

UNDERSTANDING CONFIGURATION CAPABILITIES

9- & 4-Output Leyard Video Controllers



Overview

9-Output vs 4-Output Leyard Video Controller

The new 9-Output Video Controller has some advantages that will be of benefit to many customers:

Rack space required is reduced by 50-66%

Power usage for the entire video wall is reduced by requiring fewer Video Controllers

Less heat generated and fewer points of potential service at the rack

Lower quantity of spare Leyard Video Controllers needed

In certain video wall configurations, using the 4-Output Video Controller will be advantageous. Configuring a video wall with 4-Output Video Controllers will require more Video Controllers and therefore more rack space, power and points of service, but has two main benefits:

More inputs

More zone parts or windows of content supported on the video wall

In summary, the 9-Output Video Controller is the better choice for video walls using Planar Big Picture Plus or a relatively small number of sources. Additionally, the 9-Output Video Controller is a great choice if a matrix switcher or video processor with 4K outputs will be used in the system.

The 4-Output Video Controller will be the best choice where rack space is not a concern and a larger number of directly-attached sources are required and where more content zones or windows on the video wall are desired.

What is a Zone?

Definitions

Zone — a rectangular area of the video wall where you can place one source

Zone Part — the portion of a Zone within one display

Zones can be:

- Set to any size or position
- Smaller than one panel or bigger
- Even bigger than the video wall
- Overlapped with some limitations

Each VC is limited to 9 zones or zone parts across the 4 displays (4-Output VC) or 9 displays (9-Output VC) that it is driving

Each part of a zone that crosses more than one display counts against this limit, so a single zone that crosses all 4 panels of one 4-Output VC makes 1 zone, comprised of 4 zone parts

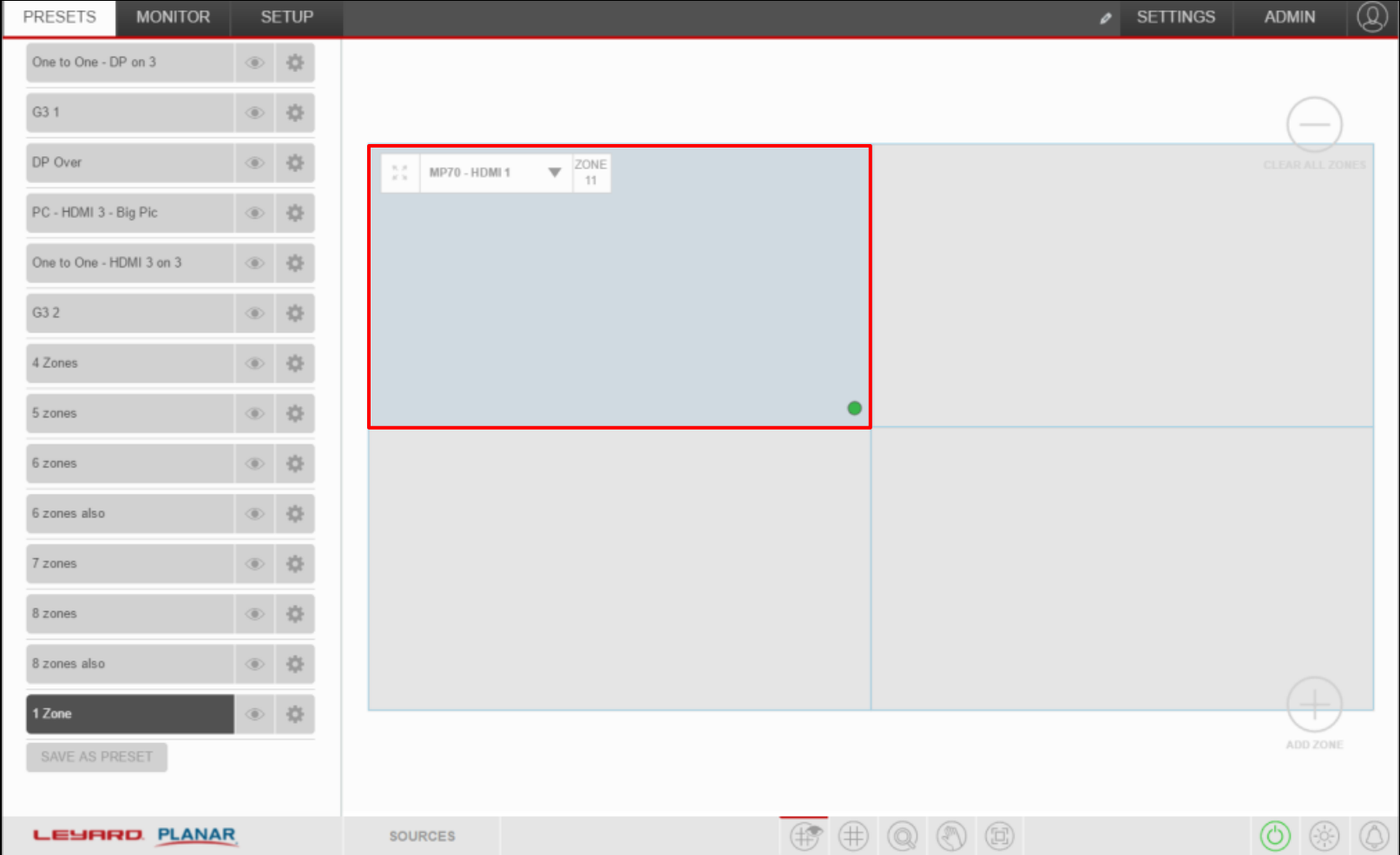


Clarity Matrix G3 2x2 layout

UNDERSTANDING ZONES & ZONE PARTS

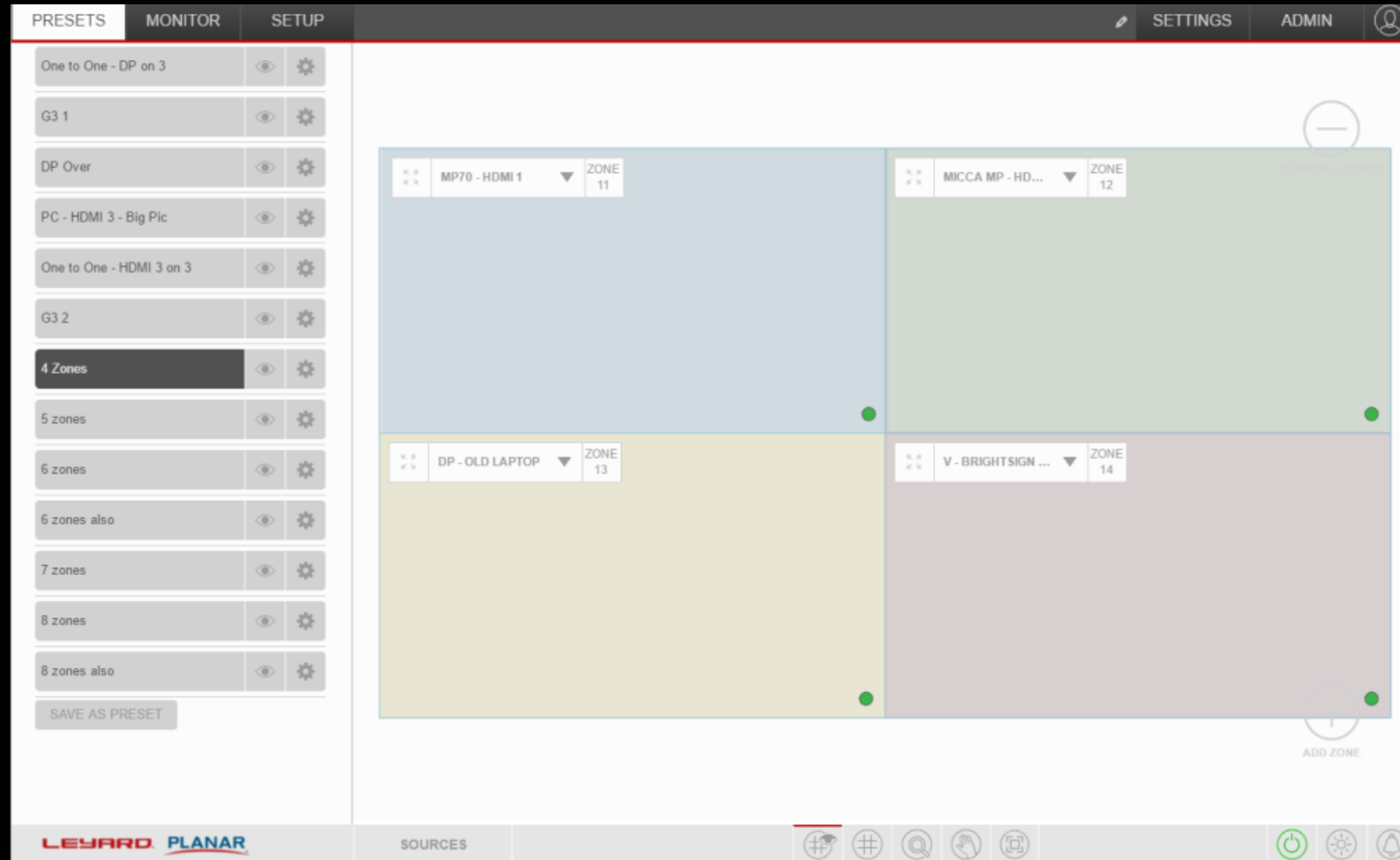
Examples

One Zone



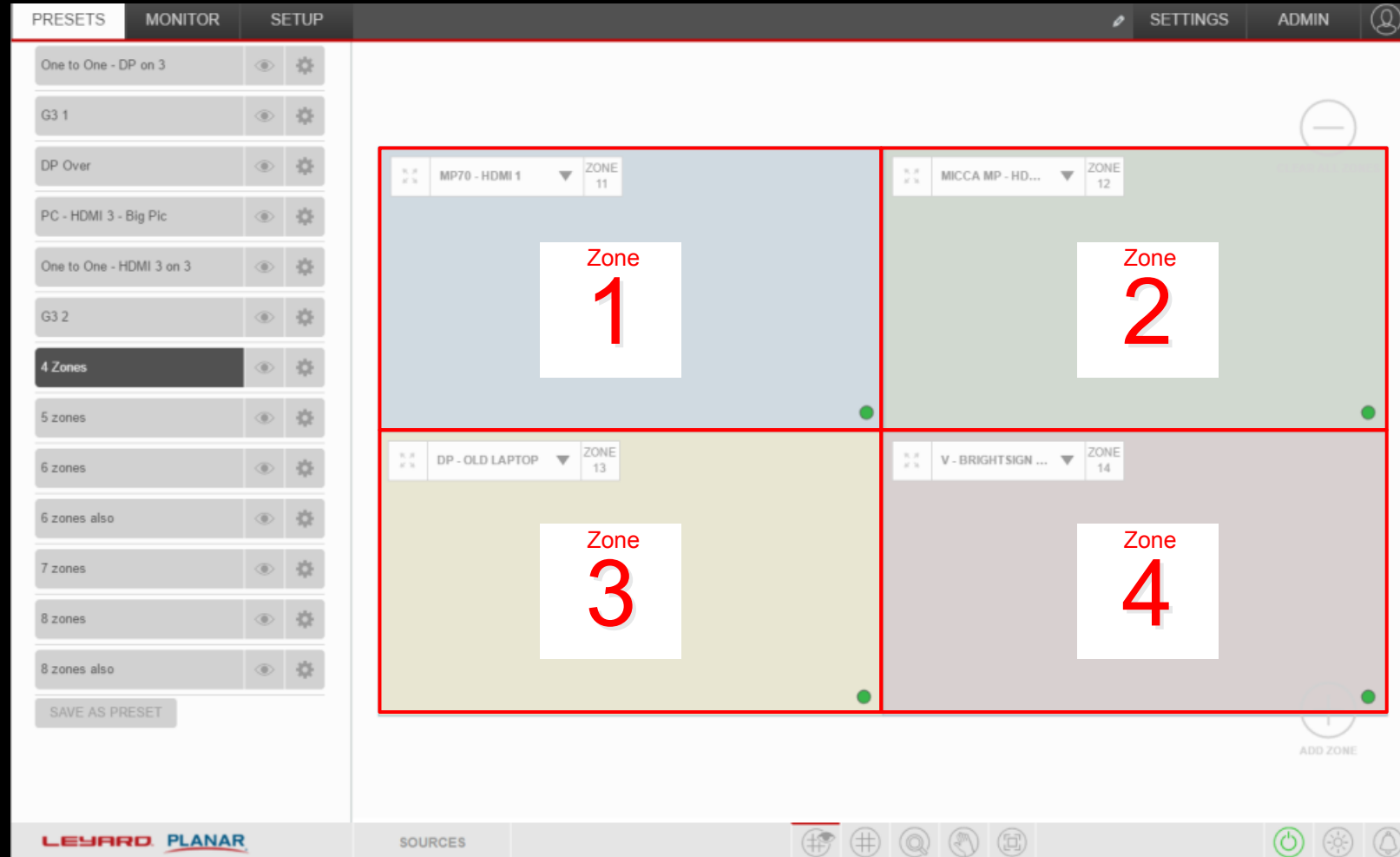
Native 4K 2x2 layout in Leyard WallDirector Software

Four Zones



Native 4K 2x2 layout in Leyard WallDirector Software

Four Zones



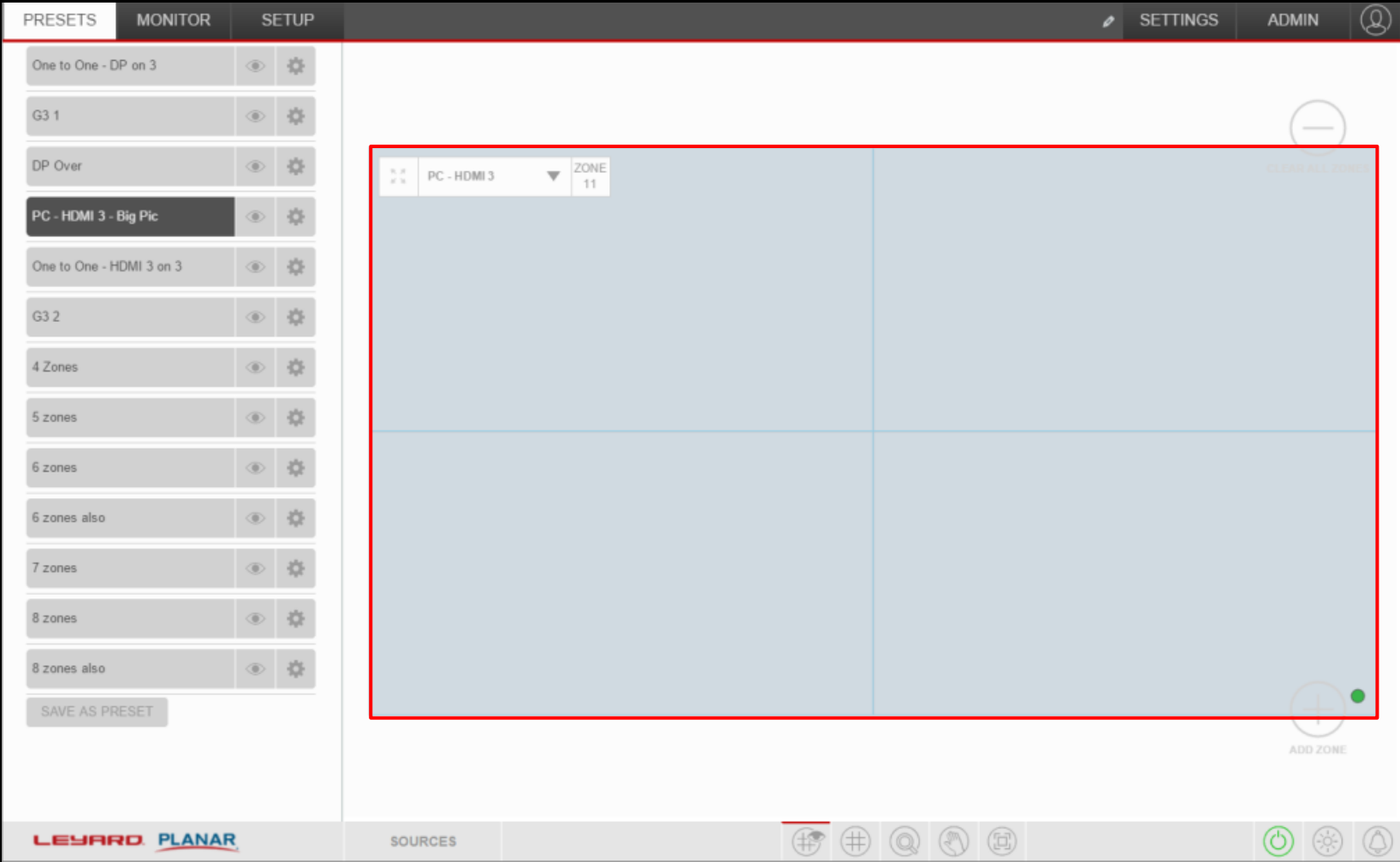
Native 4K 2x2 layout in Leyard WallDirector Software

Four Zones

Matrix G3 2x2 wall example

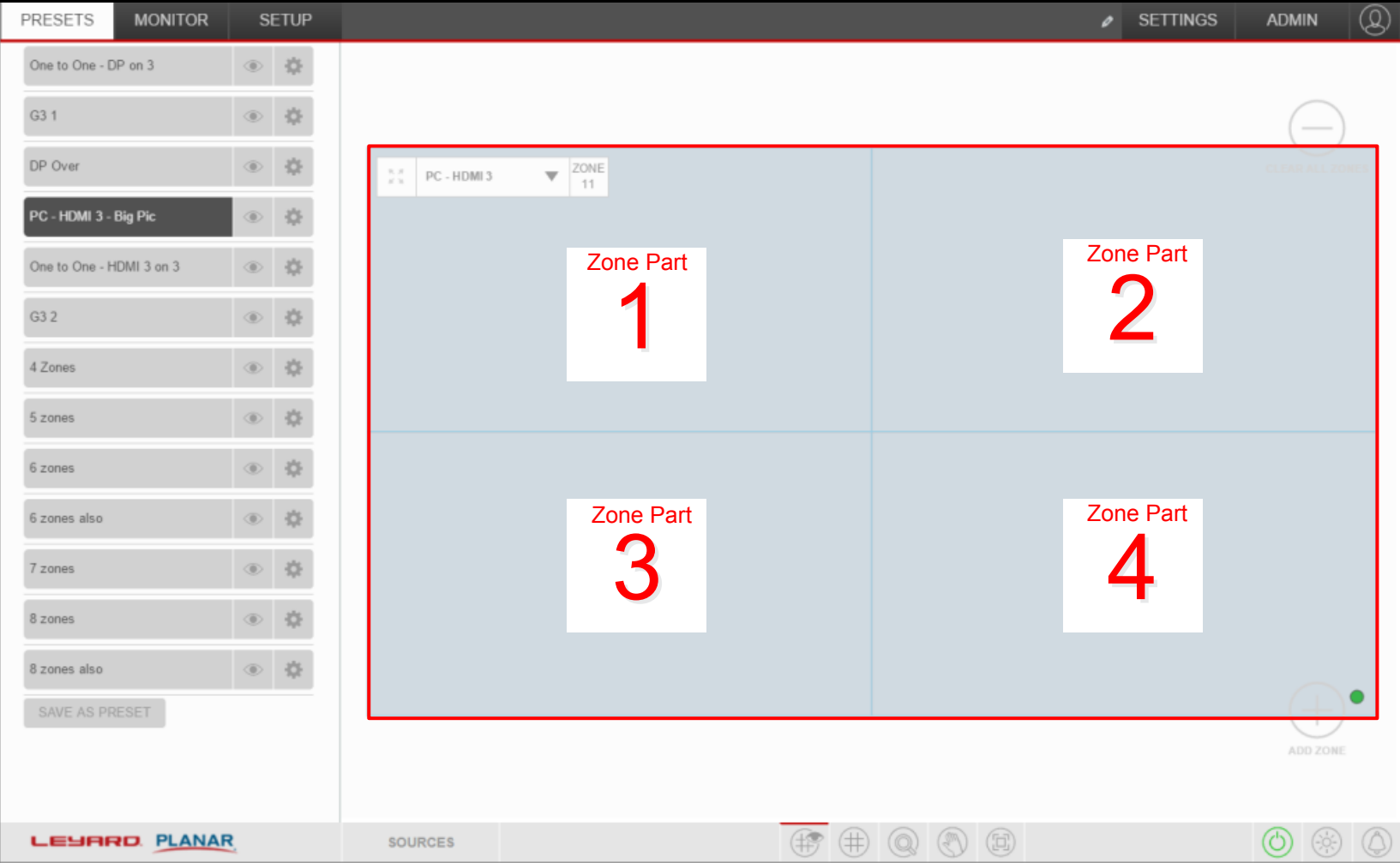


One Zone Using Four Zone Parts



Native 4K 2x2 layout in Leyard WallDirector Software

One Zone Using Four Zone Parts



Native 4K 2x2 layout in Leyard WallDirector Software

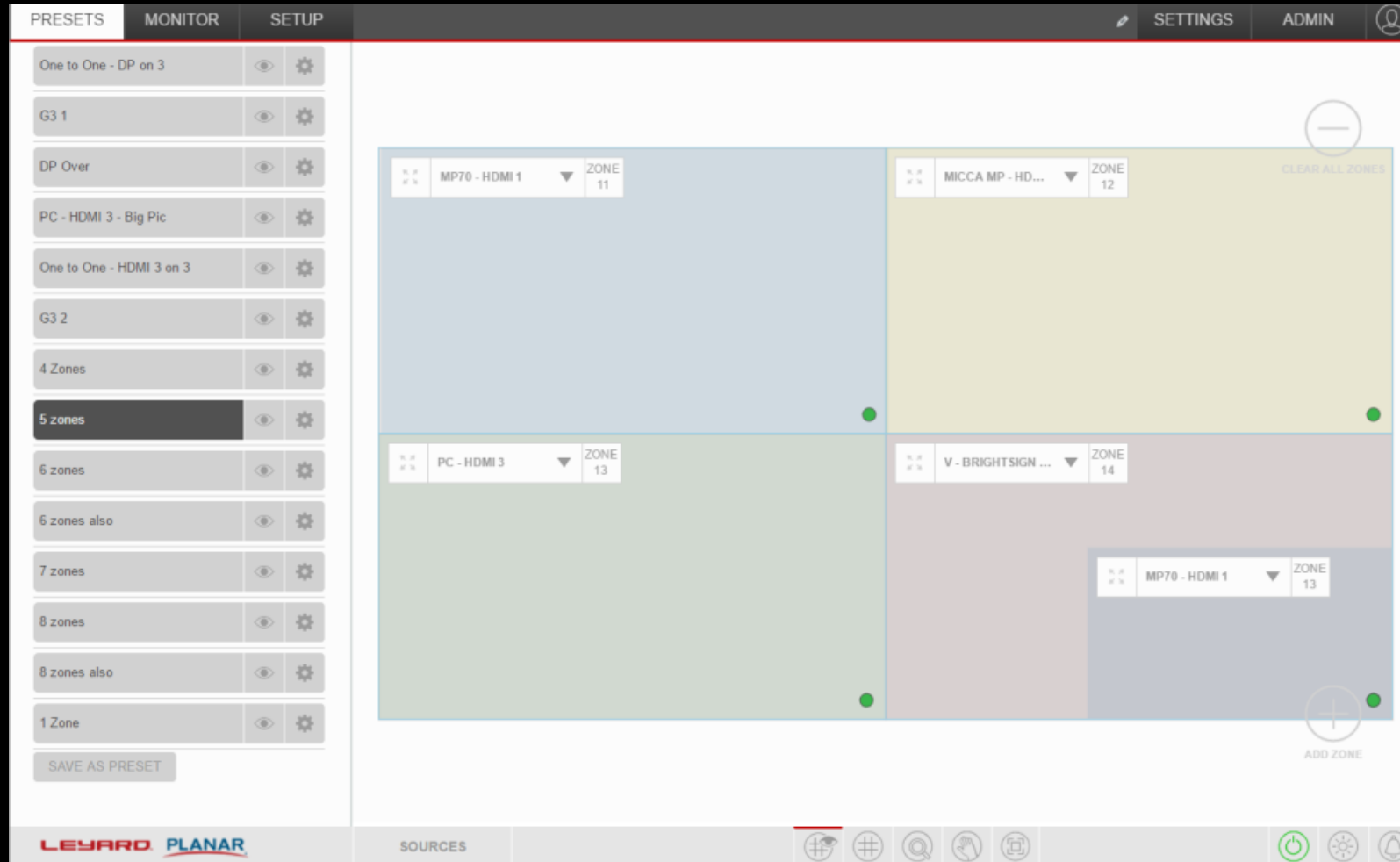


One Zone Using Four Zone Parts

Matrix G3 2x2 wall layout

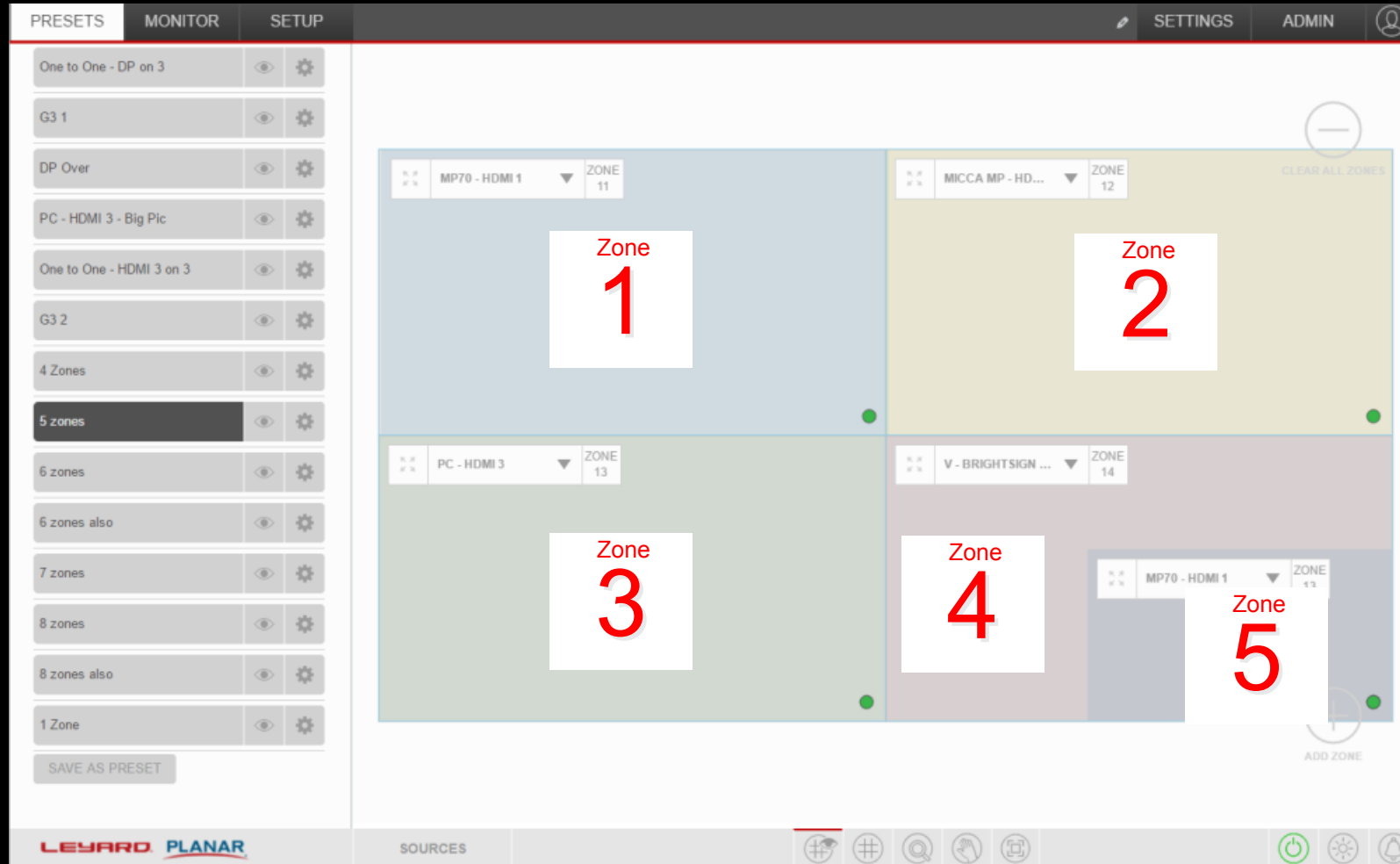


Five Zones



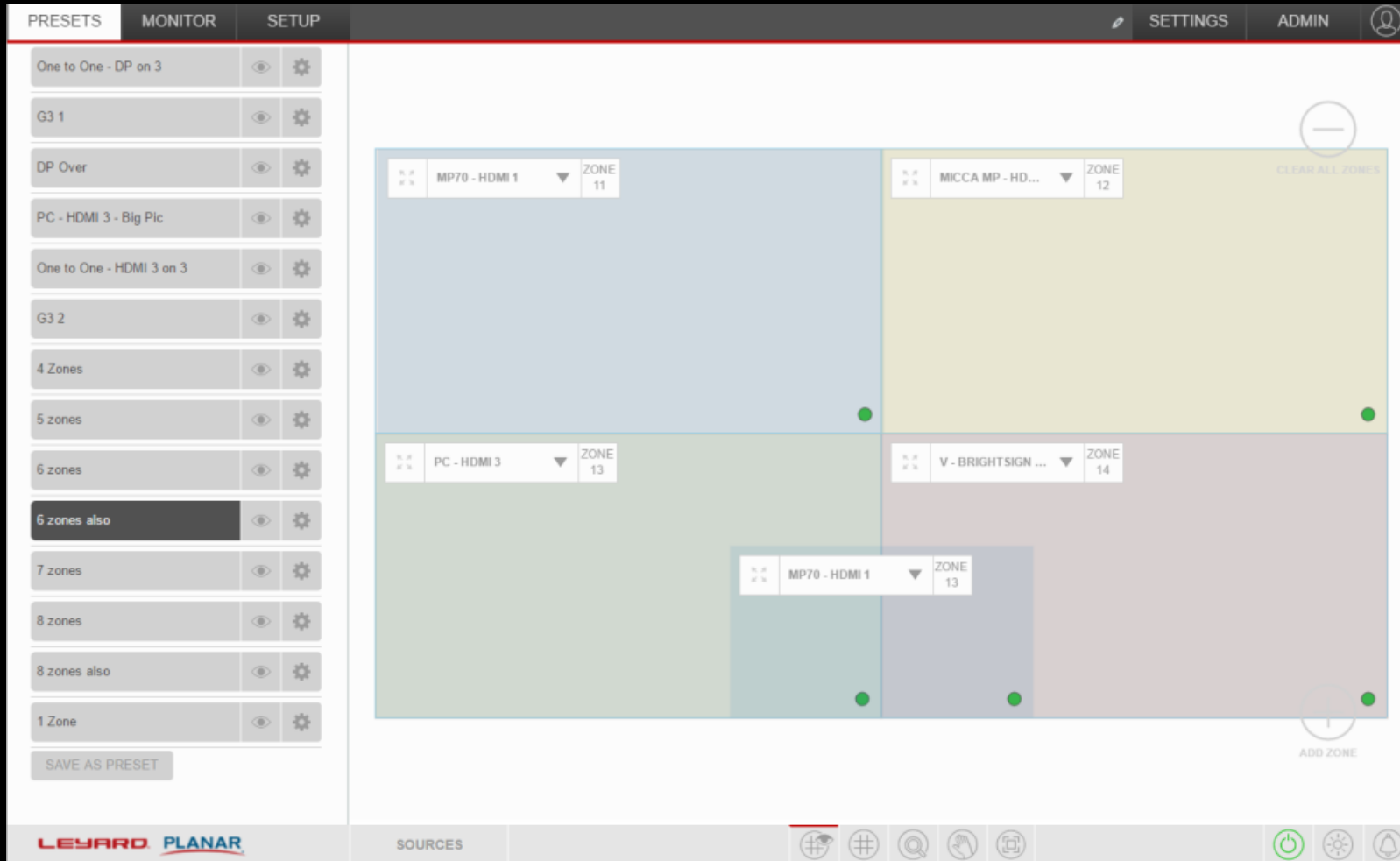
Native 4K 2x2 layout in Leyard WallDirector Software

Five Zones



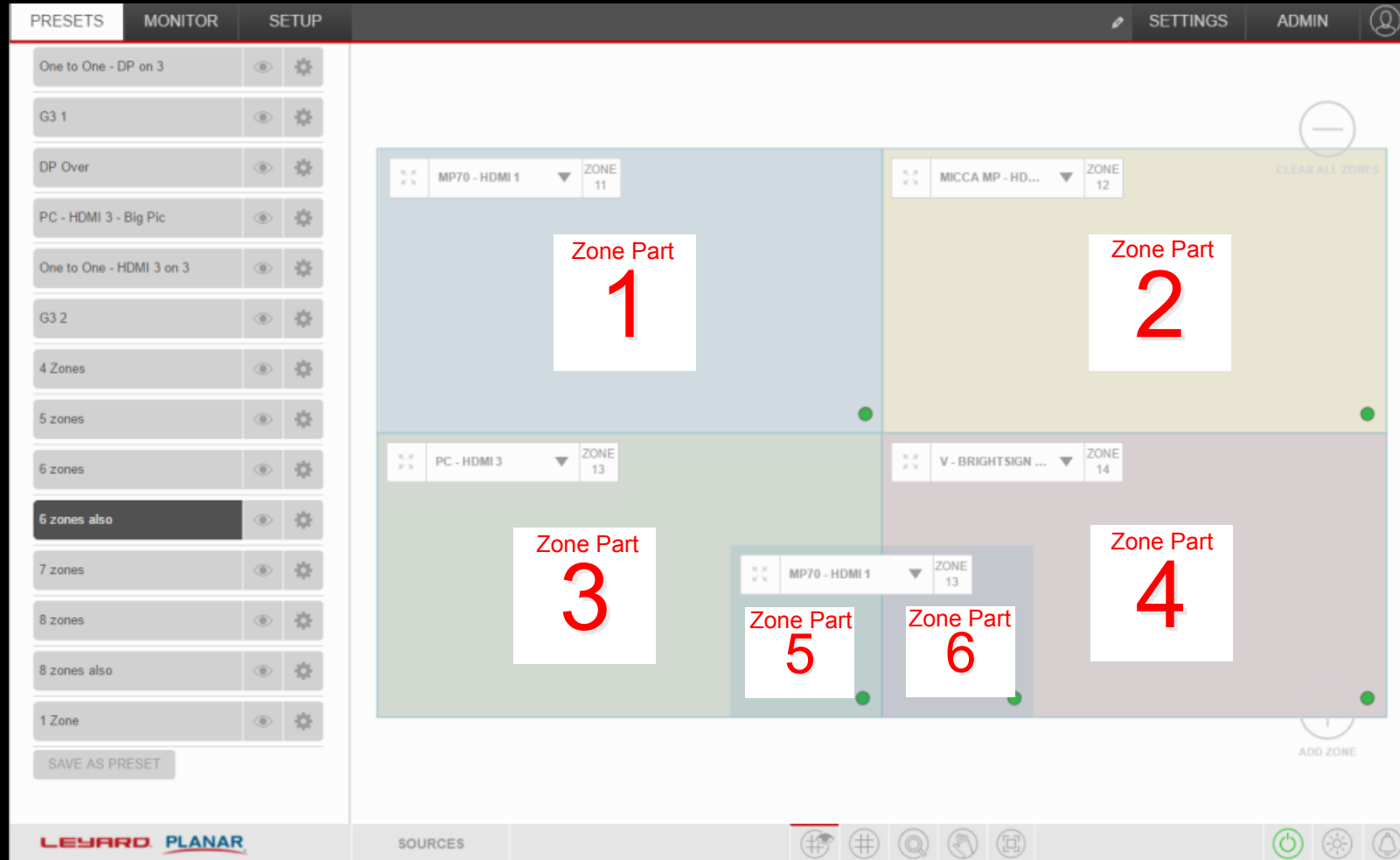
Native 4K 2x2 layout in Leyard WallDirector Software

Five Zones Using Six Zone Parts



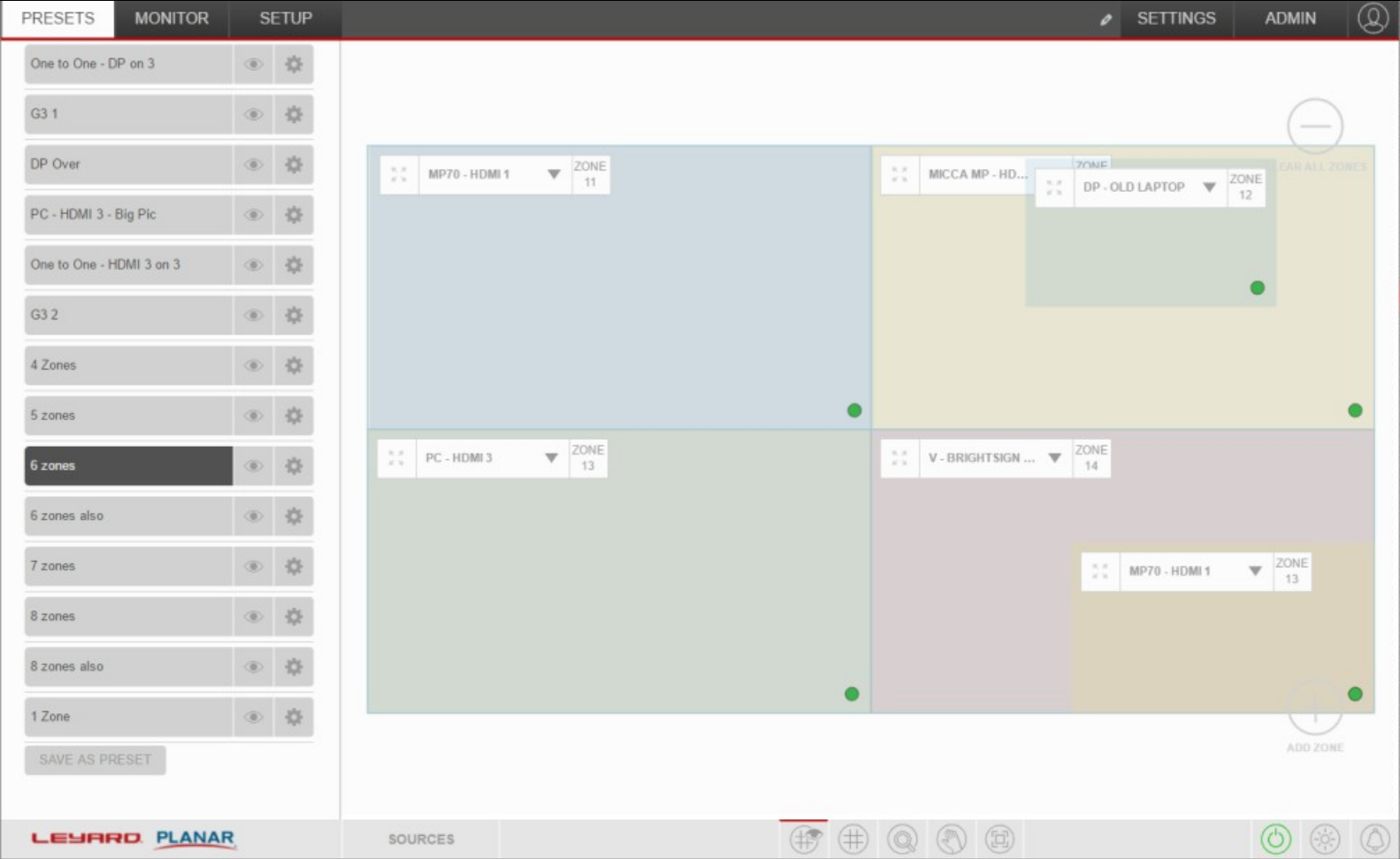
Native 4K 2x2 layout in Leyard WallDirector Software

Five Zones Using Six Zone Parts



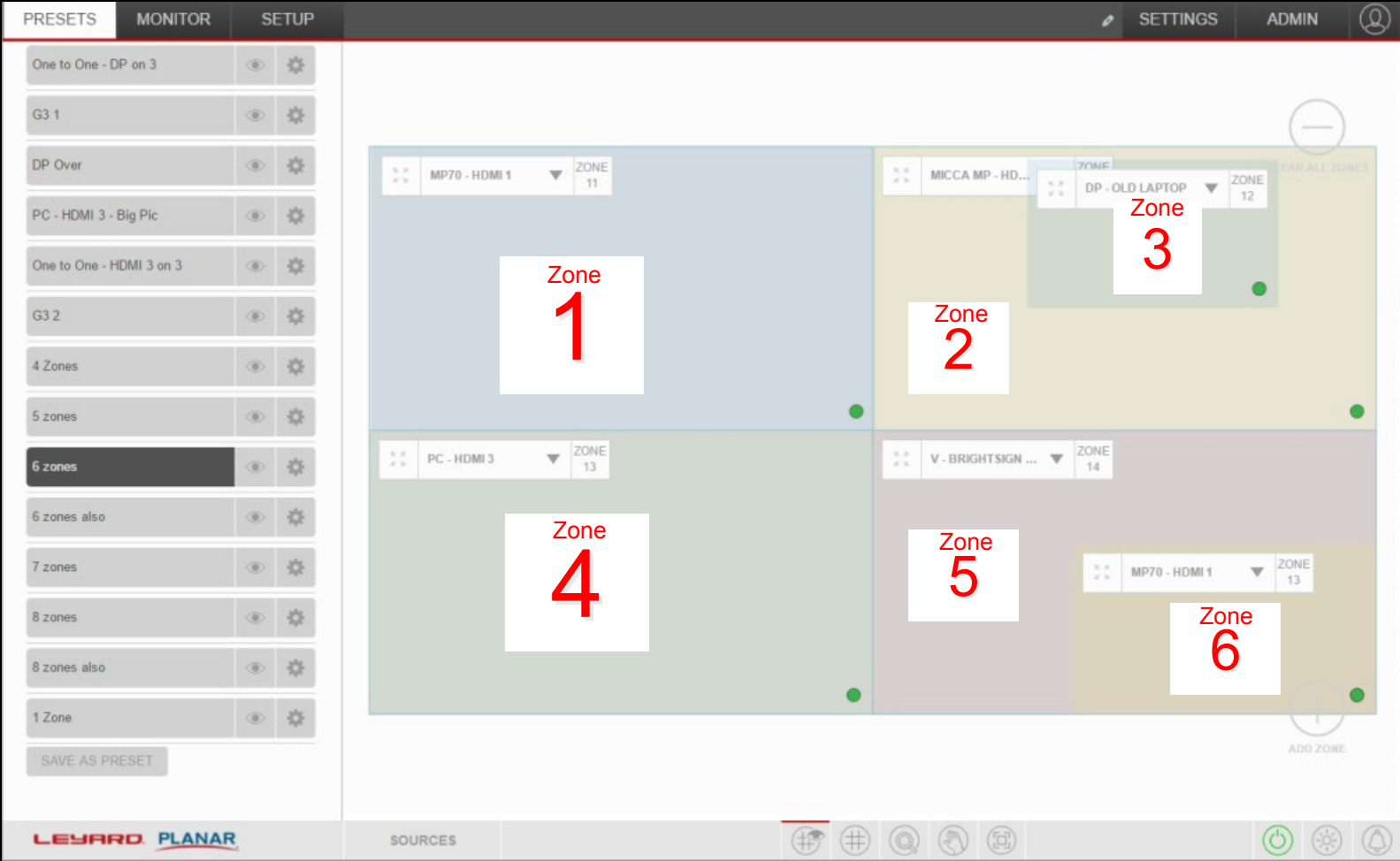
Native 4K 2x2 layout in Leyard WallDirector Software

Six Zones



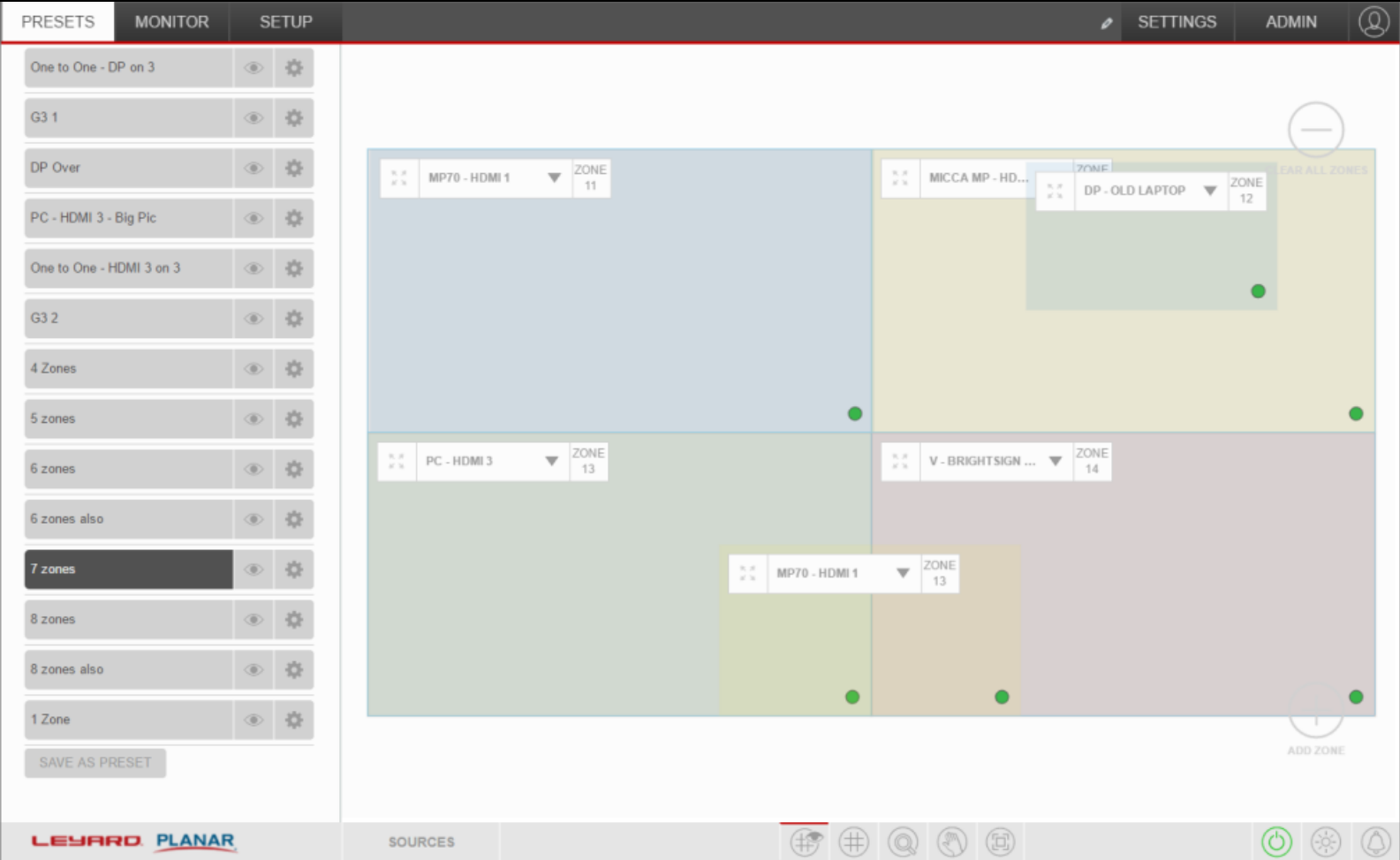
Native 4K 2x2 layout in Leyard WallDirector Software

Six Zones



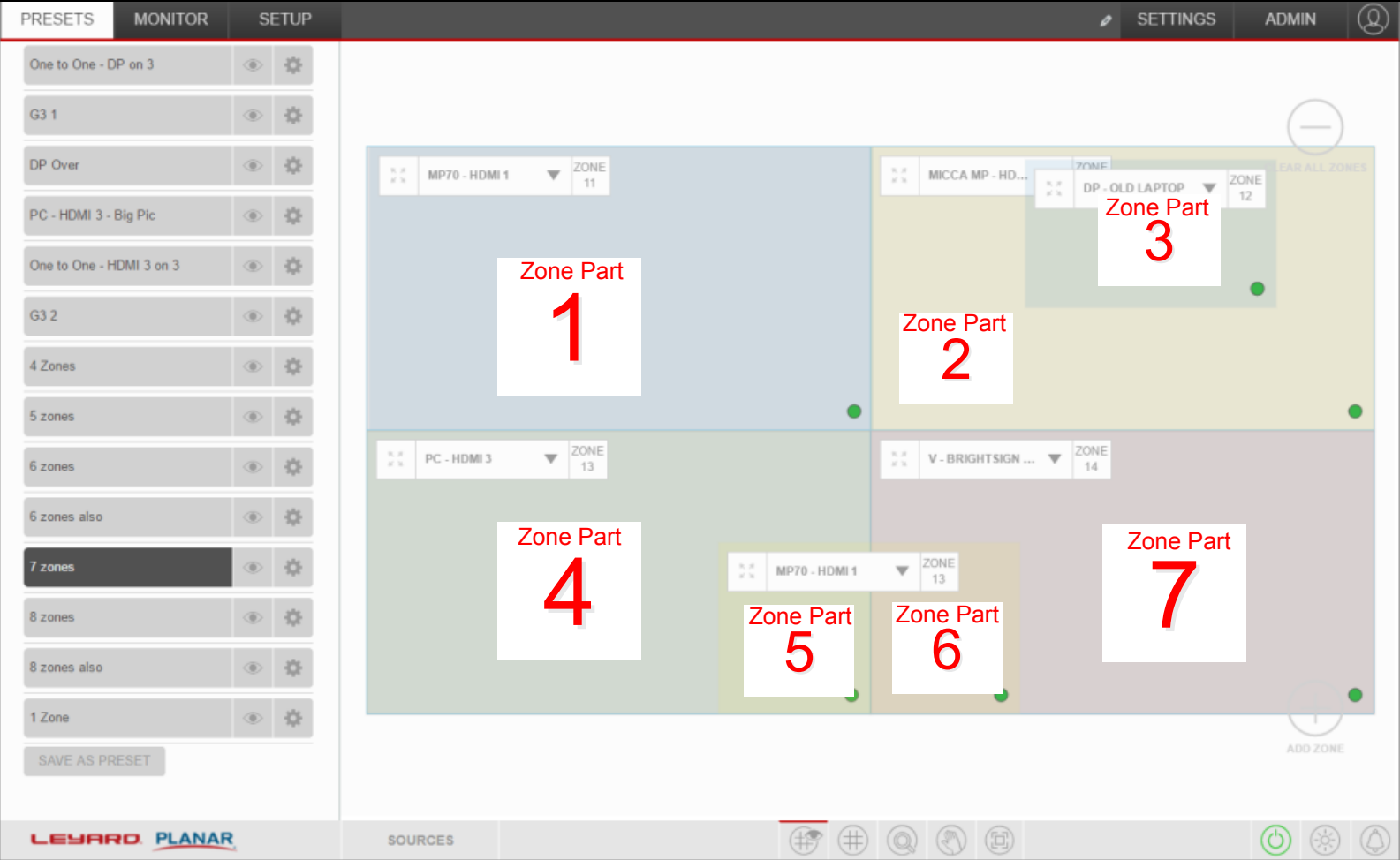
Native 4K 2x2 layout in Leyard WallDirector Software

Six Zones Using Seven Zone Parts



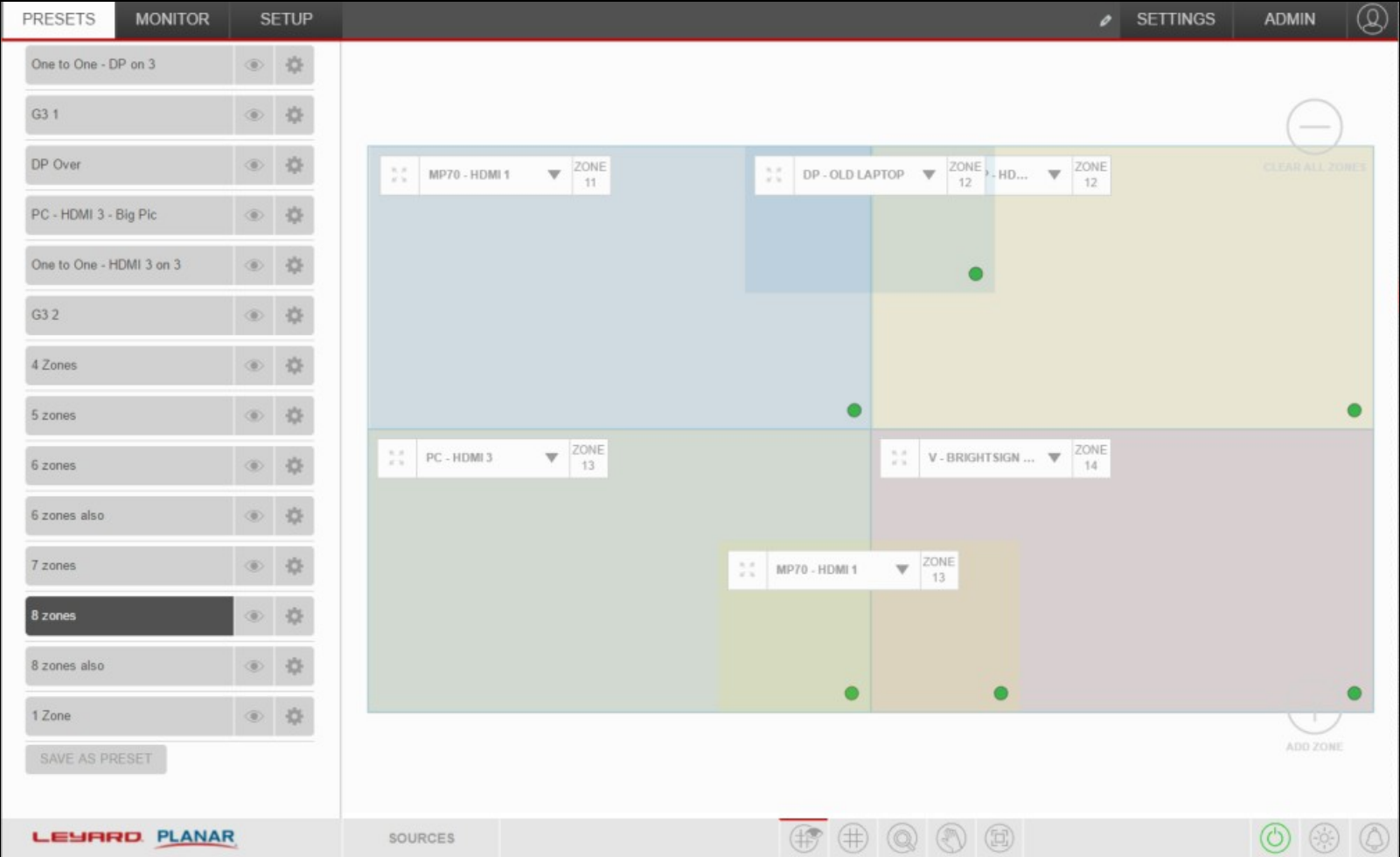
Native 4K 2x2 layout in Leyard WallDirector Software

Six Zones Using Seven Zone Parts



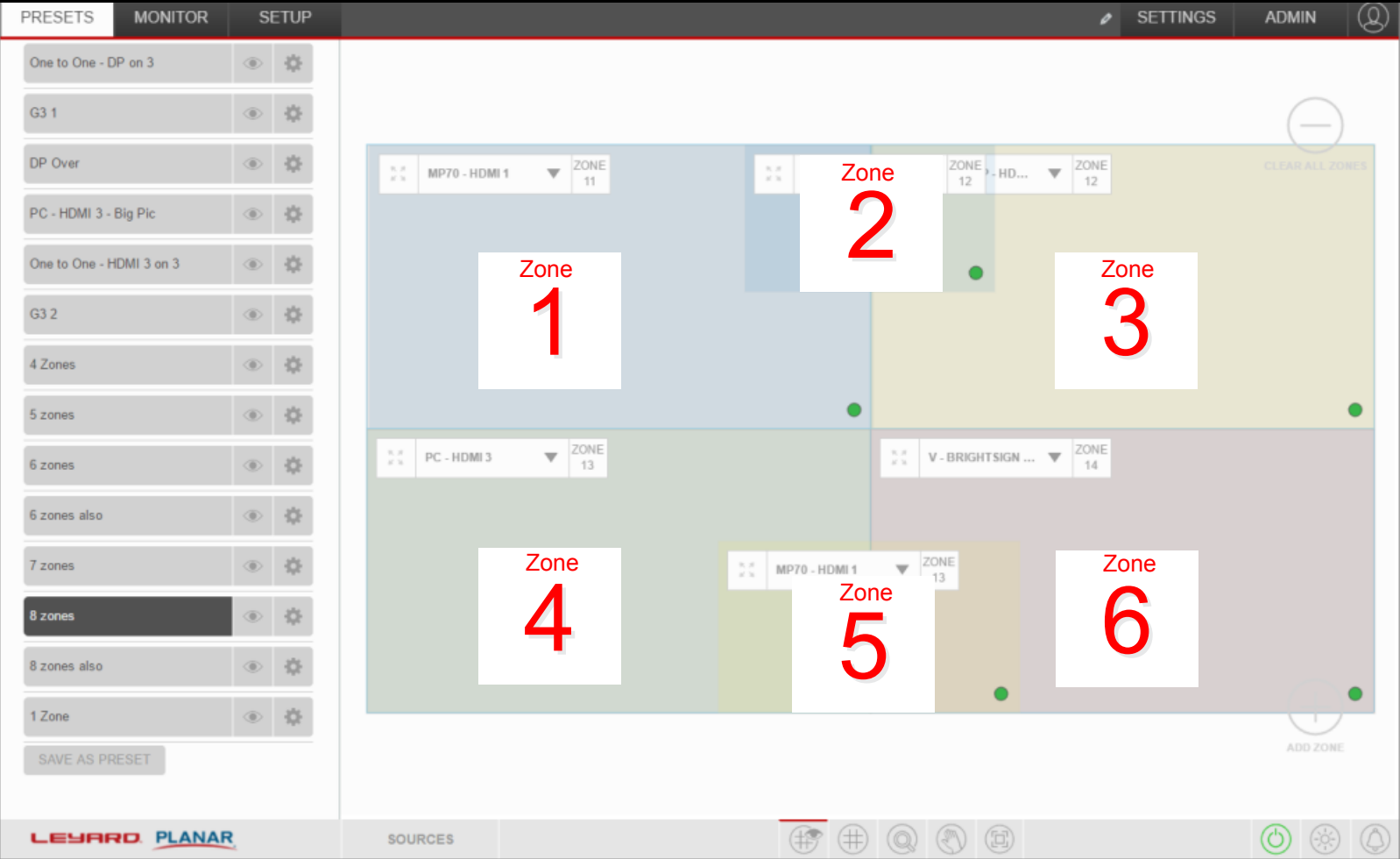
Native 4K 2x2 layout in Leyard WallDirector Software

Six Zones



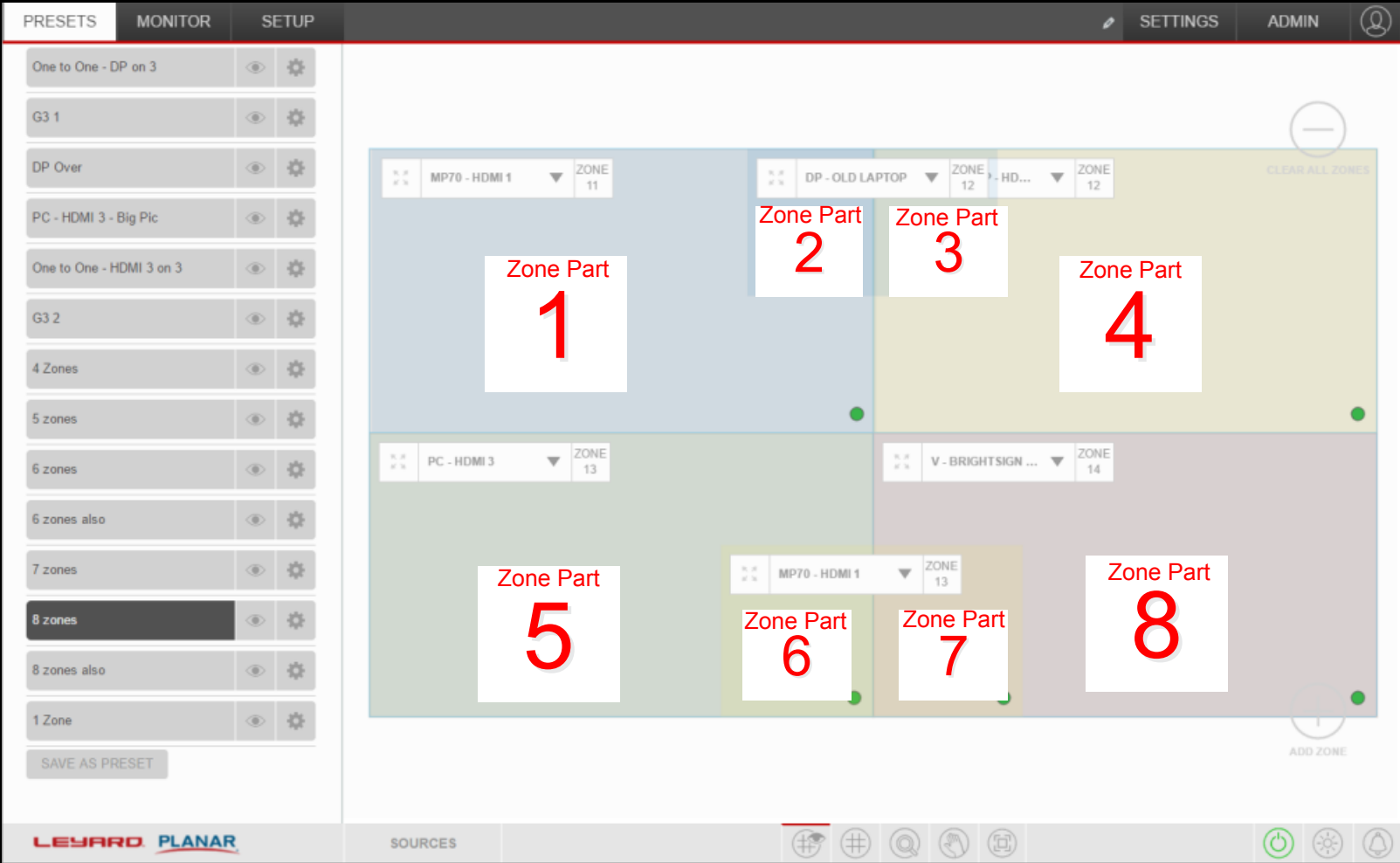
Native 4K 2x2 layout in Leyard WallDirector Software

Six Zones



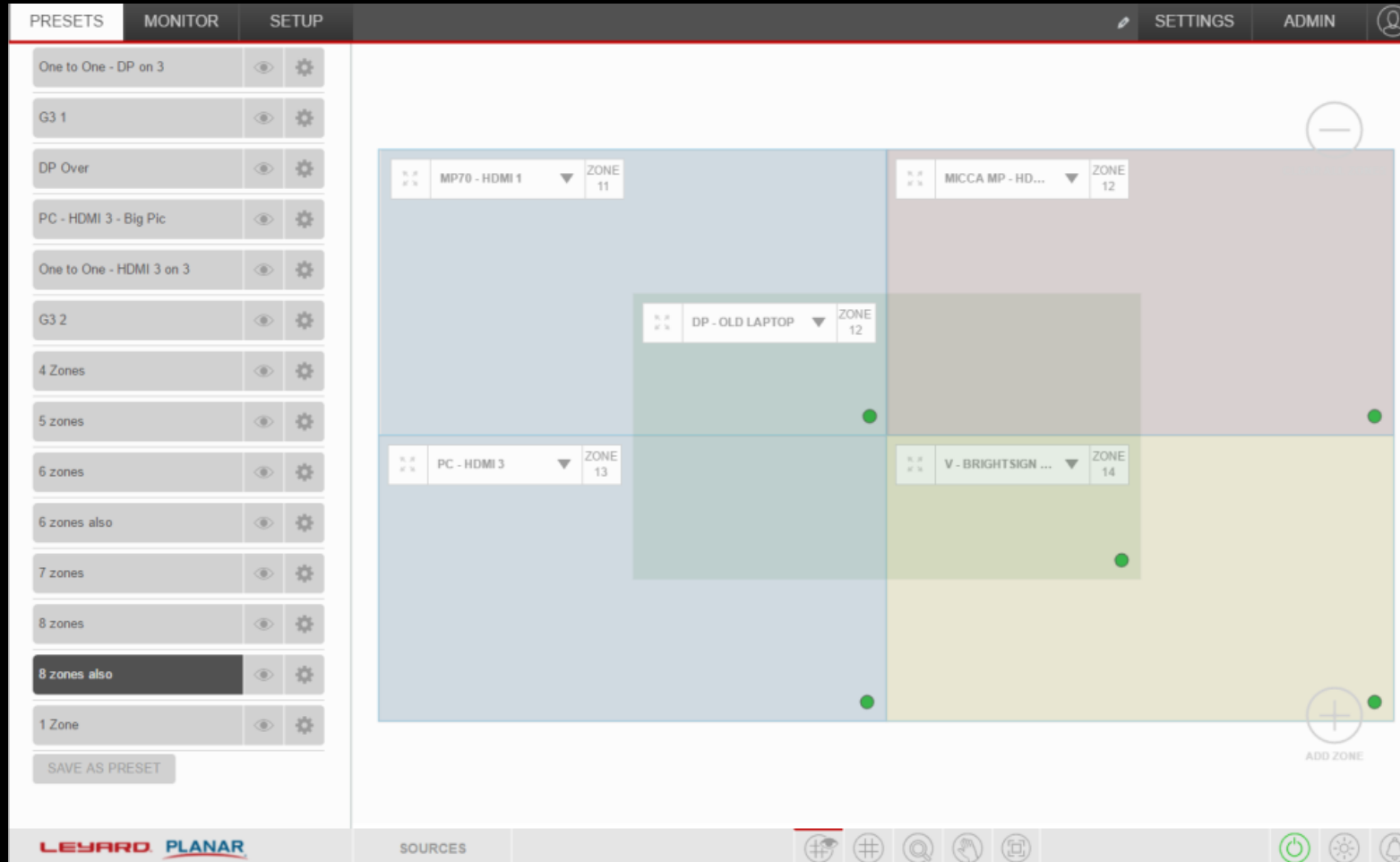
Native 4K 2x2 layout in Leyard WallDirector Software

Six Zones Using Eight Zone Parts



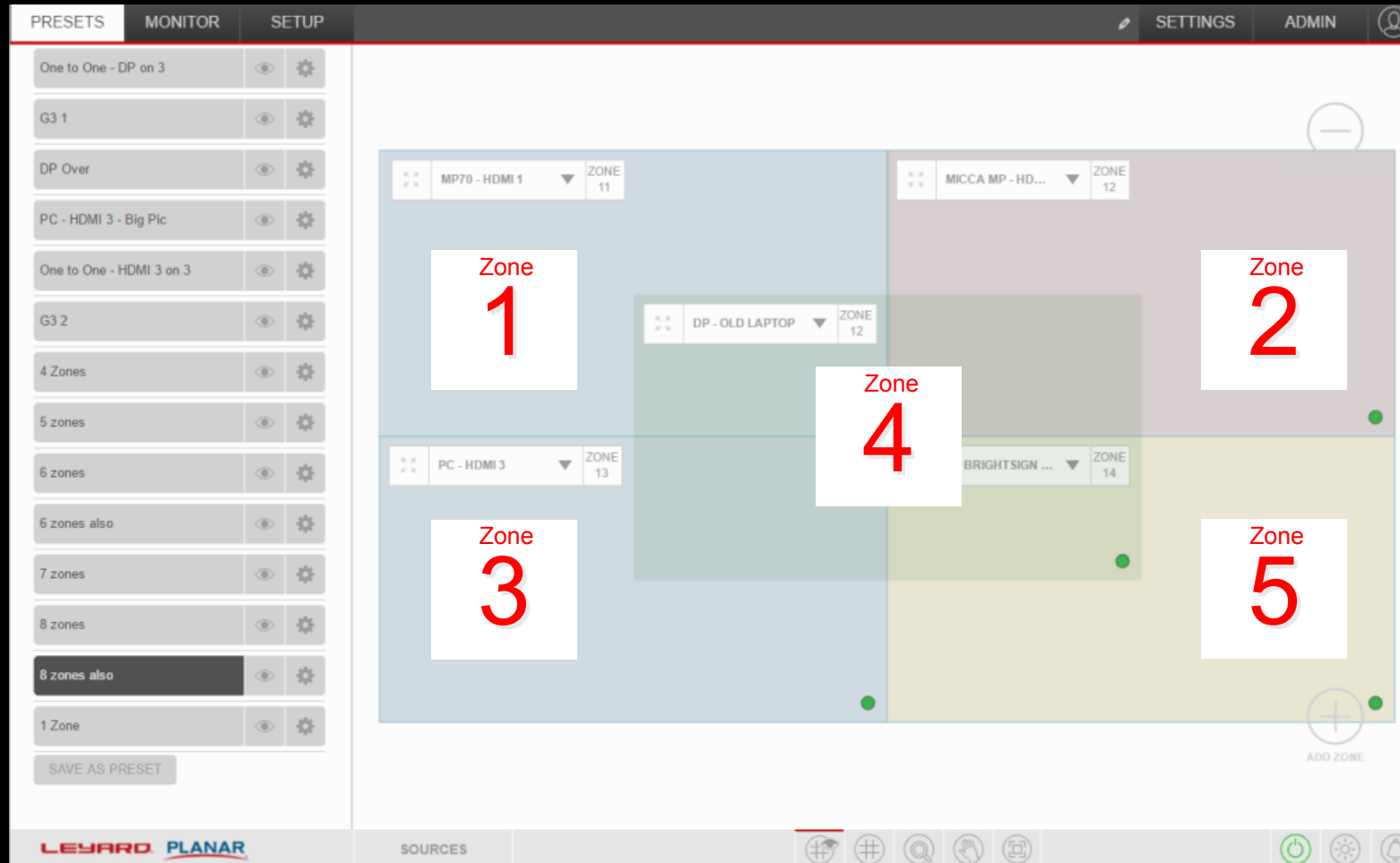
Native 4K 2x2 layout in Leyard WallDirector Software

Five Zones



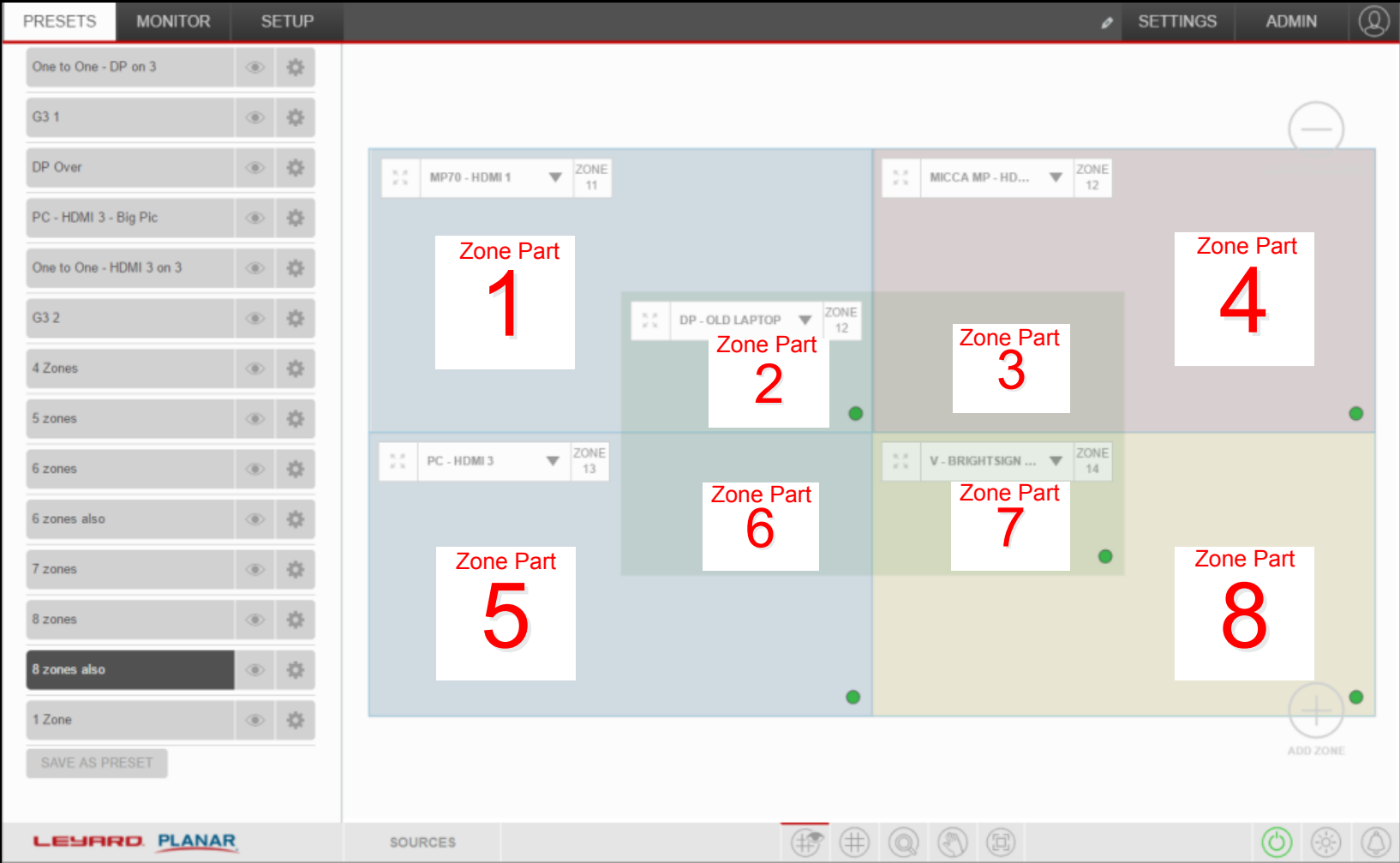
Native 4K 2x2 layout in Leyard WallDirector Software

Five Zones



Native 4K 2x2 layout in Leyard WallDirector Software

Five Zones Using Eight Zone Parts



Native 4K 2x2 layout in Leyard WallDirector Software

Two Zones

Clarity Matrix G3 2x2 wall layout

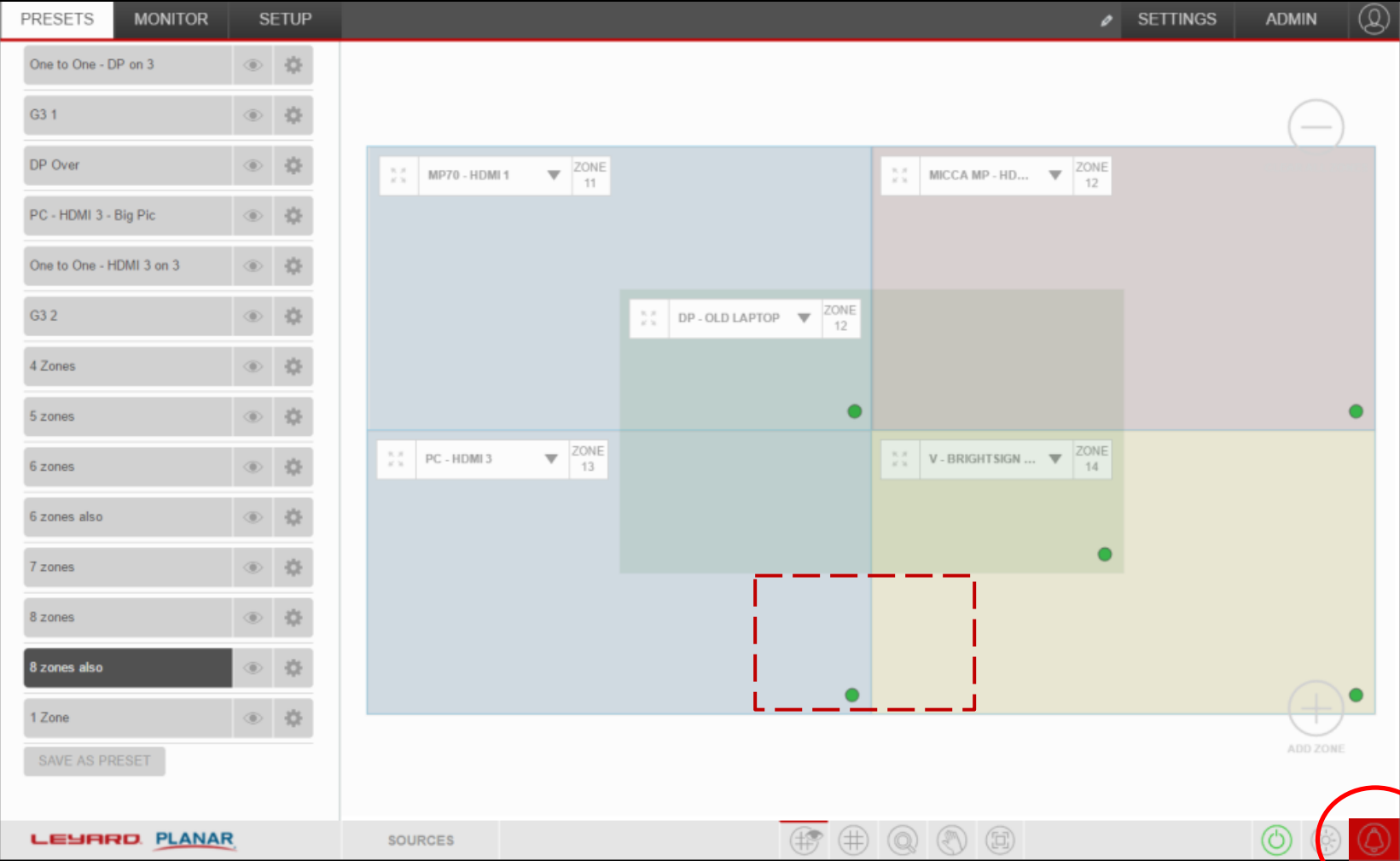


Two Zones Using Eight Zone Parts

Clarity Matrix G3 2x2 wall layout



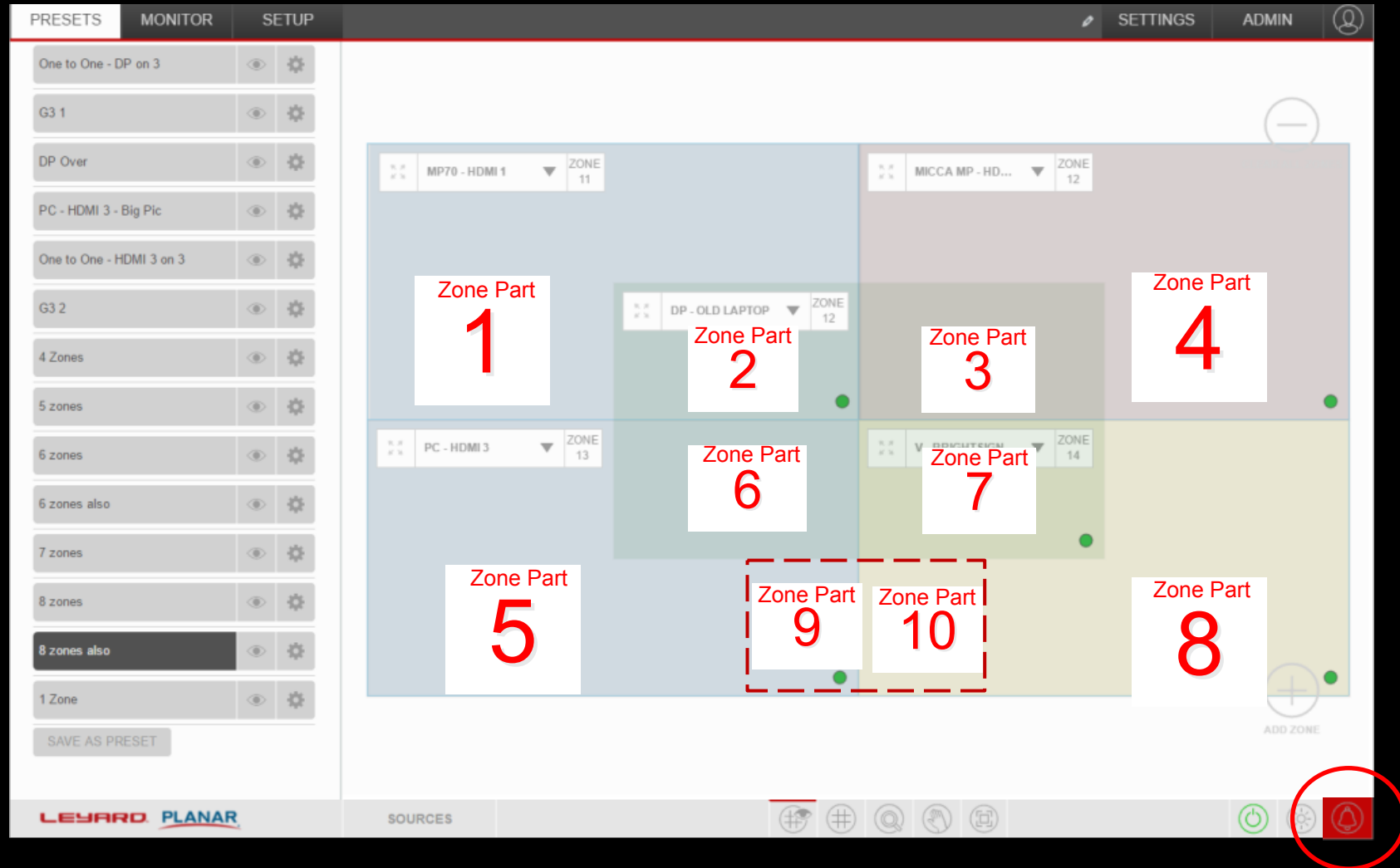
Exceeding Nine Zone Parts



Native 4K 2x2 layout in Leyard WallDirector Software

Exceeding Nine Zone Parts

Alert notification will appear in lower right corner of Leyard WallDirector Software window, some sources or zone parts may go black or become intermittent



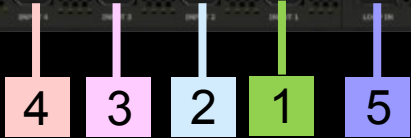
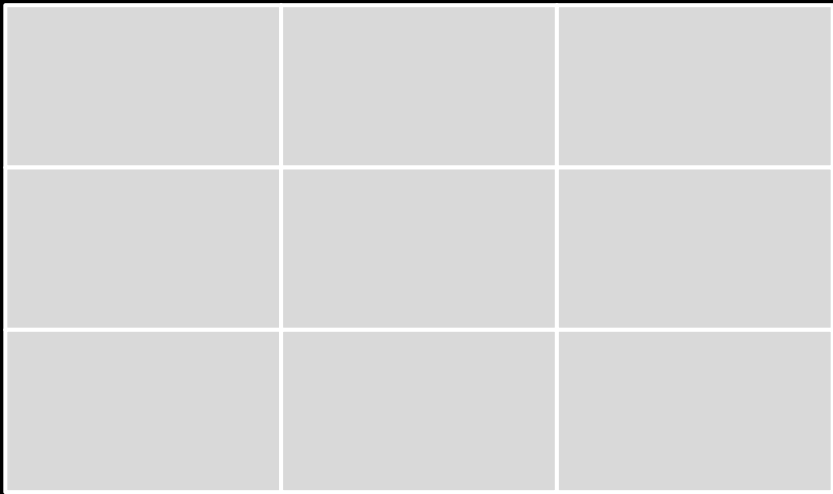
Native 4K 2x2 layout in Leyard WallDirector Software

LAYOUT EXAMPLES

3x3 Configurations & 3x2 Configurations

3x3 Layout Examples

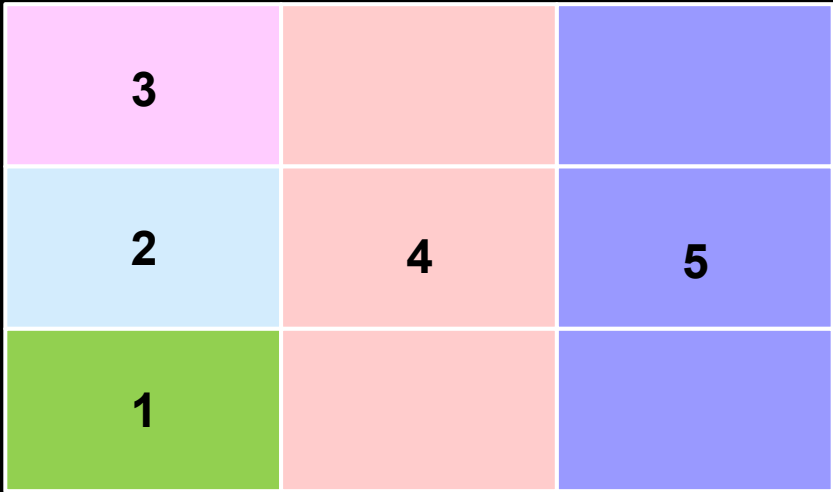
3x3 Clarity Matrix G3 LCD video wall



Input sources

3x3 Layout Example #1

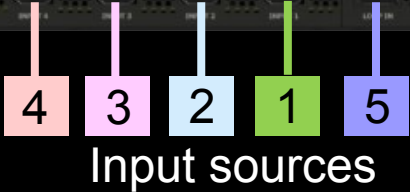
3x3 Clarity Matrix G3 LCD video wall



9-Output VC

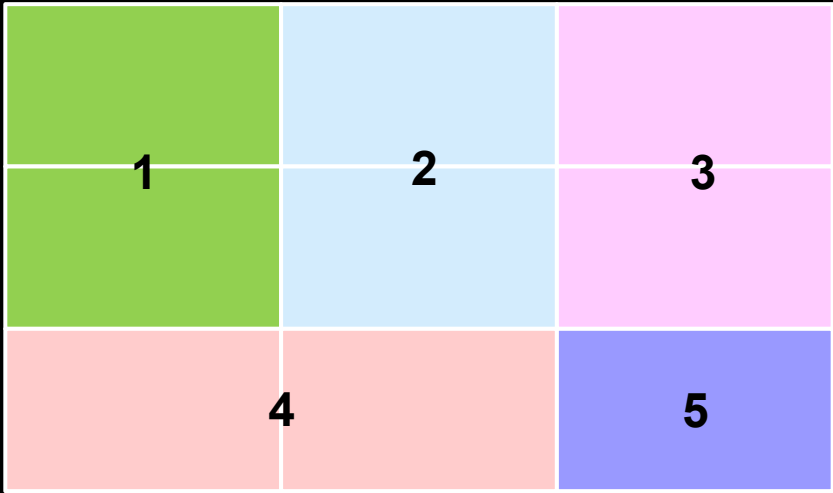


5 zones
9 zone parts used
9 outputs used

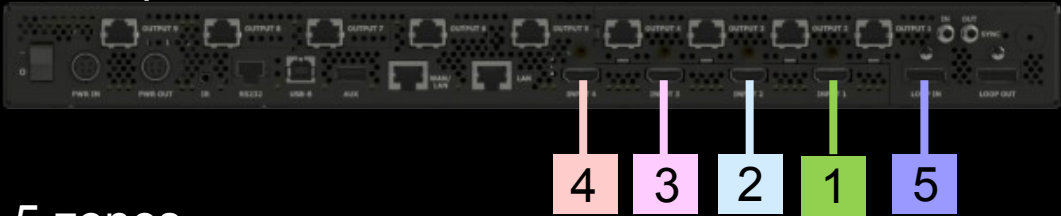


3x3 Layout Example #2

3x3 Clarity Matrix G3 LCD video wall



9-Output VC

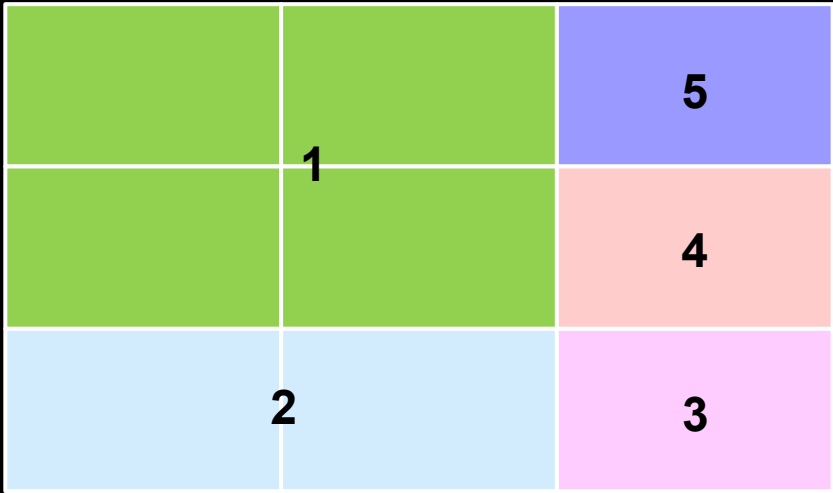


5 zones
9 zone parts used
9 outputs used

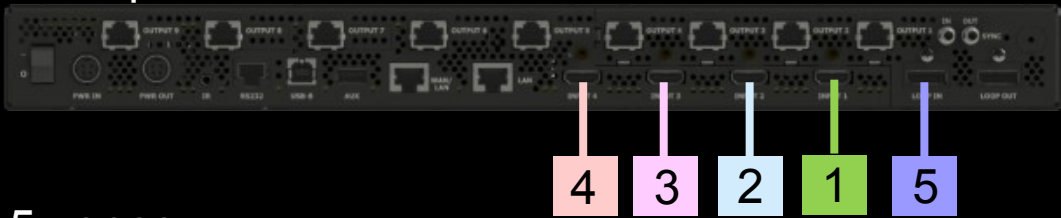
Input sources

3x3 Layout Example #3

3x3 Clarity Matrix G3 LCD video wall



9-Output VC

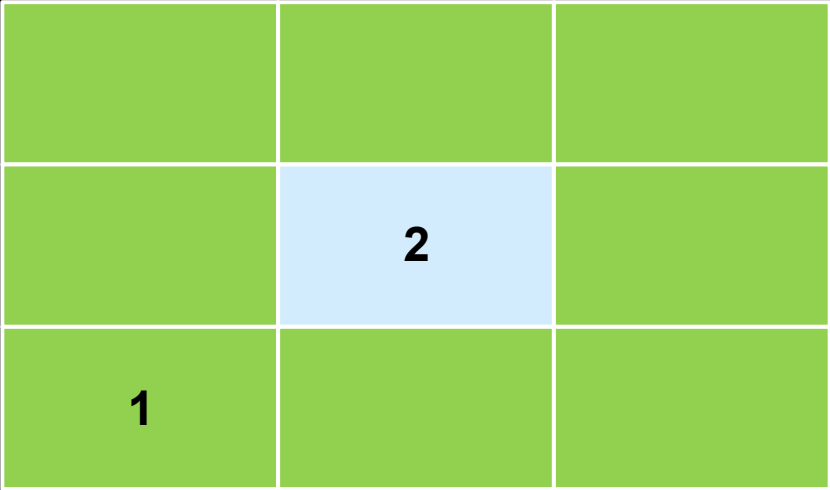


5 zones
9 zone parts used
9 outputs used

Input sources

3x3 Layout Example #4

3x3 Clarity Matrix G3 LCD video wall



9-Output VC



2 zones
9 zone parts used
9 outputs used

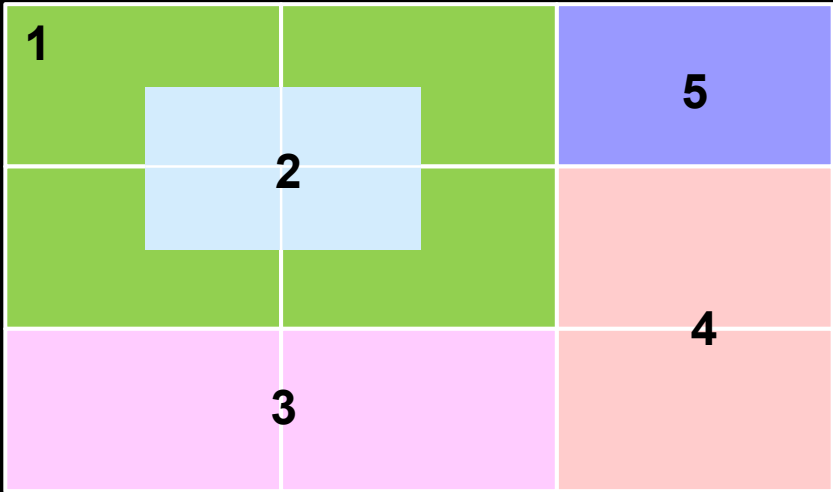
2 1
Input sources

3x3 Layout Example #5

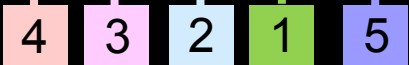


Not possible with (1) 9-Output VC

3x3 Clarity Matrix G3 LCD video wall



9-Output VC

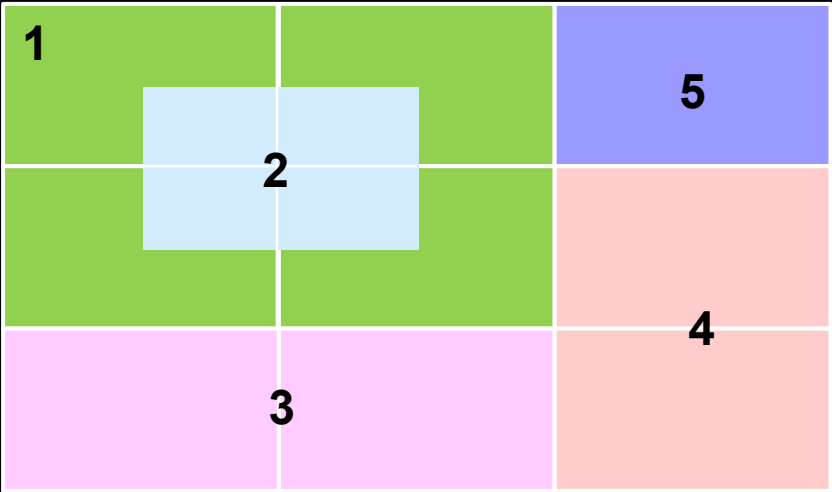


Input sources

5 zones
13 zone parts used
9 outputs used

3x3 Layout Example #5

3x3 Clarity Matrix G3 LCD video wall



4-Output VC #1



2 zones
8 zone parts used
4 outputs used

Input sources

4-Output VC #2



2 zones
4 zone part used
4 outputs used

Input sources

4-Output VC #3

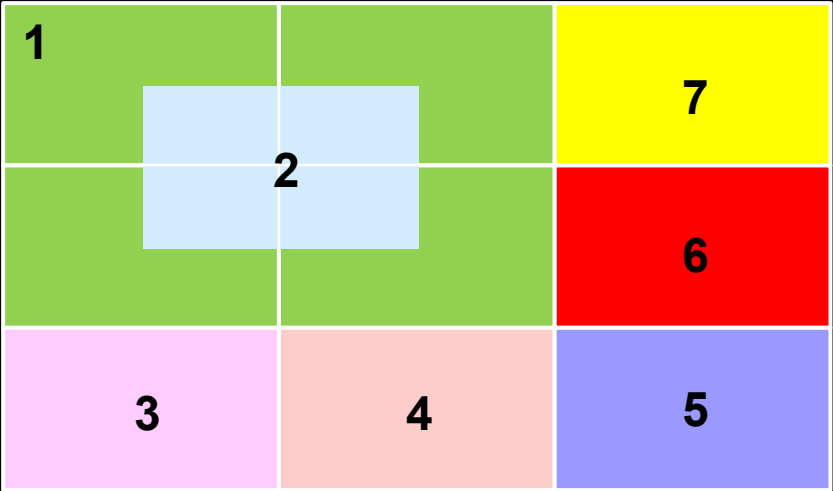


1 zones
1 zone part used
1 outputs used

Input sources

3x3 Layout Example #6

3x3 Clarity Matrix G3 LCD video wall



4-Output VC #1

2 zones
8 zone parts used
4 outputs used

Input sources

Detailed description: This panel shows the front of a 4-Output Video Controller (VC #1). It features various ports including Power In/Out, IR, RS232, USB-B, AES, HDMI/LAN, and LAN. On the right, there are four output ports labeled OUTPUT 4, OUTPUT 3, OUTPUT 2, and OUTPUT 1. Below these are four input ports labeled INPUT 4, INPUT 3, INPUT 2, and INPUT 1. Two input sources are highlighted: source 2 is connected to INPUT 2 (indicated by a blue line and a blue box with the number 2), and source 1 is connected to INPUT 1 (indicated by a green line and a green box with the number 1).

4-Output VC #2

4 zones
4 zone parts used
4 outputs used

Input sources

Detailed description: This panel shows the front of a 4-Output Video Controller (VC #2). It features the same set of ports as VC #1. Four input sources are highlighted: source 6 is connected to INPUT 4 (red line and box), source 5 is connected to INPUT 3 (blue line and box), source 4 is connected to INPUT 2 (pink line and box), and source 3 is connected to INPUT 1 (purple line and box).

4-Output VC #3

1 zones
1 zone parts used
1 outputs used

Input sources

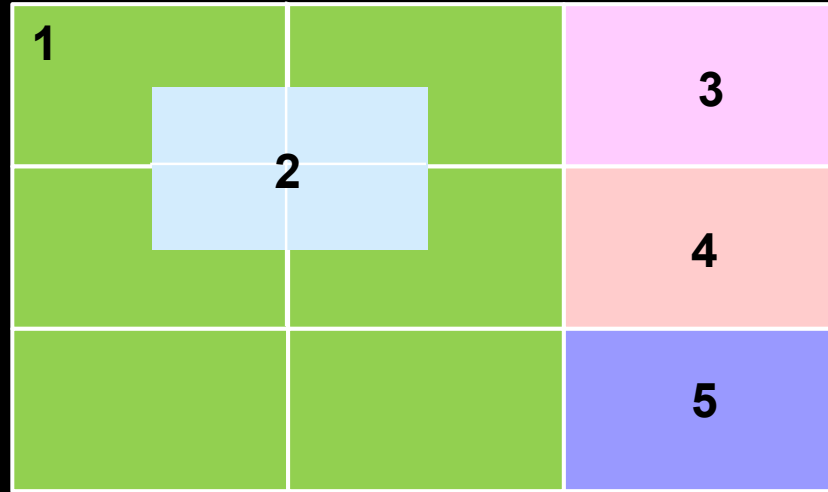
Detailed description: This panel shows the front of a 4-Output Video Controller (VC #3). It features the same set of ports as VC #1. One input source is highlighted: source 7 is connected to INPUT 1 (yellow line and box).

3x3 Layout Example #7



Not possible with (1) 9-Output VC

3x3 Clarity Matrix G3 LCD video wall



9-Output VC



5 zones

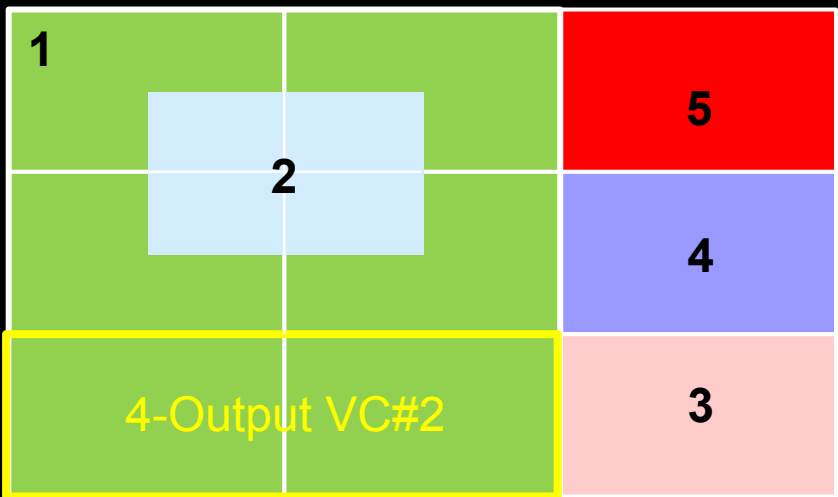
13 zone parts used

9 outputs used

Input sources

3x3 Layout Example #7

3x3 Clarity Matrix G3 LCD video wall



4-Output VC #1

2 zones

8 zone parts used

4 outputs used

2

1

Input sources

The interface for 4-Output VC #1 shows various input and output ports. Two input sources are highlighted: source 2 (blue box) and source 1 (green box). Source 1 is connected to the LOOP IN port.

Input source 1 Loop
Out to 4-Output VC#2
Loop In

4-Output VC #2

4 zones

4 zone parts used

4 outputs used

4

3

1

Input sources

The interface for 4-Output VC #2 shows various input and output ports. Three input sources are highlighted: source 4 (blue box), source 3 (pink box), and source 1 (green box). Source 1 is connected to the LOOP IN port.

4-Output VC #3

1 zones

1 zone parts used

1 outputs used

5

Input sources

The interface for 4-Output VC #3 shows various input and output ports. One input source is highlighted: source 5 (red box). Source 5 is connected to the LOOP IN port.

3x3 Layout Example #8



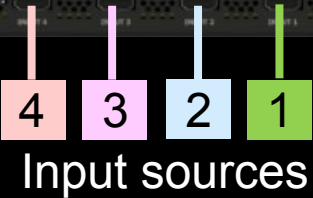
Not possible with (1) 9-Output VC

3x3 Clarity Matrix G3 LCD video wall

1			2
3			4



4 zones
16 zone parts used
9 ouputs used



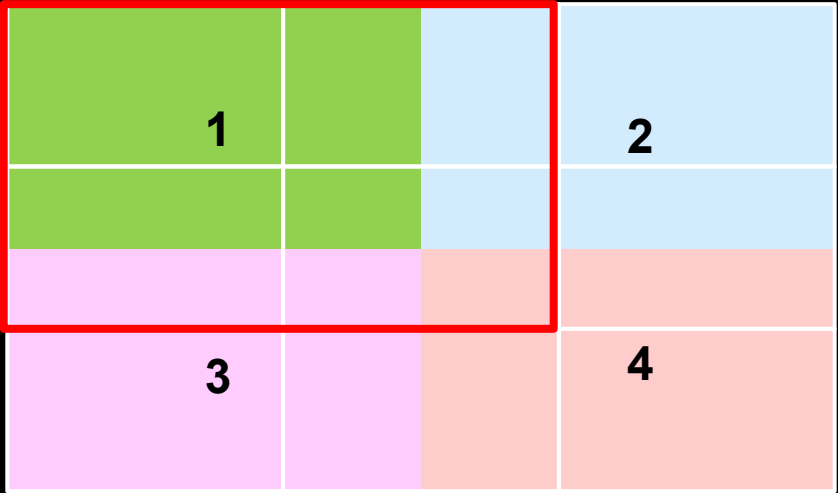
3x3 Layout Example #8



DA or multi-head
sources required.
Sources 2, 3 and 4 need
to be split to VC #2

3x3 Clarity Matrix G3 LCD video wall

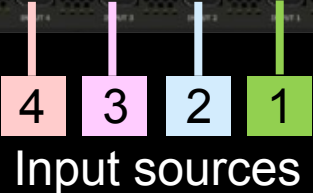
VC #1



9-Output VC #1



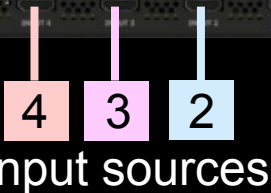
4 zones
9 zone parts used
4 outputs used



9-Output VC #2



3 zones
7 zone parts used
5 outputs used



3x3 Layout Example #9



Not possible with (1) 9-Output VC

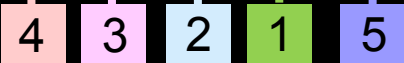
3x3 Clarity Matrix G3 LCD video wall

	1	5
2	3	4

9-Output VC



5 zones
12 zone parts used
9 outputs used



Input sources

3x3 Layout Example #9

3x3 Clarity Matrix G3 LCD video wall

	1	5
4-Output VC#2		
2	3	4


4-Output VC #1



1 zones
2 zone parts used
2 outputs used

1
Input sources

4-Output VC#2




3 zones
6 zone parts used
4 outputs used

3 2 1
Input sources

Input source 1 Loop Out to 4-Output VC#2 Loop In

4-Output VC#3



2 zones
4 zone parts used
3 outputs used

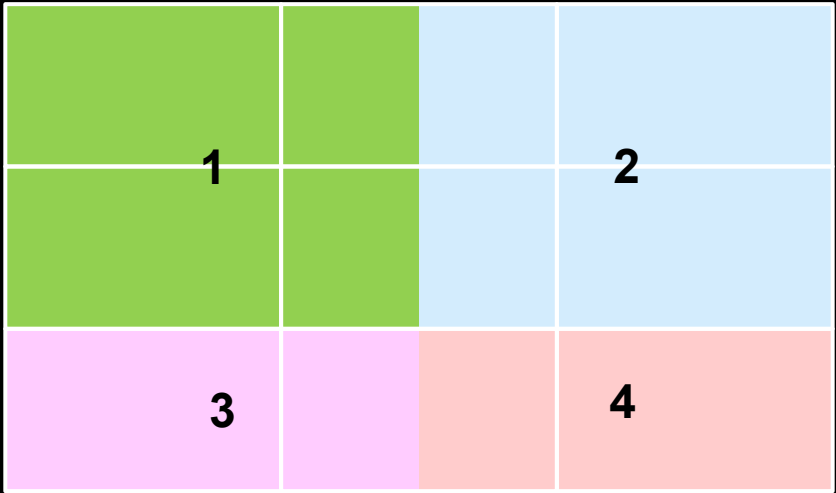
5 4
Input sources

3x3 Layout Example #10



Not possible with (1) 9-Output VC

3x3 Clarity Matrix G3 LCD video wall

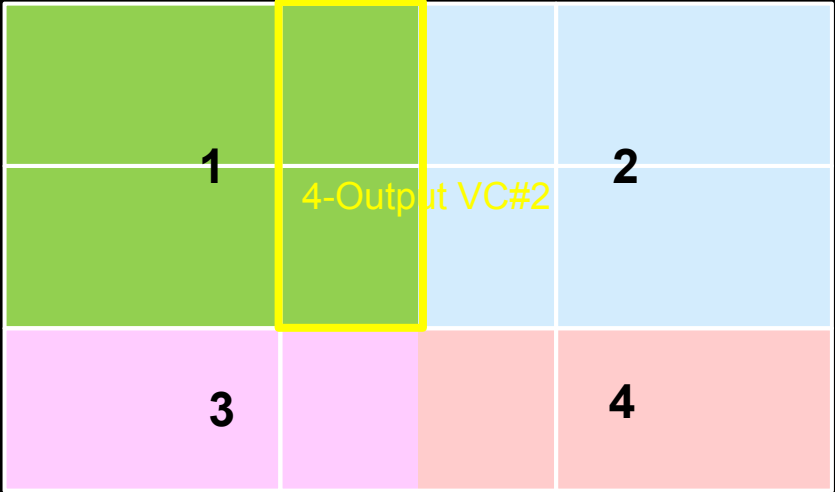


4 zones
12 zone parts used
9 outputs used

4 3 2 1
Input sources

3x3 Layout Example #10

3x3 Clarity Matrix G3 LCD video wall



4-Output VC #1

1 zones
2 zone parts used
2 outputs used

Input sources

1

4-Output VC#2

2 zones
6 zone parts used
4 outputs used

Input sources

2 1

Input source 1 Loop Out to 4-Output VC#2 Loop In

4-Output VC#3

2 zones
4 zone parts used
3 outputs used

Input sources

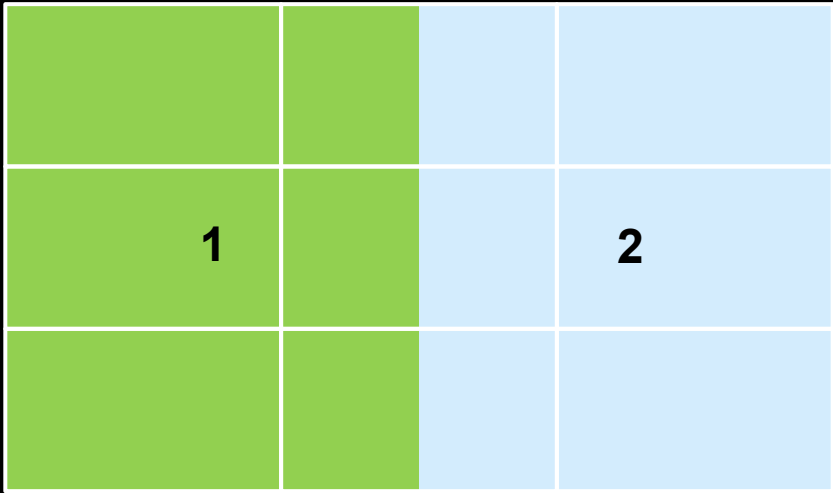
3 4

3x3 Layout Example #11



Not possible with (1) 9-Output VC

3x3 Clarity Matrix G3 LCD video wall



VC1



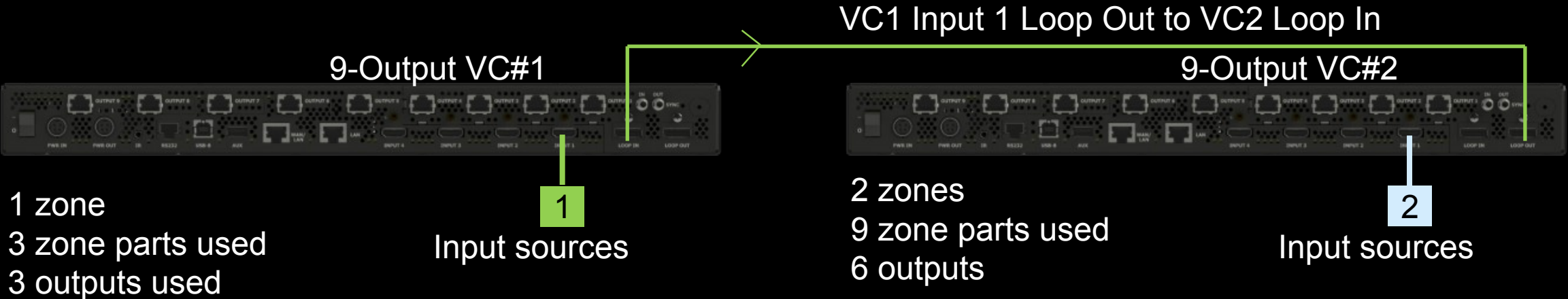
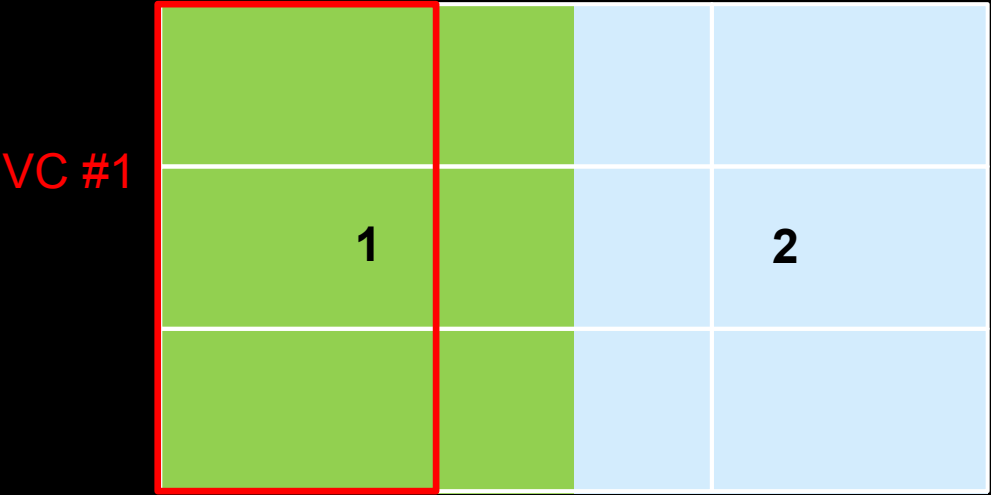
2 zones
12 zones used
9 outputs used



Input sources

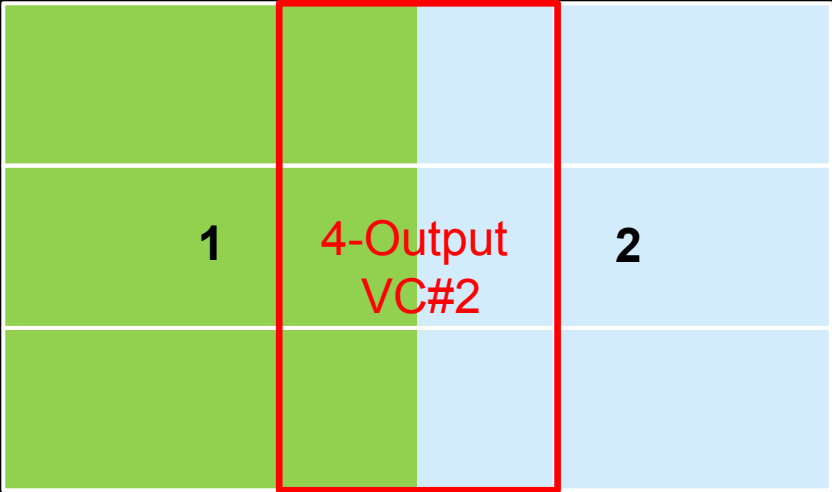
3x3 Layout Example #12

3x3 Clarity Matrix G3 LCD video wall



3x3 Layout Example #12

3x3 Clarity Matrix G3 LCD video wall



4-Output VC #1



1 zones
3 zone parts used
3 outputs used

Input sources

Input source 1 Loop Out to 4-Output VC#2 Loop In

4-Output VC#2



2 zones
6 zone parts used
4 outputs used

Input sources

Input source 2 Loop Out to 4-Output VC#3 Loop In

4-Output VC#3



1 zones
3 zone parts used
3 outputs used

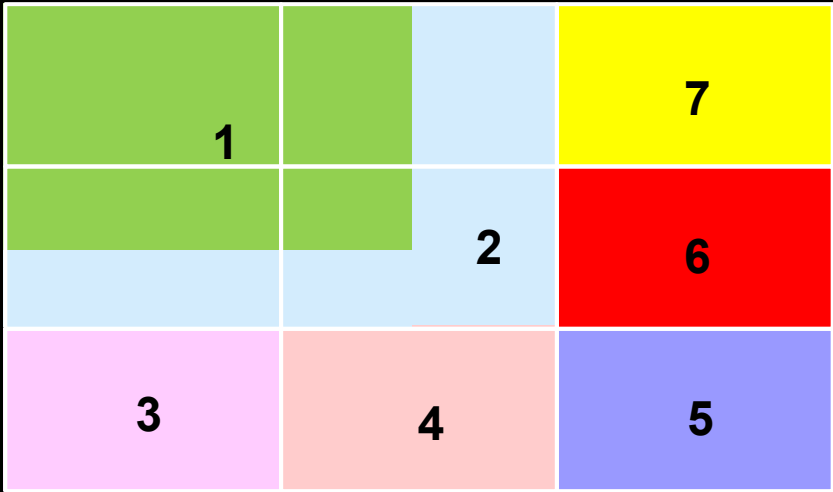
Input sources

3x3 Layout Example #13

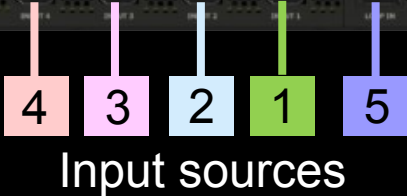


Not possible with (1) 9-Output VC

3x3 Clarity Matrix G3 LCD video wall

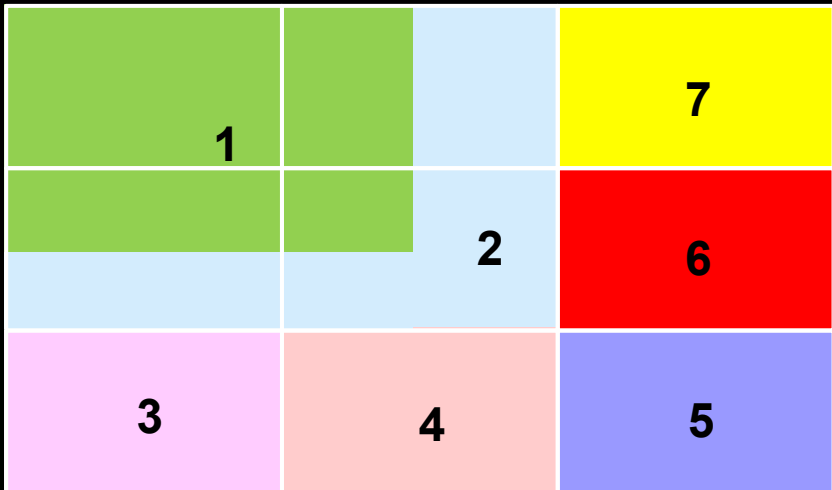


7 zones
12 zone parts used
9 outputs used



3x3 Layout Example #13

3x3 Clarity Matrix G3 LCD video wall



4-Output VC #1

2 zones
7 zone parts used
4 outputs used

Input sources

Diagram showing the hardware interface of a 4-Output Video Controller (VC #1). The interface includes various ports: PWR IN, PWR OUT, IR, RS232, USB-B, AES, HDMI/LAN, LAN, INPUT 6, INPUT 5, INPUT 3, INPUT 1, OUTPUT 6, OUTPUT 5, OUTPUT 3, OUTPUT 1, IN, OUT, and SYNC. Two input sources are highlighted: a blue square labeled '2' connected to INPUT 3 and a green square labeled '1' connected to INPUT 1.

4-Output VC #2

4 zones
4 zone parts used
4 outputs used

Input sources

Diagram showing the hardware interface of a 4-Output Video Controller (VC #2). The interface includes various ports: PWR IN, PWR OUT, IR, RS232, USB-B, AES, HDMI/LAN, LAN, INPUT 6, INPUT 5, INPUT 3, INPUT 1, OUTPUT 6, OUTPUT 5, OUTPUT 3, OUTPUT 1, IN, OUT, and SYNC. Four input sources are highlighted: a red square labeled '6' connected to INPUT 6, a blue square labeled '5' connected to INPUT 5, an orange square labeled '4' connected to INPUT 3, and a purple square labeled '3' connected to INPUT 1.

4-Output VC #3

1 zones
1 zone parts used
1 outputs used

Input sources

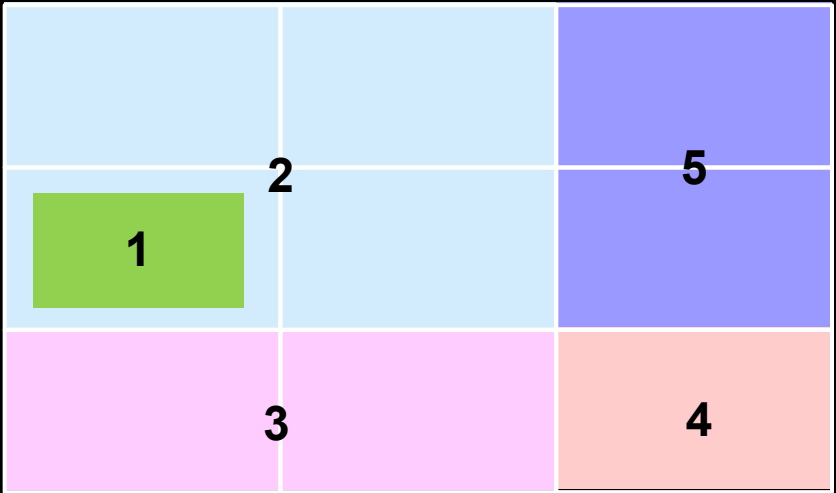
Diagram showing the hardware interface of a 4-Output Video Controller (VC #3). The interface includes various ports: PWR IN, PWR OUT, IR, RS232, USB-B, AES, HDMI/LAN, LAN, INPUT 6, INPUT 5, INPUT 3, INPUT 1, OUTPUT 6, OUTPUT 5, OUTPUT 3, OUTPUT 1, IN, OUT, and SYNC. One input source is highlighted: a yellow square labeled '7' connected to INPUT 1.

3x3 Layout Example #14



Not possible with (1) 9-Output VC

3x3 Clarity Matrix G3 LCD video wall

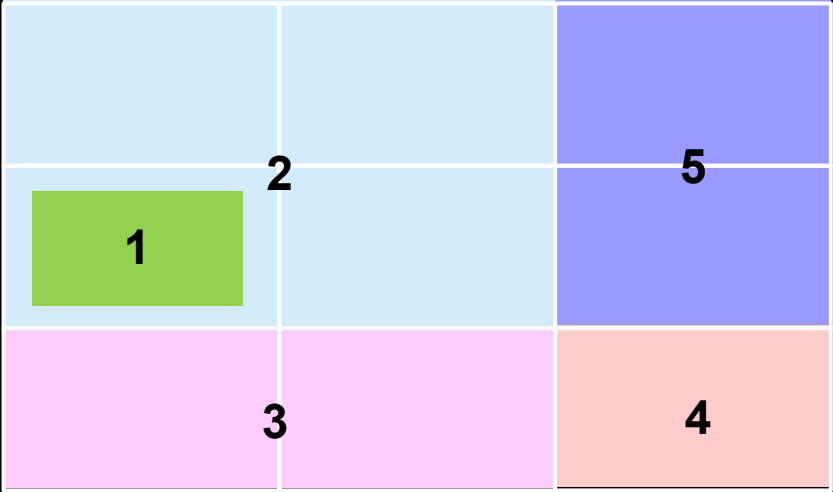


5 zones
10 zone parts used
9 outputs used



3x3 Layout Example #14

3x3 Clarity Matrix G3 LCD video wall



4-Output VC #1

2 zones
5 zone parts used
4 outputs used

Input sources

The hardware panel for VC #1 shows various ports including PWR IN, PWR OUT, IR, RS232, USB-B, AES, HDMI, LAN, and four outputs. Output 2 is highlighted with a blue box and output 1 with a green box, both with lines pointing to the 'Input sources' label.

4-Output VC #2

2 zones
3 zone parts used
3 outputs used

Input sources

The hardware panel for VC #2 shows various ports including PWR IN, PWR OUT, IR, RS232, USB-B, AES, HDMI, LAN, and four outputs. Output 4 is highlighted with an orange box and output 3 with a pink box, both with lines pointing to the 'Input sources' label.

4-Output VC #3

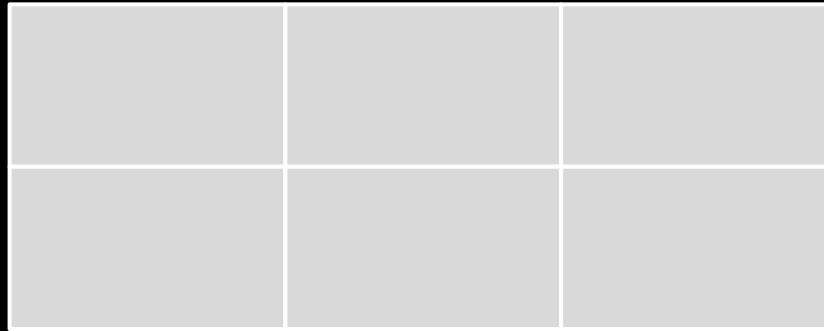
1 zones
2 zone parts used
2 outputs used

Input sources

The hardware panel for VC #3 shows various ports including PWR IN, PWR OUT, IR, RS232, USB-B, AES, HDMI, LAN, and four outputs. Output 5 is highlighted with a blue box and a line pointing to the 'Input sources' label.

3x2 Layout Examples

3x2 Clarity Matrix G3 LCD video wall

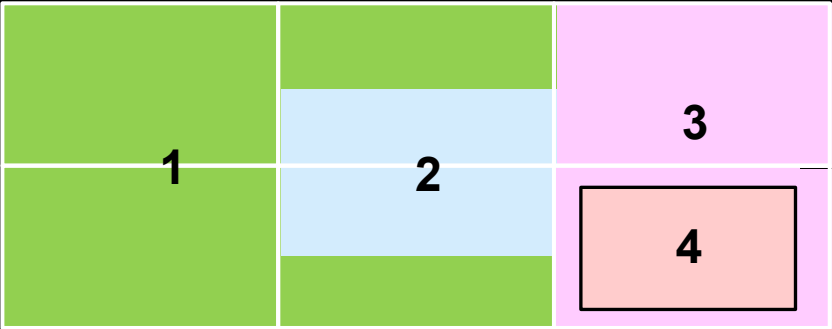


4 3 2 1

Input sources

3x2 Layout Example #1

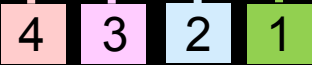
3x2 Clarity Matrix G3 LCD video wall



9-Output VC



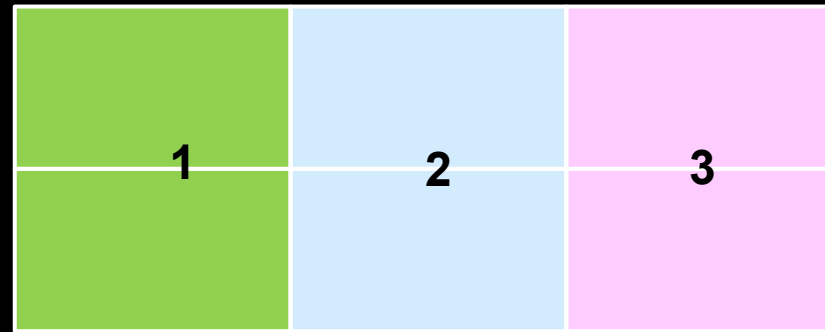
4 zones
9 zone parts used
6 outputs used



Input sources

3x2 Layout Example #2

3x2 Clarity Matrix G3 LCD video wall



9-Output VC



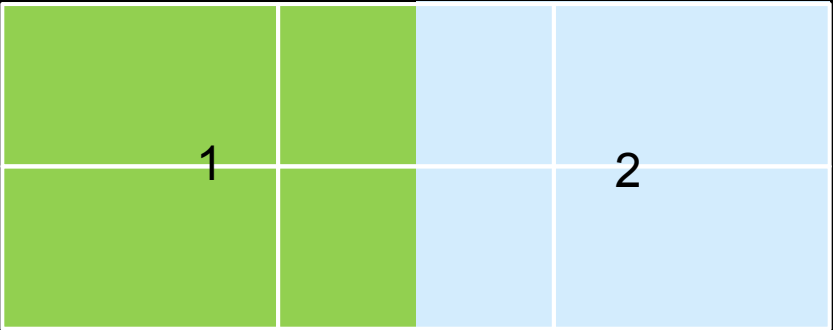
3 zones
6 zone parts used
6 outputs used



Input sources

3x2 Layout Example #3

3x2 Clarity Matrix G3 LCD video wall



9-Output VC

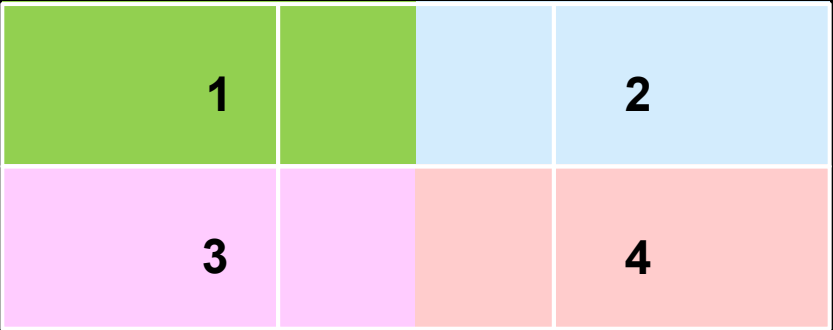


2 zones
8 zone parts used
6 outputs used

2 1
Input sources

3x2 Layout Example #4

3x2 Clarity Matrix G3 LCD video wall



9-Output VC



4 zones
8 zone parts used
6 outputs used

4 3 2 1
Input sources

THANK YOU!