

Sport In The Box Support

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How to create CombinedOutput Stadium LED with Scoreboard

Dmitri Peredera - 2023-11-22 - Kommentarer (0) - Combined Output

This example will create a stadium LED screen with two modes. Screen size is 1280X720PX with a frame rate of 60 fps.

Schematically, it will look like:



And with video:



Match mode with a CombinedOutput that has following parts: live video, scoreboard, small ads and banner.

Preparation

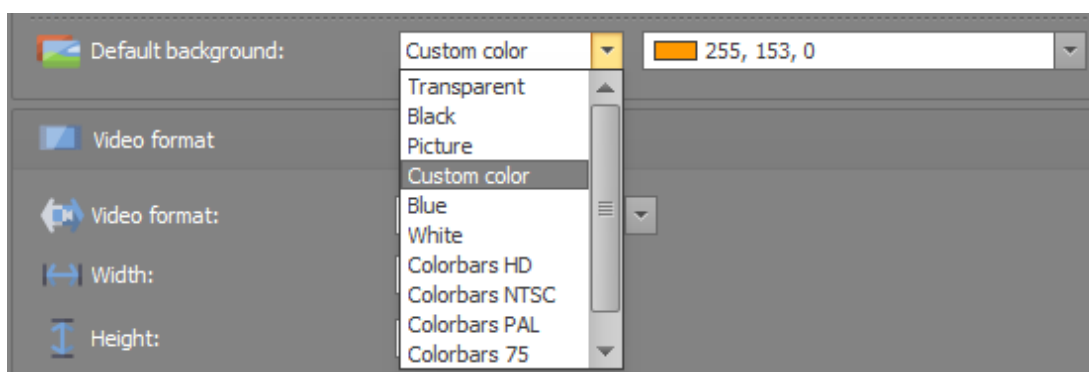
ScreenController

Go to the settings and select *Main* ScreenController and change fps to 60. Same fps will be used for all ScreenController.

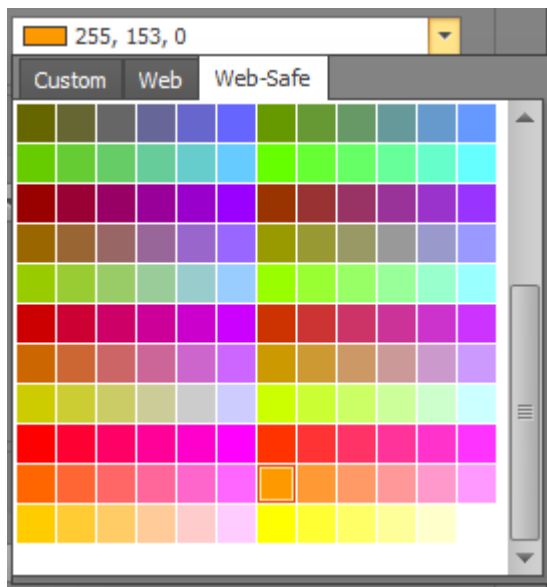
For less dynamic content, consider changing fps to 30. For better performance, use fps that can be divided without rest, like: 60, 30, 10.

For the purpose of tutorial, change background color. For production, select *black* or *transparent*.

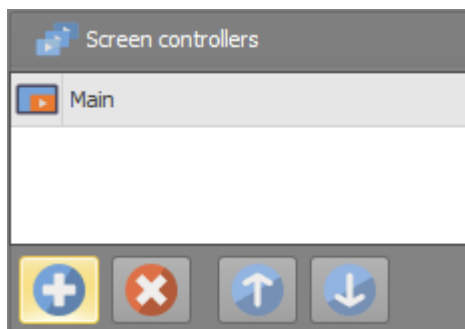
Press background color drop-down and select *Custom color*.



Select background color from list below and any other that matches your needs.



Press *Add* button and create *ScreenControllers* with data from list below.

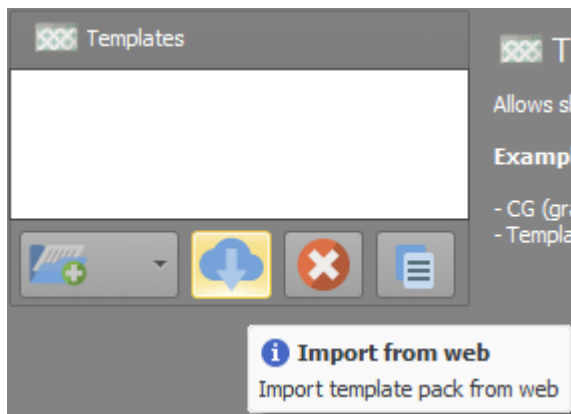


| ScreenController | Description | color |
|------------------|---|--------|
| Live | 1280x720 @60, camera and introduction videos. | red |
| Scoreboard | 144x280 @60, scoreboard with points. | green |
| Ticker | 640x40 @60, long line with ads. | blue |
| Small ads | 144x86 @60, small area with ads. | orange |

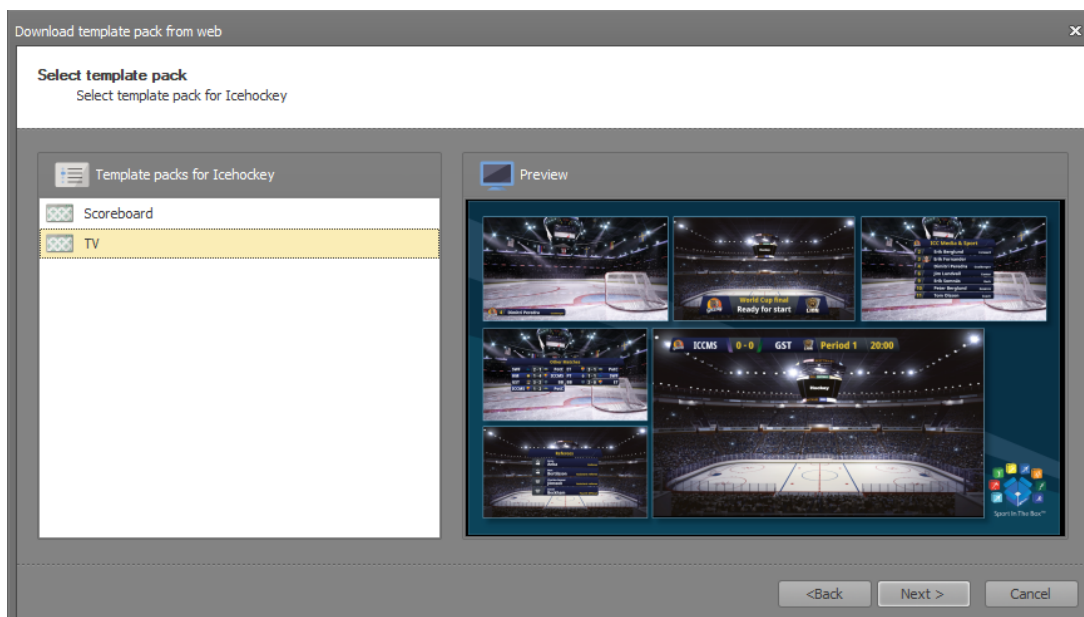
Files, played on screen should generally match format with the ScreenController format.

Templates

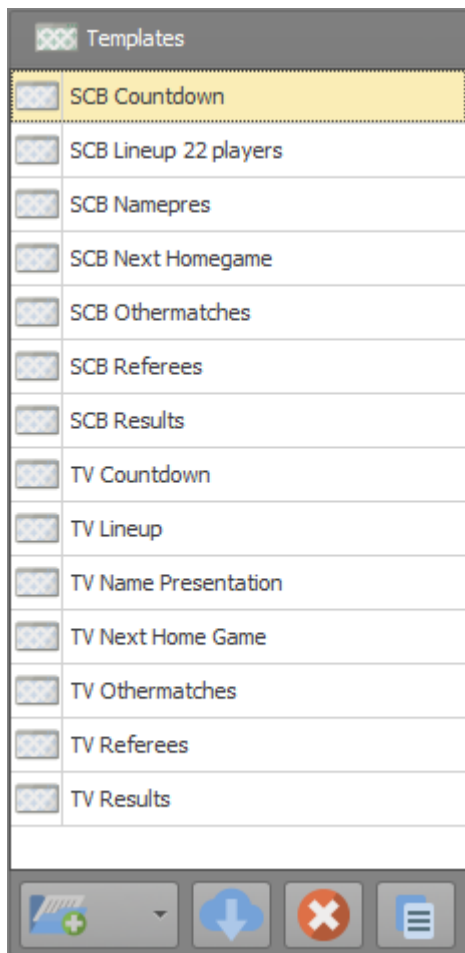
Add template packs from web by pressing the cloud button.



Scoreboard pack is for showing graphics in full screen. TV packs are for overlay graphics. Import both packs.

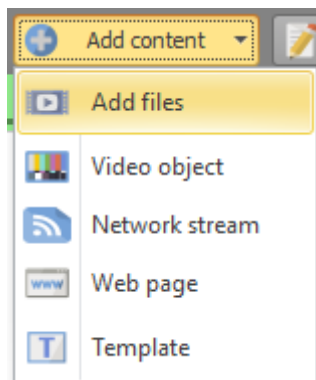


After the import is complete, template list should look like that:



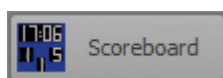
Add files to ScreenController

Add files to *Live*, *ticker* and *small ads* screens. Try to match size and fps of the files to ScreenController.



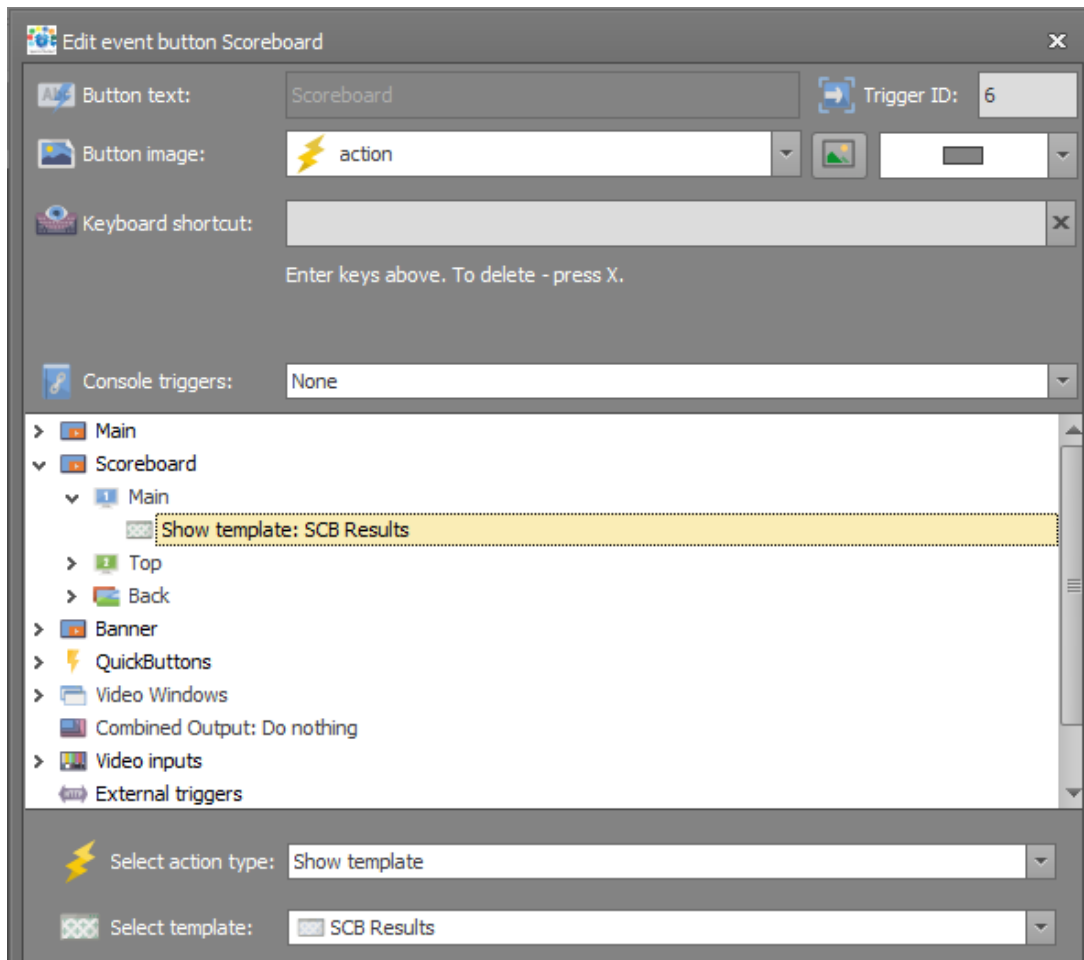
Scoreboard

Configure *QuickButtons* to show templates.

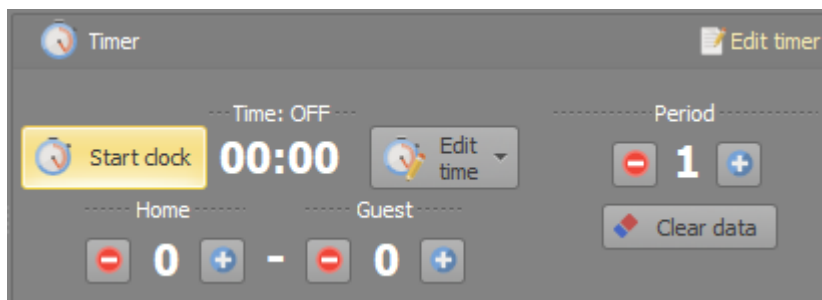


Edit *Scoreboard* button with right mouse button menu and make it *Show template* on *Main* layer of the *Scoreboard* screen.

Select template *SCB Results*.



Press *Start clock* button for countdown to start.



In case the *Timer* panel doesn't look like one above, press the *Edit timer* button and select console *Internal clock*.

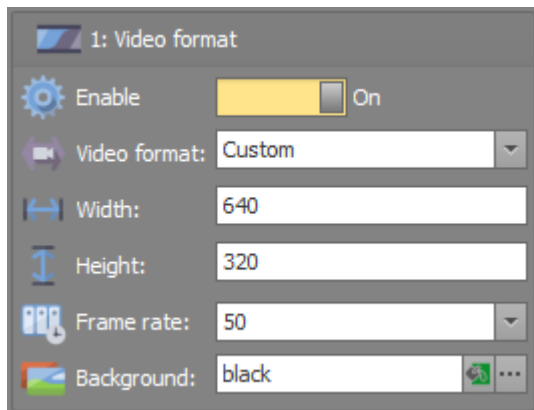
Configure *CombinedOutput*

Go back to the settings and select *Combined output*.

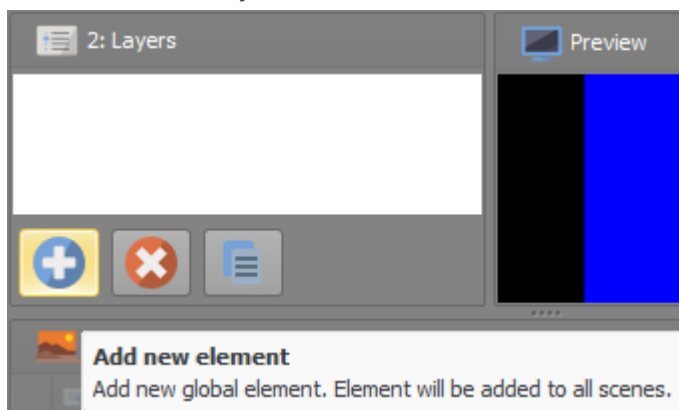
Enable *CombinedOutput* and select 720 50p. Format of the output should match the size of a LED screen.

All sizes are recalculated when the canvas format is changed, so video format should be set

first.

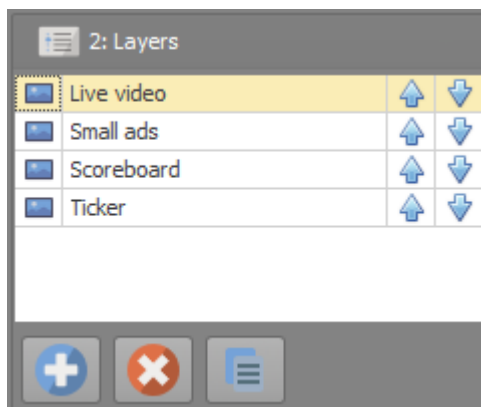


Create views and layer

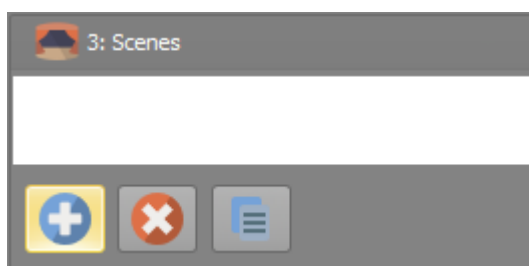


Press *Add new element* button and add new element for each source.

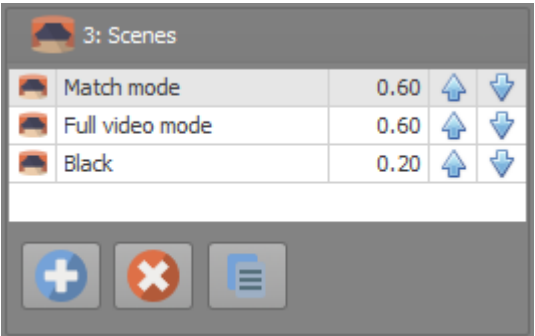
Name elements by clicking on element name and name elements: main, scoreboard, banner.



Switch to the scenes and press *Add scene* button to add two scenes.



Name scenes *Match mode*, *full video mode* and *black*.



Change elements

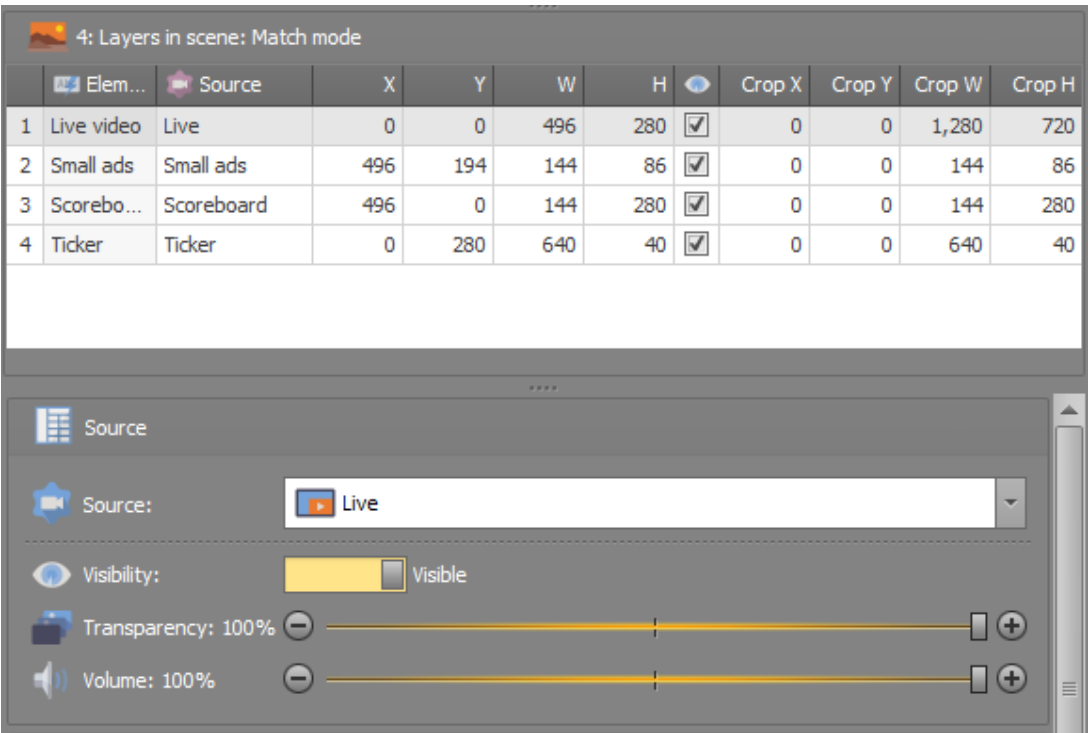
Each element is created on each scene, but values can be different.

At this point, there should be three elements that looks exactly the same.

Element values can be changed either in elements grid or in property editor.

Match mode

Select match mode and set value to



| Name | Source | x | y | width | height | Visible |
|------------|-----------|-----|-----|-------|--------|---------|
| Live video | Live | 0 | 0 | 496 | 280 | true |
| Small ads | Small Ads | 496 | 194 | 144 | 86 | true |

| Name | Source | x | y | width | height | Visible |
|------------|------------|-----|-----|-------|--------|---------|
| Scoreboard | Scoreboard | 496 | 0 | 144 | 280 | true |
| Ticker | Ticker | 0 | 280 | 640 | 40 | true |

Full video mode

Select full-screen mode and set values to

| | Elem... | Source | X | Y | W | H | | Crop X | Crop Y | Crop W | Crop H |
|---|------------|------------|-----|-----|-----|-----|-------------------------------------|--------|--------|--------|--------|
| 1 | Live video | Live | 0 | 0 | 640 | 320 | <input checked="" type="checkbox"/> | 0 | 0 | 1,280 | 720 |
| 2 | Small ads | Small ads | 0 | 0 | 640 | 320 | <input type="checkbox"/> | 0 | 0 | 144 | 86 |
| 3 | Scorebo... | Scoreboard | 496 | 0 | 144 | 280 | <input type="checkbox"/> | 0 | 0 | 144 | 280 |
| 4 | Ticker | Ticker | 0 | 280 | 640 | 40 | <input type="checkbox"/> | 0 | 0 | 640 | 40 |

Source

Source: Live

Visibility: ☒ Visible

Transparency: 100% ⊖ ⊕

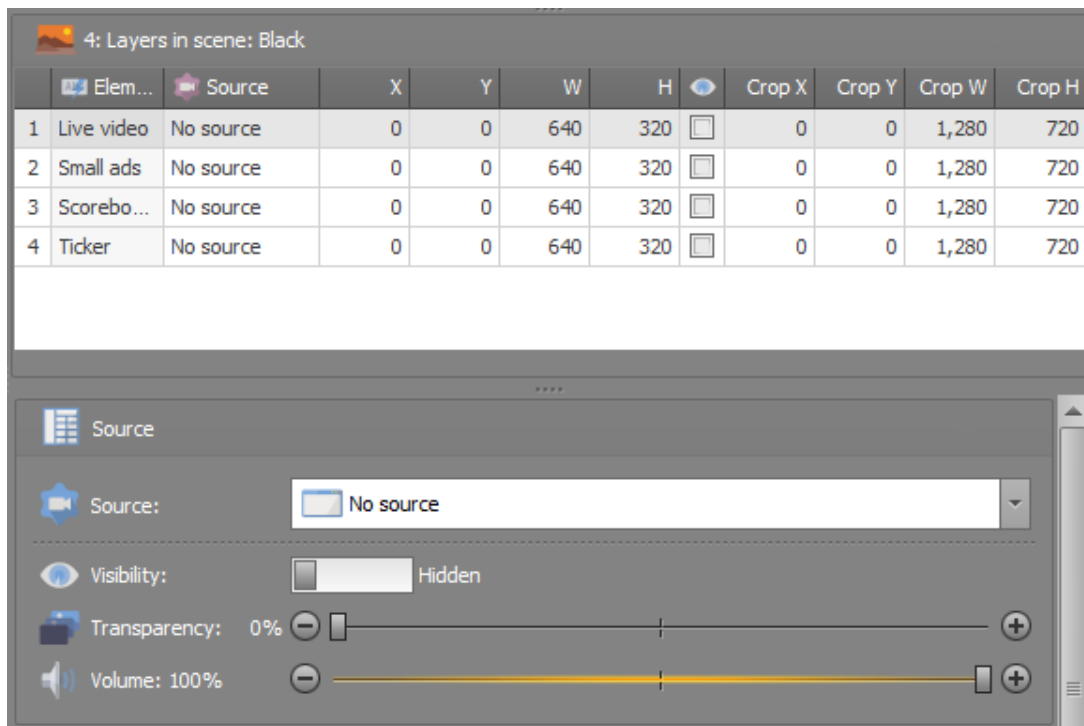
Volume: 100% ⊖ ⊕

| Name | Source | x | y | width | height | Visible |
|------------|------------|-----|-----|-------|--------|---------|
| Live video | Live | 0 | 0 | 640 | 320 | true |
| Small ads | Small Ads | 0 | 0 | 640 | 320 | false |
| Scoreboard | Scoreboard | 496 | 0 | 144 | 280 | false |
| Ticker | Ticker | 0 | 280 | 640 | 40 | false |

At full-screen, only main element is visible, help mixer by changing *visible* to *false* for elements that are not shown.

Black

Select black mode and set values to

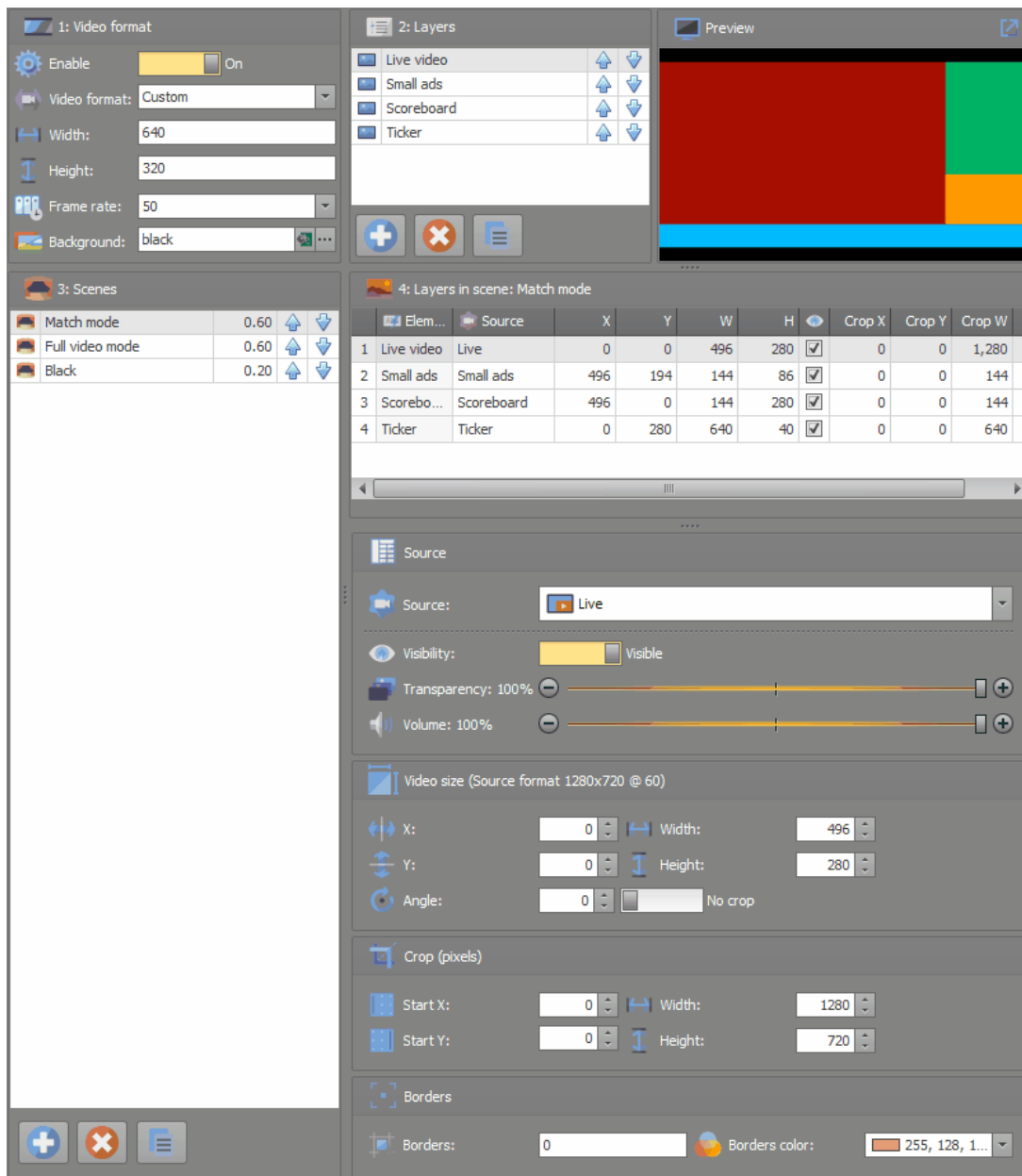


Take any sizes and make everything hidden.

Note that animation happens from current state to new values and some animations may look strange.

| Name | Source | x | y | width | height | Visible |
|------------|------------|---|---|-------|--------|---------|
| Live video | Live | 0 | 0 | 640 | 320 | false |
| Small ads | Small Ads | 0 | 0 | 640 | 320 | false |
| Scoreboard | Scoreboard | 0 | 0 | 640 | 280 | false |
| Ticker | Ticker | 0 | 0 | 640 | 40 | false |

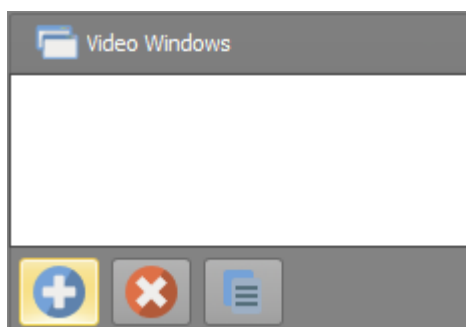
Result, without content added, should look like that:



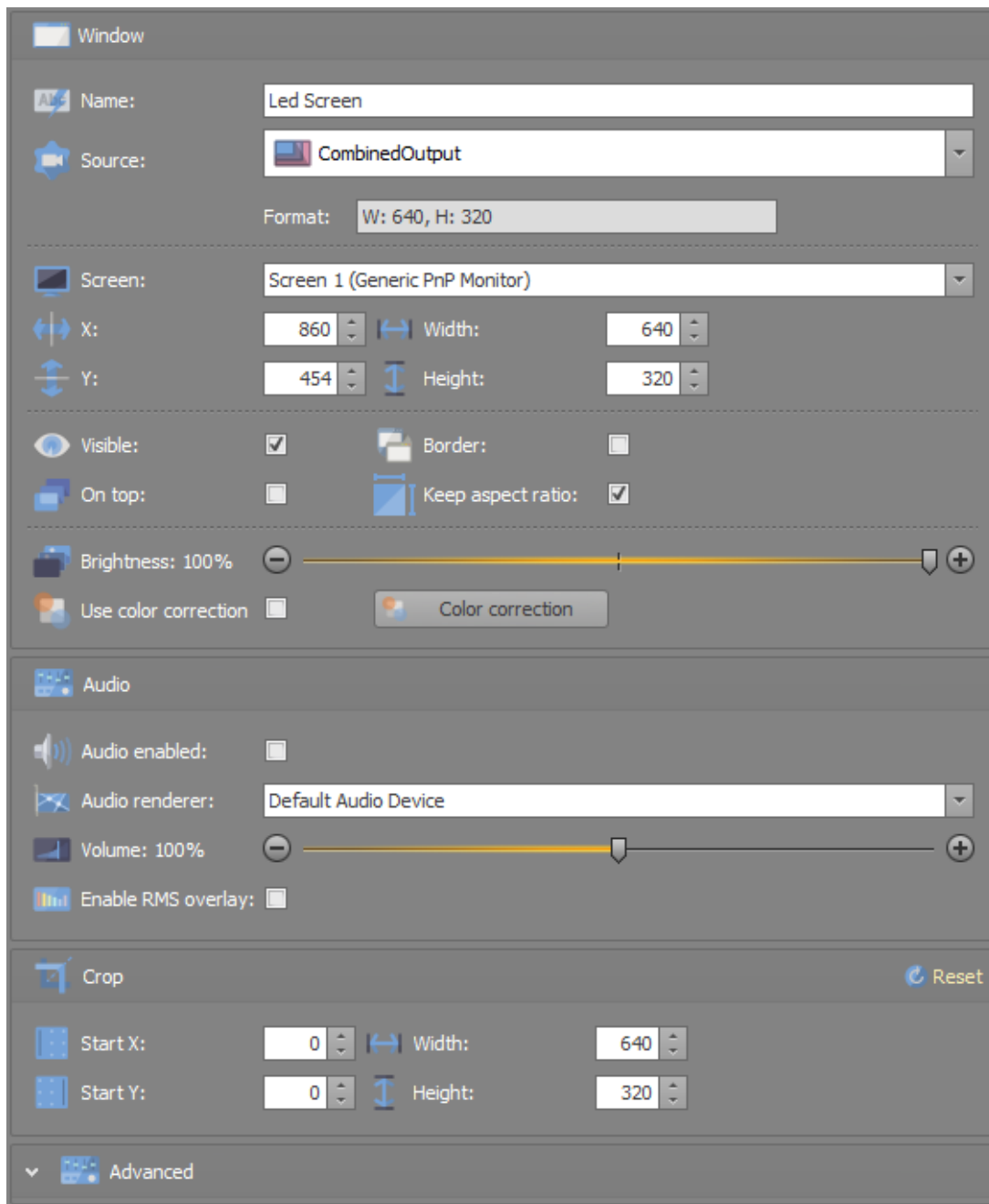
Create VideoWindow

Go to the *VideoWindows* settings and add windows with *CombinedOutput* as source.

Make window size to match *CombinedOutput* and hide borders.



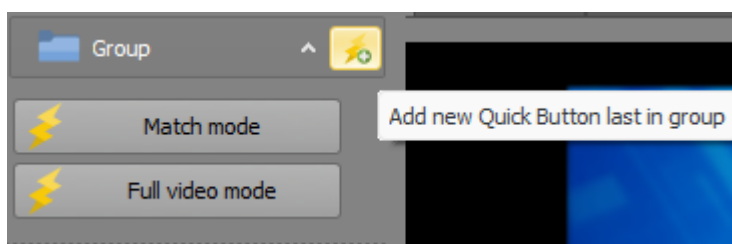
Name if *LED screen*



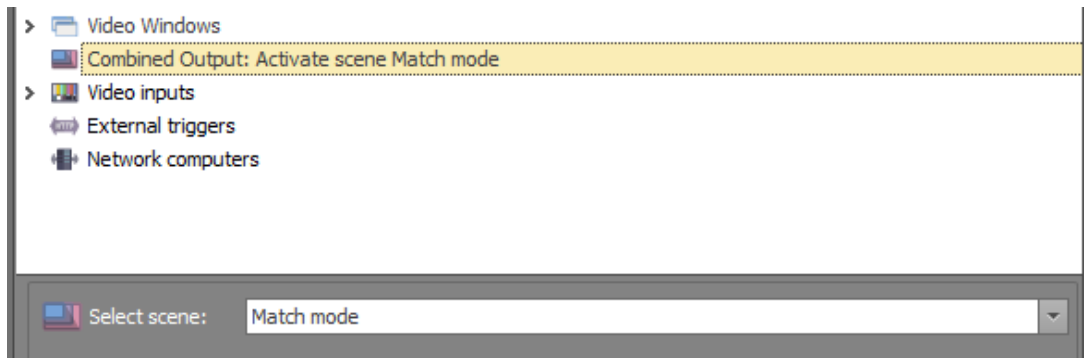
Configure QuickButtons

Generally, scenes are changed together with to content and *QuickButton* will even start playlists and show graphics.

Press *Add QuickButton* and add button for each scene.



Change scene and make *QuickButton* to start playlist.



Change main preview source to *CombinedOutput* with the right mouse button menu.

Result should look like that.

