

1080P Solution User Guide



PC Configurator

HDMI over IP Console

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Overview

HDMI over IP Console is an easy-to-use, user-friendly, yet comprehensive Windows-based PC configurator that allows users to configure and operate a wide range of IP-based products, including H.264 codecs. It provides an integrated environment for defining AV control system functionality from an easy-to-use and intuitive graphical user interface. It's simple enough to use to configure a single AV device, yet powerful enough to facilitate building a Web-based resource management and remote monitoring system for multiple AV devices in different locations.

Notes:

- This guide is developed based on the following software version, for more information about later software versions, see their guides.
 - ✓ For PC configurator: HDMI over IP Console AVP-2K_2021V.1.0.0
 - ✓ For control box 2021V.1.1.0 is API version. V1.0.0 is web console version. V1.0.0 is service version.
- All functions and pictures in this guide are for your reference only. The actual software may vary. In case of any content change, we are sorry for no further notice.
- Unless otherwise noted, the word "device", when used in this guide, refers to a codec.

Before Using PC Configurator

Before using PC configurator, ensure the IP address of your computer installed with this software, codecs and IP control box (if required) are in the same network segment. Otherwise, this software cannot communicate with the codec in the network.

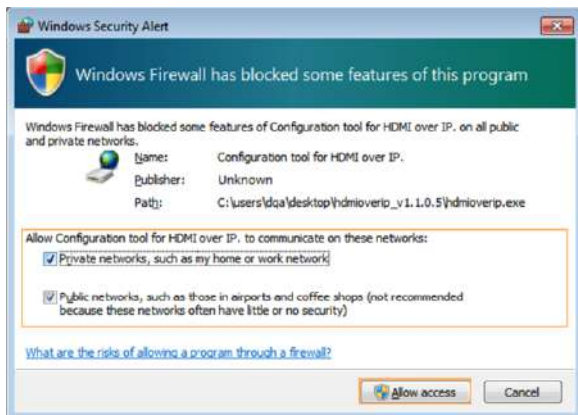
The following table shows the default protocol for different devices:

Model	Default Protocol	Remark
AVP-2K	Auto IP	IP address: 169.254.X.X Subnet mask: 255.255.0.0
	DHCP	If the network is in an absence of DHCP server, set a static IP address and subnet mask for the codec as required. e.g. IP address: 169.254.X.X Subnet mask: 255.255.0.0
AVP-CBS2K	Static IP	IP address: 169.254.1.1 Subnet mask: 255.255.0.0

Configuring Your Operating System Firewall

Your operating system firewall may block some features of the PC configurator and prevent it controlling the codec.

You can configure the firewall when starting the PC configurator. If the **Windows Security Alert** window is displayed, select a network you allow this software to communicate on with administrator privileges. For example, select both private and public networks, and then click **Allow access**.



Starting PC Configurator

1. Uncompress the zip file of the PC Configurator.
2. Locate the **HDMIoverIPConsole.exe**.
3. Double-click **HDMIoverIPConsole.exe** to start PC configurator.

Searching for the Devices

1. Start PC Configurator.
2. Click **Search** to start searching for online devices. It may take a few seconds, please wait.
3. Click **OK**. When the search is completed the discovered devices are displayed in the **RX** and **Other Devices** area.
 - ✓ Decoders appear at the left of the Console, encoders and other devices appear at the right.
 - ✓ If the devices are online, the square icons next to them turn green; otherwise, the icons turn white.



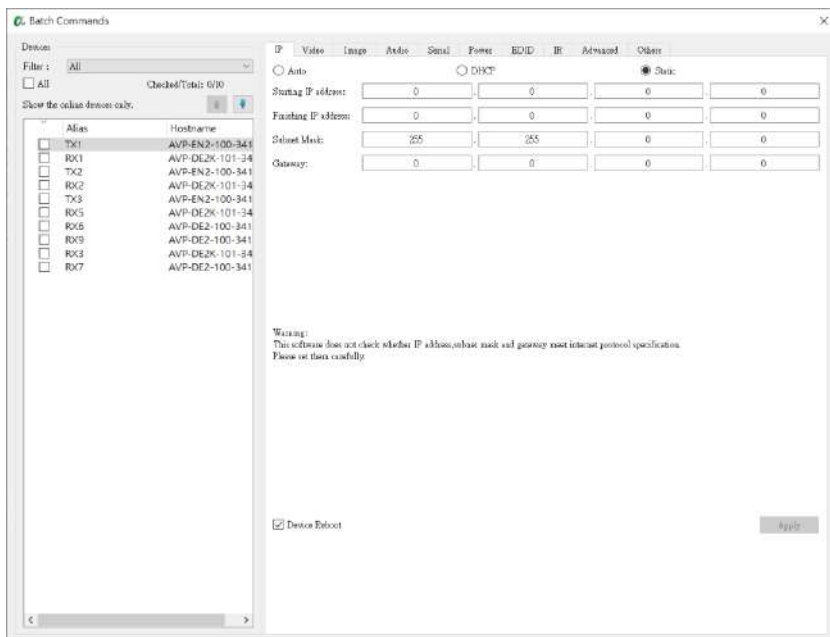
Note: If no devices are found, fix the problems by referring to the question in "錯誤! 找不到參照來源。".

Configuring IP address

Configuring IP Address in Batch Commands

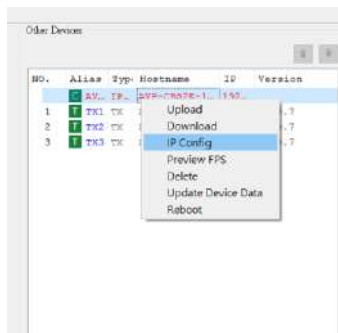
1. Press the Batch Commands button and select the IP address Tab.
2. Filter to a specific device type using the filter dropdown menu.
3. Select the All checkbox in Devices area.
4. Enter the required starting IP address of the encoders and decoders and the highest address IP address in the Finishing IP address field.
5. Click “Apply”.

Note: All devices and the IP control box must be assigned new IP addresses within the same IP address range.



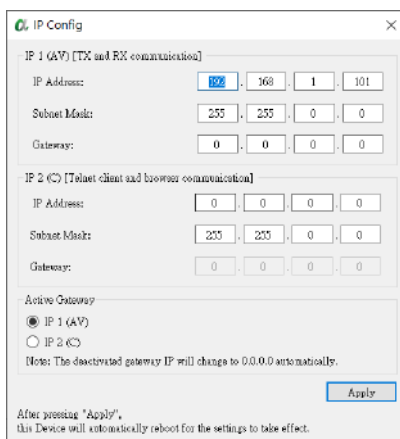
To change the IP address of the IP control box, perform the following.

1. Right click the IP control box in the **Other Devices** section and choose **IP Config**.



2. Enter the IP information for the LAN 1 (AV) and LAN 2 (C) Ports, and click Apply. The control box will then reboot.

Note: Both the LAN ports cannot be on the same subnet and must be on independent subnets, even if only one network interface is physically connected.

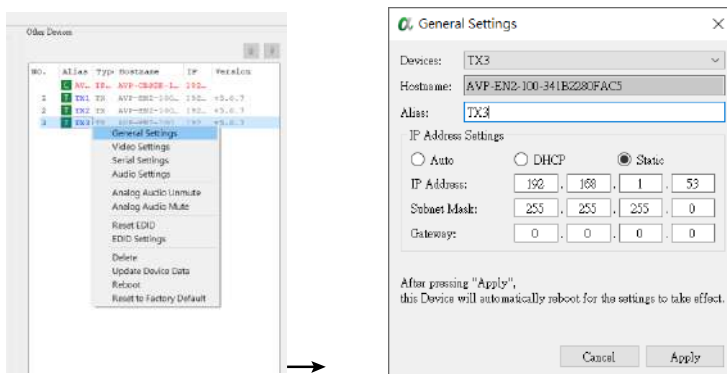


Creating Aliases

By default, each device listed in PC configurator is with a name that includes the corresponding hostname and Mac address. You can create aliases for the devices with easy-to-remember names.

To configure aliases for devices, perform the following.

1. Right click a decoder or encoder and select General Settings.
2. Enter in the desired alias.
3. Click Apply.



Video Settings

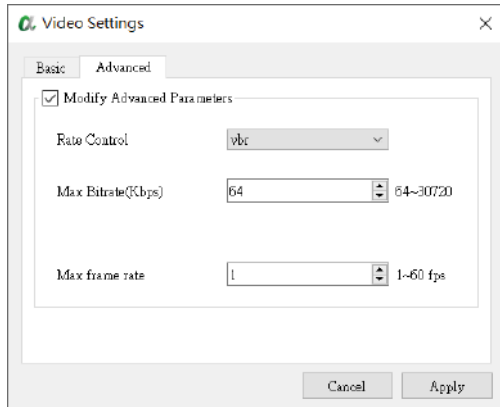
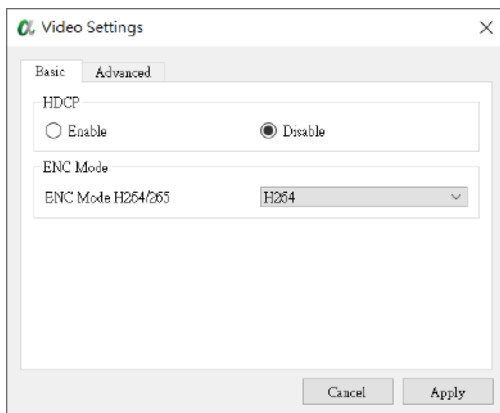
Video Settings allows for video-related adjustments.

To perform video settings, right click an encoder or decoder and select “Video Settings” within the context menu.

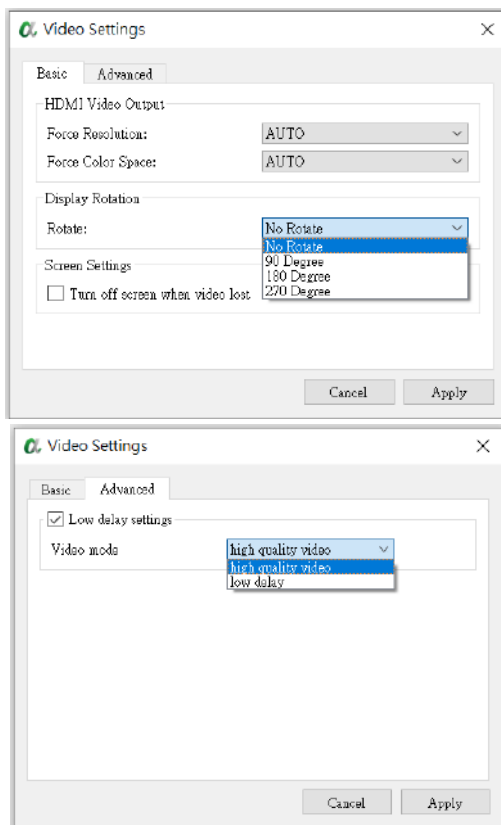
Note: The Video Settings function may vary depending on different series of devices.

H.264 Video Settings

- 1) H.264 Encoder Video Settings



2) H.264 Decoder Video Settings



H.264 decoders offer either high quality or low delay modes.

- a) High quality mode (default setting): High quality video will be output to display, while source to display latency will increase.
- b) Low delay mode: this mode will decrease the source to display latency as well as the video quality so to achieve a lower latency.

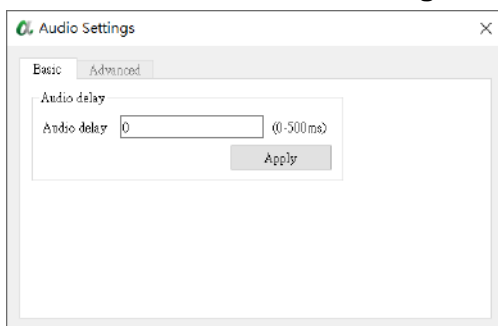
Audio Settings

Audio Settings allows for audio-related adjustments.

To perform audio settings, right click an encoder or decoder and select “Audio Settings” within the context menu.

Note: The Audio Settings function may vary depending on different series of devices.

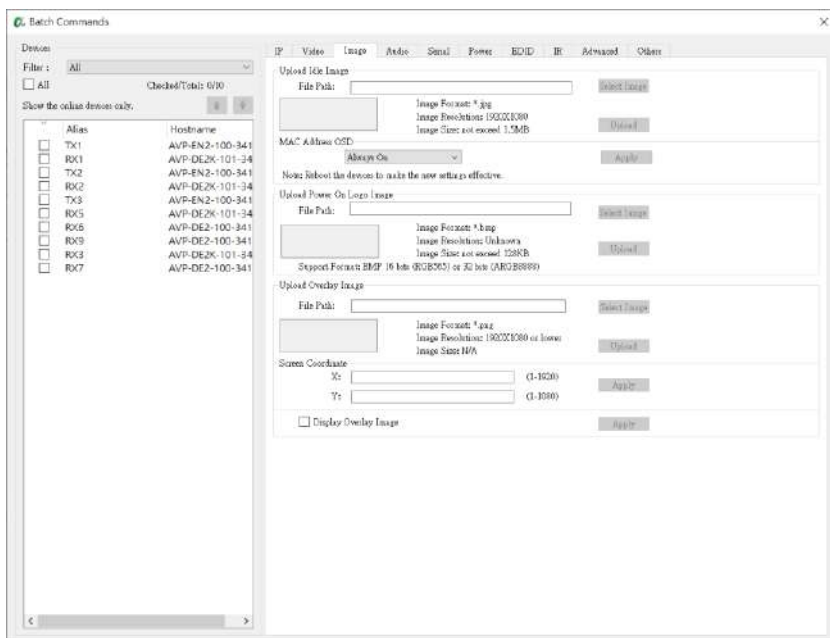
H.264 Encoder and Decoder Audio Settings



H.264 Series encoders and decoders offer an audio delay adjustment to be implemented. The total delay of the audio from source to display will be the sum of the values entered in the encoder and decoder.

Idle and Overlay Images

The Batch Commands window offers an Image tab under which various decoder image settings can be adjusted.



Upload Idle Images

The Idle image is presented to a decoder's connected display when the decoder detects no active signal input from an encoder. This could be for the following reasons:

1. The decoder is not assigned to an encoder.
2. The source device is not outputting video, e.g. it is in standby.
3. The decoder cannot reach the encoder due to a networking issue.

Upload Power On Logo Image

The Power On Logo image is presented to the decoder's connected display when the decoder boots up.

Note: Only the JPEG2000 series units support Power On Logo image.

Upload Overlay Image

An image can be uploaded to a decoder to be displayed on top of the main video stream.

Note: Overlay image are only supported on H.264 series units.

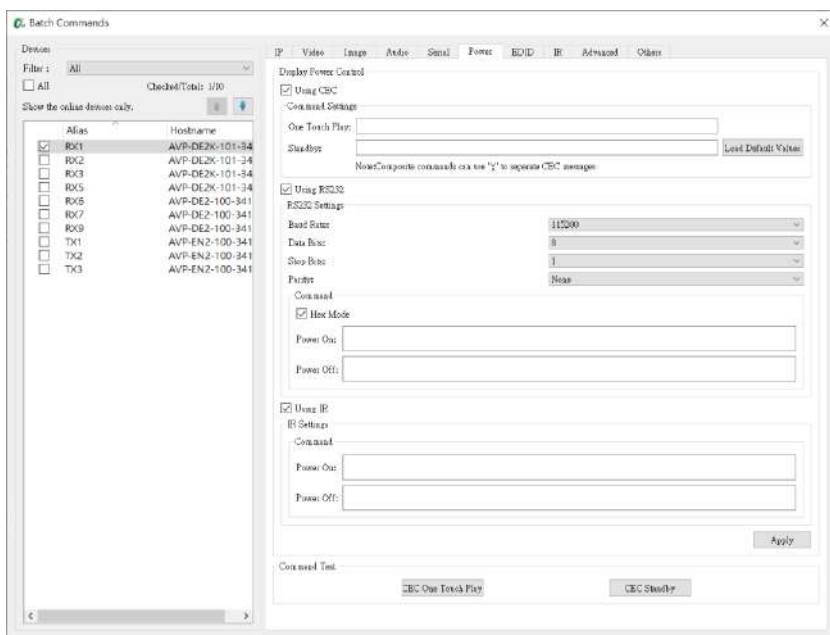
Configuring CEC & RS-232 Control

The Batch Commands window can be used to configure decoders to send CEC or RS-232 commands to the attached displays. These commands can be triggered from the VisualM app when the power on or off buttons are pressed.

CEC control can be found on most modern displays. If the display being controlled doesn't have CEC capability, then RS-232 can be used as an alternative.

To configure CEC and RS-232 commands, do the following:

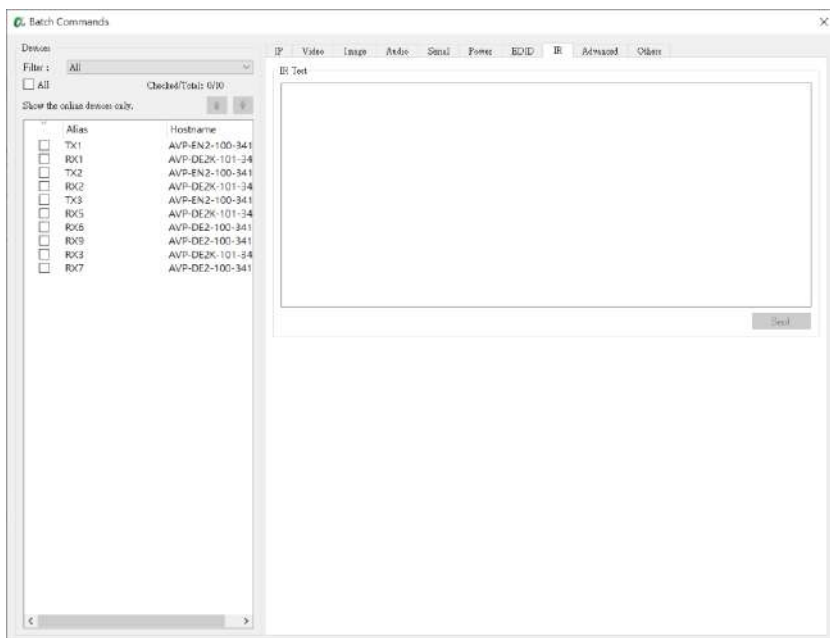
1. From the Batch Commands window select the Power tab.



2. Select decoders from the list at the left.
3. For CEC control either load the default CEC commands or insert a custom CEC byte string.
4. For RS-232 control adjust the RS-232 Settings for the target display(s) and enter in the serial commands in the One Touch Play and Standby boxes respectively. If the format of the display's command should be represented with Hex, mark the Hex Mode checkbox.
5. Click Apply.

Configuring IR Control

From the Batch Commands IR Tab, IR commands data can be entered and sent to series IR TX (emitter) port for testing. IR command must be entered in hex format.

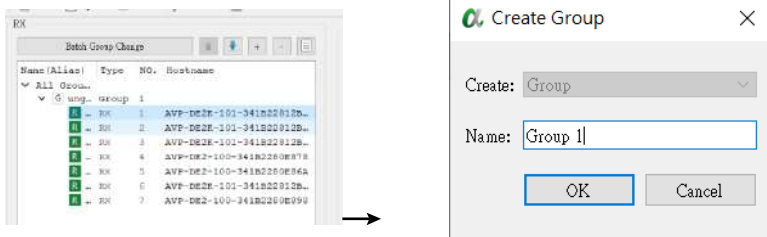


Creating Groups

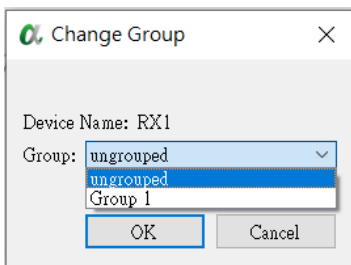
Decoders can be organized in groups.

By default, all devices are added to the Ungrouped Group.

1. Create a group by pressing All Groups in the RX area and click Create Group in the central area. In the pop-up window, enter a name and click OK.



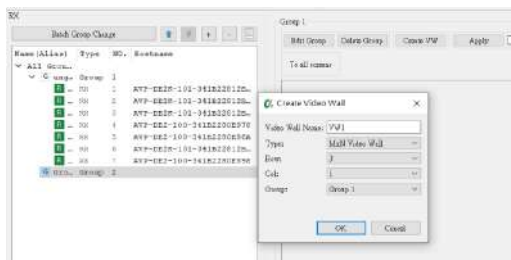
2. Add decoders to the group by right clicking them, select Change Group and then select the desired group.



Creating Video Walls

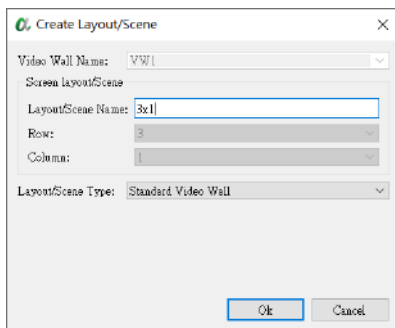
The decoders assigned to a video wall must be a member of a group.

1. Create a group.
2. Select a group and press the Create VW button.
3. Give the video wall a name and choose its size.



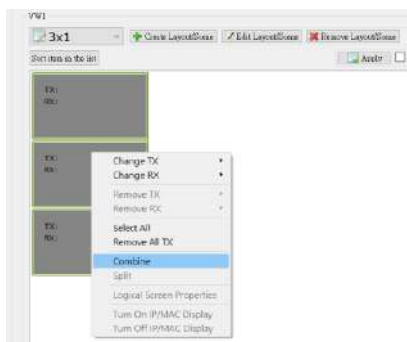
Each video wall can create multiple scenes.

- To create a scene within the video wall, press the “+Create Layout/Scene” button and name it.



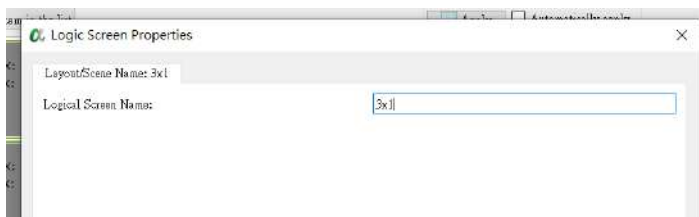
Note: Scene names must be alphanumeric and cannot include spaces or special characters.

- Once a Scene has been created screens can be combined to create the video wall. For example, to create a 3 x 1 image in a video wall hold the PC’s Ctrl button and select 3 displays.
- Right click one of the selected displays and choose “Combine”.



Note: Video walls must be a complete shape – i.e. 2x2, 3x1, etc. They cannot be L or T shaped etc. It is recommended that walls have the same number of columns as rows so that video stretching does not occur.

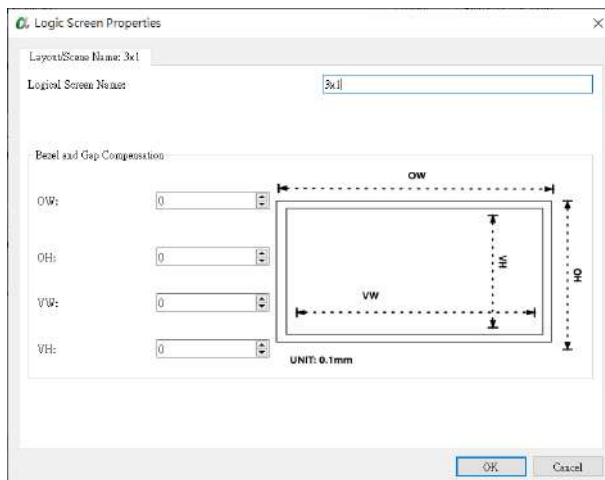
- The following window will appear asking for a Layout name. Enter a name and click OK button.



- To configure display bezels, right click on the video wall, select “Logic Screen Properties”.

The following window will appear. Measure the OW (outer width), OH (outer height), VW (viewable width) and VH (viewable height) of a single screen which is part of the video wall. Measurements should be recorded in millimeters and then multiplied by 10.

For example, if the OW (outer width) of a display is 900mm, $900 \times 10 = 9000$. 9000 would be entered into the OW field. Repeat this process for all dimensions.



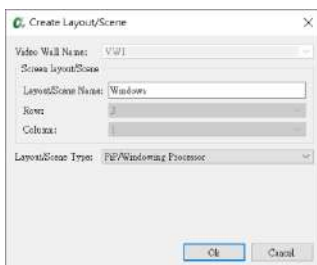
9. Select a decoder and enter a value in the appropriate field. All values entered will be multiplied by 8.
10. Drag decoders and encoders to the layout to build the video wall.

Configuring Window Roaming

codecs to perform window roaming for up to 6 video sources within a video wall layout.

To configure window roaming, perform the following:

1. Create a video wall.
2. Select the video wall, and click “+ Create Layout/Scene” in the central area.
3. The following window will appear. Enter a layout name and select “PiP/Windowing Processor” as Layout/Scene type.

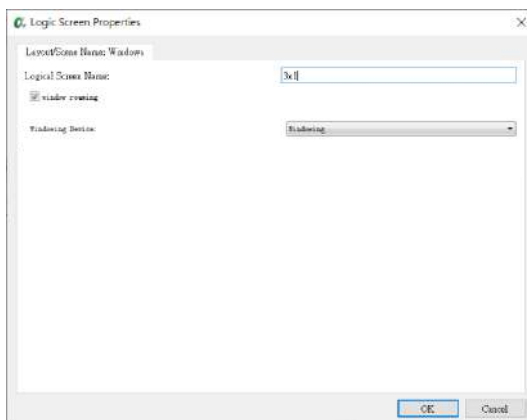


4. Right click on the video wall layout and select “Combine”.



5. In the pop-up window, give a logical screen name > mark the window

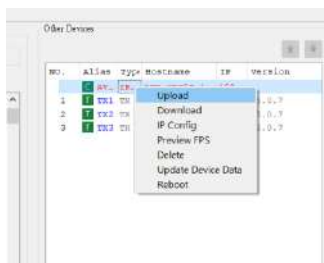
roaming checkbox > select the desired windowing device
VP-CBS2VW-100 from the dropdown menu > Click OK.



6. Drag and drop the decoders and encoders to the layout to perform window roaming. You can also use AGS-iTOUCH app to perform video switching and window roaming.
- 7.

Uploading Configurations to IP Control Box

When creating groups, configuring video wall and layouts are completed, you can upload the configuration to the IP control box in the Other Devices section and press Upload.



After the configuration file is uploaded to the IP control box, you can use the AGS-iTOUCH to realize visual control on codecs.

Frequently Asked Questions

Why **PC Configurator** cannot find any devices?

- 1) Check the Windows firewall.

Taking Windows 7 as an example: Click **Start**, go to **Control Panel > System and Security > Windows Firewall > Allowed Programs**, highlight **Configuration tool for HDMI over IP**, select **Home/Work (Private)** and **Public**.

- 2) Check the IP address and subnet mask of your computer.

In the network, if the codec's IP address is 169.254.x.x and subnet mask is 255.255.0.0, the computer and codec should be in the same network segment.

- 3) Check that the switch is configured properly and that IGMP snooping function is enabled.