers can be set as video wall controller mode, matrix working mode and Workstation mode.
Work mode description as below:

- For video wall controller mode, receiver will connect to video wall for display management.
- For matrix mode, receiver will connect to individual display for switching.
- For Workstation mode, receiver will connect to monitors on Workstation desk for computers management.

Refer below steps to configure Workstation Mode:
Navigate to Node Maintenance, move to Rx sheet, trigger one or multiple Workstation receivers, click Mode config, and set

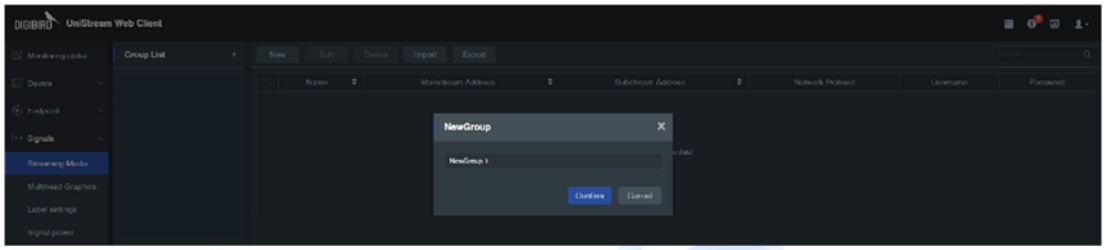


4 Signals Management

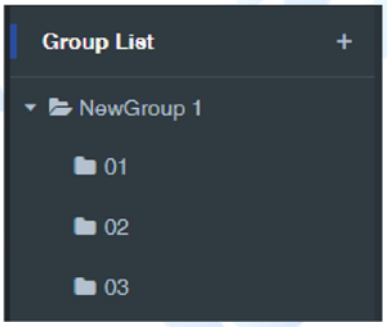
4.1 Stream Management

4.1.1 Create Group

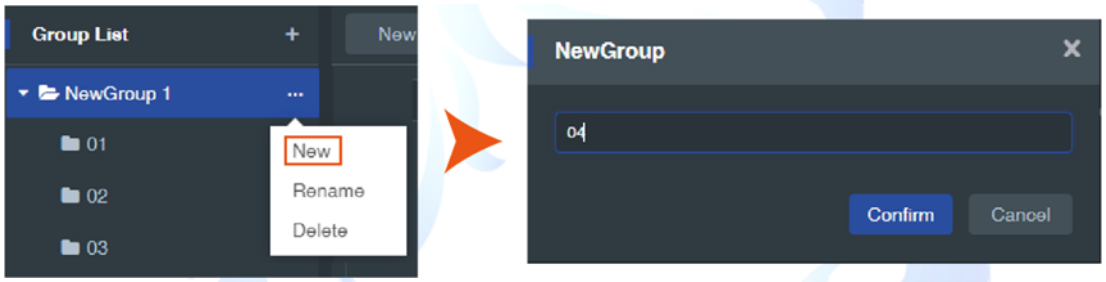
1. Create Level 1 Group. Click + and input group name.



2. Group will show at group list.



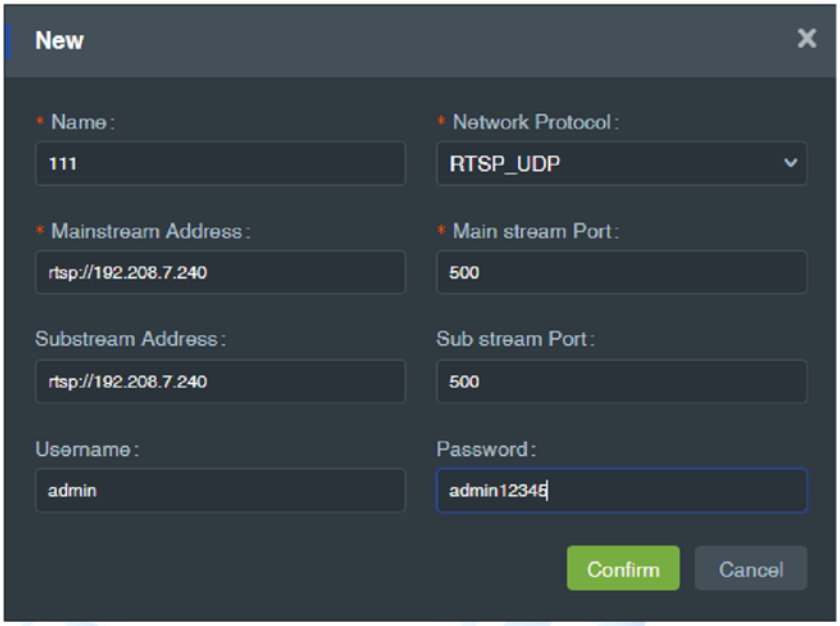
3. Click level 1 group, get options to create level secondary group, rename level 1 group or delete.



4.1.2 Add New Signals

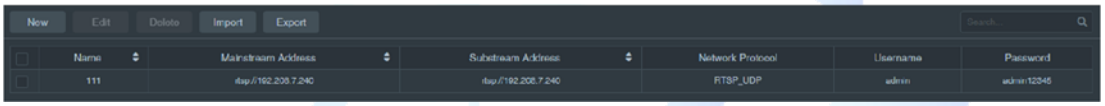
Add stream Signals to group.

1. Select one group from Group, click Add to get a pop out window. Complete required information and save.



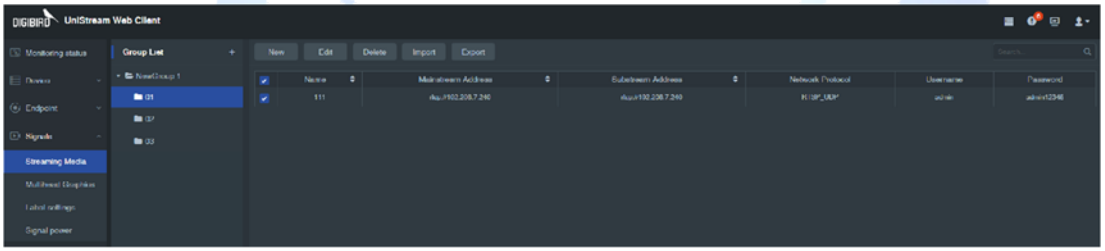
NAME	Device name
NETWORK PROTOCOL	UDP, TCP, or DIGIBIRD
MAINSTREAM ADDR	Mainstream IP of IPC
MAINSTREAM PORT	Port number, can be modified
SUBNET STREAM	Subnet stream address of IPC
SUBSTREAM PORT	Sub-stream port no, can be modified
USERANME	Refer IPC manual
PASSWORD	Refer IPC manual

2. Successfully added Signals will be shown in signal list.



4.1.3 Export

Export added streams to a local file.
Trigger desired streams, select Export to save file.

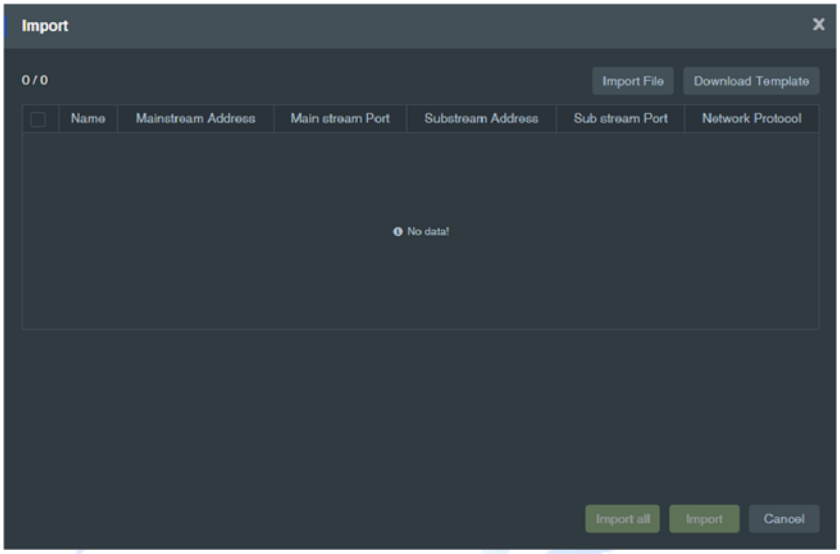


Default file name is 

4.1.4 Import

Batch Signals cam be imported to system at one time.

1. Select group, click Import button, and select Excel Import to import file into system.



4.2 Multi-head Graphics

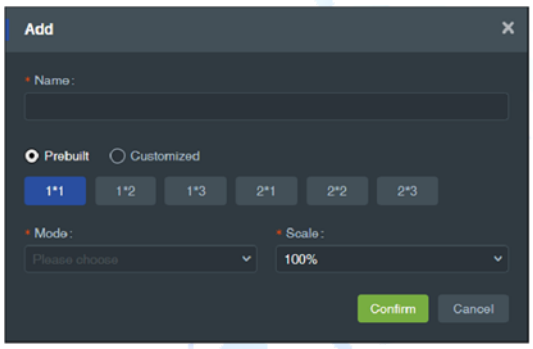
4.2.1 Create Group

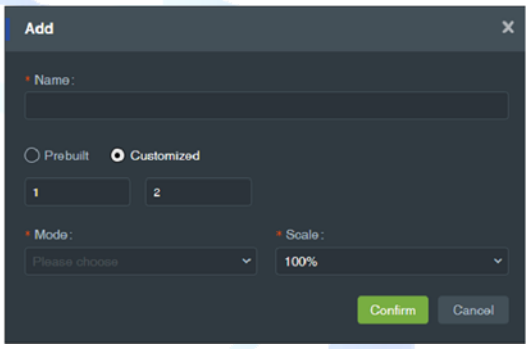
Create a group for multi-head graphics, which will be displayed in multi-head graphics list at OSD menu. Operator can easily position desired extended signal via OSD menu.

4.2.2 Add Multi-head Graphics

Steps to add multi-head graphics signal to group:

1. Select one group, click Add Extended button, input required information and Confirm.

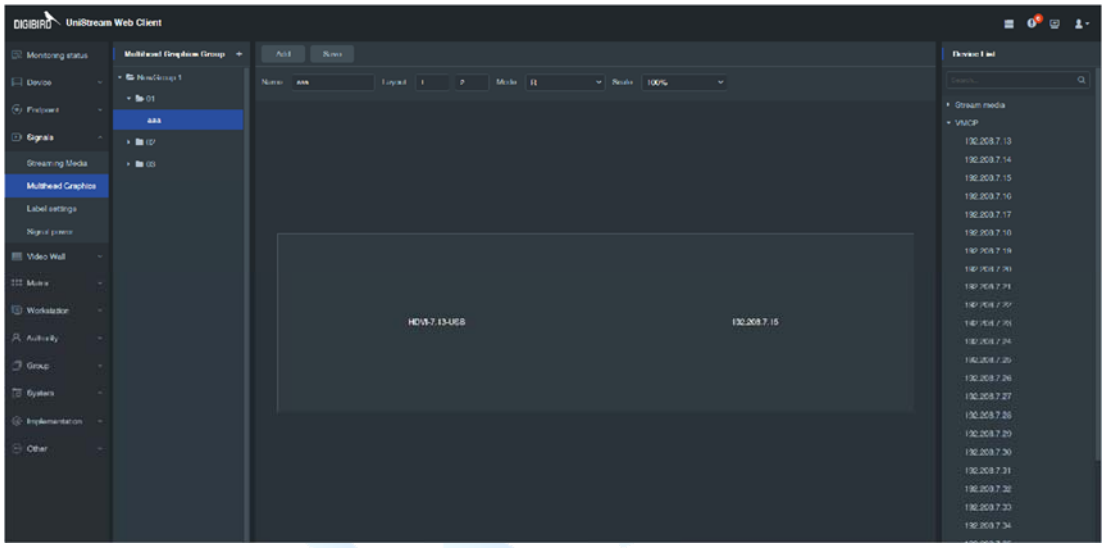




NAME	Name of extended signal, will sync to OSD
QUIK LAYOUT	Select pre-set layout
CUSTOMIZED	Customize layout, Column * Row≤8
MODE	Upon request
ZOOM RATIO	Zoom Ratio has to be same to original extended signal.

2. Added Signals will display at group list.

3. Allocate transmitter to extended screen. Find out transmitters connected to extended signal under device list located right side of interface, drag and drop it to extended screen.



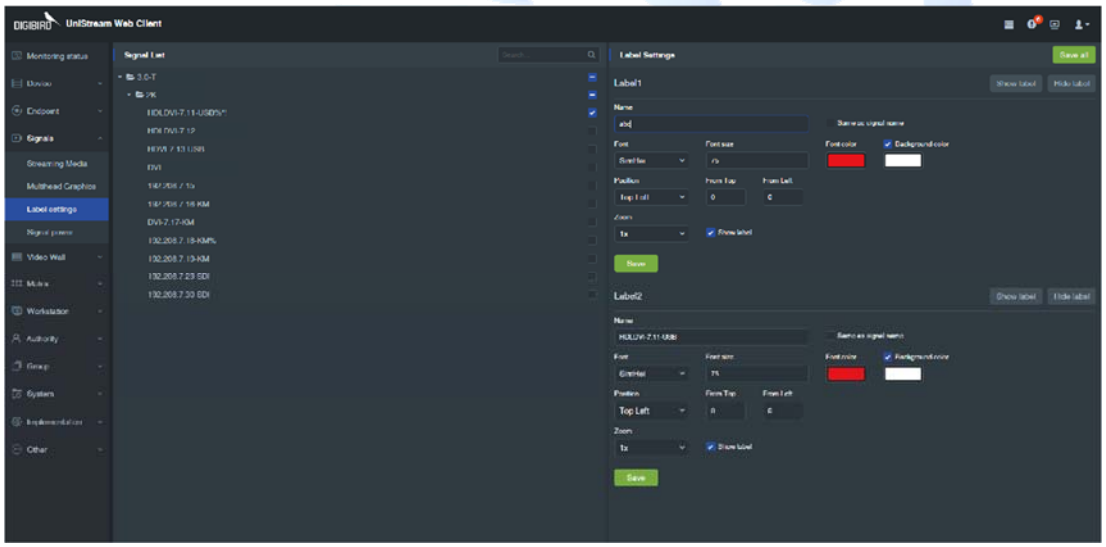
Transmitters connected to first output port of extended computer need to connect USB cable to computers for KVM control, the rest of ports no need to connect USB cable.

4.3 Signal Label

By sticking a label to signal, operator can easily detect signal.

4.3.1 Label for Single Signal

Each signal supports up to 2x label.
Navigate to Label, select one signal, complete required signal and Save.



Description of parameter:

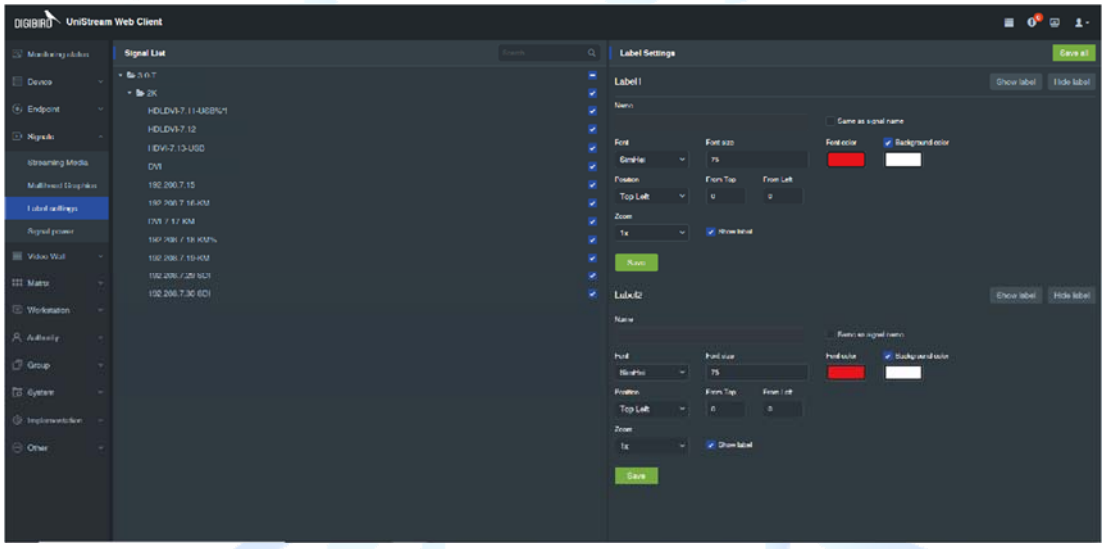
NAME	Label content
SAME TO SIGNAL NAME	Trigger to sync signal name to label name
FONT	Select desired font

SIZE	32-120 pixel
COLOR	Set color
BACKGROUND	Display label background color
BACKGROUND COLOR	Set label color
POSITION	Label position, left up, left down, right up and right down
EDGE DISTANCE	Set edge distance in correspond with label position
ZOOMIN RATE	Adjust label size, with options of Origin, 2x times, and 4x times
DISPLAY LABEL	Enable to display signal label

4.3.2 Batch Label Setting

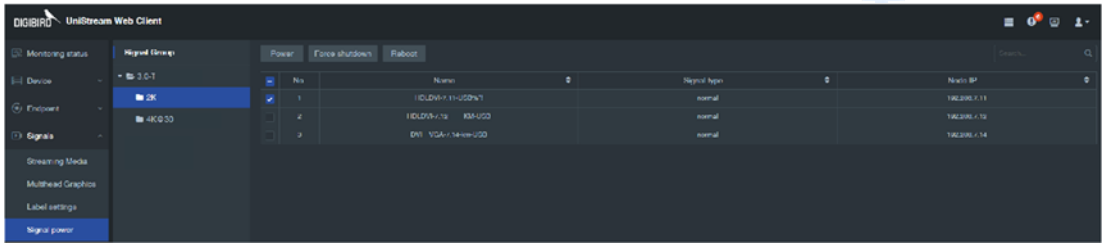
Set multiple labels in batch.

1. Trigger multiple Signals at Signal List.
2. When setting in batch, signal label can not be renamed. Have to trigger Same to Signal to display label with signal name.
3. Remaining settings same to single signal label setting.



4.4 Power On/Off Computers

System allows to power on/off, reboot and force shutdown remote computers.
Navigate to Signals Power, select one group, then select desired endpoints and click to power on/off, reboot or force shutdown.



Options	Description
Power	Power on or power off computers
Force Shutdown	Force shutdown selected computers
Reboot	Reboot computers

5 Group Management

5.1 Signals Group

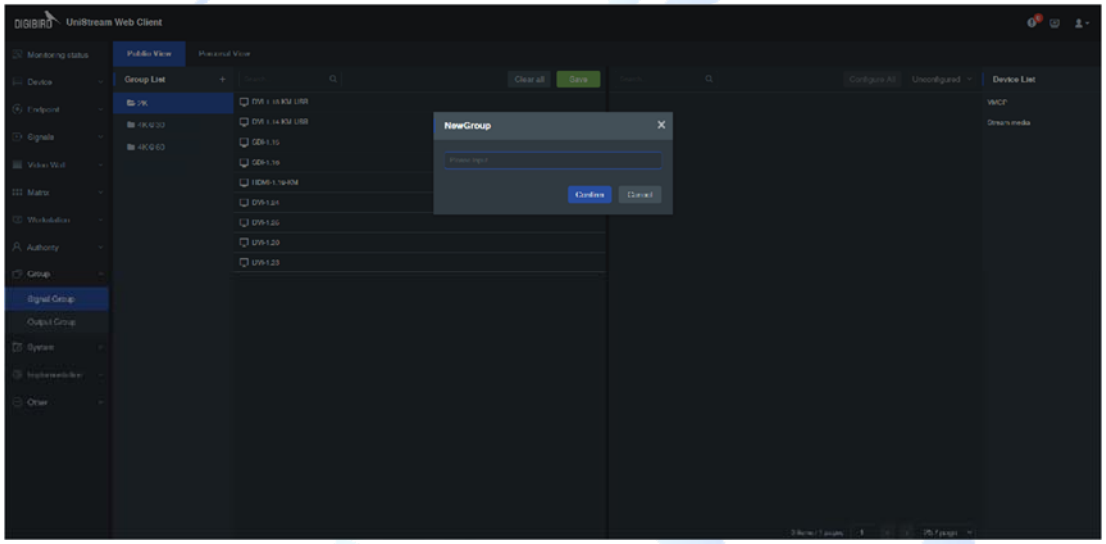
Allocate Signals to different groups based on signal type, application or user access, will offer operator shortcut to manage Signals easier.

5.1.1 Create Group

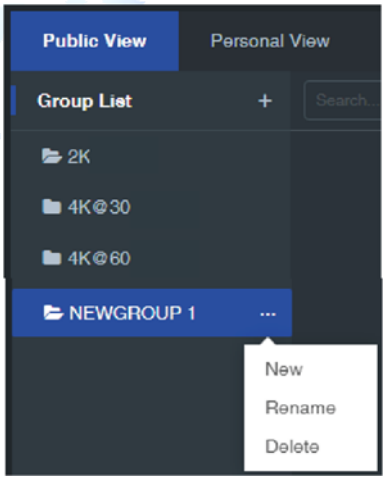
Group can be created for Public View or Personal View. Other user will have access to view the group when log in the device under public view. Group under personal view can only be viewed by the creator.

5.1.1.1 Group for Public

1. Click + to create level 1 group.



2. Click ... of level 1 group to Add level 2 group.



3. Click ... to select Rename to revise group name.

4. Click ... and select Delete to remove group.

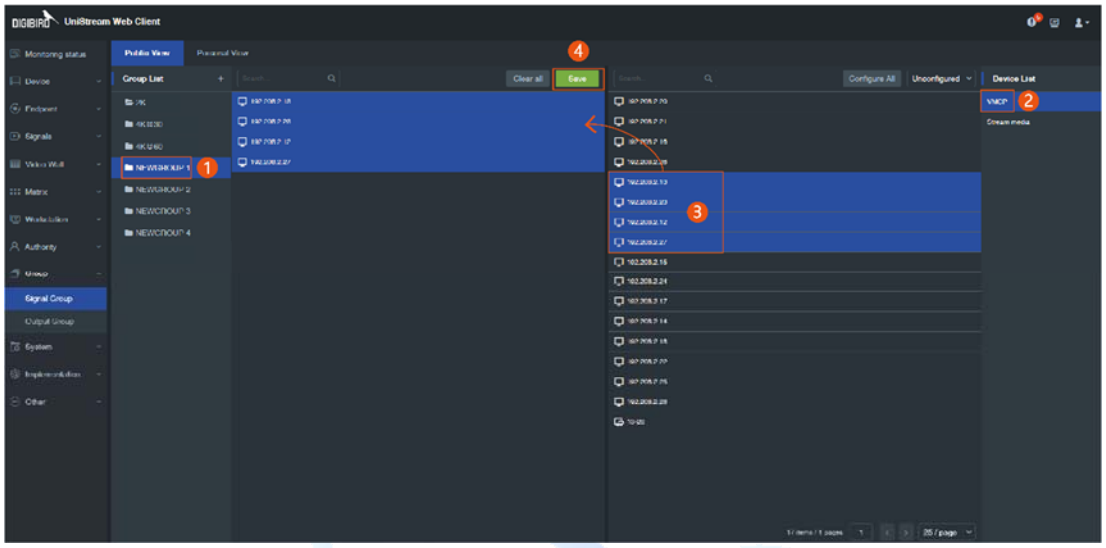
5.1.1.2 Group for Personal

Follow same steps to Group for Public.

5.1.2 Allocate Signal

5.1.2.1 Allocate for Public

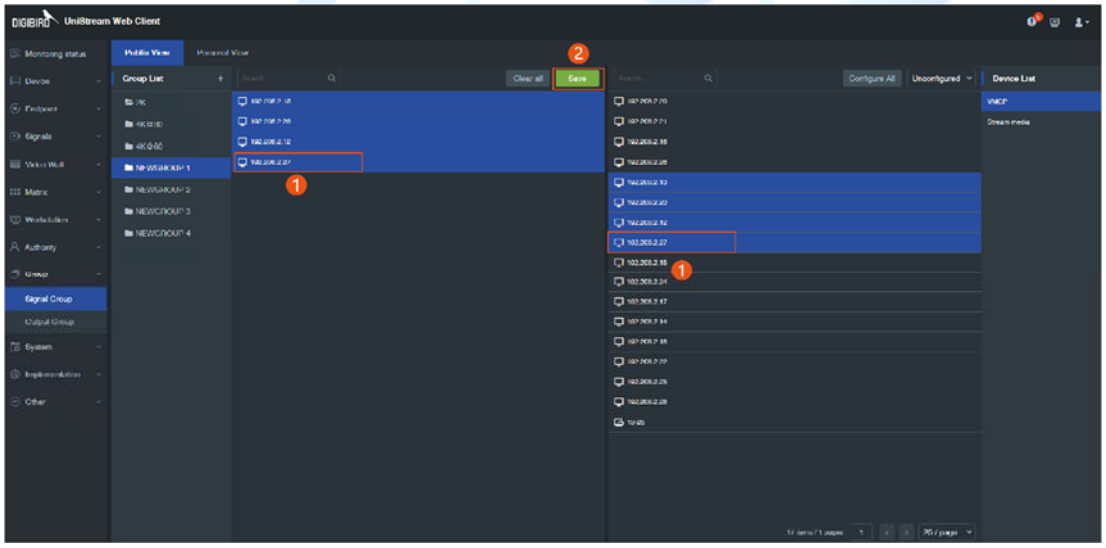
1. Select one group from Public.
2. Select one device from Device List, inputs will show in a list at left.
3. Click desired input to allocate it to selected group.



4. Steps to cancel allocation:

   Select allocated signal from group list at left side, or from device list at right side, and click to cancel. Allocated Signals are highlighted in blue from device list.

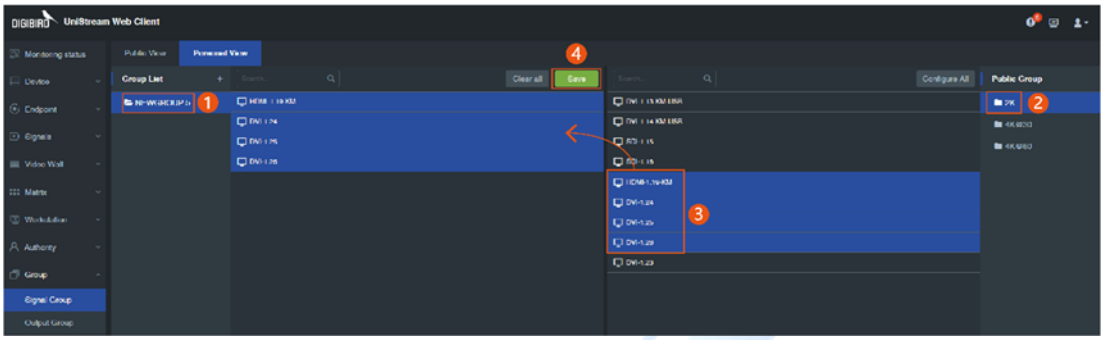
   Click Save to refresh signal list.



5.1.2.2 Allocate for Person

1. Navigate to Personal view.

2. Select one group from Public view. All Signals belong to this group will show up.
3. Click desired signal and add to Personal.
4. Click Save to complete.

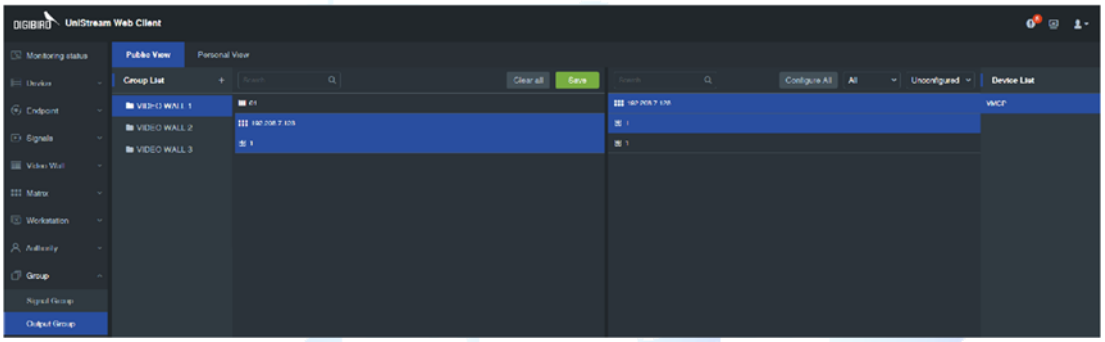


5.2 Output Group

Steps to create output group are same to Signals Group. Done with group, need to allocate display to corresponding group.

1. Allocate for Public

Navigate to Public, select one group, then select one control device in Device List. Select created video wall, matrix screens or Workstation monitors, and click to Save.

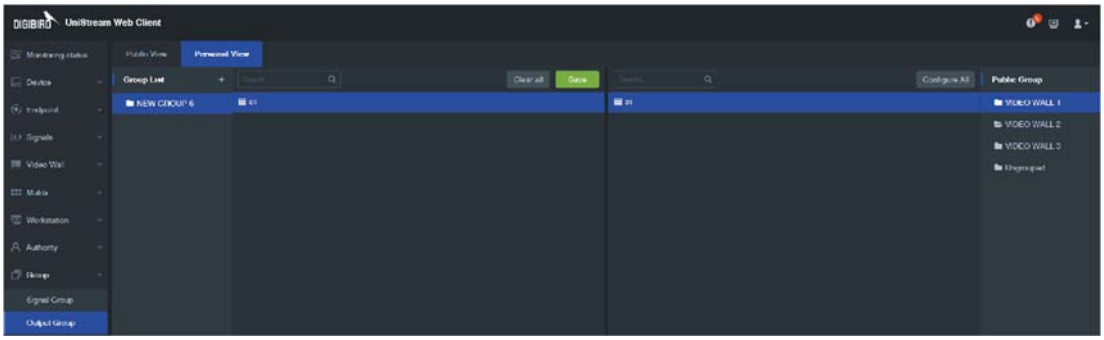


Back to dashboard to check updated group. If the group include matrix screen and video wall or Workstation monitor, a group named Video Switch will be created by default at dashboard.

2. Allocate for Person

Under personal view, public group list will display at right side of interface. Click one Public group, all Signals belong to the group will display at left side.

1. Select one personal group
2. Select one public group and get all the Signals belong to this group.
3. Click any Signals of selected public group to add to personal group.
4. Click Save to complete.



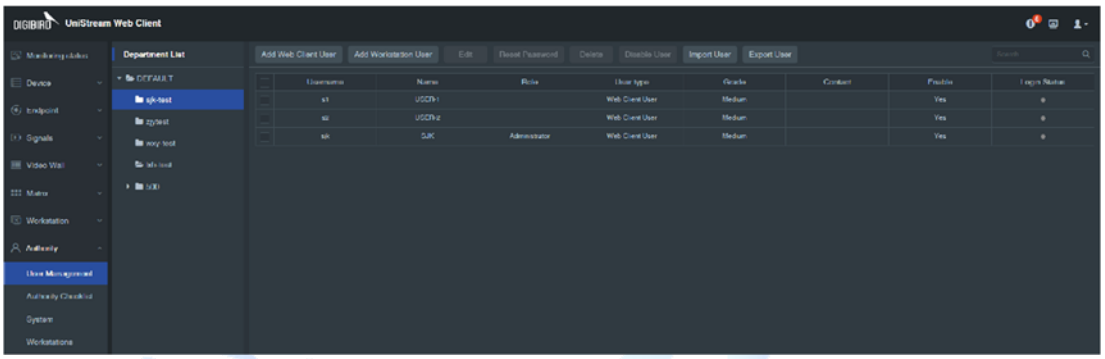
5. Enable to view output group under Personal view at dashboard.

6 Authority

6.1 User Management

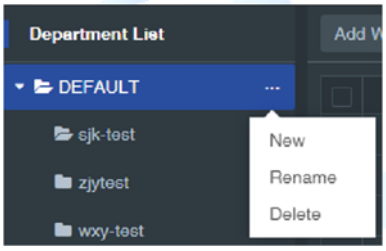
6.1.1 Add User

System allows to add different user based on roles and levels.

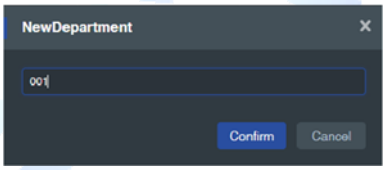


6.1.1.1 Create Department

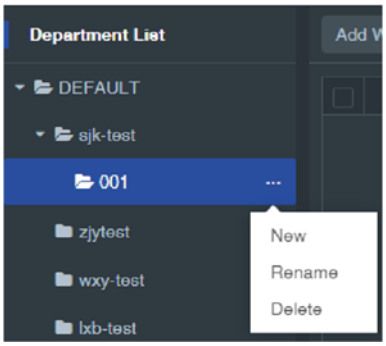
1. Navigate to User, click ••• at Default Dep. Click Add to call out new window.



2. Complete required information and Save.

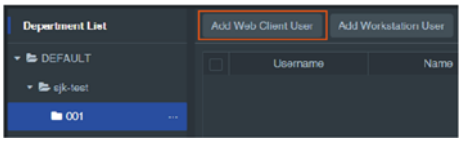


3. Added department will show up at department list. Click ••• to add sub department if necessary.

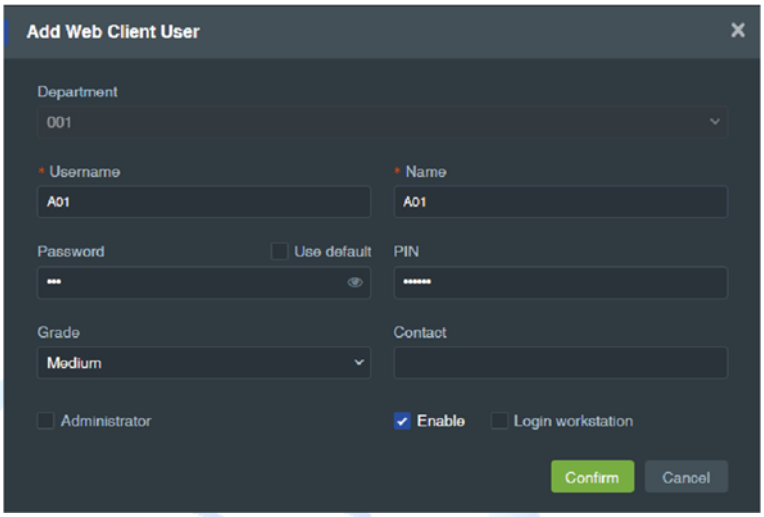


6.1.1.2 Add User

1. Select one department, click Add to create new user.

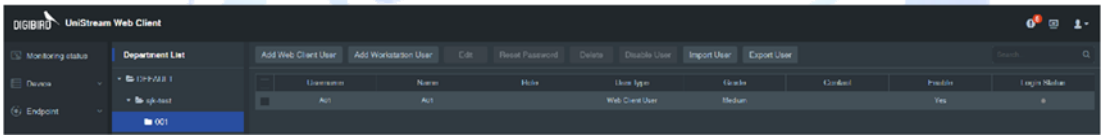


2. Complete required information.



DEPARTMENT	Department the user working in
USERNAME	Log in user Name
DISPLAY NAME	Name displayed at web-client
PASSWORD	Login password
PIN	PIN for mobile device login
LEVEL	Access level
CONTACTS	User contacts
ADMIN	Fully access
ACTIVE	Trigger to activate user account.
WORKSTATION	Trigger to grant the user access to login OSD at Workstation desk.

3. Save user information.

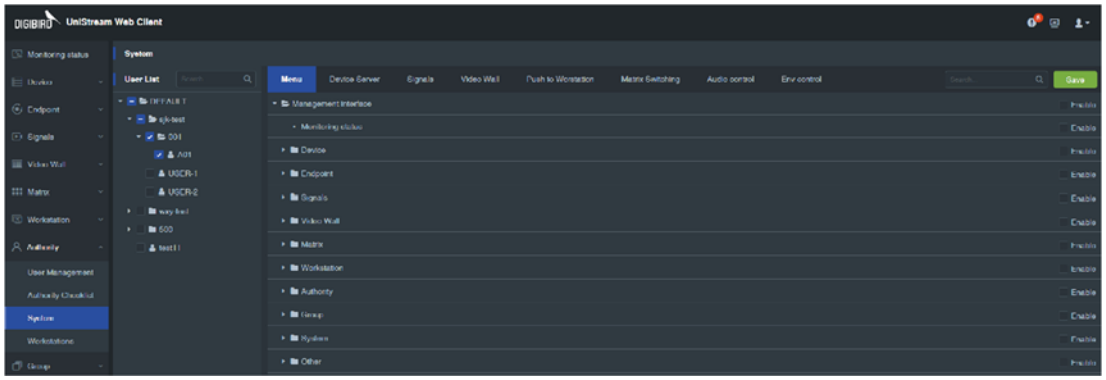


4. Trigger desired user, click Delete to remove.

5. Click Export to save user info in Excel to local computer. Support Import user info as well upon demand.

Workstation User only has access to log in Workstation, with no access to login web-client.

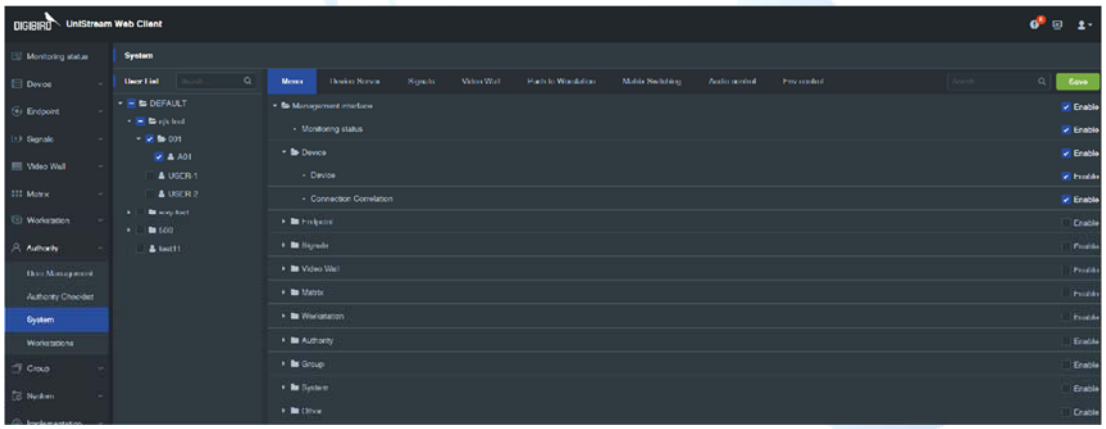
6.2 System Authority Setting



WEB-CLIENT MENU	Authority to visit specific web-client backstage menu.
DEVICE	Authority to visit and manage control devices.
SIGNAL	Authority to view and manage input Signals.
VIDEO WALL	Authority to view and manage video wall.
PUSH	Authority to push sources to other workstations.
MATRIX SWITCH	Authority to view and manage matrix screen.

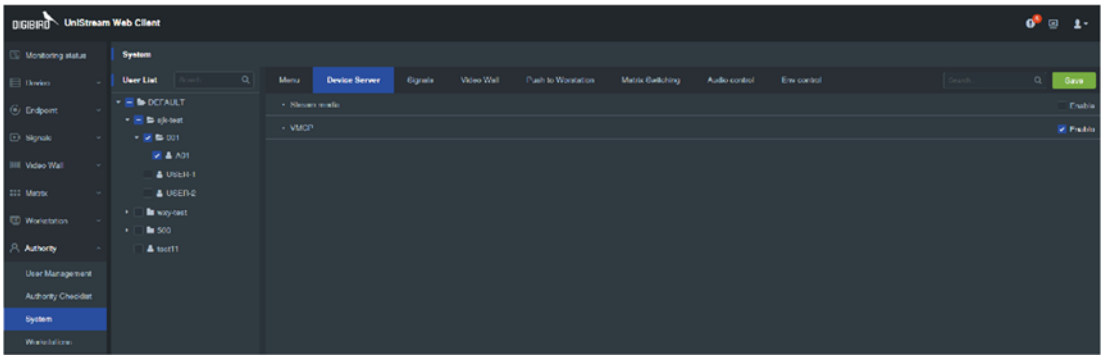
6.2.1 System Menu

1. Navigate to Authority, select one or multiple users, click System Menu to enter setting page.
2. Trigger Enable to authorize permission. If upper-level menu is enabled, sub-menu will follow upper level setting automatically. Or sub-menu can be set independently.



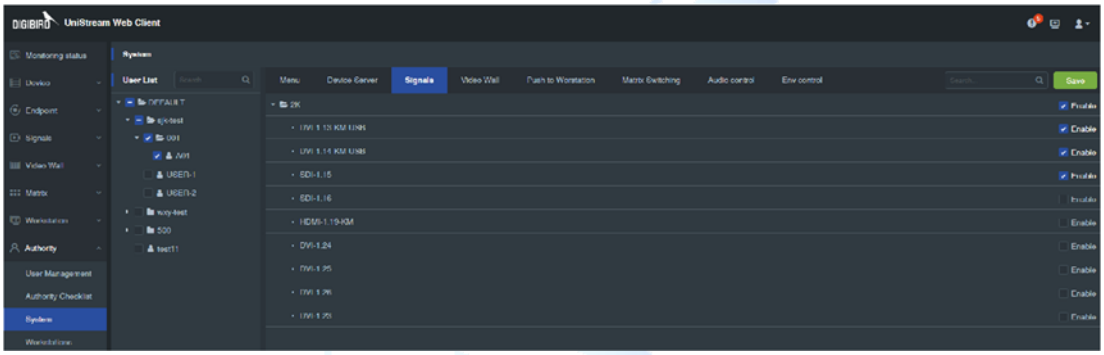
6.2.2 Devices

Select one or multiple users at User List, direct to Device page, Enable to obtain authorities to manage the device.



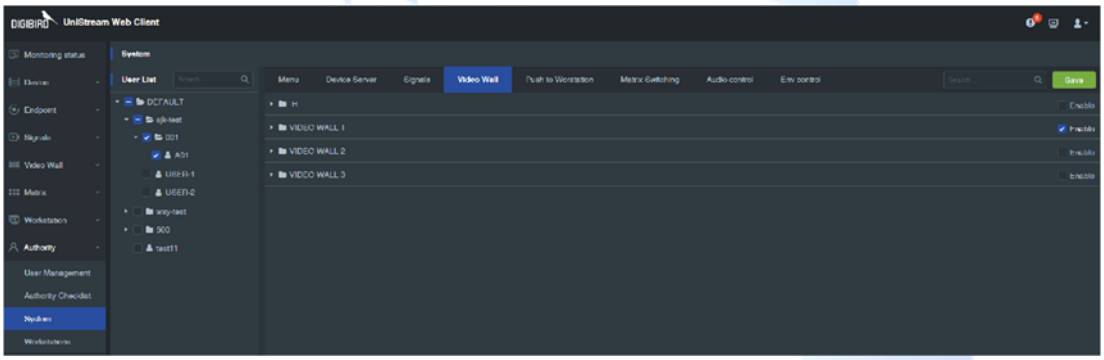
6.2.3 Signals

Select one or multiple users at User List, Enable to obtain authorities to manage signals.



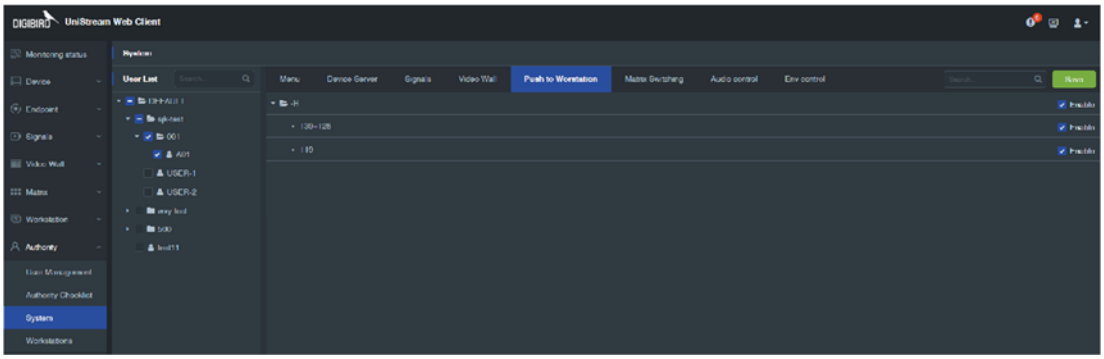
6.2.4 Video Wall Management

Select one or multiple users at User List, direct to Video Wall page, Enable to obtain authorities to manage video wall.



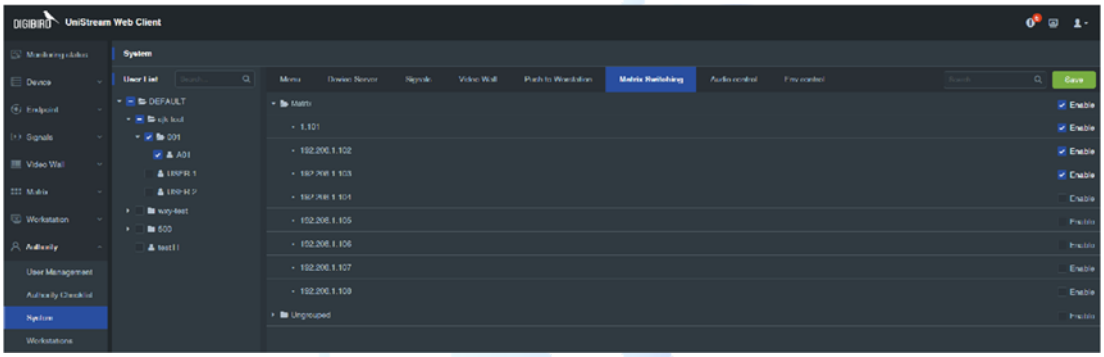
6.2.5 Push to Workstation

Select one or multiple users at User List, move to Push page, enable to obtain authorities to push signals to operator.



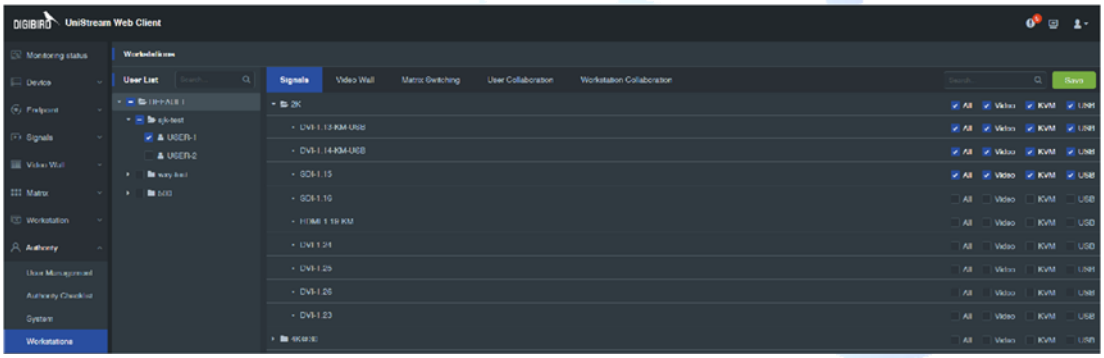
6.2.6 Matrix Switching

Select one or multiple users at User List, direct to Matrix Switching page, Enable to obtain authorities to manage matrix screens.



6.3 Workstations

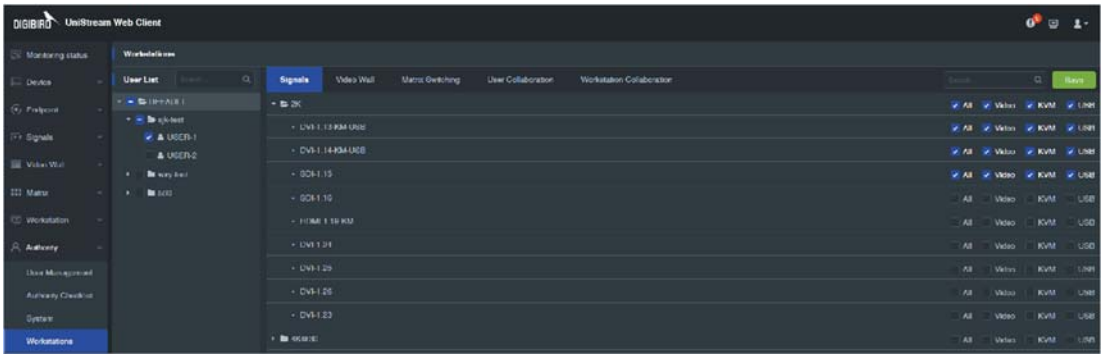
Set up authorities of OSD menu, including Signals management, video wall display, matrix switching, and collaboration.



SIGNALS	Authorities to manage signals via OSD.
VIDEO WALL	Authorities to manage video wall display via OSD.
MATRIX	Authorities to manage matrix screen.
USER COLLABORATION	Authorities to collaborate with other users.
WORKSTATION COLLABORATION	Authorities to collaborate with other Workstations.

6.3.1 Signals

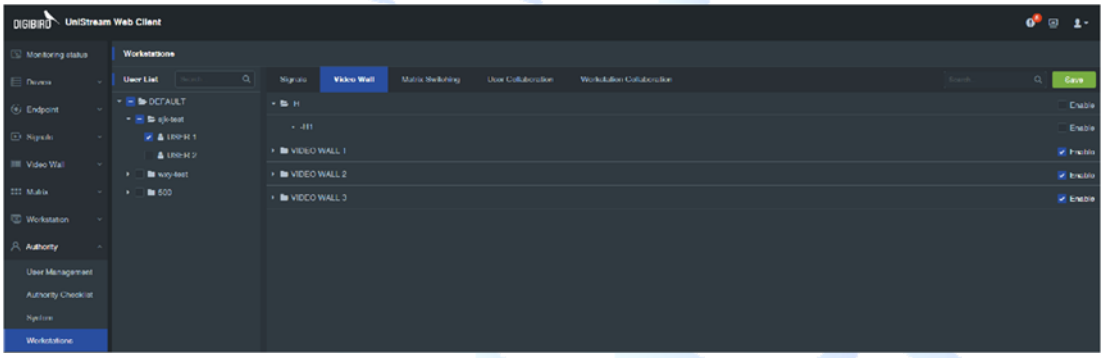
Navigate to Workstation Authorities, select one or multiple users, set authorities of Signals.



ALL	Trigger all indicates trigger View, KVM, and USB.
VIDEO	Authority to view signal over workstation client
KVM	Authority to manage signal computer via KVM
USB	Authority to use USB-Hid devices. If trigger USB, View and KVM should be triggered as well.

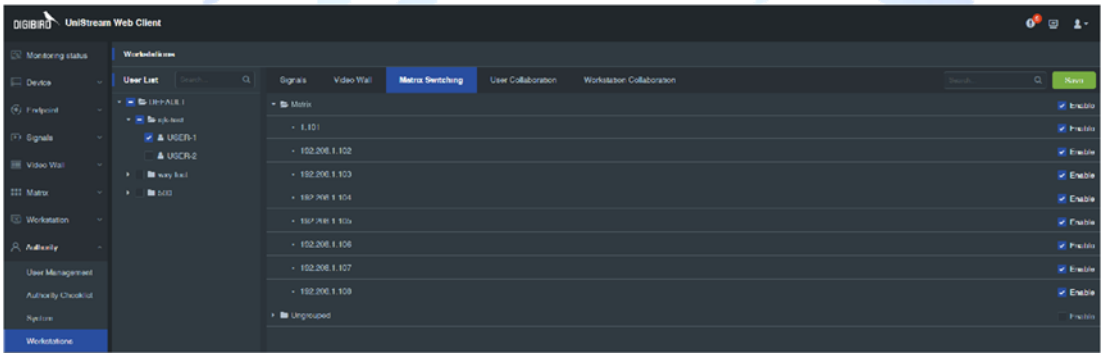
6.3.2 Video Wall Management

Navigate to Workstation Authorities, select one or multiple users, Enable targeted video wall to accept signal push.



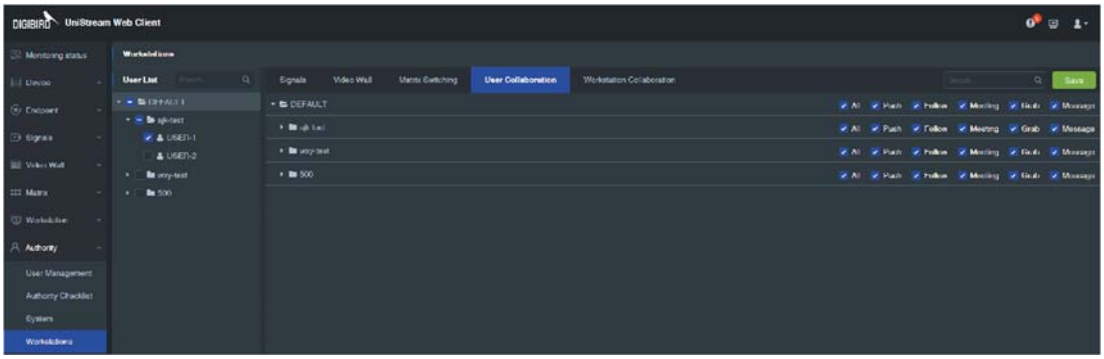
6.3.3 Matrix Switching

Navigate to Workstation Authorities, select one or multiple users, Enable targeted matrix screen to accept signal push.



6.3.4 User Collaboration

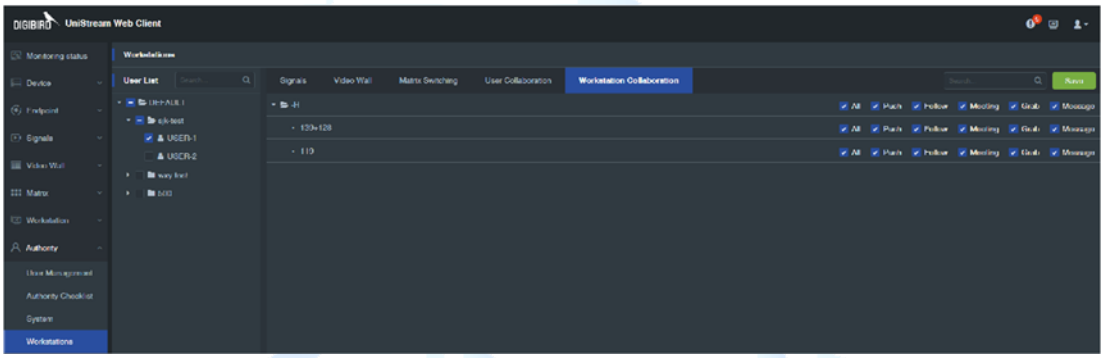
Authorized user is able to push desktop or KVM to another authorized user. The access will follow with user account, no matter which Workstation he login.
Select one or multiple users, direct to User Collaboration and Enable.



ALL	Trigger to enable All, including Push, Follow, etc.
PUSH	Authority to push desktop and KVM to another authorized user.
FOLLOW	Authority to view and follow desktop of another user.
MEETING	Invalid
GRAB	Invalid
MESSAGE	Invalid

6.3.5 Workstation Collaboration

User sitting at this workstation is able to push desktop or KVM to another authorized Workstation. The access will follow with Workstation, no matter what user account.
Select one or multiple users, direct to Workstation Collaboration and Enable.



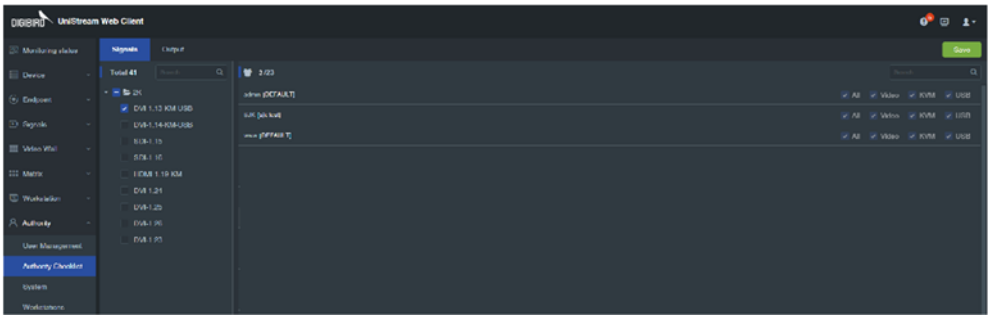
ALL	Trigger to enable All, including Push, Follow, etc.
PUSH	Authority to push desktop and KVM to another authorized user.
FOLLOW	Authority to view and follow desktop of another user.
MEETING	Invalid
GRAB	Invalid
MESSAGE	Invalid

6.4 Authority Checklist

To query which user has access to view and manage certain signal. Meanwhile, can modify authority of selected signal.

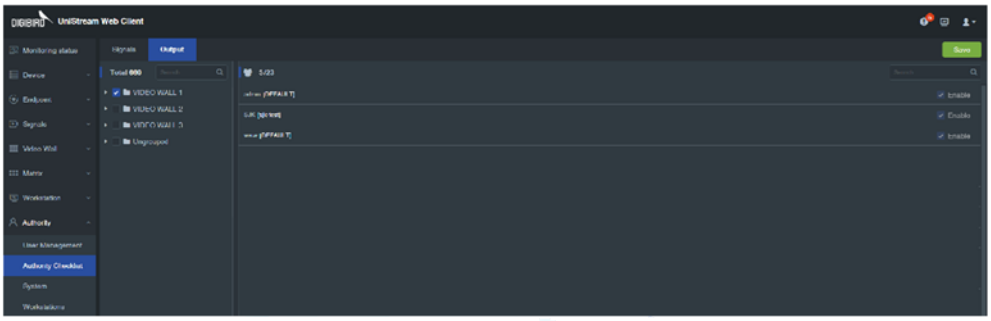
1. Checklist

Navigate to Authority Checklist, select one signal from Signal List or Output List. User with access will show up in the list at right side.



2. Authority Setting

Select targeted signal to revise authorities for users.



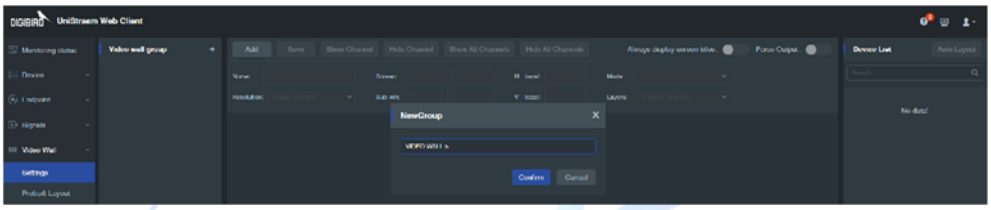
7 Video Wall Management

7.1 Video Wall Configuration

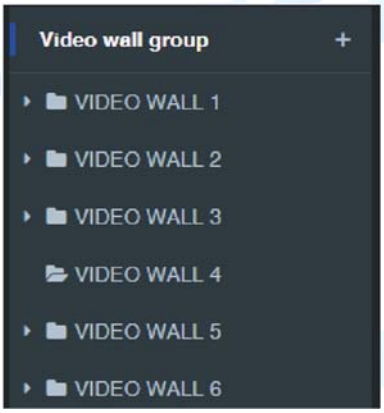
7.1.1 Create Group

Create groups for video wall based on application, location or business department.

1. Navigate to Video Wall Config, click + and complete required information.



2. Created group will show up in video wall group list.



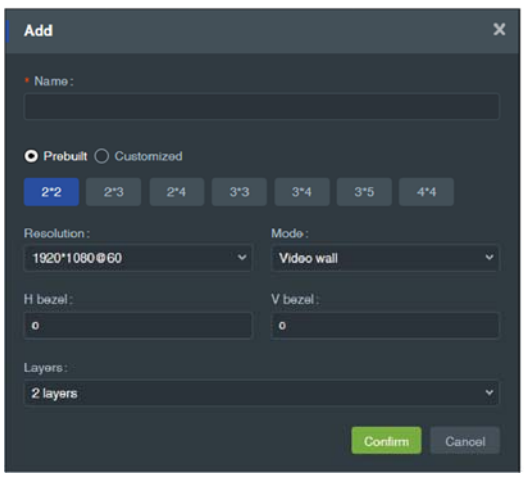
3. Secondary group is supported upon demand.

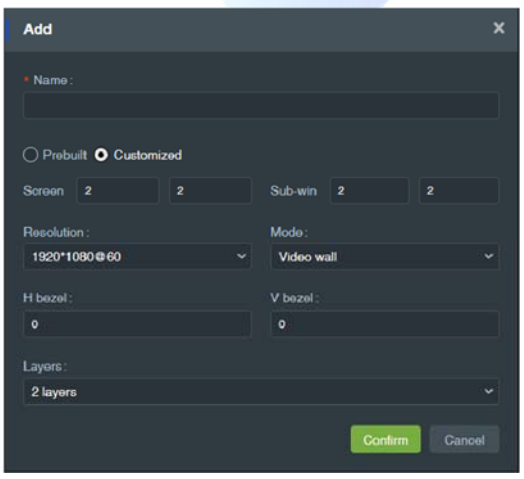
7.1.2 Add Video Wall

Add video wall to group and allocate receivers.

1. Click Add to add a video wall.
2. Default wall layout is 2x2.

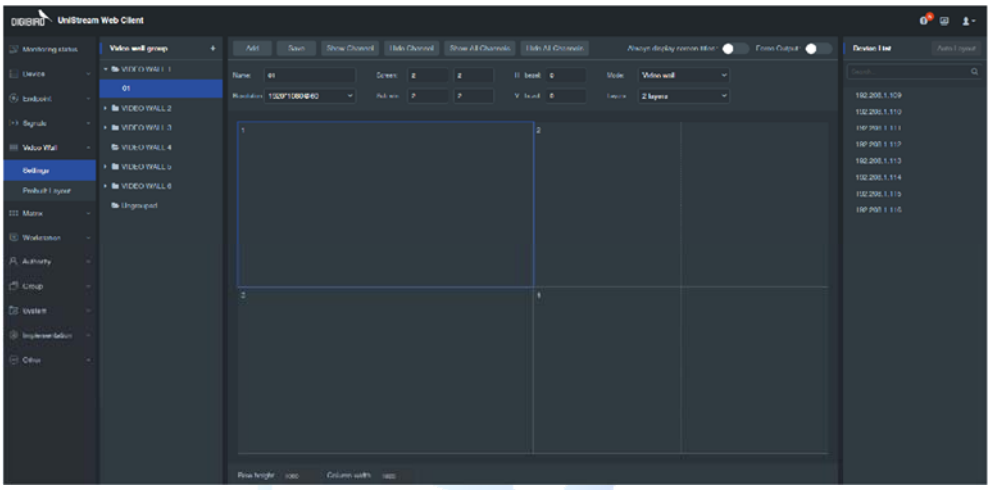
   Description of parameters:





Name Video wall name	**Shortcut** Offering 7x layout for quick setup
Customization Customize video wall layout	**Physical Wall Numbers** Input column and row numbers of display.
Virtual Sub-screen 2*2 Virtual sub-screen, easy to position windows and auto adjust size, default is 2x2.	**Resolution** Set output resolution
Display Support LCD wall and LED wall.	**Horizontal/Vertical Bezel** Set bezel compensation for LCD wall.
Layers Select different layer numbers accordingly	

3. Done with cable connection, drag receivers from device list and drop to corresponding display.



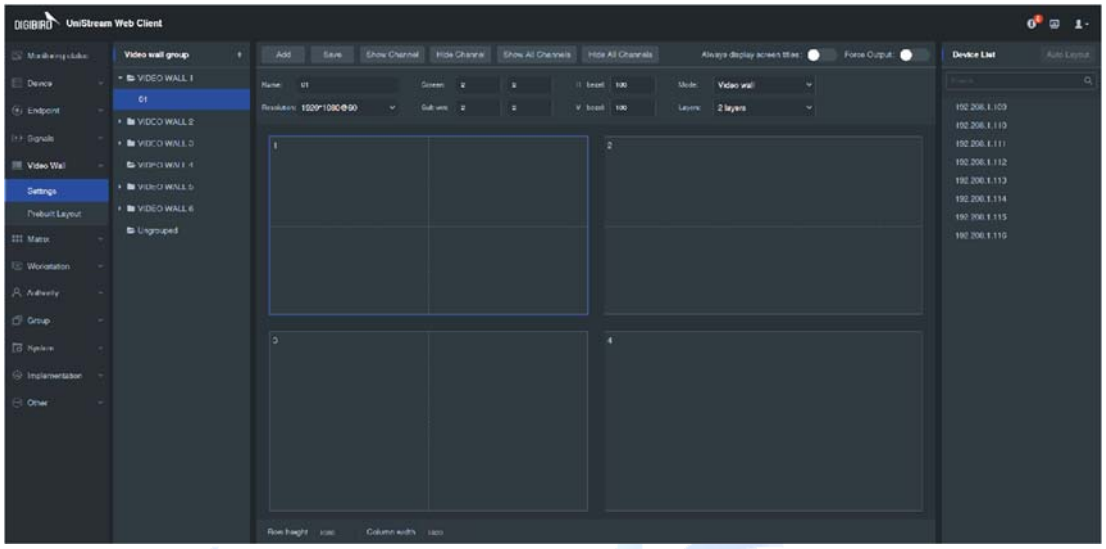
4. Done with setting, back to dashboard, click video wall name at Output Group, then you can manage the video wall.

Show Channel To display output channel ID at connected display. Helps to detect physical connection between receivers and display.	**Hide Channel** Disable channel display
Show all Display all output channel at displays.	**Hide All** Disable all
Always display monitor title Display monitor title on top of video wall display.	**Force Output** Reserved for future

7.1.3 Abnormal

7.1.3.1 Bezel Compensation

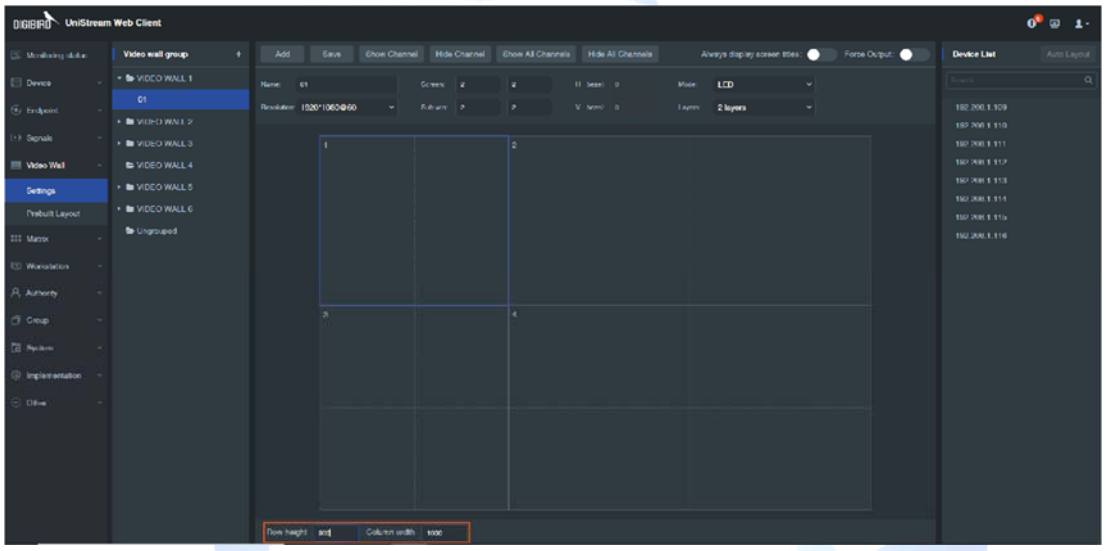
Set up bezel compensation for those LCD panels with large bezel to avoid image distortion and tearing.



- Horizontal Bezel indicates the pixel numbers between left screen and right screen.
- Vertical Bezel indicates the pixel numbers between upside and downside.

7.1.3.2 LED Configuration

As LED wall size is various, have to select LED mode when configure LED wall.



Click LED screen and set up height and width.

1) Row Height indicates height of the row.

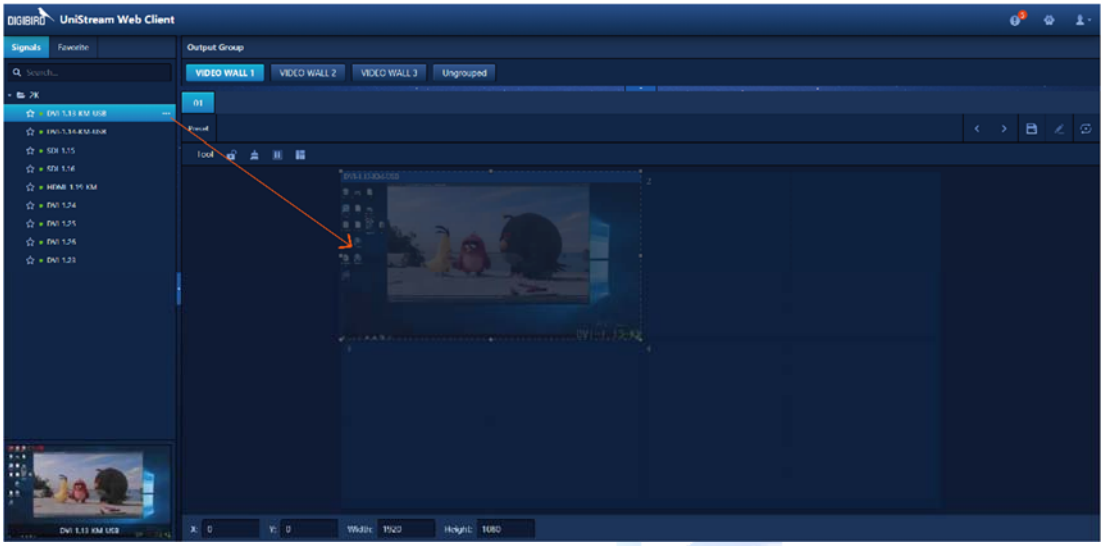
2) Column Width indicates width of the column.

Row height and column width cannot exceed output resolution, e.g. If output resolution is 1920x 1080 @60Hz, row height cannot exceed 1080 and column width cannot exceed 1920.

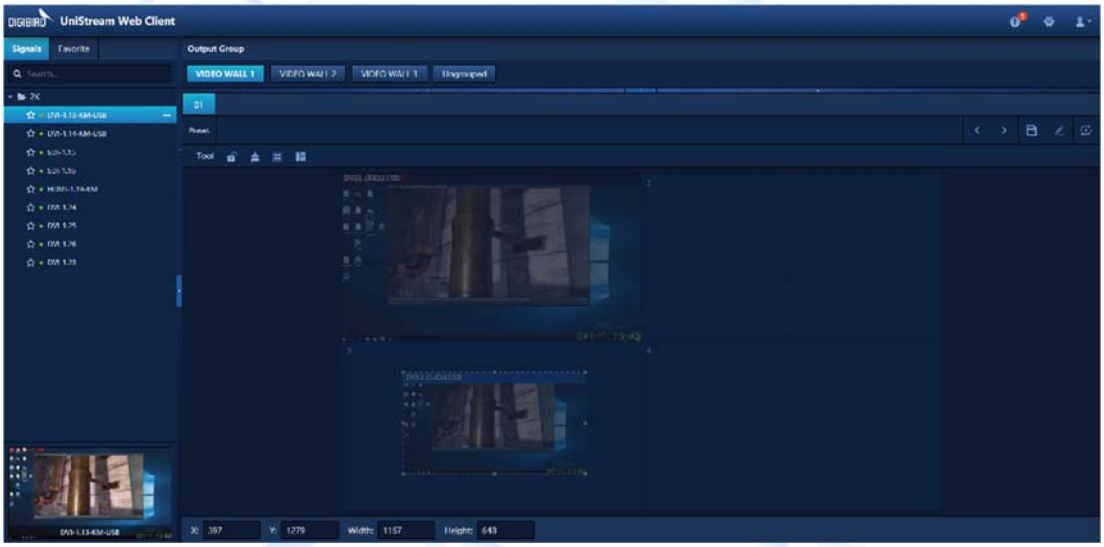
7.2 Display Layout

7.2.1 Create Windows

Select one input signal, drag and drop it to automatically create a screen size widow.

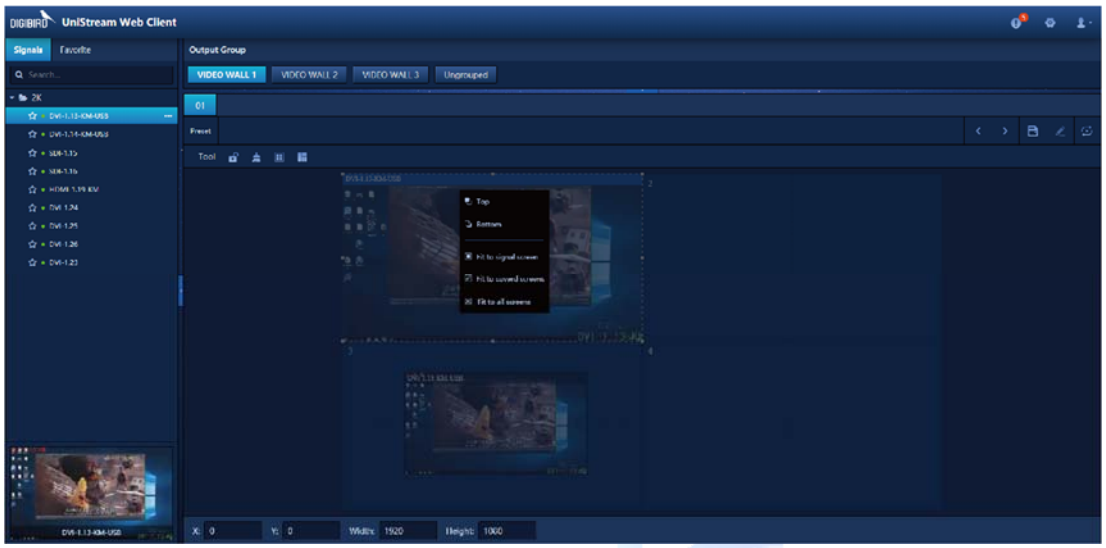


Select one input signal, left click mouse and hold it to create a rectangular window. If want to create a new window on existing window, please press Ctrl and cross mouse to create.



7.2.2 Windows Layout

Multiple windows can be created and displayed at video wall. Each window can be moved, resized. Windows layer order can be modified also.

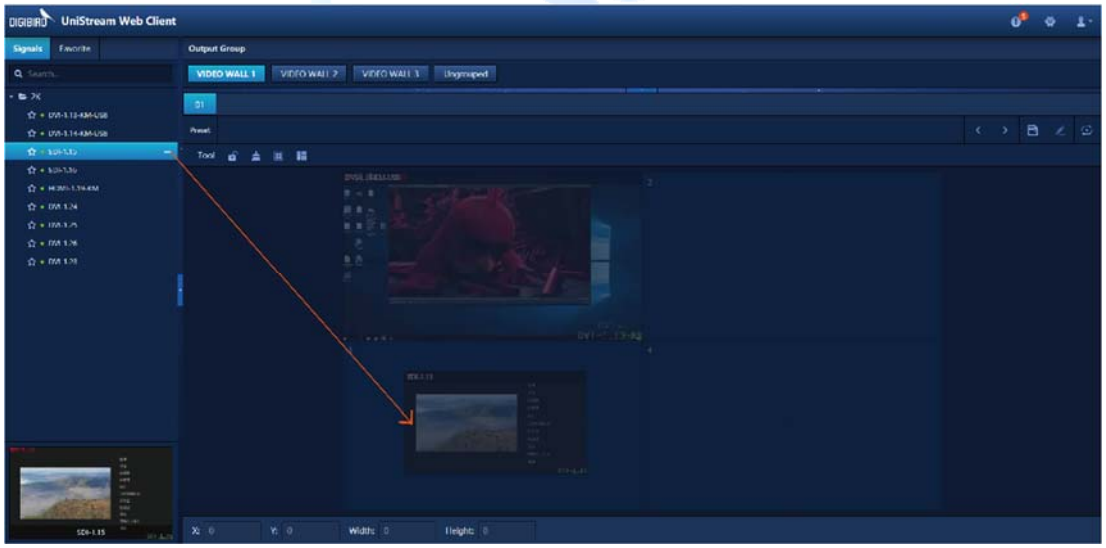


Select one window, right click to call out a menu.

TOP	Set the window to top
BOTTOM	Set the window to bottom
FIT TO SCREEN	Resize the window to fit screen, or double click window center to execute.
FIT TO COVERED SCREEN	Resize the window to fit for covered screen.
VIDEO WALL	Resize the window to fit entire wall.

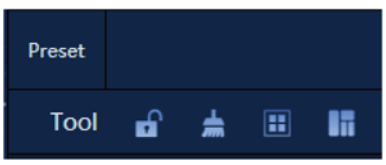
7.2.3 Signals Switching

Select one window, drag one signal from Signal List to the window to switch.



7.2.4 Lock

Lock windows layout to avoid maloperation.

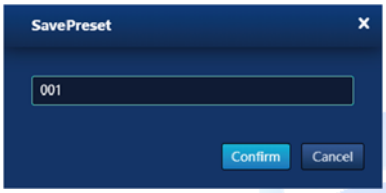


Under Lock status, only preset recall and preset circle are workable. Click  to enable and disable Lock.

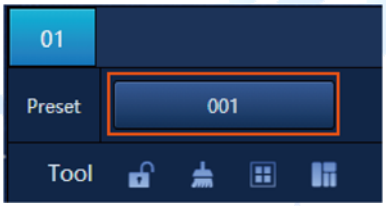
7.2.5 Preset Save and Recall

7.2.5.1 Preset Save

1. Click  to call out dialog box after done with layout.
2. Input preset name.

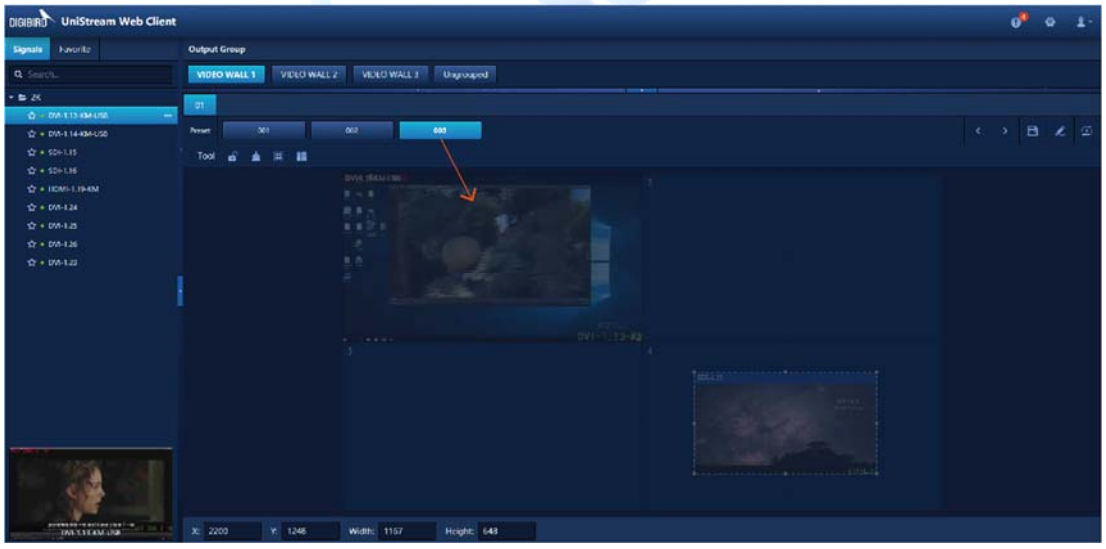


3. Saved preset will show up at presets list.



7.2.5.2 Preset Recall

Drag saved preset to video wall to recall preset.



7.2.5.3 Preset Management

Click  to rename or delete preset.

7.2.5.4 Preset Circle

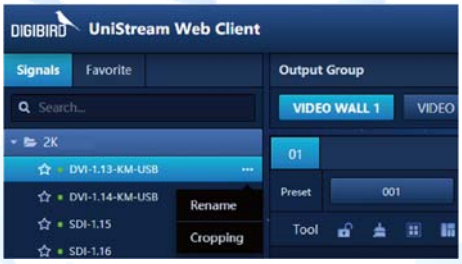
Click  at right side of preset menu to enable preset circle.

Select desired presets and set intervals to start circle. Valid interval is from 10s to 9,999s.

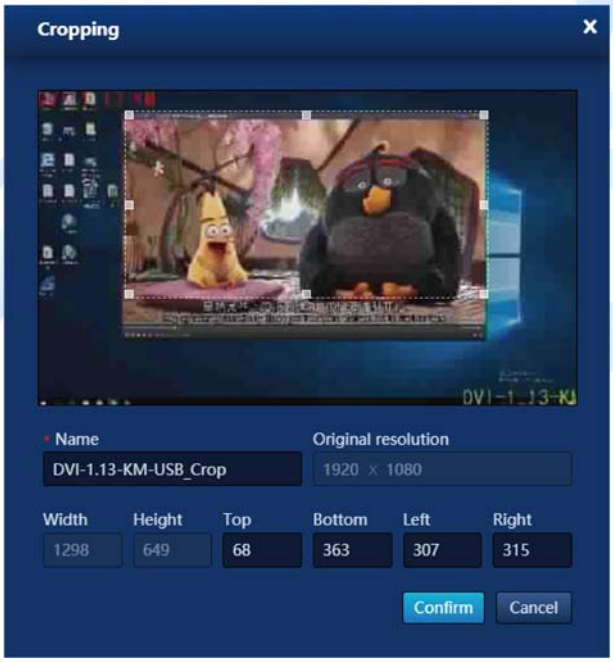
7.2.6 Cropping

The feature can be used to crop unwanted section of Signals.

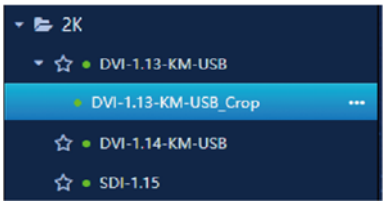
1. Select one input signal, right click mouse to select Crop.



2. Crop can be executed by dragging signal boarder, or inputting accurate pixel number.



3. Cropped signal will show up as sub signal of original.

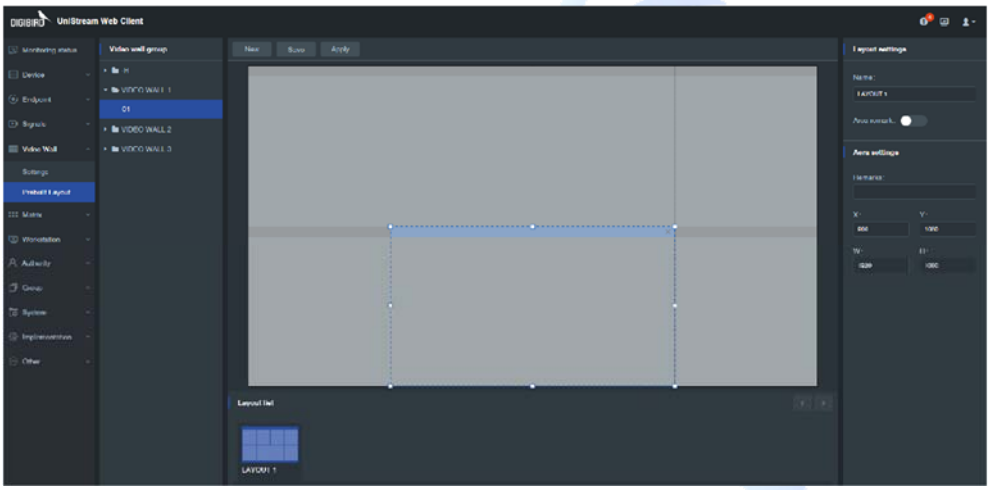


7.3 Prebuilt Layout

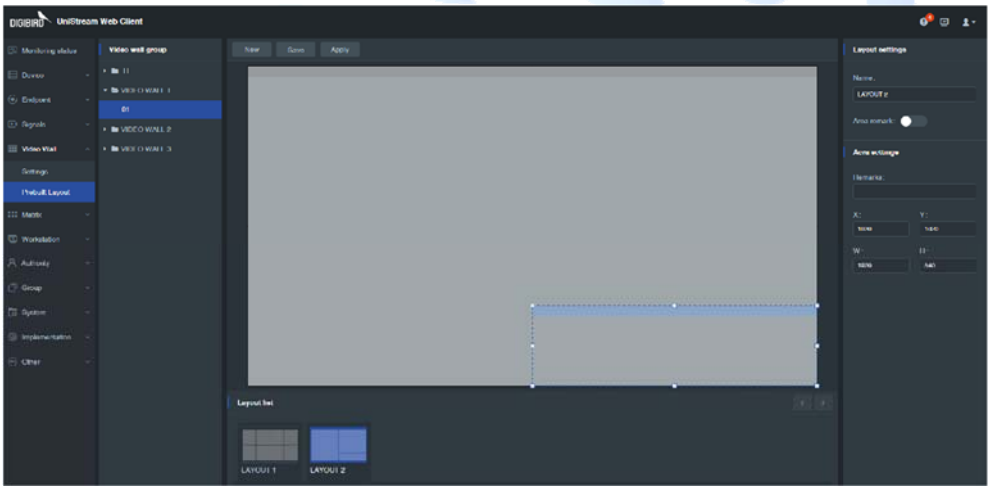
User can set up pre-layout of video wall. Therefore, it helps to save time when creating windows at video wall.

1) Navigate to Video Wall Layout at backstage, select one group video wall, click Add.

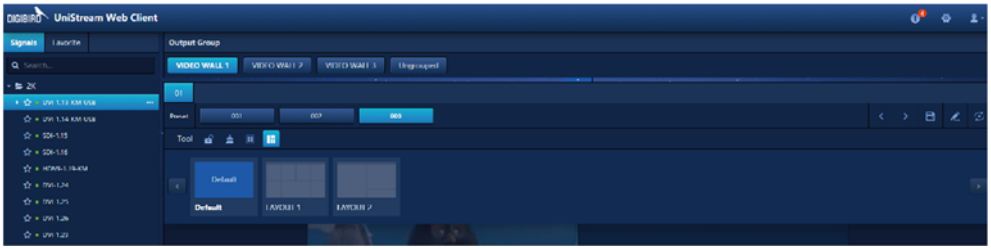
2) Input layout name and create layout with rectangular fames.



3) Saved layout will show up at downside of vide wall.

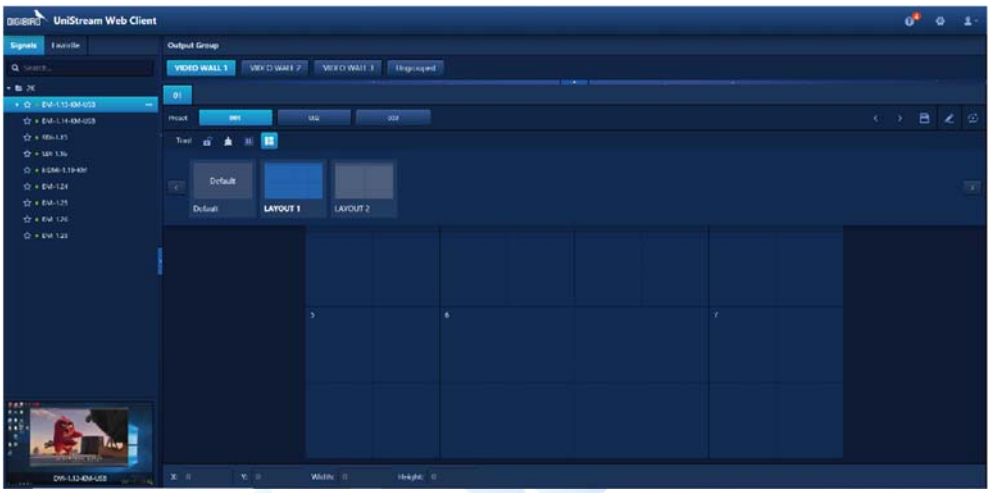


4) Back to dashboard, and check saved layout by clicking  at Video Wall section.



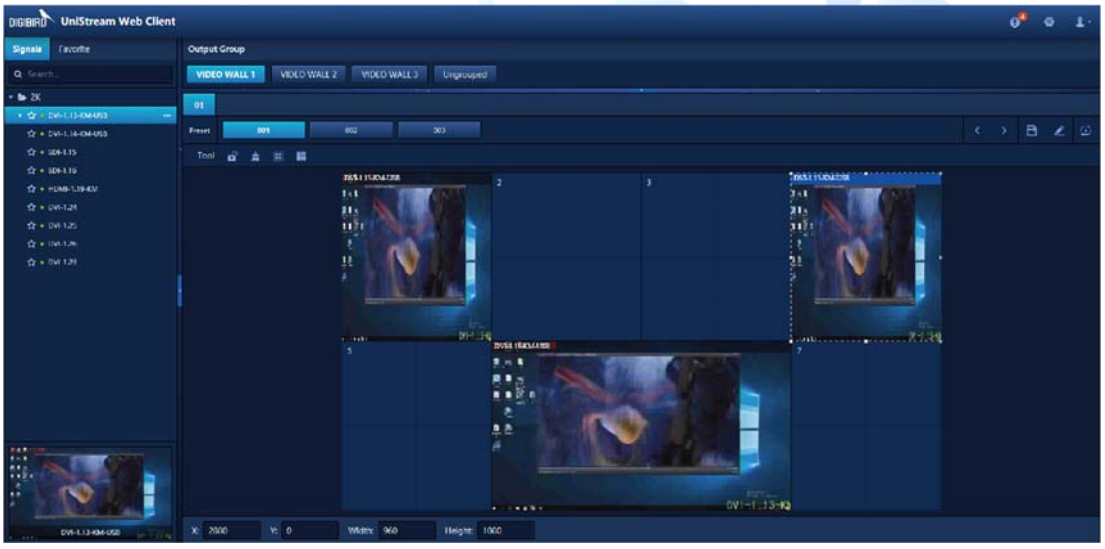
7.3.1 Execute Layout

- Select one layout at backstage and Enable to apply.
- Or select one layout in layout list at dashboard to apply.



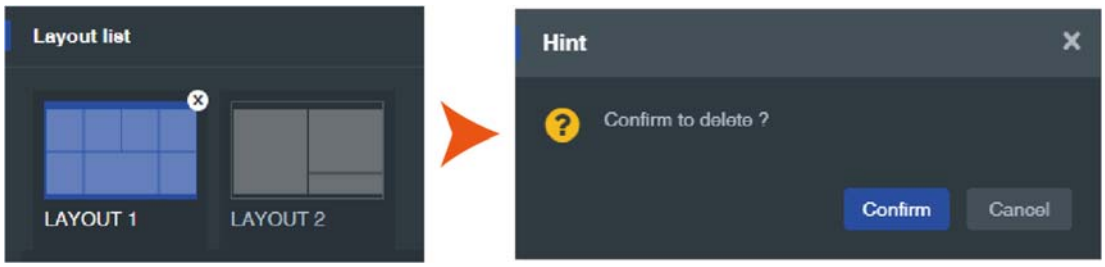
7.3.2 Create windows at layout

Drag one signal to vieo wall and release it. The window will auto fit covered rectrangular frame.



7.3.3 Delete Layout

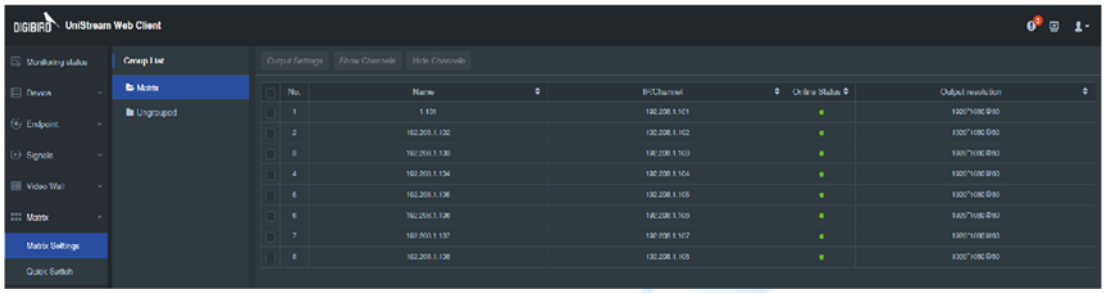
Select one video wall layout, and click  icon to delete at backstage.


Layout list
LAYOUT 1
LAYOUT 2
Hint
Confirm to delete ?
Confirm
Cancel

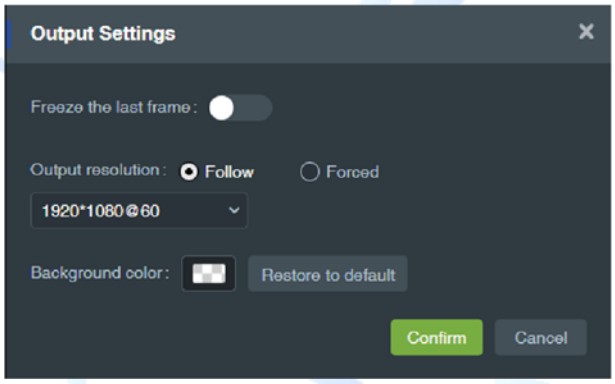
8 Matrix

8.1 Parameter

Configured matrix receivers can be viewed at Matrix Config.



Select desired receiver, click Output Config, and input output resolution.



FREEZE LAST FRAME	Invalid
OUTPUT RESOLUTION	Force output at this resolution
BACKGROUND	Invalid

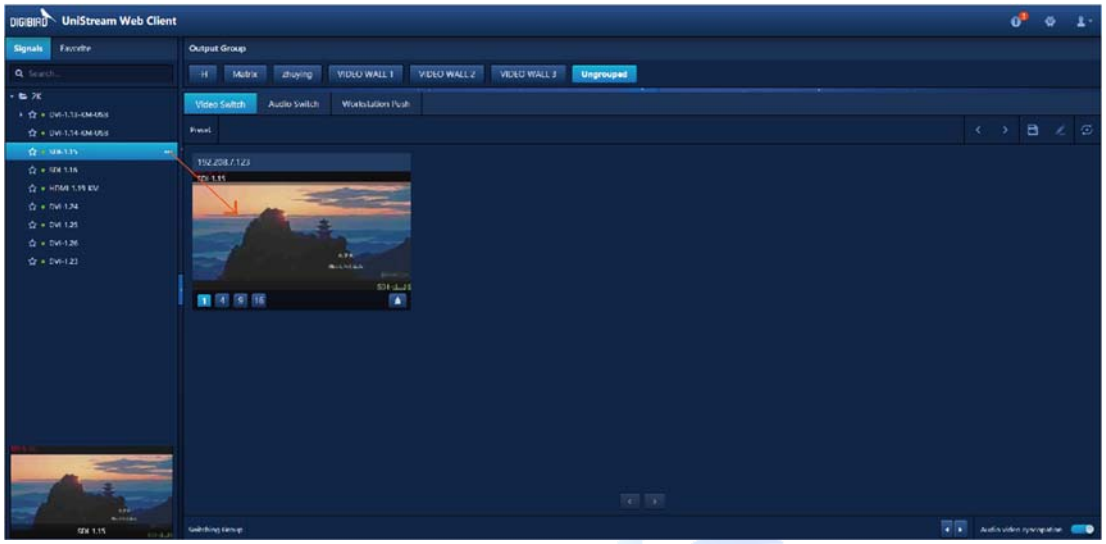
Select desired receiver, click Show Channel to display channel number. Click Hide Channel to hide channel number.

8.2 Matrix Switching

8.2.1 Signal Switching

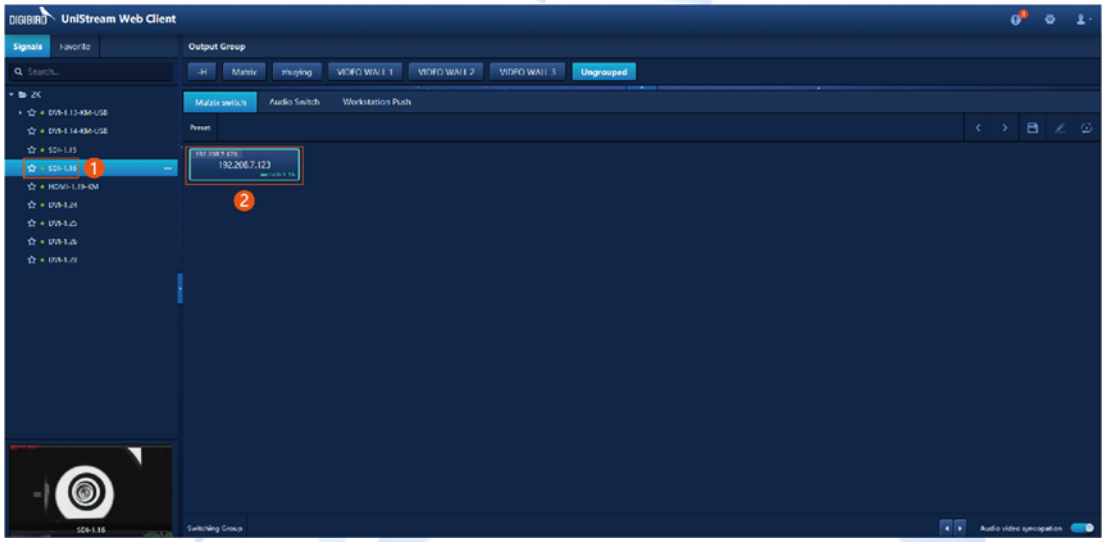
8.2.1.1 Switch in Preview Mode

Select one matrix screen, drag one signal and drop to the screen to switch.



8.2.1.2 Switch in List Mode

In list mode, select one input signal, then click one output.

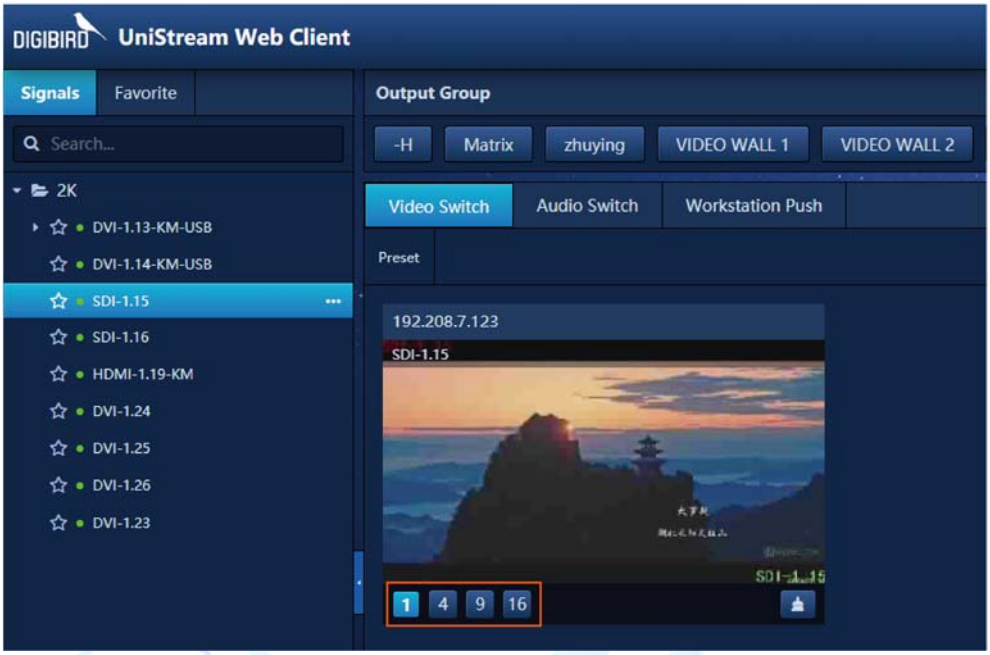


8.2.2 Multiview Mode

Each matrix screen can be set as single-view, quad-view, nine-view and 16-view.

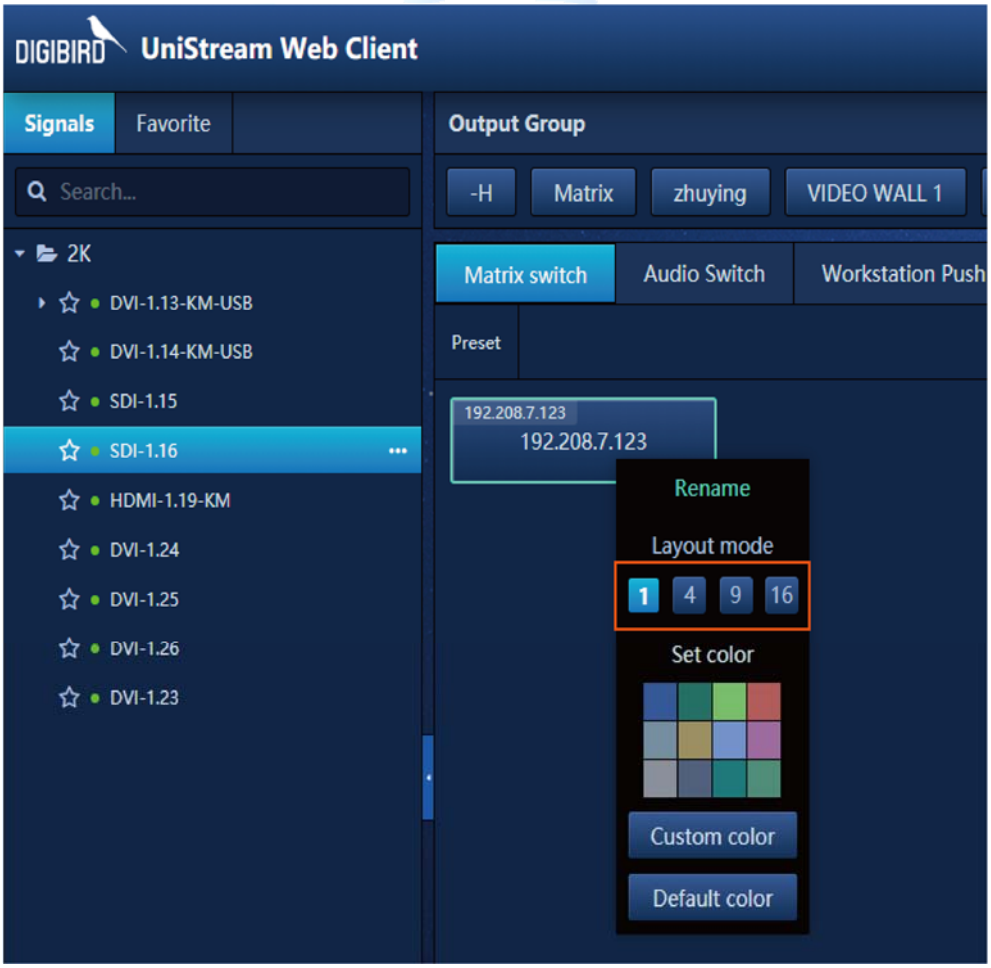
8.2.2.1 Multiview settings in preview mode

For any matrix screen, click the button downside of screen to select single-view, quad-view, 9-view and 16-view.



8.2.2.2 Multiview in List Mode

Right click output port to select Multiview mode.

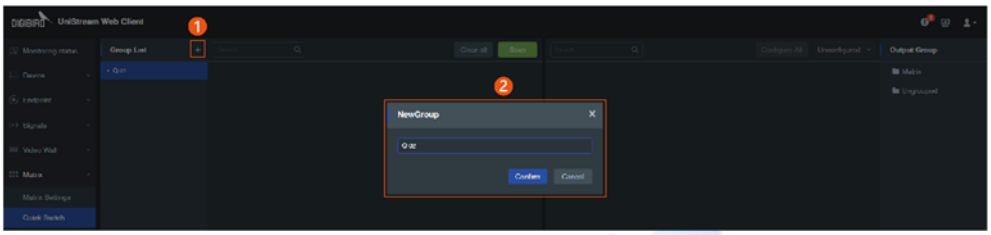


8.2.3 Switch by group

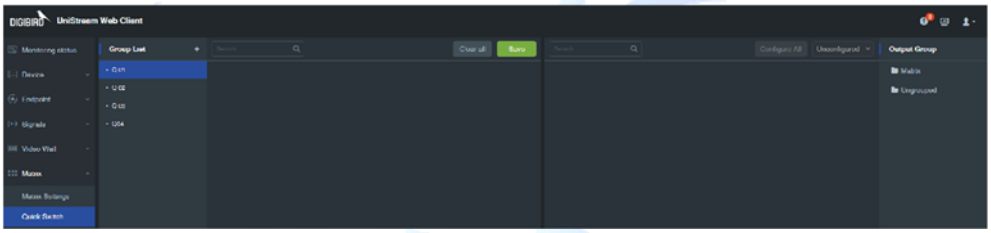
8.2.3.1 Fast Switch Setting

1. Create Group

Navigate to Fast Switch Config, click + and input group name.



Multiple groups can be added upon demand.

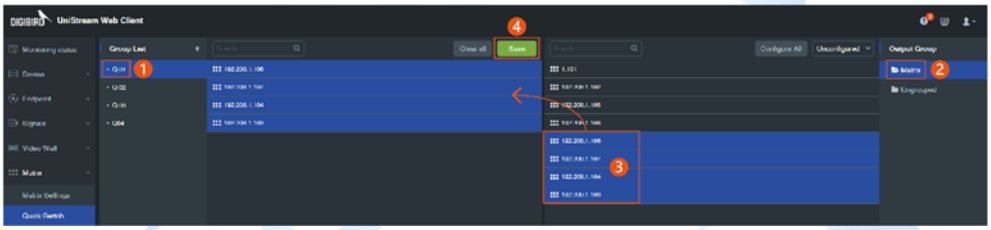


2. Signal Allocation

1) Select one Fast Switch Group in Group List。

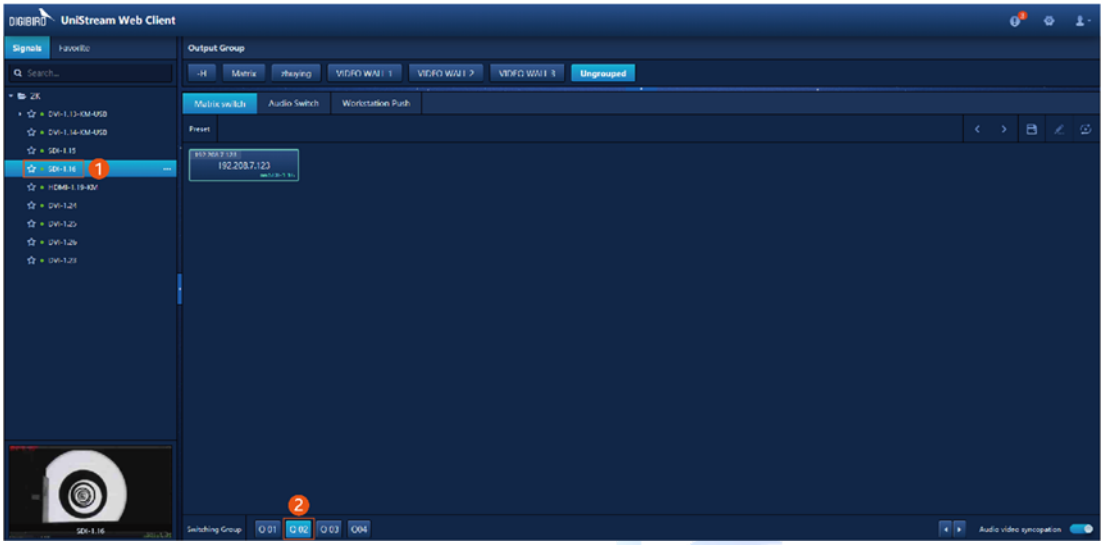
2) Select one Output Group.

3) Click desired output Signals to add to fast switch group. Click again to ungroup.



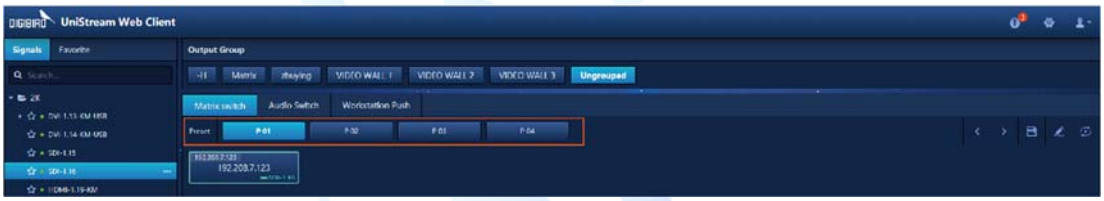
8.2.3.2 Switch

Select one input signal in Signal List, click Fast Switch Group at bottom to switch the signal to all screens in this group.



8.2.4 Preset Switch

Save current switching relationship as a preset for quick recall in case of need.

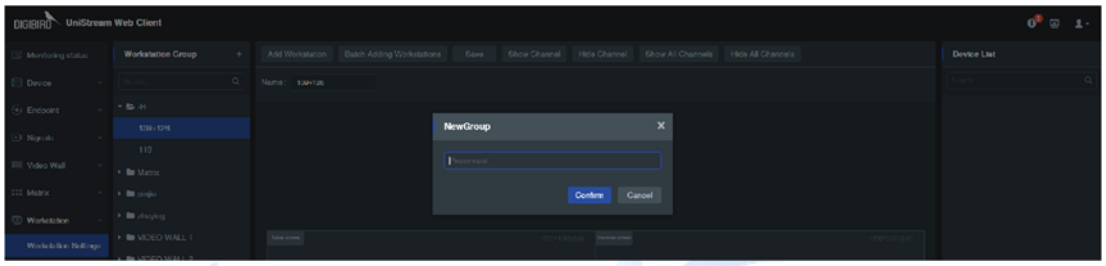


9 Workstation Operation

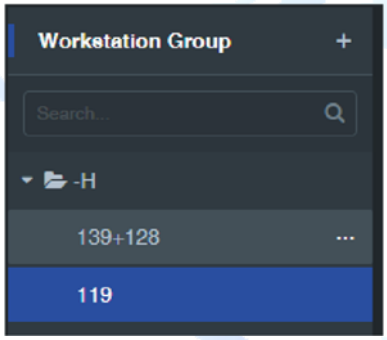
9.1 Workstation Setting

9.1.1 Create Group

1. Click ➕ to add new group, input group name and save.



2. Group will show in the list after created.

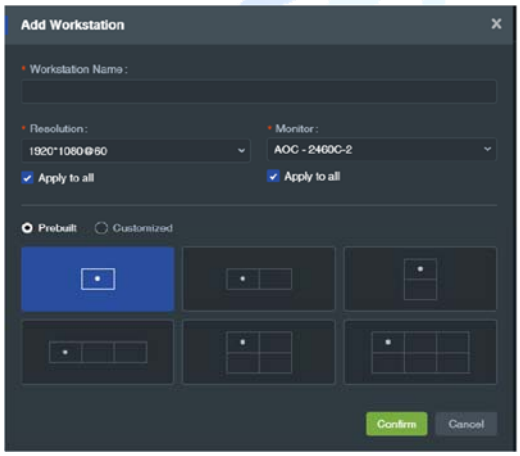


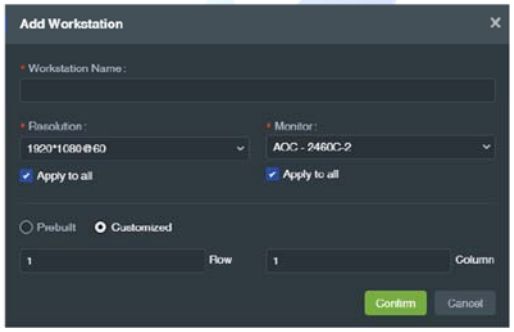
3. User can create secondary group under level 1 group upon demand.

9.1.2 Add Workstation

9.1.2.1 Single Workstation

1. Select one group, click New Workstation and complete required information.

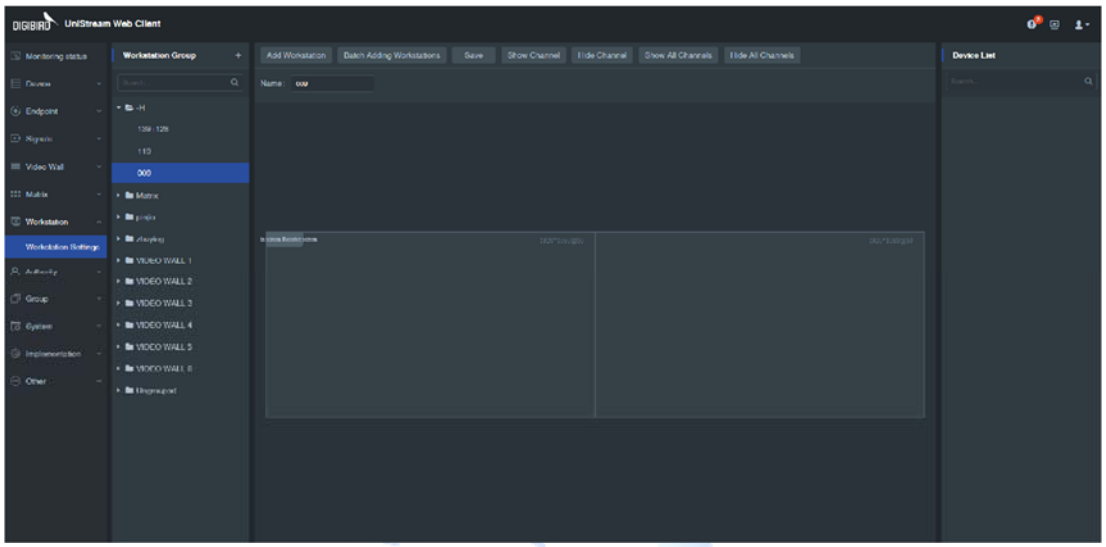




NAME	Workstation name
RESOLUTION	Resolution of monitor
SAME FOR ALL	Trigger it all monitor resolution will be same
MONITOR	Monitor model on Workstation

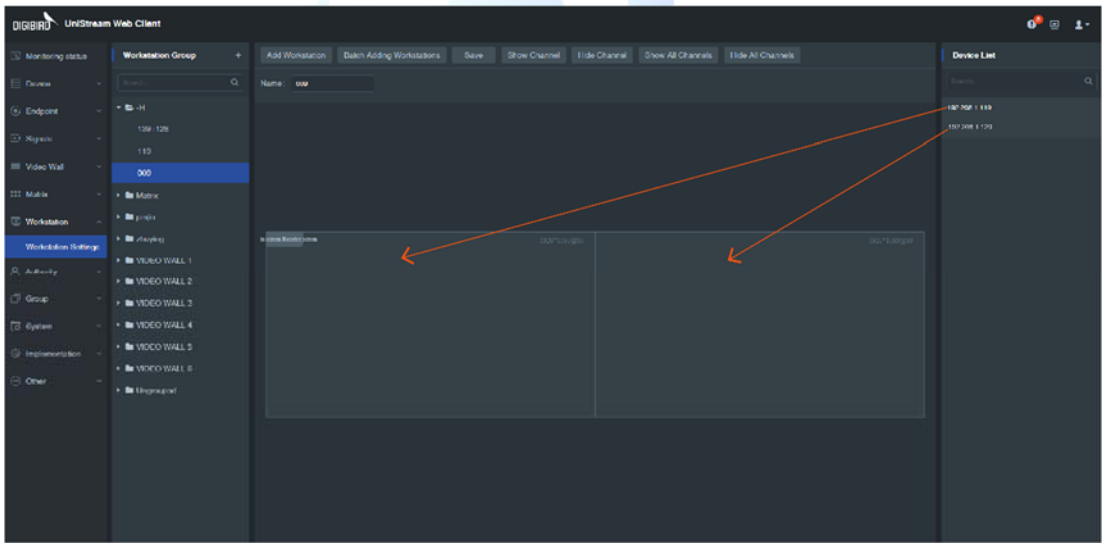
SAME FOR ALL	Trigger it all monitor model will be same
QUICK LAYOUT	Select among built-in layout
CUSTOMIZE LAYOUT	Customize Workstation layout

2. Confirm to save settings.



9.1.2.2 Allocate Receiver Channel

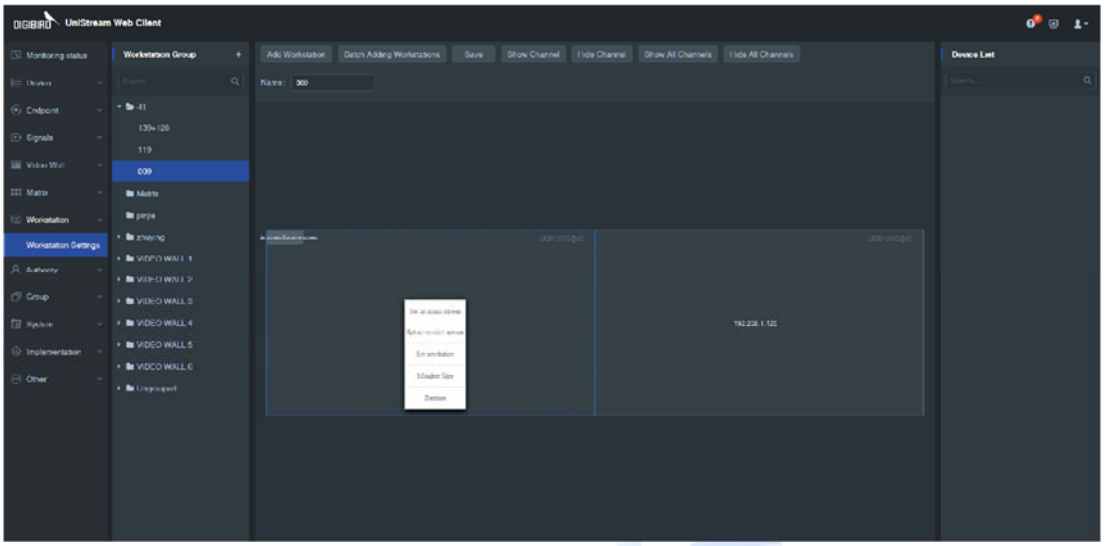
Allocate mapping relationship between receivers and Workstation monitors based on actual cable connection. Select one receiver channel in Device List, drag and drop it to monitor.



9.1.2.3 Master Screen and Receiver Screen Setting

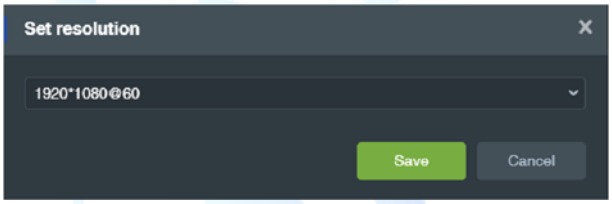
Monitor can be set as master screen and receiver screen. Each Workstation need assign one and only one screen as master screen, which will be main operating area. Each Workstation can assign one and only one screen as receiver screen, which will receive pushed Signals from other users or Workstations.

Select one screen, right click to open option list, and select set as master or receiver screen.



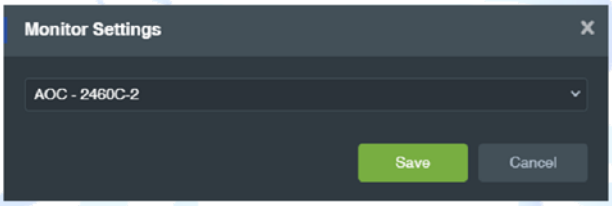
9.1.2.4 Resolution Setting

Right click to open option list, and select Resolution List.



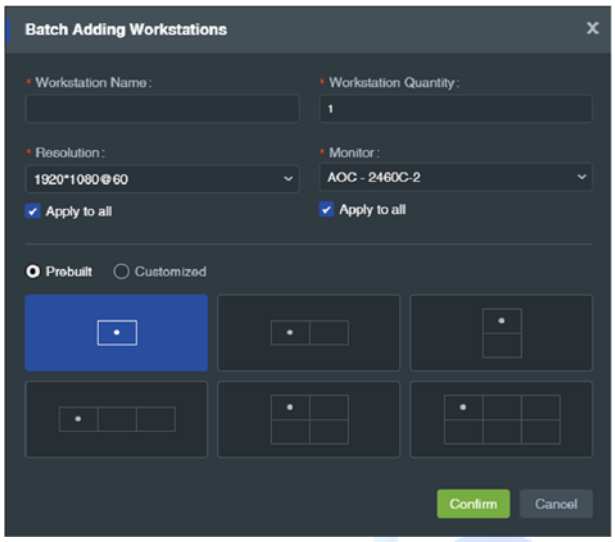
9.1.2.5 Modify Monitor

Right click to open option list and select Monitor.



9.1.2.6 Add Workstations in Batch

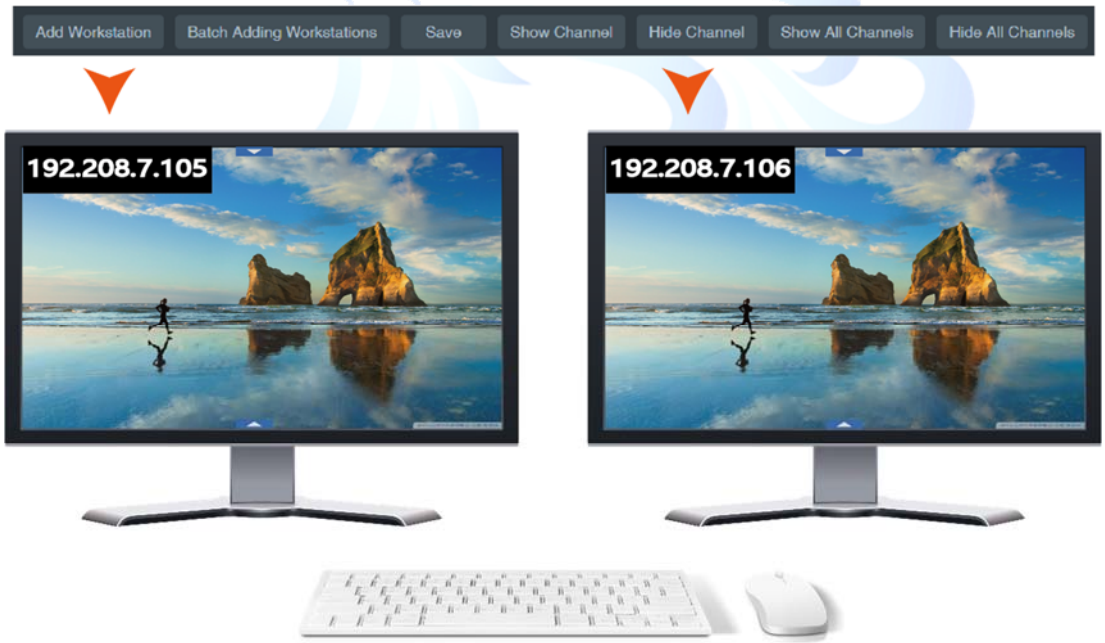
Select one group, click Add Workstation and complete required information.



NAME	Workstation name
RESOLUTION	Resolution of monitor
SAME FOR ALL	Trigger it all monitor resolution will be same
MONITOR	Monitor model on Workstation
SAME FOR ALL	Trigger it all monitor model will be same
QUICK LAYOUT	Select among built-in layout
CUSTOMIZE LAYOUT	Customize Workstation layout
NAME	Workstation name

9.1.3 Show Channel

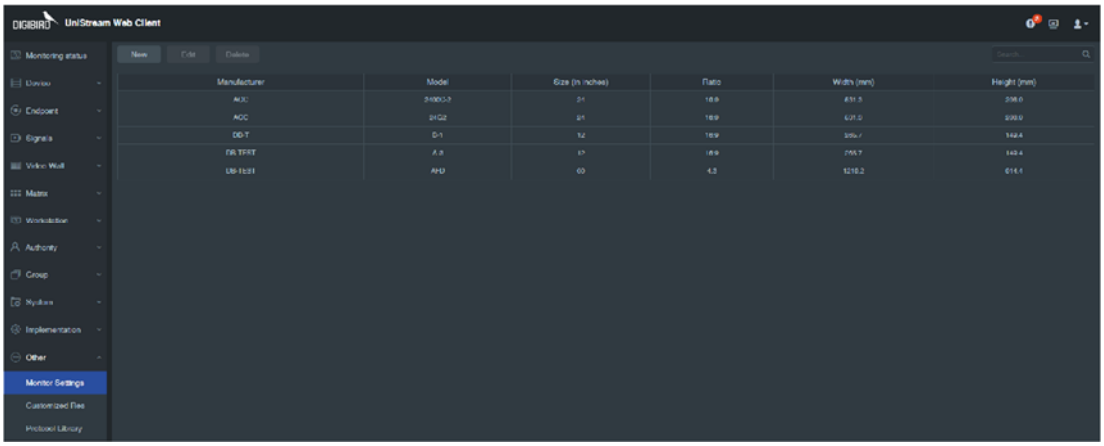
Click Show Channel or Show All under Workstation Config at backstage to enable display of channel number at monitor. Or click Hide Channel or Hide All to disable display.



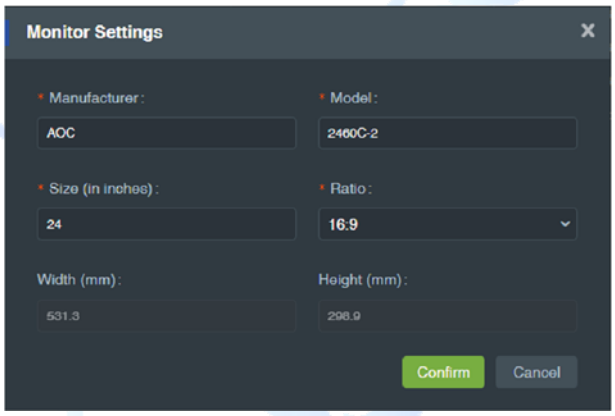
9.2 Monitor Setting

Operator can add monitors to library.

1. Navigate to Monitor Setting at backstage, click Add to run setting page.



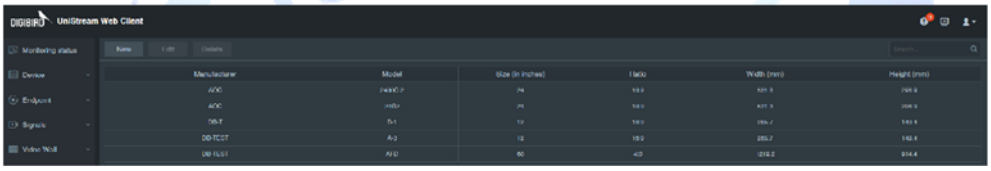
2. Complete required information and click Confirm to save.



Monitor information should be accurate to ensure mouse smooth slide when crossing monitors.

MANUFACTURER	Monitor manufacturer
MODEL	Monitor size
Size	Monitor size
ASPECT RATIO	Monitor aspect ratio
WIDTH	Auto calculation
HEIGHT	Auto calculation

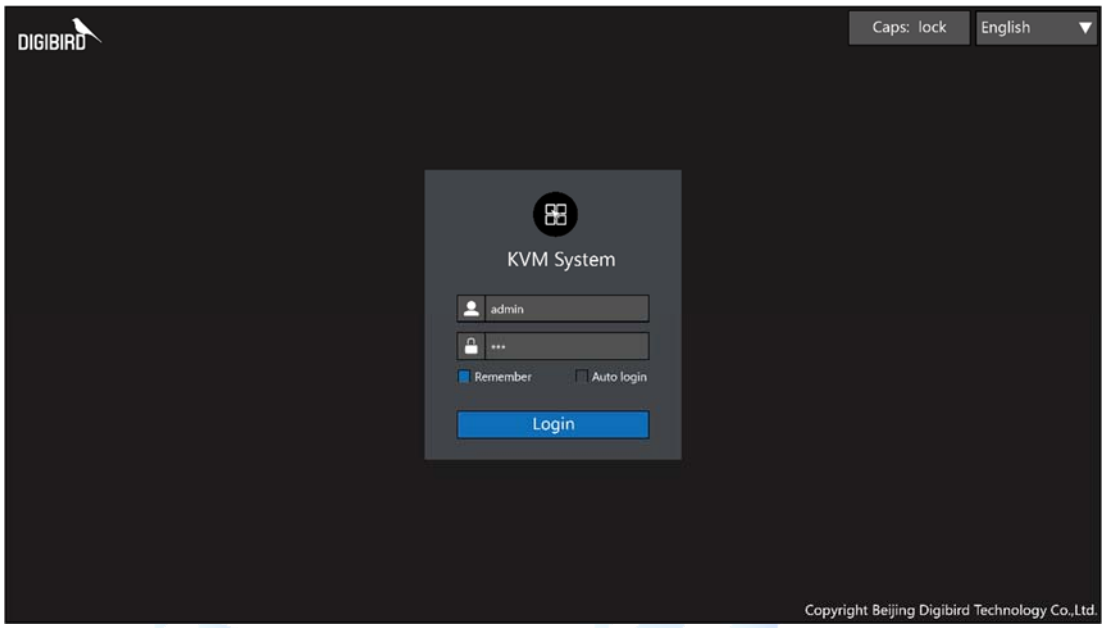
3. Added monitors will show up at Monitor List.



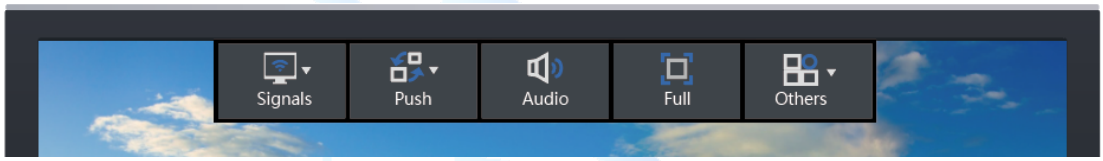
9.3 Workstation Operation

9.3.1 Login

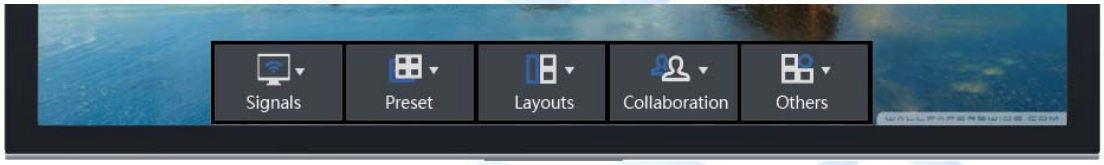
1. Input user name and password to log in.



2. After login, move mouse to top middle of monitor to call out signal OSD menu.



3. Move mouse to down middle to call out monitor OSD menu.



9.3.2 Signal Management

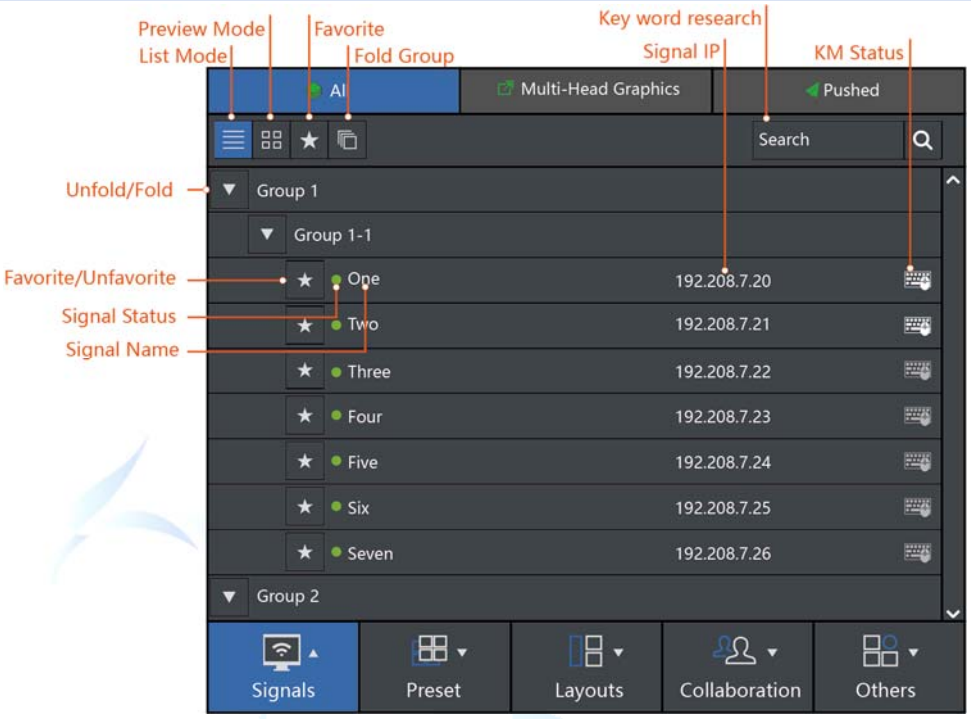
Select Signal at Signal OSD menu or Monitor OSD menu, click signal name in signal list to switch. Or drag desired signal to monitor at Monitor OSD to switch.

Signal OSD

Monitor OSD

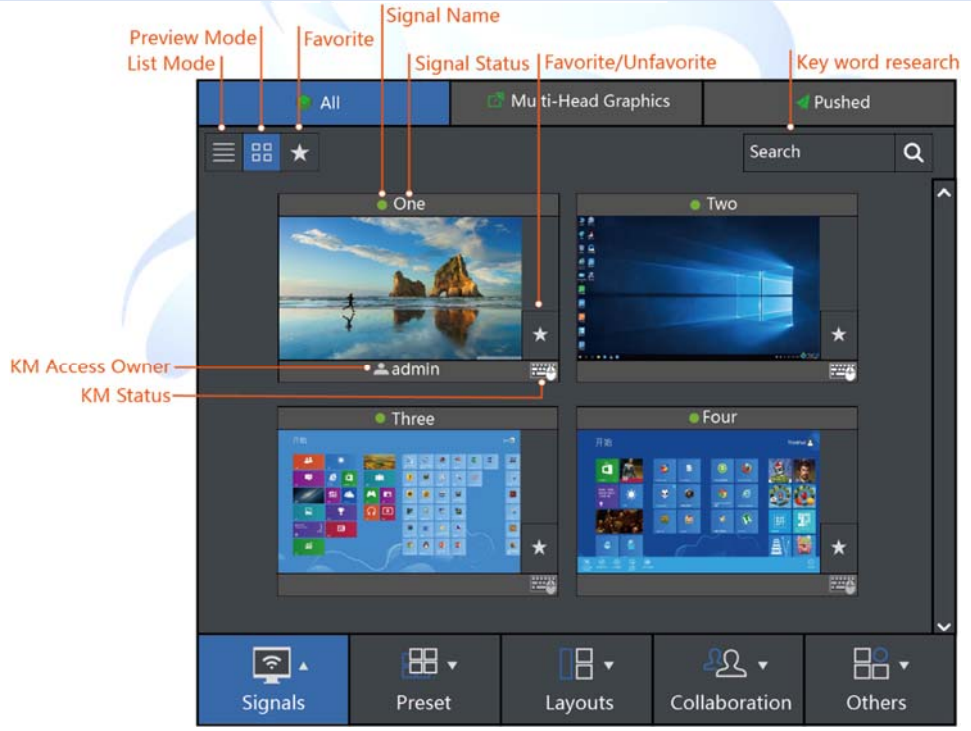
OSD Description

List Mode



List: Show signals in a list
Preview: Show signals with preview.
Favorite: Show favorite signals

Preview Mode



9.3.3 Multi-head Graphics Switching

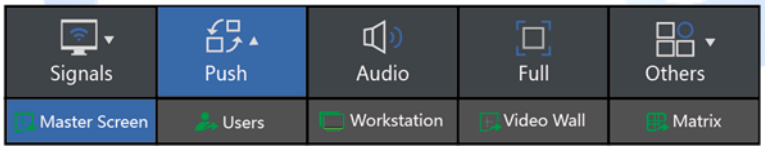
For servers with multi-head graphics, can set up multi-head signals as one signal and switch all at once.
Click Multi-head Graphics at OSD menu to display available multihead graphics signals.

9.3.4 Operate Signals

If computer signal can not be controlled, the signal might not support keyboard and mouse control, or the computer is being controlled by others. If there is  at the right side of signal, it indicates that another is user is controlling the computer. You can apply for KM access by clicking the icon.

9.3.5 Push To

User can push current signals to other workstations or video wall.



9.3.5.1 Push to Master Screen

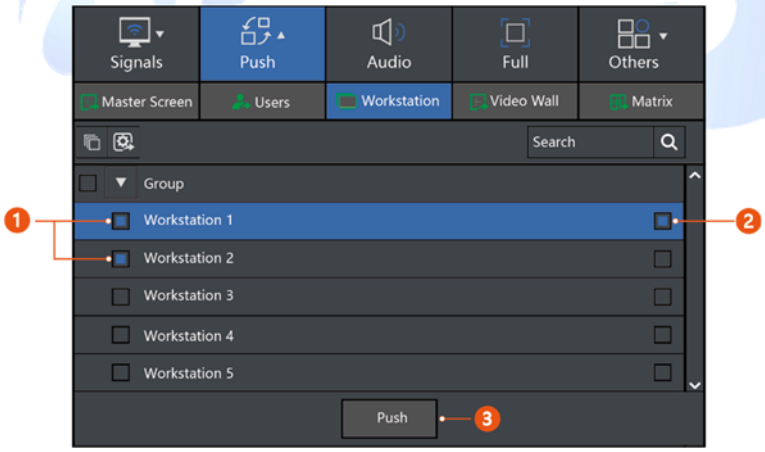
Navigate to Push To, select Master Screen to push current signal to master screen.

Set up master screen at web client.

9.3.5.2 Push to Workstation

Push current signal to another workstation.

1) Navigate to Push To, select one or multiple Workstations, select KM access for one workstation, and Push to execute.

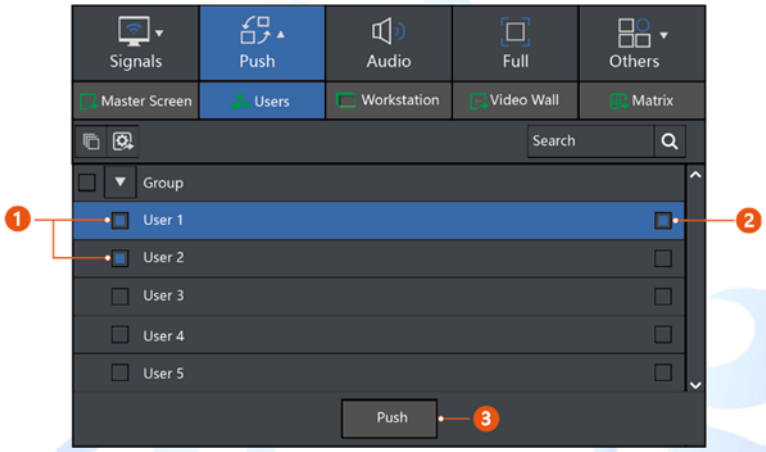


2) Selected workstation receiver screen will pop out a message, select Yes to display received signal.

9.3.5.3 Push to User

Push current signal to another user.

1) Navigate to Push To, select one or multiple Workstations, select KM access for one workstation, and Push to execute.

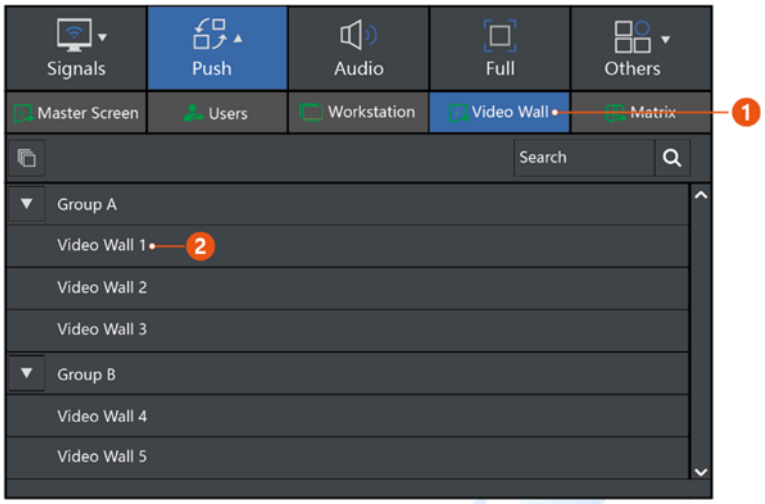


2) Selected user will receive a pop out message at receiver screen, select Yes to receive.

9.3.5.4 Push to Video Wall

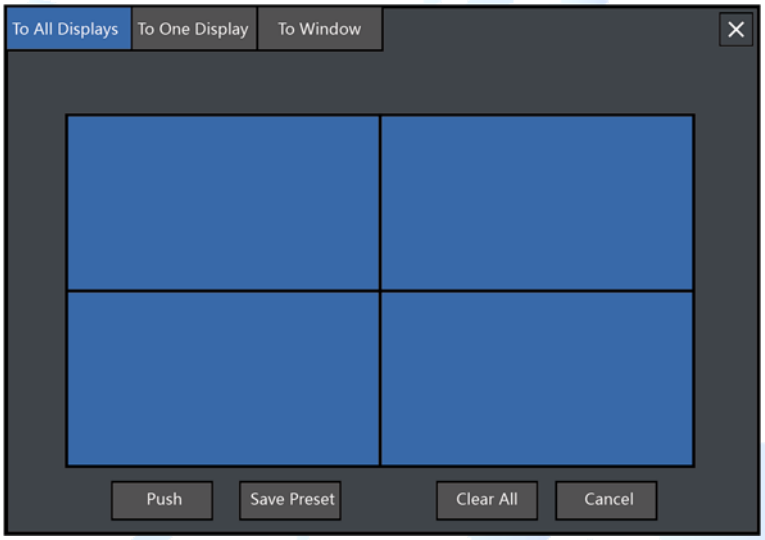
User can push current signal to video wall, including full video wall, single screen, single window, preset save, and preset recall.

Navigate to Push To, click Video Wall, and select one video wall group in the list.



1. Push to Full Video Wall

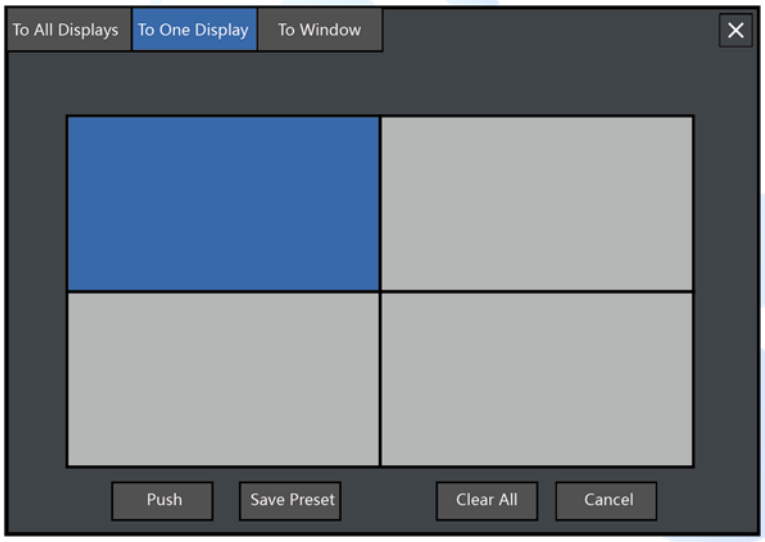
Select Full in the sheet, click Push to display the signal to video wall as a full image.



Refer below:

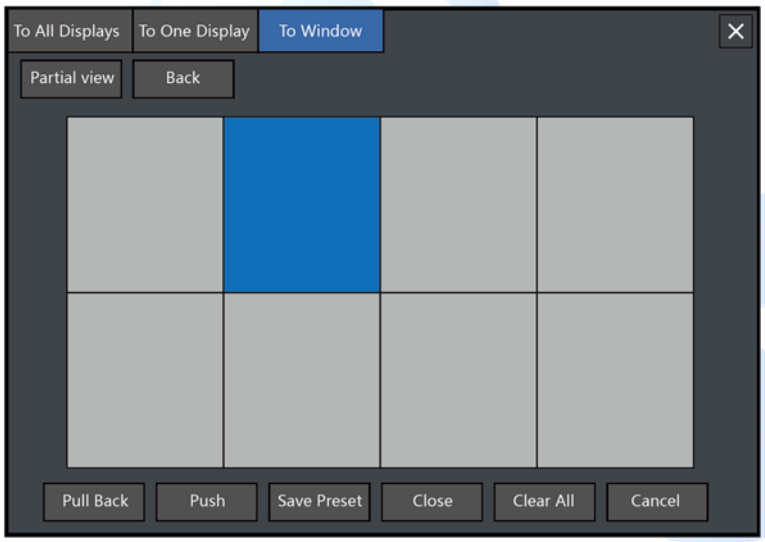
2. Push to Single Screen

Select Single in the sheet, click Push to display the signal to selected screen.

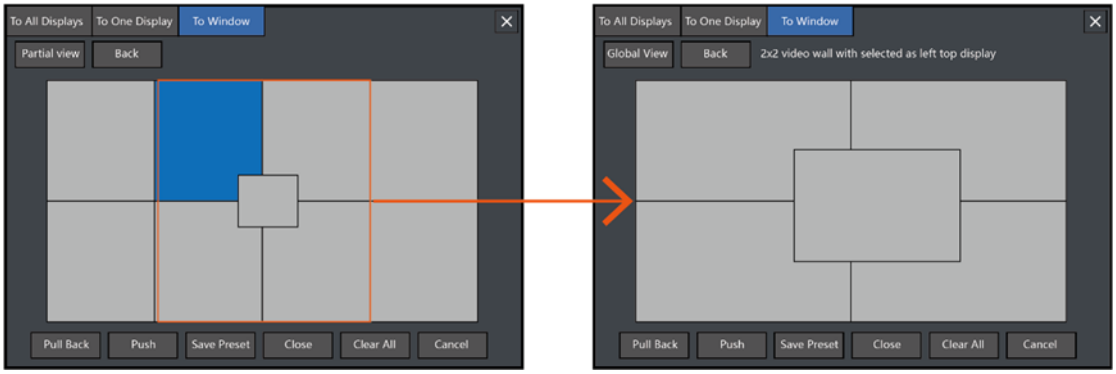


3. Push to Window

Select Window in the sheet, click Push to display signal to target window.

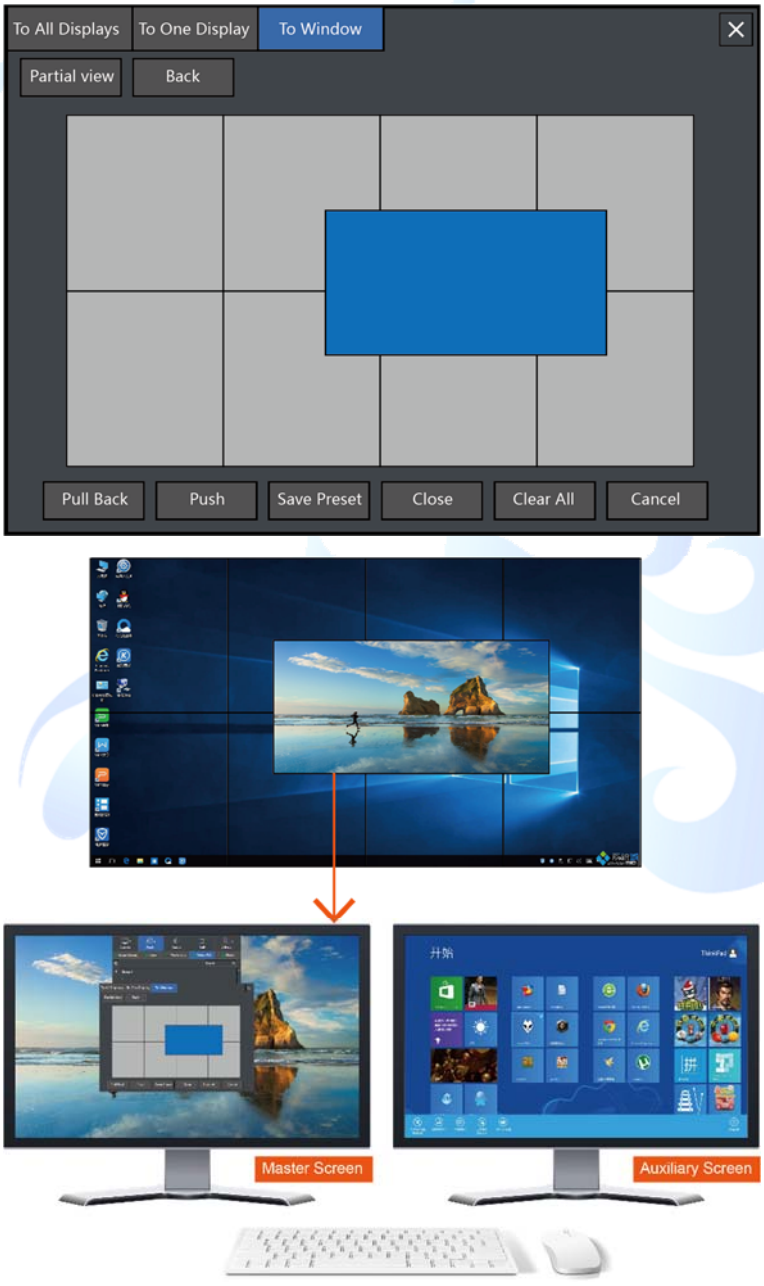


Select one Window from virtual video wall layout interface, click Close to remove the window.
If the video wall size is too big to select target window, can shift to Partial view. When you click one screen, a 2x2 video wall will pop out with selected screen as left top screen.



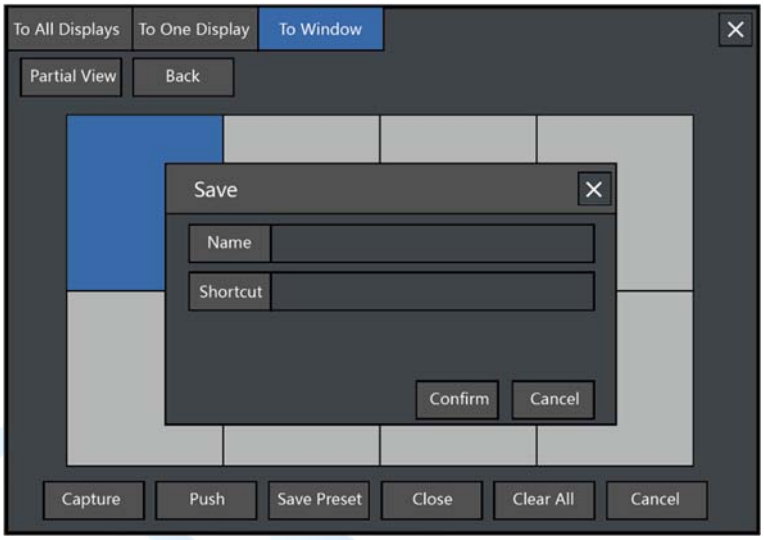
4. Grab

Under Window sheet, select one window, click Grab to display the window source to current workstation monitor.



5. Save Preset

Save modified layout as preset, which will display at Monitor OSD-> Preset-> Video Wall

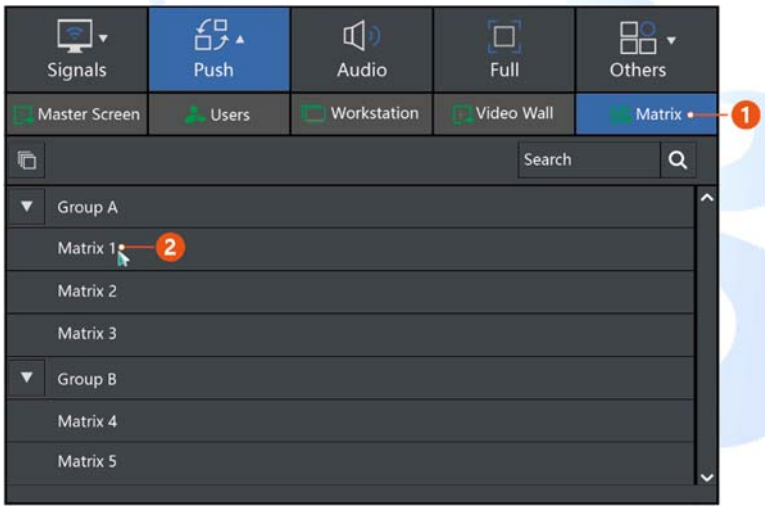


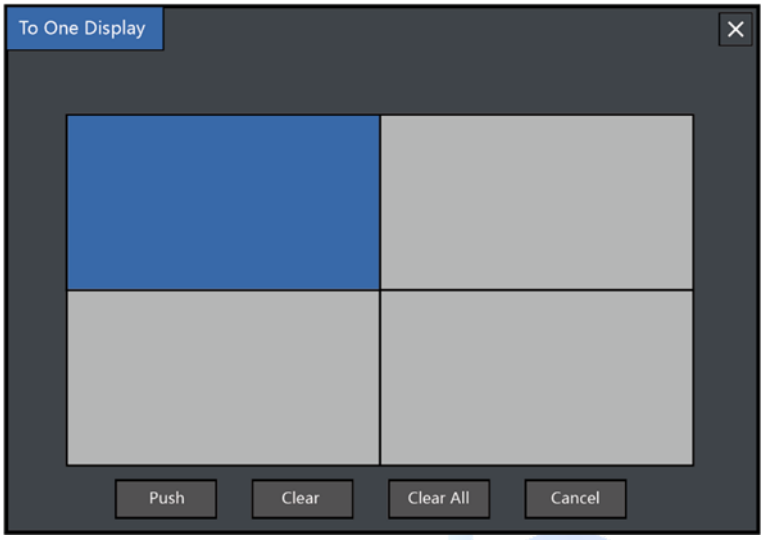
6. Clear Video Wall

Click Clear to remove all video wall display.

9.3.5.5 Push to Matrix

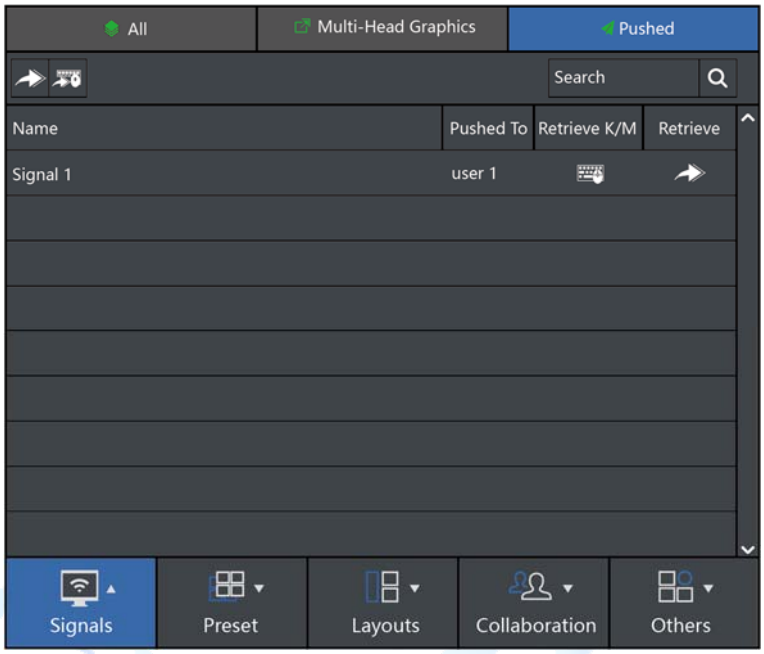
User can push signal to matrix screen, or one of window when the matrix is set as multiviewer mode. Navigate to Push To, select Matrix in the sheet. Select target screen to push.





9.3.5.6 Withdraw

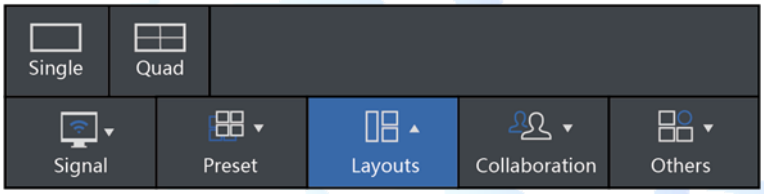
Navigate to Signal in Monitor OSD or Signal OSD, click Pushed to check signals have been pushed. Click  to withdraw KM access, click  to withdraw push.



Click  to exit push and back to previous display.

9.3.6 Layout Setting

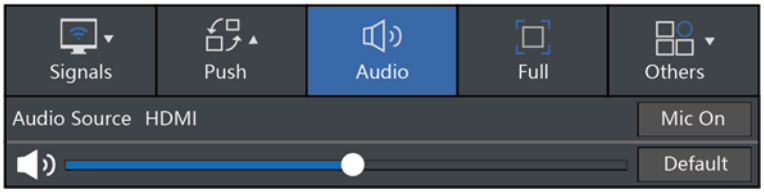
System allows monitor to display up to 4x signals as quad-view. Navigate to Layout in Monitor OSD, select Single or Quad-view.



SINGLE	Each monitor display one source at a time
QUAD-VIEW	Each monitor display up to four sources in quad-view

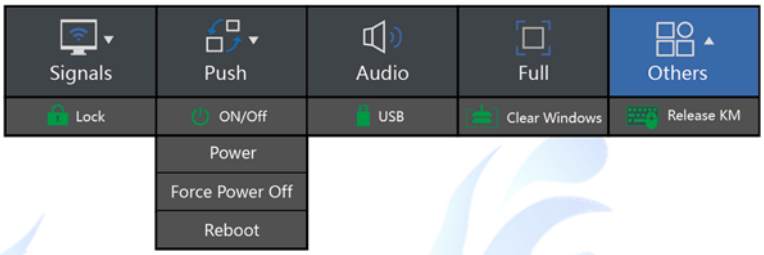
9.3.7 Audio Setting

Navigate to Audio at Signal OSD, drag volume bar to turn up or turn down volume.
In quad-view, each signal audio can be managed independently, and output in mix.



9.3.8 Remote On/Off

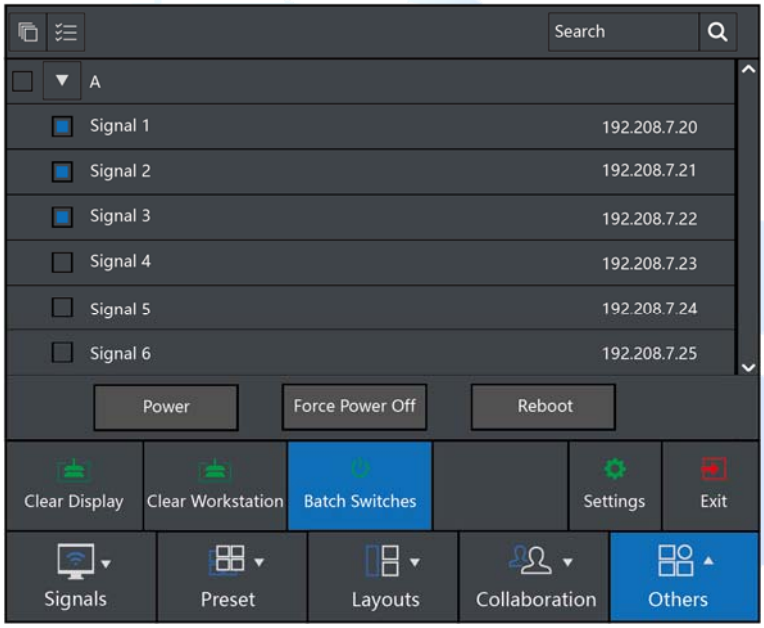
9.3.8.1 Single computer



System allows user to power on or power off remote computers.
Navigate to Others in Signal OSD menu, options will be shown at drop down list.

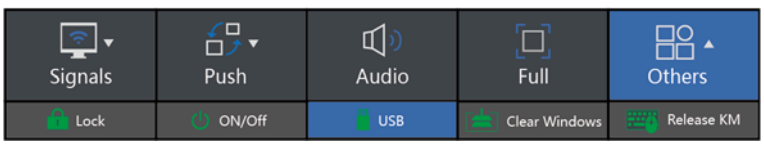
9.3.8.2 Multiple Computers

Navigate to Others at Monitor OSD and select Batch Switches, then select targeted computers to operate.



9.3.9 USB-Hid Devices

System is compatible with USB-Hid devices, such as flash disk, USB printer and scanner.
Switch to target computer, connect USB device to receiver and enable USB in Signal OSD.



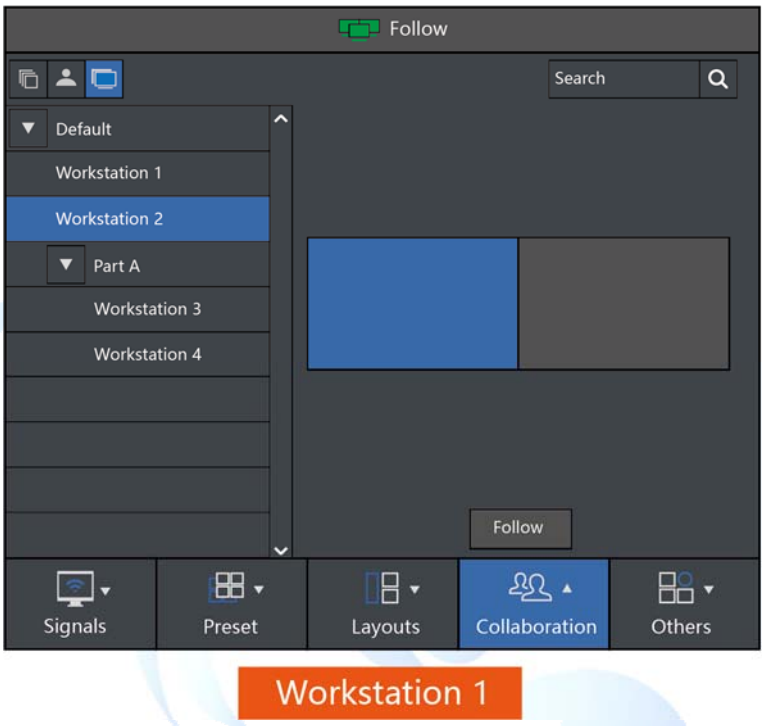
9.3.10 Follow

Follow feature allows to monitor desktop display of another workstation.

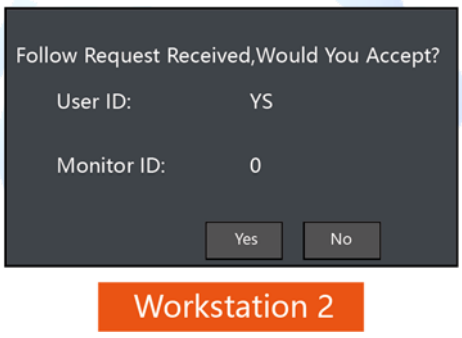
1) Navigate to Collaboration in Monitor OSD.

2) Select follow workstation or user.

3) Select target monitor and click Follow.



4) Selected workstation will pop out request message, click Yes to accept. Higher grade user can follow lower grade user directly without sending request message.



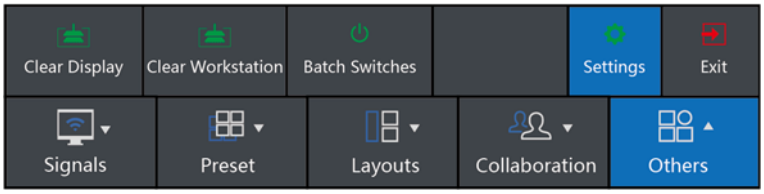
5) Click  to quit.

9.3.11 Preset

Navigate to Preset in Monitor OSD and call out preset options, including workstation preset, single monitor preset, video wall presets and matrix presets.

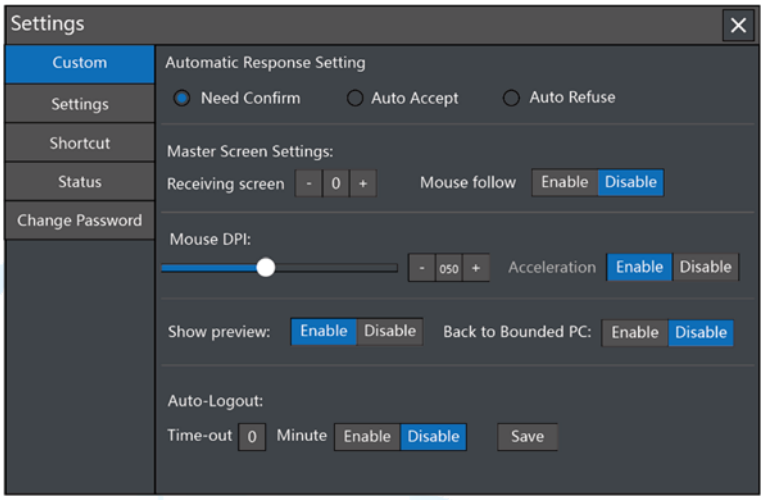
9.3.12 System Setting

Can setup interface, shortcut and check status.



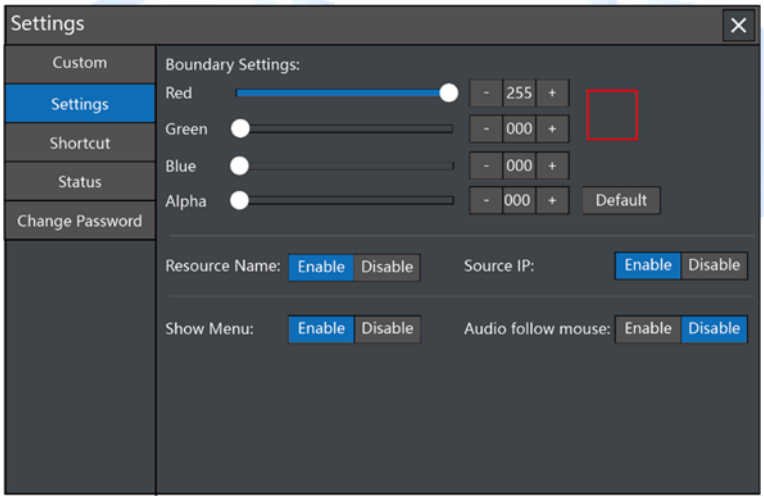
9.3.12.1 System Settings

To set up response setting, mouse DPI and receiver screen.



AUTOMATIC RESPONSE SETTING	Trigger Need Confirm, will receive request message. Trigger Auto Accept, will accept automatically without approval. Trigger Auto Refuse, will refuse any request.
RECEIVER SCREEN	Set default receiving screen
MOUSE FOLLOW	Once pushed to master screen, KM will follow to master screen also.
DPI SETTING	Set mouse DPI and acceleration
AUTO LOGOUT	Set auto log out time when there is no operation

9.3.12.2 Interface Setting

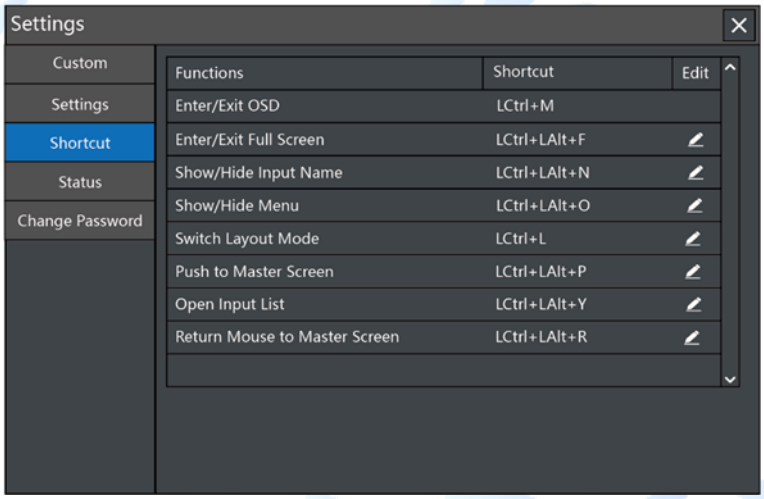


BOUNDARY	Set up boundary color.
SIGNAL LABEL	Enable signal label to display signal name down below the signal content.
IP	Enable to display IP address on signal source.

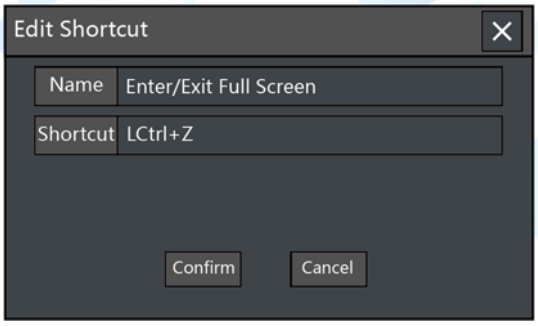
OSD MENU	Enable to show OSD menu, disable to hide OSD menu. Can call out OSD menu again

9.3.12.3 Shortcut

ENTER/EXIT OSD	LCtrl+M
ENTER/EXIT FULL SCREEN	LCtrl+LAlt+F
SHOW/HIDE INPUT LABEL	LCtrl+LAlt+N
SHOW/HIDE OSD INTERFACE	LCtrl+LAlt+O
SWITCH LAYOUT MODE	LCtrl+L
PUSH TO MASTER	LCtrl+LAlt+P
OPEN INPUT LIST	LCtrl+LAlt+Y
RETURN MOUSE TO MASTER SCREEN	LCtrl+LAlt+R

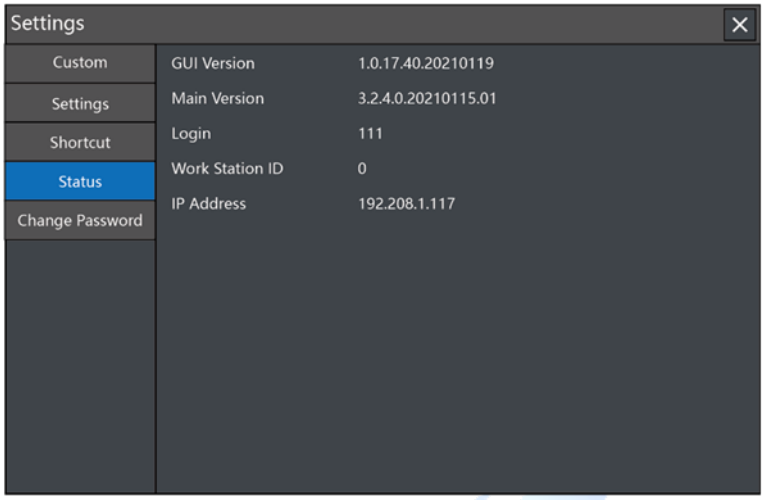


Shortcut can be modified by clicking  .



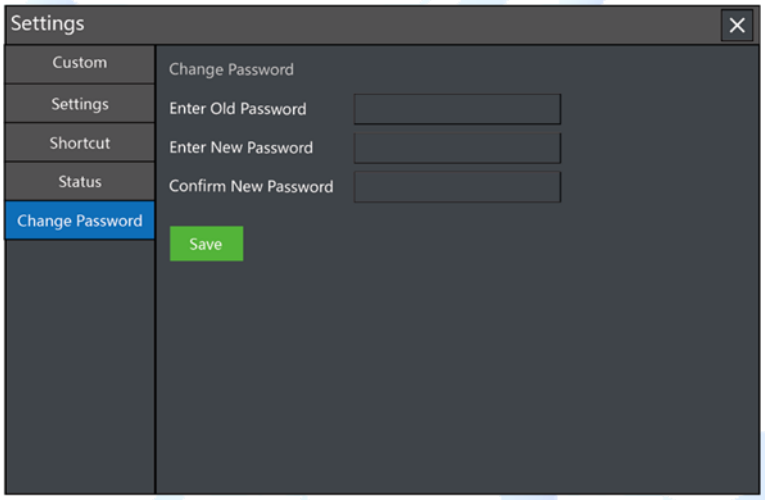
9.3.12.4 Status

To check system version and user information.



9.3.12.5 Revise Password

Revise password of current user.

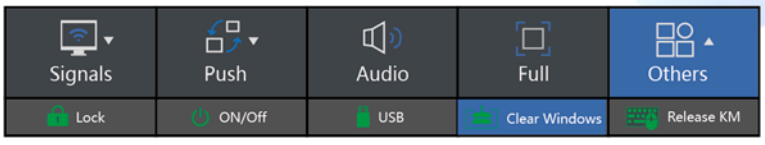


9.3.13 Others

9.3.13.1 Clear

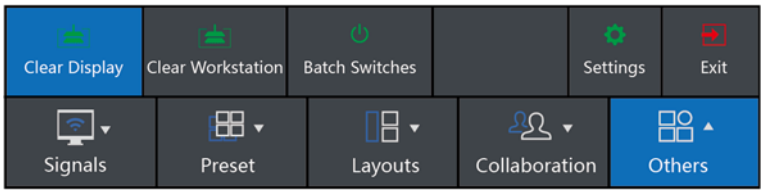
1. Clear Windows

Navigate to Others in Signal OSD, click Clear to clear current signal source.



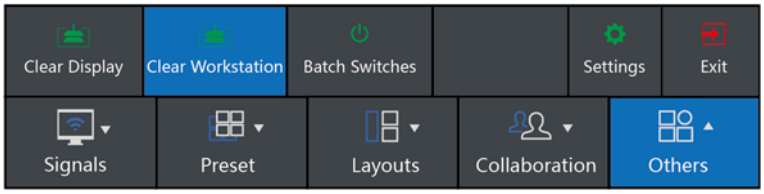
2. Clear Screen

Navigate to Others in Monitor OSD, click Clear to clear all signals on this monitor.



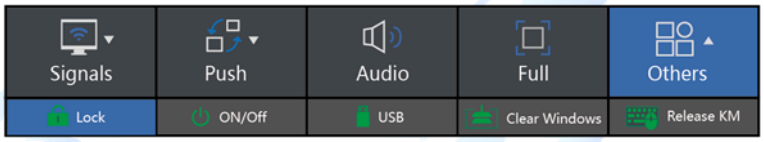
3. Clear Workstations

Navigate to Others in Monitor OSD, click Clear Workstation to clear all signals on this workstation.



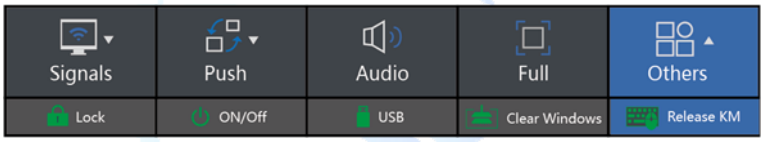
9.3.13.2 Lock

Navigate to Others in Signal OSD, click Lock to freeze signal. Once locked, the signal can only be viewed.



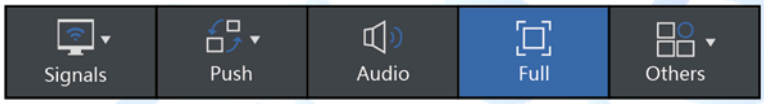
9.3.13.3 Release KM

Navigate to Others in Signal OSD, select Release KM to release occupied KM access. Another user will obtain KM access to this computer without request.

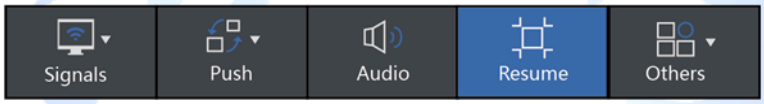


9.3.13.4 Full Screen or Resume

Under Quad-view mode, user can show one signal as full screen by clicking Full in Signal OSD.



Click Resume back to quad-view mode.



9.3.13.5 Exit

Click Exit in Monitor OSD menu to log out.