

PIXMOB SCHOOL

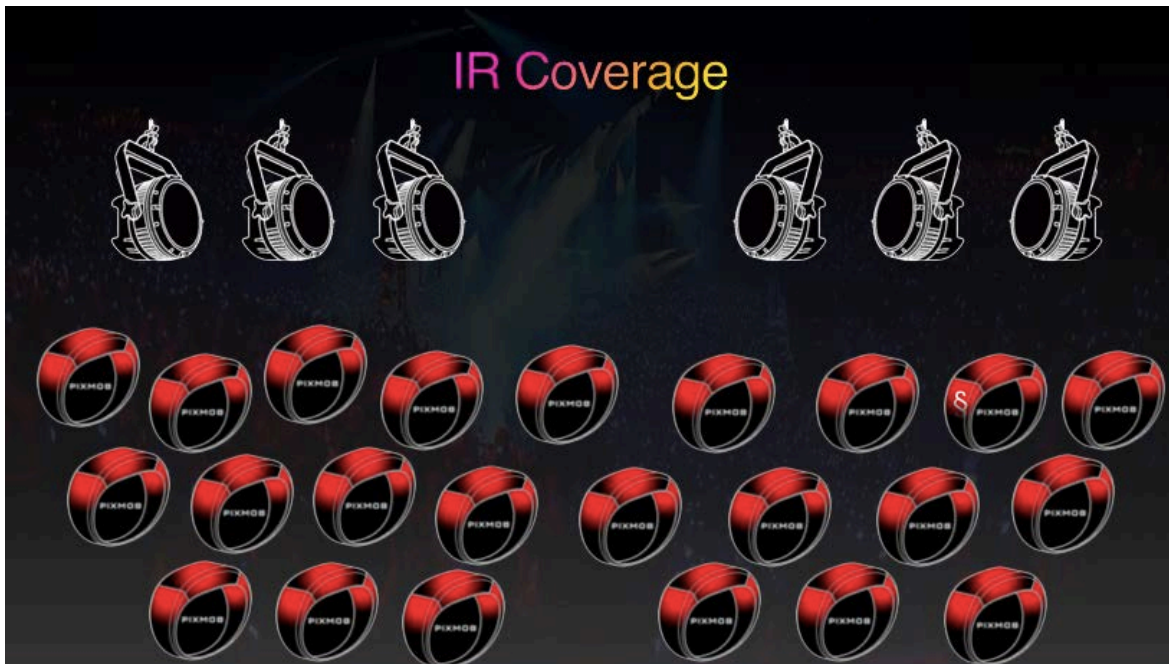


PixMob Video Training
Series: Introduction to
PixMob

Part 3
Pixel Grouping

Pixel Grouping

The PixMob wearables are referred to as pixels. The pixels are sent command via infrared and any pixel in the infrared range that receives the command will execute. A PixMob installation can control any number of pixels, as long as the pixels are located within our IR coverage area. Once a venue is properly covered in IR, there are no limits to the number of pixels we can control.



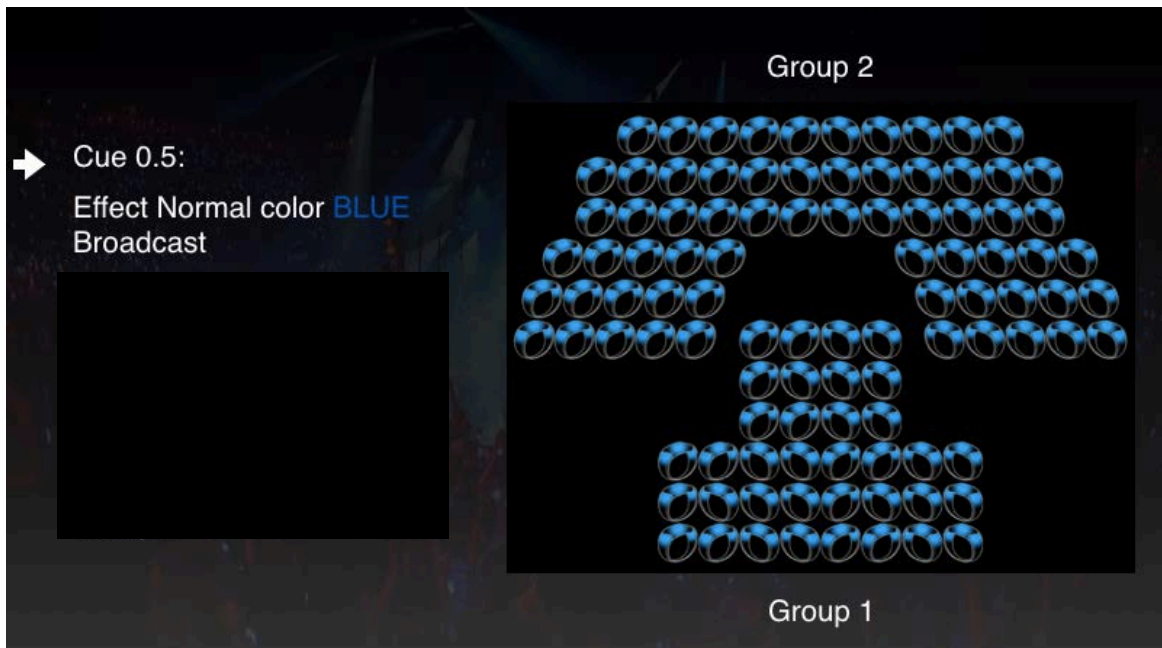
There is an option in the protocol to send commands to subsets of pixels in your venue, we call this **Pixel Grouping**. Pixel Control Groups are pre-programmed on the target pixel before the show, by sending a specific IR command. It can take a crew of 10 people several hours to group all pixels in a big stadium show. This is one of the tasks the PixMob Pixel Manager takes on. Once our pixels have been programmed in groups and distributed in the arena, we can start seeing the effects of group programming.

Example:

Let's say a typical show consists of:

- standing audience (group 1)
- seated audience (group 2)

Commands that are meant to be received by all pixels in the venue are sent in **Broadcast mode**. This is the default state of the parameter controlling groups.



If we want to light up just the standing audience (group 1) in green, we would set up a cue that looks like this:

Cue 1:

Effect normal (solid color), color green, Group 1.

To light up the seating audience (group 2) we can send a cue like this:

Cue 2:

Effect normal (solid color), color red, Group 2.

Immediately after switching to Cue 2, the pixels on the seats will light up in red but the pixels in the standing area will turn off, as we are no longer “talking” to them. Unless told otherwise, when the pixels don't receive commands they turn off the current envelope. In this case, cue 2 switches the receiver group from group 1 to group 2, so group 1 is no longer receiving commands and they turn off.

To keep the standing audience on in green and then turn on the seated audience in red we would need to anticipate this with the command that we send on Cue1.

Cue 1:

Effect Background (set background color), color green, Group 1.

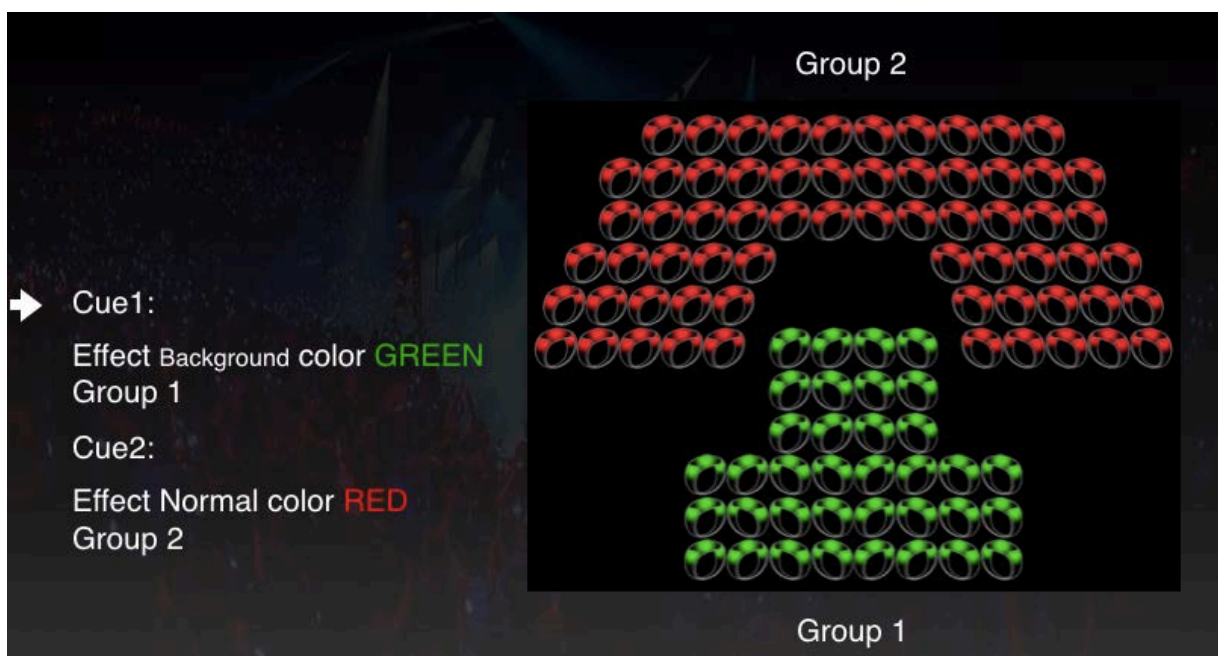
This cue turns on the pixels in group 1 in green and because we used the Background effect, it also tells the pixels to stay on in green until told otherwise.

We are now set to send our original Cue 2:

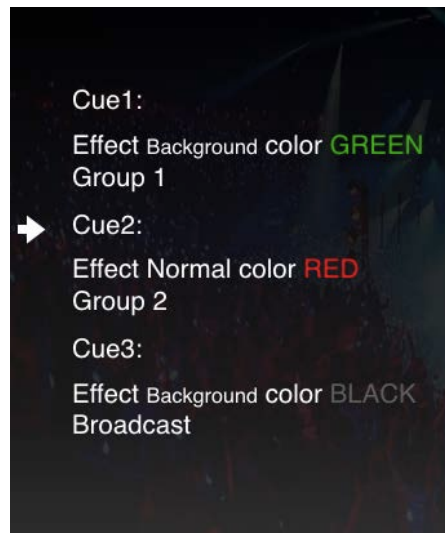
Cue 2:

Effect normal (solid color), color red, Group 2.

Immediately after switching to Cue 2, the pixels on the seats will light up in red and the pixels in the standing area will stay lit up in green. We are currently only talking to the pixel in group 2, but the background command sent to the pixels on group 1 prevents them from going black.



To turn off this sequence complete we cannot just simply OFF our sequence. Selecting OFF will effectively kill the IR transmission and be talking to no pixels, the pixels in group 2 will turn off immediately, but the pixels in group 1 will remain on green because the background color is set to green. We need to create a third cue that tells all the pixels to set their Background color to black:



* Remember Broadcast makes the system talk to all pixels.

When cue 3 is activated, all pixels will turn off at the same time. We have cleared the background color on group 1, leaving the pixels at a clean slate state and ready for the next effect to take place.

The main limitation of pixel grouping is that the system can only talk to 1 group at any given time. If we need several groups turned on at the same time, we need to anticipate this by sending the right commands to the specific groups - see example below:

