



How to Configure and Operate Video Wall in Video Wall Application

Version: V1.0.0

Table of Contents

Software Version Requirements.....	3
Overview	3
Configuring the Video Wall in Video Wall Application	4
Operating the Video Wall in Video Wall Application	5
Extended Applications.....	6

Software Version Requirements

The following software versions must be used.

- PC configurator (HDMIoverIPConsole): V7.0.0 or later
- IP Controller (AVP-CBS2K-101): API V1.6 or later, AVP-CBS2K web_v5.1.0 or later, gbcmd_v5.1.1 or later

Overview

This guide describes how to configure and operate the "video wall in video wall" application, also referred to as "Picture in Picture" (PIP), in a physical video wall.

This "video wall in video wall" (hereinafter referred to as PIP) application is described as follows.

One N x M physical video wall (hereinafter referred to as the big wall) has a layout where multiple combination screens overlap each other. As shown in the figure below, a 4 x 4 big wall has a layout where two combination screens overlap each other. One 2 x 2 combination screen overlaps the other 4 x 4 combination screen.



Configuring the Video Wall in Video Wall Application

The following describes how to configure the PIP application.

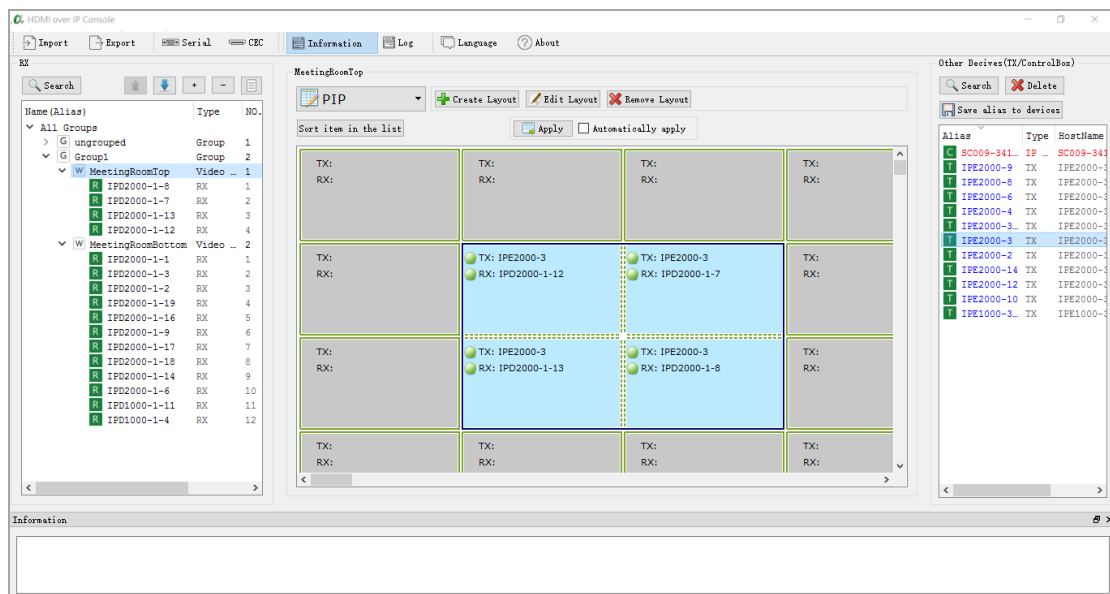
In this example, meeting room offers sixteen display devices, which are designed to be tiled together contiguously to form a 4 x 4 big wall. In this big wall, a PIP layout is created with two combination screens, one top 2 x 2 combination screen and the other bottom 4 x 4 combination screen.

The general method is as follows.

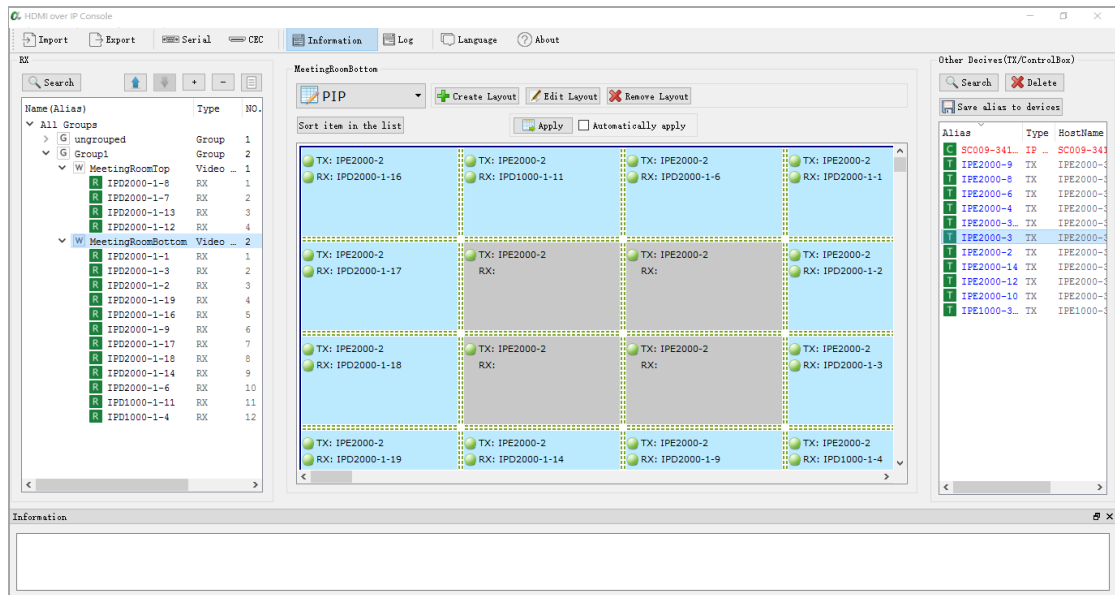
Based on the layers of the overlapped combination screens in the big wall, this big wall can be considered to be two single physical video walls. Compared with the original big wall, in the two physical video walls one contains the four RX in the center and the other contains the twelve RX around the four RX. For easy to understand, the video wall containing four RX is called Wall 1, and the other is called Wall 2.

The process steps are as follows.

1. In PC configurator, create a 4 x 4 physical video wall MeetingRoomTop (Wall 1).
2. Create a layout PIP for Wall 1 and assign four RX.
3. Create a 2 x 2 combination screen for this layout. The configuration figure is as follows.



- Repeat 1~4 to create MeetingRoomBottom (Wall 2), create a PIP layout, assign twelve RX, and then create a 4 x 4 combination screen. The configuration figure is as follows.



- Upload the configuration to AVP-CBS2K-101.

Operating the Video Wall in Video Wall Application

After the previous configuration, use API commands in AVP-CBS2K-101 to operate the "video wall in video wall" application.

- Enable and switch between layouts
 - Enable PIP using the following concurrent command:
scene active MeetingRoomTop-PIP; scene active MeetingRoomBottom-PIP
 - Switch to another layout using the following concurrent command:
Based on the process steps above, create the other layouts for the big wall. For example to create a layout FullScreen which allows users to view a full screen video, and then use the following command to switch between layouts PIP and FullScreen.
scene active MeetingRoomTop-FullScreen; scene active MeetingRoomBottom-FullScreen
- Select a source video for the PIP layout using the following concurrent command:
vw change MeetingRoomTop-PIP_2 x 2 TX1; vw change MeetingRoomBottom-PIP_4 x 4 TX2

Extended Applications

To create a layout where two or more combination screens overlap each other in a big wall:

1. Based on layer number of the overlapped combination screens such as the number is L, create L small walls.
2. Based on the needed layouts, create the corresponding layout for each small wall, assign RX, and then create combination screens.
3. Upload the configuration above to IP controller.
4. Use API commands to implement the switching functions.

Note: For the multiple layouts where multiple combination screen overlap in the big walls, count the number of layer numbers based on various factors.