



IPVDS-WallController User Manual



CE



Doc No. : IPVDS-WallController-180719EN

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Remove Encoder Split Merged Cell Add Black Mask Bring/Send Layer Set Location Name Delete Location Name

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1. Application Installation

1.1 PC Application Installation

1) Installation

- (1) Run setup.exe file in Windows Operating System.
- (2) Follow on-screen instruction.
- (3) Delete previous version of IPVDS PC Application on the control panel of Windows OS in case of re-installation or PC Application update from previous version.

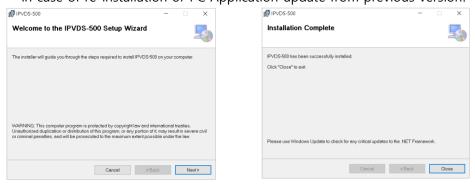


Figure. 1 Application Installation

1.2 PC Application

1) Control PC Application

- > PC application for controlling Video wall and individual displays.
- > Provides drag and drop operation for host allocation.
- > Provides allocate, merge, split, overlay function on layout management.
- > Provides preview screen before applying it to actual displays.
- > Provides total of 99 pre-sets for user defined layout (save/load).
- Provides preset scheduling function in two different mode:
 Sequential mode (dwell time based) / Weekly mode (hourly based/week).
- ▶ Bezel compensation in 0.1mm unit.
- Application: Control Room / Traffic Control System / Security and Education / Digital Signage / Pro AV Field.



Figure 2. Software Main Screen

2. Start Video Wall

IPVDS allows convenient use of its features with IPVDS Video Wall control PC Application. With IPVDS WallController, user can merge, split, overlay and clear video sources on Video Wall by dragging & dropping for host allocation but also check and confirm preview screen from layout management before applying to actual displays.

2.1 Log-in

(1) Run PC Application.



(2) Set & confirm password for administrator (ID: admin) when first-time log-in.

🛃 Administrator Regi	stration		×
Password Confirm Password		Register	

- (3) Log-in with admin ID and its password.
- (4) To log-in with different ID, restart the PC App. or click 'Log-out' button.

File Setup	View Help					Log
ncoder List			Wall1 Layout Mana	gement Change		
Search		Video Wall L			Actions	
		Display Placement Rows: 4	Columns : 4 1 - 🔽	Save 🙆	Clear Apply	
	Video Wall			Zoom x1 -	x1 + Individual Display	/
	[
				_		
		📢 📰 Login		×		
		ID	1	Login		
		Password				
	4					
		_				
			<₽			
		**				

Figure. 3 Log-in Screen

<u>Note</u>: After launching PC App, it will automatically search for the connected devices and allow user to log-in when it is done with device search.

2.2 Menu Contents

2.2.1 Application Menu

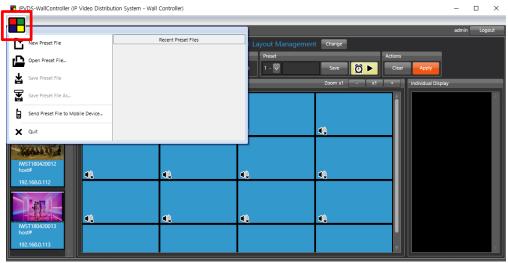


Figure. 4 Application Icon Menu

- (1) New Preset File: Create new preset.
- (2) Open Preset File: Open saved preset.
- (3) Save Preset File: Save current preset as a file.
- (4) Save Preset File as: Save current preset as a different file name.
- (5) Send Preset File to Mobile Device: Send saved preset to Mobile devices.
- (6) Quit: Close PC Application.

2.2.2 Ribbon Menu



Figure. 5 Ribbon Menu

(1) User Management

Password of Administrator ID (admin) can be changed.

Accessing as administrator (admin) allows specific functions such as managing User/Guest account and changing password.

- User type

User: All authority without user/guest management (add/change/remove). **Guest**: Select preset, and 'Apply' function only.

B User Management	×
User List	User Information
ID Type admin admin aa user	User Type : User Type : User Name : Previous Password : Password : Confirm Password : Change Remove
	User Add User Type : User User Name : Password : Confirm Password : Add

Figure. 6 User Management

- (2) Encoder Device Setup: Refer to encoder setup on layout management (P 22).
- (3) Decoder Device Setup: Refer to decoder setup on display placement (P 33).
- (4) Decoder Layout Setup: Refer to decoder layout setup on display placement (P 37).
- (5) Preset Schedule Configuration: Refer to scheduling function (P 40).
- (6) Environment Setup

Environment Setup	
All Devices	PC
Jumbo Frame	Video Wall Type
Enable Save & Reboot	Single Video Wall Apply
IP Address Auto Setup	Language Selection
DHCP Static IP (In Serial Number Order)	English V Apply
Encoder Start IP Address :	Network Interface Selection
Decoder Start IP Address :	VirtualBox Host-Only Network (192.168.56.1) VirtualBox Host-Only Network (192.168.56.1)
Subnet Mask :	Device Sorting Order
Default Gateway :	Serial Number Apply
Save & Reboot	Splash Screen Logo
	Browse Apply
	Show Device Information.
	Show Encoder Preview.
	Notify when new or missing device is found.
	Show Audio Button in Layout Management.
	Open recent file when logged in.
	Confirm save when exit.

Figure. 7 Environment Setup

> Jumbo Frame

This option decides MTU size. Video quality will be affected when disabled. "Enabled" **8,000** byte "Disabled" **1,500** byte

> IP Address Auto Setup

This feature is designed for the convenient setup of IP address assignment for multiple encoders / decoders at once. When operating as a static IP setting, IP addresses are automatically incremented by 1(one) from the starting IP address and IP addresses are automatically incremented by 1(one) in DHCP setting.

Video Wall Type

Select 'Single Video Wall' (Basic) or 'Multiple Video Wall' (Pro). In order to use Pro version, license key is required.

To obtain license key, contact tosales@optisic.com or techsupp@opticis.com

Pro Version Licen	ise		\times
MAC Address :	44-8A-5B-FB-55-A6		
License :			
	to access IPVDS-500 P d we will email the lice Write	 nd MAC Address	

Figure. 8 Pro Version License

Language

Select 'English' or 'Korean'

> Network Interface Selection

If more than one network interfaces are connected to Control PC, there is a high possibility to cause a problem when searching or operating device. Appointing correct network interface can solve this problem.

Device Sorting Order

Appoint sorting order for searched devices. When decoders are automatically sorted, it will be automatically placed as sorting order and default setup is 'serial number' sorting.

Splash Screen Logo

Change the startup screen logo when PC program launches.

View Device Information

Check either the serial number or the IP address of searched encoders/decoders.

> View Encoder Preview

Select options for the preview which appears in the encoder list.

> Notify when new or missing device is found

Select to show a scan pop-up window whenever a new or missing device is detected on the network.

> View Audio Button in Layout Management

Select to display the visible audio icon on the display layout.

> Open recent file when logged in

Choose to open and apply a last saved preset file automatically when logging in.

> Confirm save when exit

Choose to save and exit current setting when exiting the program.

(7) Firmware Update

Step 1

Run Firmware Update.

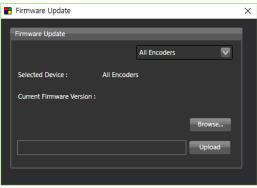


Figure. 9 Firmware Update Window

Step 2

Select 'All Decoders', 'All Encoders' or a specific device need to be updated.

Note: Change IP address and Gateway from control panel, if IP address of PC and device selected by gateway don't match.

Click 'Browse' button, and select specific firmware file to update.

Note: User can check firmware version of selected device from right space.

Step 4

Click '**Upload**' button, and make sure power adapter is plugged firmly. LED will flash while updating and device will automatically reboot when update is done.

<u>Note</u>: Pop-up message will appear when update is done. (approximately 5 minutes) Do not disconnect power (power adapter or PoE) while updating

✓ Note: Firmware update with USB flash drive.

Step 1: Save firmware file (IPVDS-xxx-X-xxxxxx.tgz) in the USB flash drive.

Step 2: Insert USB flash drive to the USB port of IPVDS-700 device.

- **Step 3:** Plug-in +5V power adapter or PoE cable (power adapter gets priority supplying power to IPVDS-700 devices).
- **Step 4:** While booting, device will search firmware file which has saved in USB flash drive, and it will start updating if file exists.
- Step 5: While updating, LED will blink, and it will reboot when update is completed. Update will take approximately 5 minutes and make sure power adapter is not disconnected during update.
- (8) View: Adjust size of device list, layout, and log record on PC application.
- (9) Help: Check version of IPVDS-WallController PC application

2.3 Layout Management

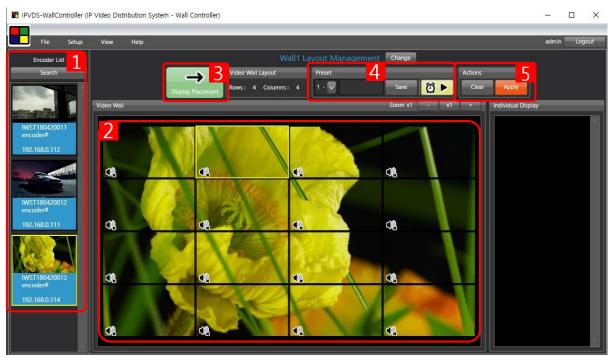


Figure. 10 Layout Management

1 Encoder List

- Search: Search IPVDS encoder devices on the network.
- Encoder device list that is connected to the IP network.
- Check preview screen of Video sources connected.
- Allocate and assign preview screen on Video Wall layout with drag and drop.

2 Video Wall

- Assign encoder devices, edit layout for video wall in row and column.
- Audio ON/OFF.



- Change display layout, move to setup page for decoder assign and change.

4 Preset

- Save current video wall layout as preset file.
- Load preset layout that has saved previously.
- Start preset scheduling button (Delta).

5 Actions

- 'Clear' button will empty all encoders that has assigned in video wall region.
- '**Apply**' button will apply current video wall setup, which can be checked on preview screen, to the actual video wall and individual displays.

2.3.1 Layout Editing

Step 1

After searching devices, drag and drop video source from the encoder list on the left side to video wall layout to configure video wall layout.

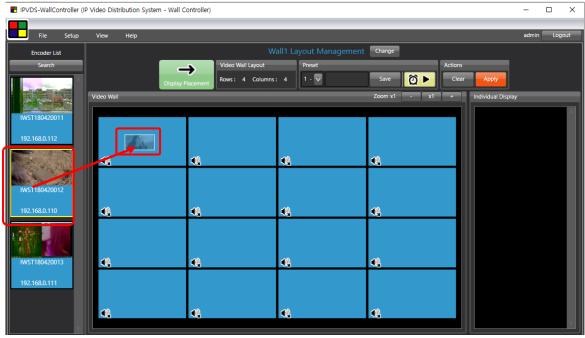


Figure. 11 Encoder Placement

Step 2

Drag-pointer will appear when clicking placed video source on the layout. User can stretch or reduce size of video source as direction of arrow.

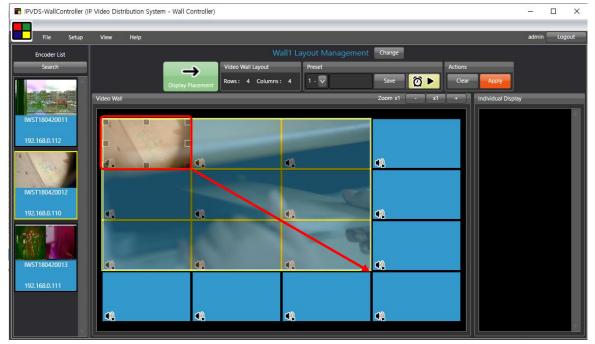


Figure. 12 Stretch and Reduce



With using Audio ON/OFF icon, audio of display can be turned ON or OFF.

Figure. 13 Audio On/Off

Step 4

Repeat Step 1~3, and click '**Apply**' button for actual application to decoders and displays.

- 🗆 🗙



IPVDS-WallController (IP Video Distribution System - Wall Controller) Pro

Figure. 14 Apply Setup.

Step 5

With zoom feature, layout size can be adjusted (x0.2 \sim x5) to check overall layout for decoders (no placement or change but only audio setup at less than x0.5 zoom).

2.3.2 Preset Save

Step 1

Type the name of current preset, and click 'Save' button to save current display layout.

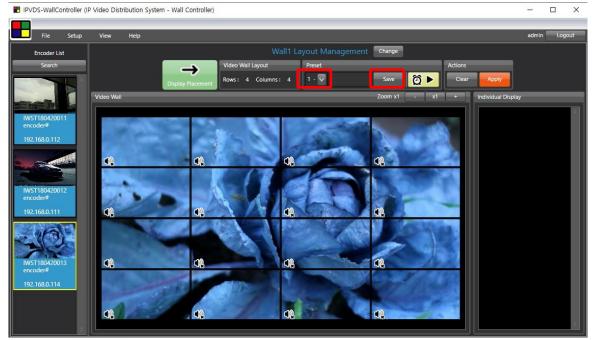


Figure. 15 Preset Save

Step 2

If select non-saved preset number, video wall placement will be cleared, and it will become blank (editable) status. Edit layout by placing encoders and save as Step 1. Presets can be saved up to 99 different presets for one video wall system.

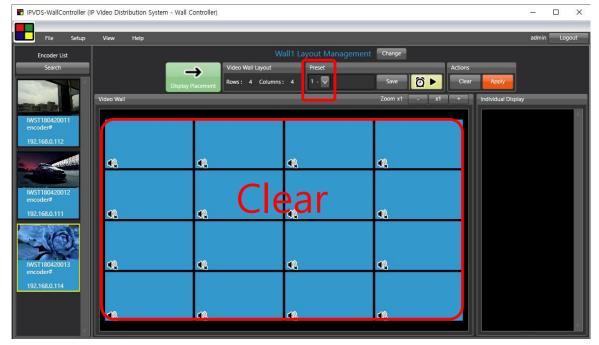


Figure. 16 Change Preset

By selecting particular preset number, user can load saved preset (video wall layout). Click **'Apply'** button to run current preset to decoder devices and displays.



Figure. 17 Apply Setup

Step 4

When user re-launches PC application, last saved preset will be loaded if user save preset setup with '**Save Presets File**' from icon menu.



Figure. 18 Save Preset File

2.4 Display Placement

Video Distribution System - Wall Controller)	– 🗆 X
View Help	admin Logout
Layout Management Rows: 4 Columns: 4 Change OSD OFF Clear Reset	idual Display
1 2 3 4 1 2 3 4 1 1WSR180420011 IWSR180420013 IWSR180420013 client# 192.168.0.142 192.168.0.143 192.168.0.144	uuai Dispiay
5 6 7 0 IWSR180420015 decoder# 192.168.0.101 IWSR180420016 client# 192.168.0.146 IWSR180420017 client# 192.168.0.147 8	
9 10 11 12	
13 14 15 16	
	View Heip Wall Display Placement Change Video Wall Layout 4 Change Video Wall Layout 4 Change On Screen D Display Replacement Video Wall Rows: 4 Columns: 4 Change Video Wall Rows: 4 Columns: 4 Change Oso OFF Cier Rest Video Wall 2 3 4 On Screen D Display Replacement Cier Rest Video Wall 2 3 4 On Screen D Cier Rest Video Wall 2 3 4 On Screen D Cier Rest Video Wall 2 3 4 On Screen D Cier Rest 192.168.0.141 192.168.0.142 NVSR 180420013 HVSR 180420014 Cient# 192.168.0.144 192.168.0.144 9 10 11 12 0 0 0 0

Figure. 19 Display Placement Screen

1 Decoder list

- List of Decoder devices list which has connected to IP Network.
- Assign Video wall layout with drag and drop.

2 Video Wall

- Adjusting physical placement as placing decoder device to particular video wall layout.
- Display rotation: Rotate separately 180°, entirely 270°
- Individual display: Display except for row x column video wall setup.

3 Layout Management

- Move to layout management page.

4 Video Wall Layout

- Edit row x column layout for video wall.

5 On Screen Display (OSD)

- Show number, which has assigned from decoder, to corresponding display.
- Display sequence check and replacement as confirming OSD information that can be indicated on display when OSD is ON.

6 Display Replacement

-

- **Clear** (Clear): Empty all the display that has assigned.
- **Reset** (Reset): Display replacement with 'serial number' or 'IP address'.

2.4.1 Edit Display Layout

Step 1

Change display layout to desired row and column (Default: 4 x 4)

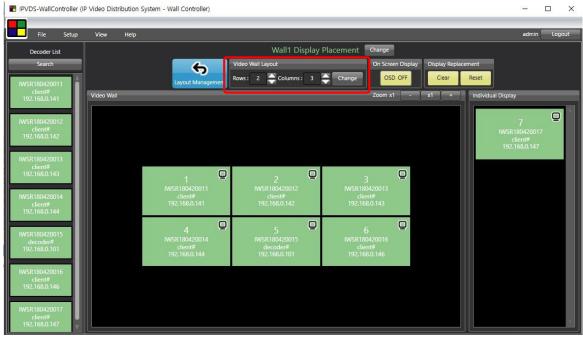


Figure. 20 Change Video Wall Layout

Step 2

Change decoder placement to desired position with drag and drop.



Figure. 21 Change Decoder Placement

Assigned decoder can be removed separately or entirely with mouse right click, and listed

	ander Search Batton can be place with and anop operation.		
IPVDS-WallController (IP	Video Distribution System - Wall Controller)	- 1	
—			
File Setup	View Help	admin	Logout
Decoder List	Wall1 Display Placement Change		
Search	Video Wall Layout On Screen Display Display Replacement	()	
IWSR180420011	Layout Management Rows : 2 Columns : 3 Change OSD OFF Clear Reset		
client# 192.168.0.141	Video Wall Zoom x1 - x1 + Individu	al Display	
132.100.01141			
IWSR180420012			Q
client# 192.168.0.142	Drag & Drop	IWSR180420017 client#	
IWSR180420013 client#			_
192.168.0.143			
	WSR1804 12 WSR18 20013		
IWSR180420014 client#	client di Remove Decoder client≢ 192.168.0 2 192.168.0.143		
192.168.0.144	A Remove All Decoders		
IWSR180420015	4 Display Setup 6		
decoder# 192.168.0.101	IWSR180420014 IWSR180420015 IWSR180420016 client# decoder# client#		
192.100.0.101	192.168.0.144 192.168.0.101 192.168.0.146		
IWSR180420016			
client# 192.168.0.146			
IWSR180420017 client#			
192.168.0.147			

decoder under 'Search' button can be place with drag and drop operation.

Figure. 22 Remove Decoder

'Clear' button will empty all decoder which has assigned to layout, and 'Reset' button will automatically place decoders with 'serial number' or 'IP address' as environment setup.



Figure. 23 Display Replacement

With clicking '**Display Rotation**' button on top right hand corner, display rotates clockwise. 180° rotation with one click, and 270° rotation with one more click.

- > 180°: For separate display. Display will rotate 180°
- 270°: For entire display. Entire display on the layout will rotate 270° Monitor need to be rotated 90° for normal screen output.

IPVDS-WallController (IF	Video Distribution System - Wall Controller)			×
File Setup	View Help	admin	Loge	out
Decoder List	Wall1 Display Placement Charge			
Search	Video Wall Layout On Screen Display Replacement			
IWSR180420011	Layout Management Rows: 2 Columns: 3 Change OSD OFF Clear Reset			
client# 192.168.0.141	Video Wall Zoom x1 - x1 + Individual Display			
IWSR180420012 client# 192.168.0.142 IWSR180420013 client#	d 192.1	7 80420017 lient# 168.0.147		
192.168.0.143	1 2 3 IWSR180420011 client# 192.168.0.141 192.168.0.142 192.168.0.143			
IWSR180420015 decoder# 192.168.0.101	4 5 6 IWSR180420014 IWSR180420015 IWSR180420016 client# decoder# client# 192.168.0.144 192.168.0.101 192.168.0.146			
IWSR180420016 client# 192.168.0.146 IWSR180420017 client# 192.168.0.147				

Figure. 24 Separate Display – 180° Clockwise Rotation

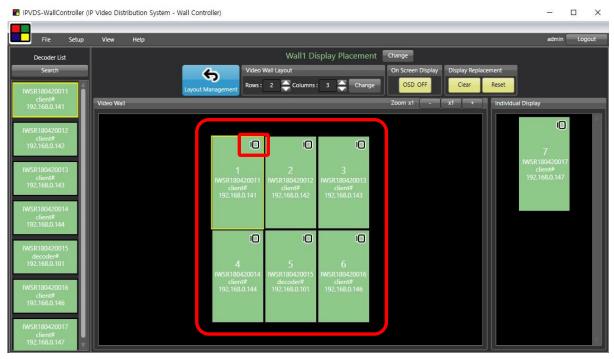


Figure. 25 Entire Display – 270° Clockwise Rotation

Assigned number of display will be indicated on the actual display when clicking '**OSD ON**' button. User can replace their sequence automatically or manually.

Using OSD is recommended to use when video source is not connected to the decoder.



Figure. 26 Display Output

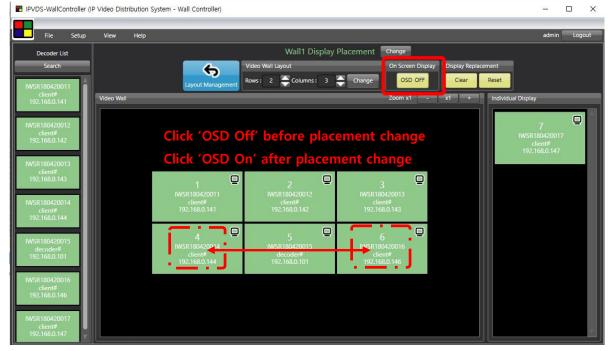
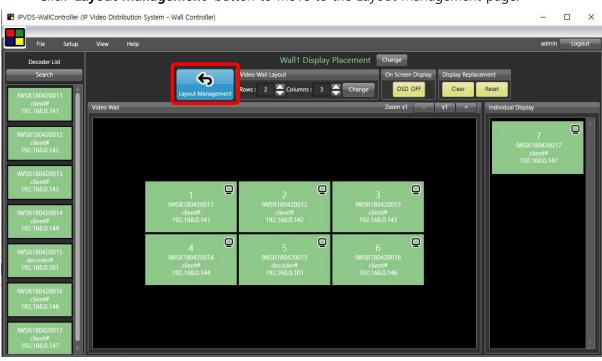


Figure. 27 PC App. Placement Change



Display Output after Placement Change

Figure. 28 OSD Placement Check and Change



Click 'Layout Management' button to move to the Layout Management page.

Figure. 29 Layout Locked

Step 6

Decoder placement and connection is ready.

Now connect video sources referring to the 6.3 Layout Management.

3. Context Menu

3.1 Layout Management Context Menu

3.1.1 Encoder List Context Menu



Figure. 30 Layout Management Context Menu

(1) Device Setup.

Encoder Device Setup						×
Network		Functions		EDID	_	
Selected Device : 192.168.0.1	13 🔽	Selected Device :	192.168.0.113	😨 🔹 De	fault EDID :	4K (UHD)
IP Mode :	Static IP	HDMI Hot Plug Detection				
Device Name : encoder#		HDMI Hot Plug Detection :	Enable			
IP Address :	1	Delay after Hot Plug Detection Reset TMDS after Hot Plug			stom EDID	
Subnet Mask :	ŝġ		Detection Enable	Encoder		Read
Default Gateway :		Video		Decoder		Read
	Save & Reboot	Bitrate :	200 Mbps			
Port		Local Display Video Mode : Video Quality Mode :	HDMI			
Selected Device : 192.168.0.1	13			<u> </u>		
RS-232 Port Selection :	Control		Save & R	eboot		
IR(InfraRed) Port Selection :	Transmitter 🔽					
	Apply					
Reboot or Factory Reset		Preview Frame Rate				
Selected Device : 192.168.0.1	13	Selected Device :	192.168.0.113			
Reboot	Factory Reset	💮 High 💿 Middle	🔵 Low Appl	y Encoder	All Encoders	Write

Figure. 31 Encoder Device Setup

a) Network Information Setup

> DHCP IP(dynamic) / STATIC IP(static)

> Device name : Set the name of encoder device

English (No Korean), Special symbol (+, -, _, #), maximum 20 character

> Will be applied after save and restart.

Network	
Selected Device :	192.168.0.113
IP Mode :	DHCP Static IP
Device Name :	encoder#
IP Address :	192.166.0.113
Subnet Mask :	255,255,255,6
Default Gateway :	192.160.0.1
	Save & Reboot

Figure. 31-1 Encoder Device Setup – Network Management

b) Port

- > RS-232 Port: For serial device control or encoder debug purposes.
- > IR Port: For IR transmitters or IR receivers.

Port			
Selected Device :	192.168.0.11	3	\sim
👿 RS-232 Port Selection :		Control	
V IR(InfraRed) Port Selection :		Transmitter	
		Apply	

Figure. 31-2 Encoder Device Setup – Port

c) Reboot or Factory Reset

> Select all or individual encoders to reboot or factory reset

Reboot or Factory Reset		
Selected Device :	192.168.0.113	\sim
	Reboot	Factory Reset

Figure. 31-3 Encoder Device Setup – Reboot or Factory Reset

d) HDMI Hot Plug Detection

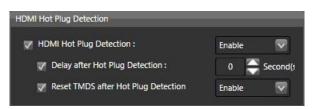


Figure. 31-4 Encoder Device Setup – HDMI Hot Plug Detection

If video is not transmitted due to mismatch of sync timing of encoder and display after restarting display which is connected to the local display port of encoder, following setup will resolve the problem.

> HDMI Hot Plug Detection

- **4** Enable (default): Initializes HDMI output when HPD detected.
- ↓ Disable: Ignore HPD signal.

> Delay after Hot Plug Detection

- ↓ Operates on HDMI Hot Plug Detection is Enabled.
- **↓** Time: 0 sec (default) ~ 300 sec.

When the HDMI HPD signal is detected, it initializes the HDMI output after waiting for the set time.

> Reset TMDS after Hot Plug Detection

- ↓ Operates when HDMI Hot Plug Detection is Enabled.
- ↓ Disable: Maintains TMDS line even after HPD is detected
- Enable(Default): Initializes TMDS line when HPD is detected

e) Video

Video	
👿 Bitrate :	200 Mbps 🛛 💟
V Local Display Video Mode :	HDMI 💟
Video Quality Mode :	Auto 🔽

Figure. 31-5 Encoder Device Setup – Video

> Bitrate

Select Bitrate speed depends on the image quality and network condition. 50/100/150/**200(Default)**/Best [Mbps]

It is recommended to set all encoders with same Bitrate Apply Save & Reboot

Local Display Video Mode

When receiving DVI signal as encoder source input, certain displays might not transmit video signal from local display port of IPVDS encoder. If not receiving video signal on the display, forcibly change local display output as HDMI or DVI to resolve the problem.

Video Quality Mode

Transmitting best quality in 'Auto' mode and can be selected in six steps (Very High, High, Middle High, Middle Low, Low, Very Low) in manual mode.

f) Preview Frame Rate

- > Change the preview frame speed to High / Middle / Low.
- Preview frame rates are related to HID keyboard and mouse performance.
 Setting 'Low' is recommended for using KVM function.

Preview Frame Rate		
Selected Device :	192.168.0.113	
🔵 High 💿 Middle	• Low	Apply

Figure. 31-6 Encoder Device Setup – Preview Frame Rate

g) EDID Read/Write

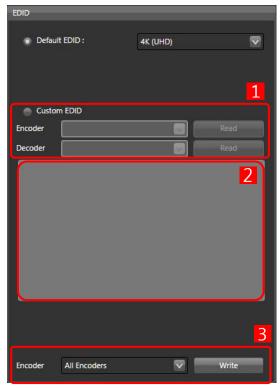


Figure. 31-7 Encoder Device Setup - EDID Setup

Select IP address for Encoder/Decoder and click '**Read**' button to load EDID information from display that is connected to the device

IPVDS-700-E (Encoder) does not support EDID read function.

- \succ Read EDID information will be addressed on 2
- > 3 Select all Encoders or particular Encoder device and click 'Write' button.
- > EDID of Encoder will be changed and it will be applied after reboot.
- By checking Default 4K UHD or Default 2K FHD, fixed 4K/2K EDID will be set instead of reading and writing EDID of the monitor connected to the device.
 Default EDID 4K UHD, 2K FHD
 Custom EDID: EDID of the monitor connected to the device

(2) Firmware Update

6.2.2 Refer to Ribbon menu (7) Firmware update (page 9).

(3) Source Name Setup

Set the video source name

> English, Korean, Special symbol, maximum 20 characters



Figure. 32 Source Name

Source name will be appeared on the top right corner of each display.

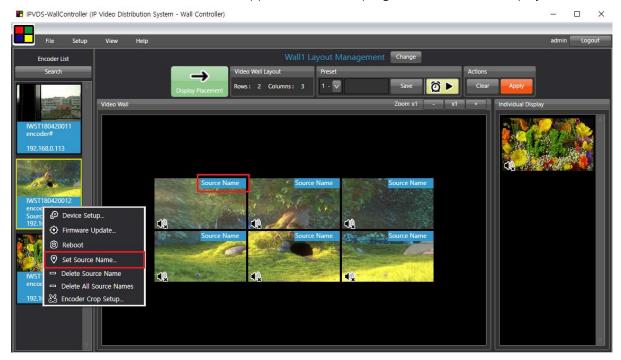


Figure. 33 Source Name Setup

(4) Source Name Remove / All Source Name Remove

Remove source name separately, or entirely.

(5) Encoder Crop Setup

- > Crop an image in row and column (max 256, 16x16 ~ 4x64 ~ 1x256) and select.
- > Transmit selected video part of display source.

Note 1. Crop setup requires Pro version UPDATE to use. Note 2. Crop setup will not apply video transmission to the local display.

Step 1

Set row and column for the desired image size.

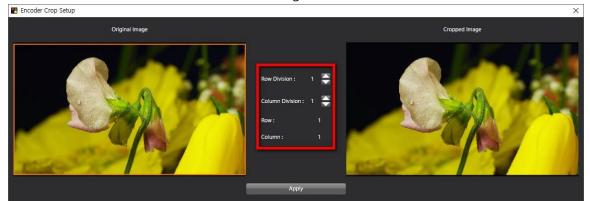


Figure. 34 Encoder Crop Setup

Step 2

Select cropped image which need to appear on the display. Selected image will be shown on the right display on the window. Click '**Apply**' button and close Encoder Crop Setup window to go back to main screen.

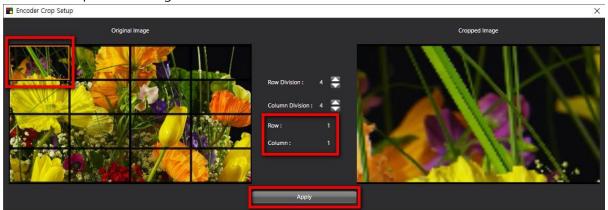
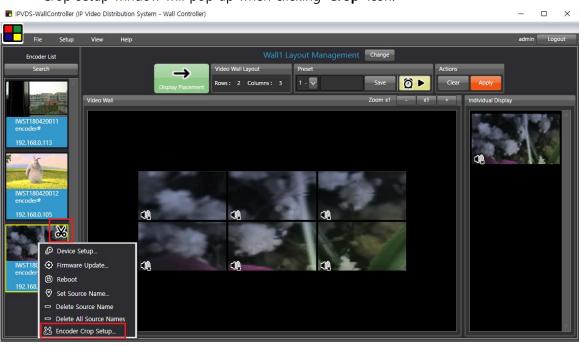


Figure. 35 Encoder Crop Setup Apply

Step 3

Crop icon (\bigotimes) will be created on top right corner of source under Encoder List.



Crop setup window will pop up when clicking 'Crop' icon.

Figure. 36 Encoder Crop Display

3.1.2 Video Wall Context Menu

(1) Remove Encoder

Remove selected video source from video wall layout. All encoder sources will be

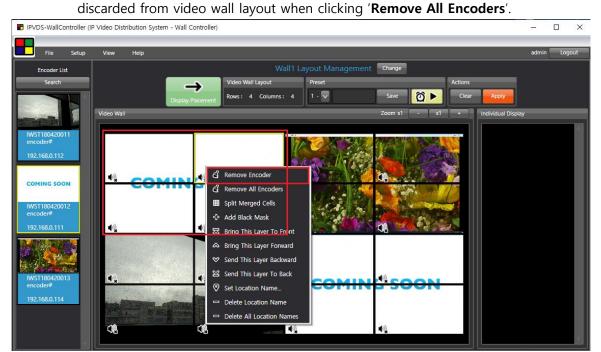


Figure. 37 Encoder Remove Setup

Encoder List Search Will Layout Management Change Video Wall Layout Preset In Stringer Video Wall Layout Preset In Stringer Video Wall Layout Preset In Stringer Video Wall Video Wall </th <th>PVDS-WallControll</th> <th>ler (IP Video Distribution Syst</th> <th>em - Wall Controller)</th> <th></th> <th></th> <th></th> <th>-</th> <th></th>	PVDS-WallControll	ler (IP Video Distribution Syst	em - Wall Controller)				-	
Sarch Video Wall Layout Preet Actions Display Placement Rows: 4 Columns: 4 Video Wall Columns: 4		up View Help					admin	Logout
WST180420012 192.168.0112 WST180420012 192.168.0111 WST180420012 192.168.0111 WST180420012 192.168.0114 WST180420012 192.168.0114			Notes Martin		agement Change	Adiana		
Vdeo Wall Zoom x1 x1 + Individual Display INST180420012 encoder ² 192.168.0.111 INST180420012 encoder ³ 192.168.0.114	Search		Pows: 4		Save		Apply	
WST180420012 encoder ² 192.168.0.112 WST180420012 encoder ² 192.168.0.114	TP	154 144-1	Display Placement					
eccdef# 192.168.0.112 MVST18042012 192.168.0.111 MVST18042013 192.168.0.114		Video Wall			2000 x1 -		widual Display	
192.168.0.112 OHE BIG RABBIT INST180420018 INST180420000 INST1804200000000000000000000000000000000000				i merane		CALL AND AND A		
ONE BIG RABBIT WST180420012 encoder# 192.168.0.114 WST180420013 encoder# Interpretation of the second se					Car Carl			
MSTR0420012 encoder# 192.168.0.111 WSTR0420013 encoder# 192.168.0.114				a second	Mase and the			
encode# 192.168.0.111 WST180420018 encoder# 192.168.0.114	ONE BIG RABBIT							
encode# 192.168.0.111 WST180420018 encoder# 192.168.0.114				San Gran				
	IWST180420012 encoder#				A PART			
	192.168.0.111	<₽.		0	SIN ON MAR			
WST180420013 encode# 192.1680.114								
WST180420013 encode# 192.1680.114		and the second second	and the second second					
encoder# 192.168.0.114								
		N .	•	- ONI	BIC RABE	IT.		
	192.168.0.114		CONTRACTOR NO					
		State of Sta						
		C18	1 8	● 3]	 ● 			

Figure. 38 Encoder Remove

(2) Split Merged Cells

Change stretched video wall source (M x N) to 1 x 1 video source. After change, 1 x 1 merged video source will be placed on top left corner of the existing cells.

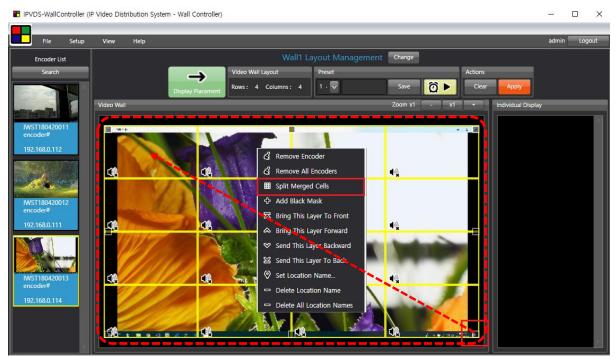


Figure. 39 M x N Merge

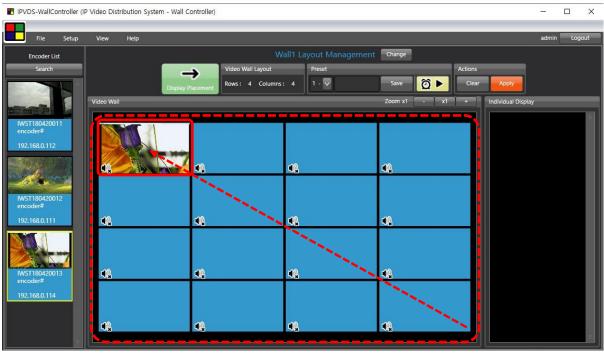


Figure. 40 Split Merged Cell

(3) Add Black Mask

Replace selected cell to the black mask.

When applied, selected display will switch over to black-out state.

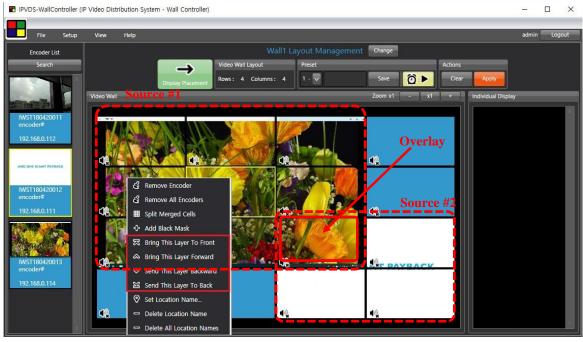
Black mask can be removed with 'Encoder Remove' button.



Figure. 41 Add Black Mask

(4) Bring/Send Layer

Bring and send overlaid layer to the front(forward) or back(backward).



Foremost source will appear on the display.

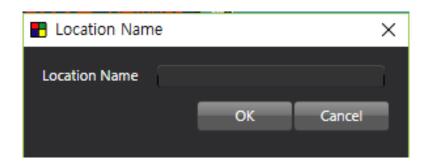
Figure. 42 Layer Overlay

(5) Set Location Name

PC application allows user to set location name for the display.

With this function, user can manage installation site, location of the display.

> English, Korean, Special symbol, maximum 20 characters.



> Location name will be appeared on the top left corner of each display.

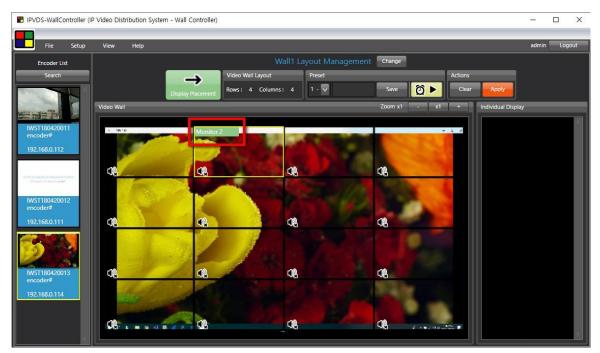
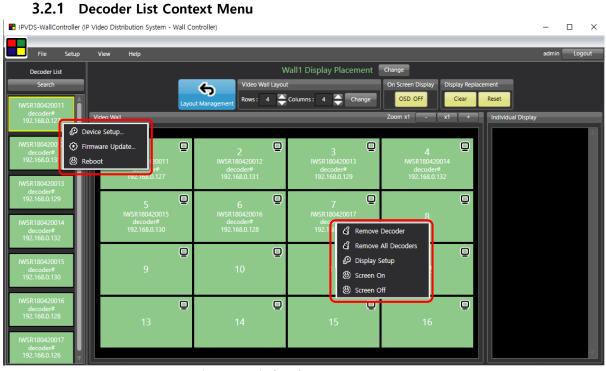


Figure. 43 Set Display Location Name

(6) Remove Location Name / Remove All Location Name

Remove location name separately, or entirely.

3.2 Display Placement Context Menu





				Functions			
elected Device :	All Decoders			Selected Device :	All Decoders		8
P Mode :	DHCP			HDMI Hot Plug Detection		_	
Device Name :	[— 1	W HDMI Hot Plug Detection :		Enable	
P Address :				🐺 Delay after Hot Plug Detect	ion :	0	Second(
				🐺 Reset TMDS after Hot Plug	Detection	Disable	
subnet Mask :		_		👽 Delay before Display turns o	on after Hot Plug Detection	0	Second(s
Default Gateway :				Genlock :		Enable	-
		Save & Rel	boot	Fast Switching :			
ort					B	Enable	5
л				Remain Encoder Connection when	274	Enable	8
Selected Device :	All Decoders		$\mathbf{\nabla}$	Display Power Saving after Encoder d	isconnected		
RS-232 Port Selection		Control		Display Power Saving after Enco	oder disconnected :	Enable	
🕼 IR(InfraRed) Port Select	tion :	Transmitter		🐺 Delay before Display goes t	o Power Saving :	30	Second(s
		Apply	i.	Show logo instead of display pow	ver savinn •	Disable	5
					ici saring t	Discole	
eboot or Factory Reset							

(1) Device Setup

Figure. 45 Decoder Device Setup

a) Network Information Setup

- > DHCP IP(dynamic) / STATIC IP(static)
- > Device name: Set decoder device name.

English (no Korean), Special symbol (+, -, _, #), Maximum 20 characters.

> Will be applied after save and restart.

Network	
Selected Device :	All Decoders
IP Mode :	💿 DHCP 🍈 Static IP
Device Name :	
IP Address :	
Subnet Mask :	
Default Gateway :	
	Save & Reboot

Figure. 45-1 Decoder Device Setup – Network Setup

b) Port

- > RS-232 Port: For serial device control or encoder debug purposes.
- > IR Port: For IR transmitters or IR receivers.

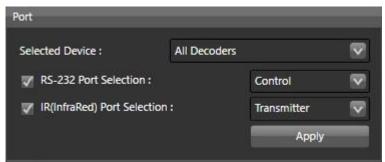


Figure. 45-2 Decoder Device Setup – Port

c) Reboot or Factory Reset

> Select all or individual decoders to restart or factory reset

Reboot or Factory Reset		
Selected Device :	All Decoders	
	Reboot	Factory Reset

Figure. 45-3 Decoder Device Setup – Reboot or Factory Reset

d) HDMI Hot Plug Detection

HDMI Hot Plug Detection	_	
W HDMI Hot Plug Detection :	Enable	
Delay after Hot Plug Detection :	0 🚔 S	econd(s
Reset TMDS after Hot Plug Detection	Enable	
👽 Delay before Display turns on after Hot Plug Detection	0 🚔 S	econd(s

Figure. 45-4 Decoder Device Setup – HDMI Hot Plug Detection

If video is not transmitted due to sync timing mismatch of decoder and display after restarting of display, following setup will resolve the problem.

> HDMI Hot Plug Detection

- ✤ Enable (default): Initializes HDMI output when HPD detected.
- ♣ Disable: Ignore HPD signal.

> Delay after Hot Plug Detection

- ✤ Operates on HDMI Hot Plug Detection is Enabled.
- **↓** Time: 0 sec (default) ~ 300 sec.

When the HPD signal is detected, it initializes the HDMI output after waiting for the set time.

> Reset TMDS after Hot Plug Detection

- ✤ Operates on HDMI Hot Plug Detection is Enabled.
- ↓ Disable (default): Maintains TMDS line even when HPD detected
- ↓ Enable: Initializes TMDS line when HPD detected

> Delay before Display turns on after Hot Plug Detection

- ♣ Operates on HDMI Hot Plug Detection is Enabled.
- ↓ Time: 0 sec (default) ~ 300 sec.

It initializes the display after waiting for the set time, When HPD signal is detected,

e) Display Power Saving after Encoder disconnected

Select to use Display Power Saving mode of display which is connected to decoders when encoder does not exist or disconnected.



Figure. 45-5 Decoder Device Setup – Display Power Saving after Encoder disconnected

> Enable display power saving after encoder disconnection

- **4** Enable: Power Saving mode activation
- ↓ Disable: Black screen output with no source or disconnected

> Delay before Display goes to Power Saving

Time set before entering power saving mode when source is disconnected.

f) Decoder Function

👿 Genlock	Enable	
👿 Fast Switching :	Enable	
Remain Encoder Connection when Booting :	Enable	
Show logo instead of display power saving :	Disable	~

- **Genlock**: Enable or disable the Genlock function.
- > **Fast Switching**: Enable or disable fast transitions when switching screens.
- Remain Encoder Connection when booting: Enable or disable the retention of previously connected connections when reboot.
- Show logo instead of display power saving: Enable or disable logo screen showing on the display at boot time instead of black screen when power saving mode is entered.

(2) Firmware Update

Refer to Ribbon menu (7) Firmware update. (9 page)

3.2.2 Video Wall Context Menu

(1) Remove Decoder

Remove selected decoder when click 'Remove Decoder'.

Remove all decoders on the layout when click 'Remove All Decoders'.

파일 설정	보기 도움말							admin	Log	out
Decoder List			월1 Displa	y Placement	Change					
Search		()	Video Wall Layout		On Screen Display	Display Replace	ment			
PVDS500D007		Layout Management	Rows : 4 🚔 Columns : 4	4 🔶 Change	OSD OFF	Clear	Reset			
decoder# 192.168.0.136	Video Wall				Zoom x1 -	x1 +	Individual Display			
VSR180420007 decoder# 192.168.0.137	1 IPVDS500D007 decoder# 192.168.0.136	2	dec	3 80420008 coder# 68.0.138	4 IWSR18042000 decoder# 192.168.0.139					
VSR180420008 decoder# 192.168.0.138	5. IWSR180420010	D	🖧 Remove Decoder	Q	8	Ū				
VSR180420009 decoder# 192.168.0.139	decoder# 192.168.0.140		 Display Setup Screen On 							
VSR180420010 decoder# 192.168.0.140	9	D 10	Screen Off	11		0				
_		Q	Q	Q		Q				

Figure. 48 Remove Decoder

(2) Screen ON.

Turn on screen of selected decoder.

(3) Screen OFF.

Turn off screen of selected decoder.

(4) Display Setup (Decoder layout setup)

a) Bezel and Gap Compensation

As compensating bezel gap which surround display panel, it enables to show natural picture to the screen.

Select 'All Decoders', 'All Encoders' or IP address of designated device, then type bezel value in 0.1mm unit. Click '**Change**' to apply.

- > Original Width : General width of display (OW)
- > Original Height : General height of display (OH)
- Bezel Width : Width of bezel
- > Bezel Height : Height of bezel

E Decoder Layout			×
		192.1	68.0.202
Bezel and Gap Compensatio	······*	Original Width : Original Height :	• • • • • • • • • • • • • • • • • • •
UNIT: 0.1mm		Bazel Width : Bazel Height :	0 0 Change
Preferences	_	_	
Stretch Type :	Fit In	V	
Resolution :	Pass Through		Change

Figure. 49 Display Setup(Decoder Layout) – Bezel and Gap Compensation

b) Resolution setup

Set resolution preference of decoder as 'pass through' or fixed resolution.

Preferences		
Stretch Type :	Fit In	
Resolution :	Pass Through	
	Pass Through	
	Full HD 1080p60	Change
	Full HD 1080p50	
	Ultra HD 2160p30	
	Ultra HD 2160p25	
	HD 720p60	
	WXGA 1366x768	
	WXGA+ 1440x900	
	WUXGA 1920x1200	
	SXGA+ 1400x1050	

Figure. 50 Display Setup(Decoder Layout) – Resolution Setup

c) Display Fit in/Stretch out

Use 'Fit it' and 'Stretch out' feature for atypical ratio on decoder layout setup.

- ✤ 'Fit in': Reduce or increase size of original source to fit in to the display
- 4 'Stretch out': Maintain original ratio as cutting video source to the display.

IPVDS-WallController (IP	Video Distribution System	Wall Controller) Pro				_	- 0	×
파일 설정	보기 도움말	_	_	_	_	a	dmin Lo	gout
Encoder List			Video Wall1 Lay	out Management				
Search		Video Wall L			Actions			
host# 192.168.0.101		Display Placement Rows : 2	Columns: 4 1 - 🔽	Save 🙆 🕨	Clear	Apply		
192.168.0.101	Video Wall			Zoom x1 - x1		Individual Display		
ALL BRIDE								ĥ
THE REAL PROPERTY.								
002 host#		***** ******				40		
Source #1 192.168.0.102	State States							
		AND AND		4				
						4		
003 host#								
003 host# 192.168.0.103	4	<₽	4	4				

Figure. 51 Placing Video Source to 1 Row 2 Column



Original Video Source



[•]Fit In' Setup – Display Source Fit into the Display



'Stretch Out' Setup – Cut Out of Bottom Part of Display Source Figure. 52 Display Output Screen

4. Additional features

4.1 Scheduling feature

IPVDS-WallController provides preset scheduling feature which plays saved preset in order and there are two different mode; Sequence Preset Mode / Weekly Preset Mode.

4.1.1 Sequence Preset Schedule

Sequence Preset So			Swell Time : 30		Add Chan	ge Remove	Clear	
Weekly Preset Sche	_{edule} 2	_	3			4		
All	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
0 H								
1 H								
2 H								
3 H								
4 H								
5 H								
6 H								
7 H								
8 H 9 H								
9 H 10 H				-				
10 H 11 H								
12 H								
13 H								
14 H								
15 H								
16 H								
17 H								
18 H								
19 H								
20 H								
21 H								
22 H								
23 H								
	Preset :	- Preset 1		Assign	Unassign			
	Preset Sc	hedule Me 1	Sequence Pr	reset Schedule	Weekly Prese	tSchedule	Save	6

Figure. 52 Setup of Sequence Preset Schedule

- **Step 1**. Select '**Sequence Preset Schedule**' on Preset Schedule Menu **1** to activate Sequence Preset Schedule **5**.
- **Step 2**. Select saved preset from 2 and set dwell time on 3.

Step 3. Click 'Add' button on 4, then selected preset will be set or 5.

Step 4. Repeat Step 2~3 until completion of desired preset configuration.

Se	Sequence Preset Schedule											
	1 - Preset 1 1 Min.	2 - Preset 2 1 Min.	3 - Preset 3 1 Min.	2 - Preset 2 30 Sec.	1 - Preset 30 Sec.	3 - Preset 3 10 Min.						
	Preset : :	3 - Preset 3			Dwell T	îime : 10 Min.	-	Add	Change	Remove	Clear	

Step 5. To change or modify preset sequence, click desired preset from 5 and move, or change its sequence with mouse drag and drop, then click 4 'Change'. To remove preset from the list, select particular preset need to be removed on and click 4 'Remove'.

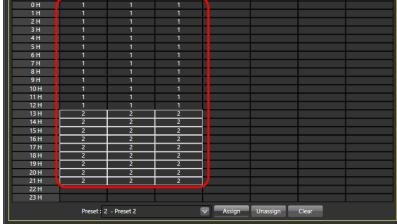
Step 6. Click '**Save**' 6 and close the window.

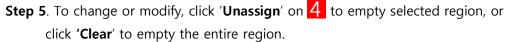
4.1.2 Weekly Preset Schedule



Figure. 53 Weekly Preset Schedule

- **Step 1**. Select '**Weekly Preset Schedule**' on Preset Schedule Menu **1** to activate Weekly Preset Schedule.
- **Step 2**. Click designated time schedule or drag and select region on **2**.
- Step 3. Select saved preset from 3.
- Step 4. Click 'Assign' button on 4 to assign selected preset on that region.





Step 6. Repeat Step 2~4 to make desired weekly schedule and click '**Save**' 5 and close the window

4.1.3 Operate Scheduling

Once 'Sequence Schedule' or 'Weekly Schedule' setup is done, user can operate scheduling feature with '**Start Preset Scheduling**' button on layout management.

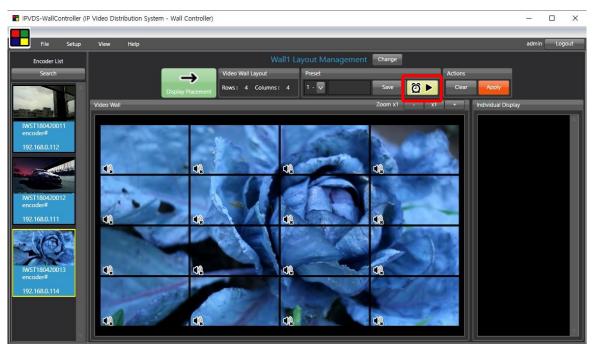


Figure. 54 Start Preset Scheduling

Once Preset Scheduling is activated, 'Start Preset Scheduling' icon will be changed, And click 'Stop Preset Scheduling' icon(() to deactivate.

Video Wall1 Layout Management								
\rightarrow	Video Wall Layout	Weekly Preset Schedule 2 - Preset 2	Actions					
	Rows: 2 Columns: 4	2 - 🔽 Preset 2 Save 🔯 🔳	Clear Apply					

Note: All other function is disabled when using Preset Scheduling.

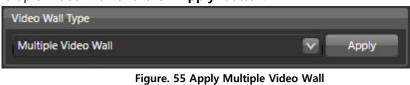
Important: Control PC has to be connected to the network to use Preset Scheduling.

4.2 Multiple Video Wall

Multiple Video Wall feature enable to control isolate control of each video wall when various video walls need to be installed and controlled in different site. Multiple Video Wall feature only operate with **Pro** PC application.

Step 1.

Ribbon Menu > Setup > Environment Setup > Video Wall Type Select Multiple Video Wall and click '**Apply**' button.



Step 2.

Register license key.

Note: Multiple Video Wall feature requires IPVDS Pro PC application and license key to use. Please contact regional distributor or <u>tosales@opticis.com</u> to obtain the license key.

Step 3.

Now, PC application will be changed to Pro version, and user can select and set different video wall configuration on 1.

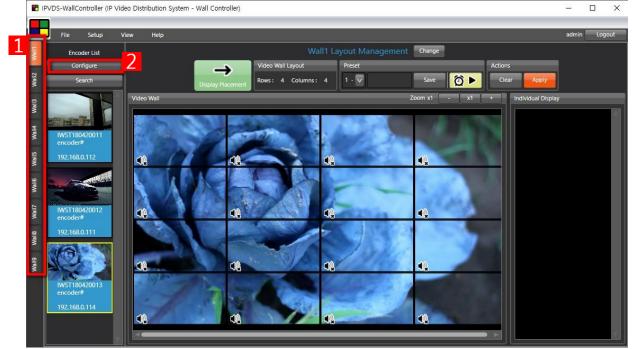


Figure. 56 Pro Version Start-Up Page

Step 4.

Click '**Configure**' button **2** to load device assignment window. Click '**Search**' button to load all the encoder and decoder devices on the network.

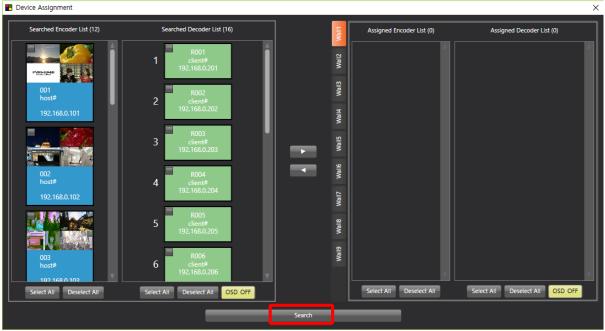


Figure. 57 Device Assignment Window

Step 5.

Select devices as clicking boxes on the top left corner from Searched Encoder List and Searched Decoder List, and click '**Assign**' button(



Figure. 58 Device Select and Assign on Wall 1 Tab

Step 6.

Assigned devices can be checked on the Assigned Encoder List and Assigned Decoder List on the right, and use can un-assign device with using '**Unassign**' button(

Note: Encoders can be assigned in duplicate for all of multiple video wall tabs.

Decoder can be assigned for one single video wall only, and it will be deleted from

Searched Decoder list after assigned for particular video wall.



Figure. 59 Un-assign Device

Step 7.

Select Video wall (#2~#9) and repeat Step 5~6 to assign devices, then close window. ■ Device Assignment

 \times



Figure. 60 Change Video Wall Tab

Step 8.

Set layout and assign source for video wall #1~9 and save preset.

When clicking '**Apply**' button (**Apply**), change command will be delivered to particular video wall, and decoders in other tabs will not be changed and maintain existing connection.



Figure. 61 Wall Tab #1

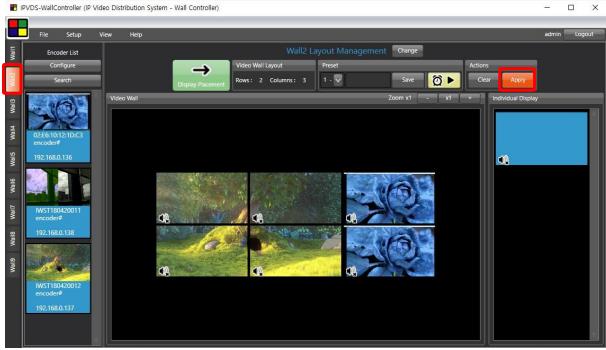


Figure. 62 Wall Tab #2

4.3 Plug-in feature



Figure. 63 Display Monitor Power Control

4.3.1 Integrated Control Program (ICP)

Control power of displays with RS-232 port of the decoder. ICP (Integrated Control Program) requires separate installation of control program. Contact tosales@opticis.com or techsupp@opticis.com for additional support.

4.3.2 Product Linkage Control

Product Linkage Control enables integrated control of Opticis products such as HDMI IP Decoding Converter (IPDC), HDMI IP Media Player (MPDS) on one PC application. Contact tosales@opticis.com or techsupp@opticis.com for detailed information.

5. License

Basic IPVDS-WallController is only available to use for 2 years, and after that preset can't be saved. Renew message will be displayed one month prior to the license expiration, and entering license key will extend one year of using period.

Please contact Opticis to obtain IPVDS-WallController software license key.

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