

APPLICATION NOTE

How To Edit 3D (Stereoscopic) Video Using EDIUS

June 2010

You can easily edit 3D (stereoscopic) Left-eye/Right-eye video footage using the Grass Valley™ EDIUS® multi-format nonlinear editing system without the Left-eye/Right-eye clips going out of sync.

Overall Workflow

- Place Left-eye (L) and Right-eye (R) footage into a source (sub) sequence
- Drag the source sequence from the bin to the main sequence
- Edit the main sequence as normal, previewing only the R source
- Apply a side-by-side picture preset on L and R tracks in source sequence
- Export the main sequence

Setup

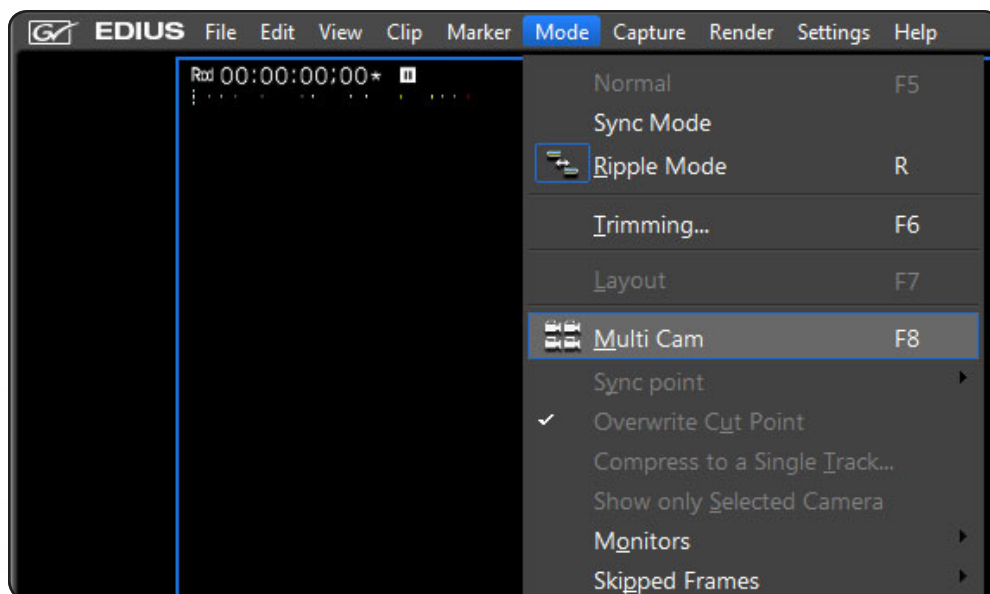
First, name the tracks, to differentiate Left-eye and Right-eye channels

(Example: Track name for 1VA = 1Left, track name for 2VA= 2Right.)

Adjust and place Left-eye and Right-eye clips on the timeline, according to their timecodes

After registering the Left-eye and Right-eye videos in the Bin, change to Multi-cam mode.

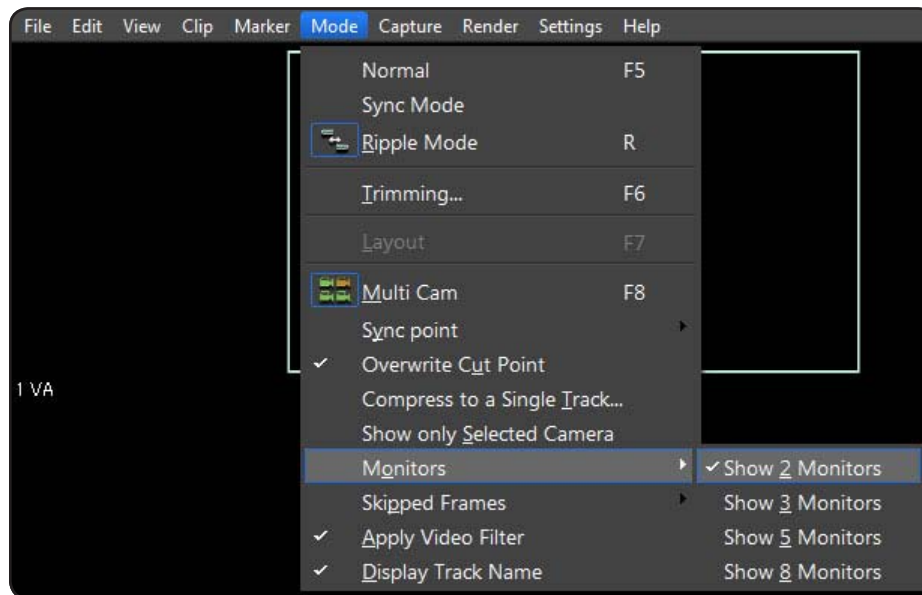
Choose "Mode" from the menu bar, then select "Multi-cam."



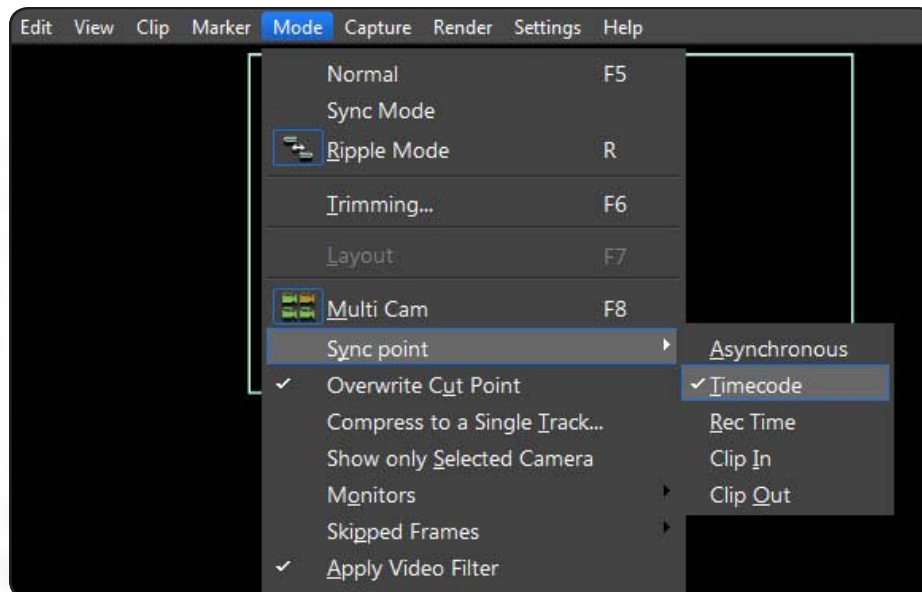
Setup (cont.)

Set Multi-cam Mode to two screens, and make sure that you can see both left and right screens at the same time.

Select “Mode” from the menu bar > “Monitors” > “Show 2 Monitors.”



Choose “Mode” from the menu bar again, then “Sync Point,” and make sure that “Timecode” has been selected. If not, select it.

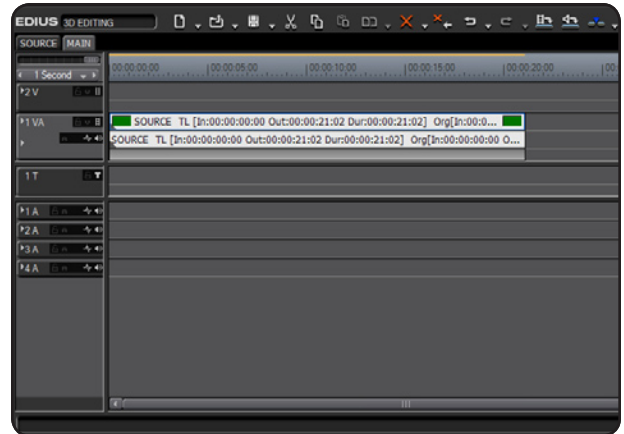
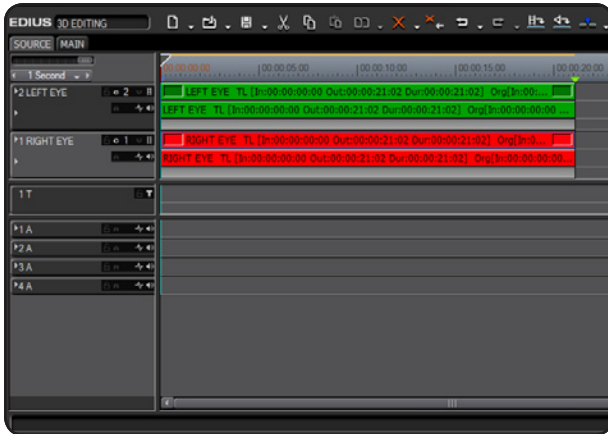


Now, if you select the Left-eye and Right-eye clips in the Bin, and place them on the timeline, the clips will be synchronized by their timecodes.

In the event that the clips do not have timecodes, you must manually adjust the two clips on the timeline.

Editing

Once the clips have been synchronized in Multi-cam mode, drag the source sequence from the bin to the main sequence.



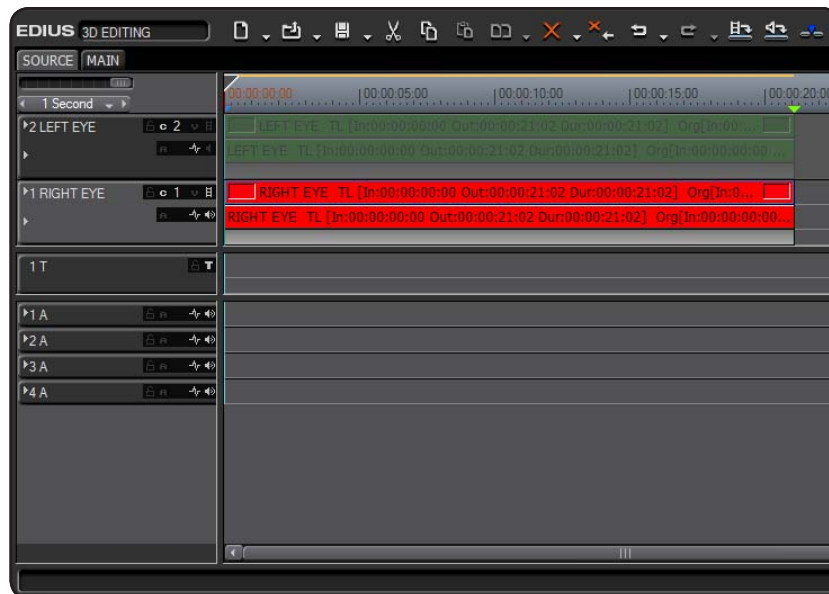
Using Effects

In general, it is not advisable to use effects other than color correction-related effects.

For more information, please refer to the FAQ section in this document.

Checking Left-eye and Right-eye Clips

If you want to see the Right-eye clip only, you have to disable the Left-eye channel. This is because the top clip (Left-eye) always has priority.



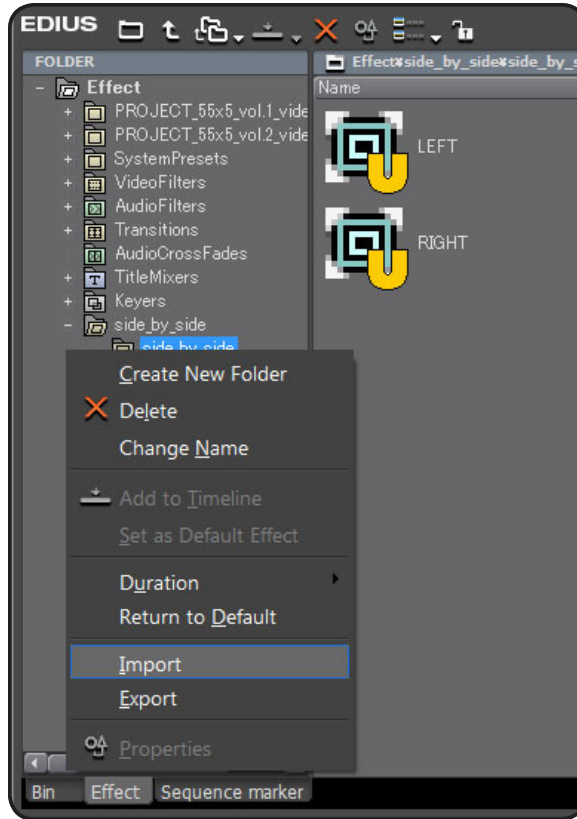
Editing (cont.)

Viewing Clips Side-by-Side

After the sequence has been edited, the Left-eye and Right-eye clips must be viewed Side-by-Side.

First, import the Side-by-Side preset into the effects folder.

Left-click the Effect pallet, select "Import," and open "side_by_side.tpd."



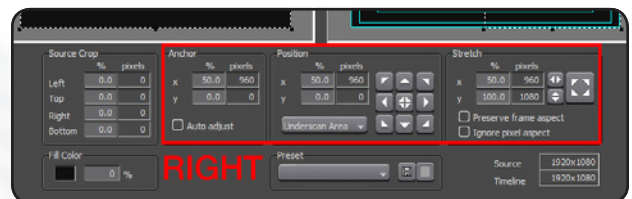
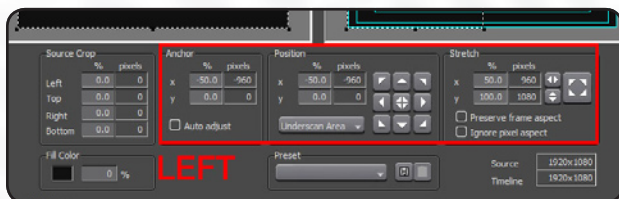
Explanation of the Side-by-side Preset

Left-eye (Left camera) Layout: LEFT

(Anchor: x=-50% position: x=-50%, size: x=50%, deselect "Preserve frame aspect")

Right-eye (Right camera) Layout: RIGHT

(Anchor: x=50% position: x=50%, size: x=50%, deselect "Preserve frame aspect")



Editing (cont.)

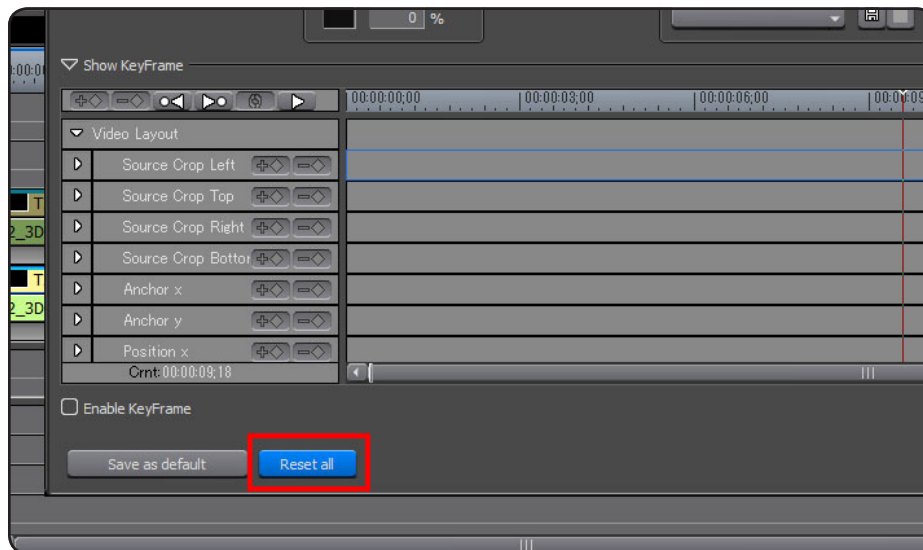
Next, open the source sequence, and apply the Video Layout preset “LEFT” on the clip for the Left-eye, and “RIGHT” on the clip for the Right-eye.

Now, if you return to the main sequence, you should be able to see the edited video Side-by-Side.



If you need to edit the video after the Side-by-Side layout setting has been applied, remember to remove the Side-by-Side layout settings first!

To do this, open the source sequence, choose each clip, select the “Video Layout” setting from the effect pallet, and select “Reset all” button on the bottom left side of the window to clear the settings.



The edited main sequence video will be the final Side-by-Side product.

To export the Left-eye and Right-eye clips separately, reset the Side-by-Side setting, as explained above, and export each individual clip separately.

FAQ

Q1) Can you place graphics and text in the video?

A1) It is not advisable to do so. Even if you place the exact same graphic or text in each of the clips, it will look as if it is placed very far away, and can cause viewer discomfort.

However, this problem may be avoided by carefully moving the text or graphic from one clip, and adjusting the depth (this, along with color correction of the video, can only be done manually).

If you must place text or graphics on the video, first remove the Side-by-Side settings from the source sequence, and create individual screens for the left-eye and right-eye views.

Next, select the entire Left-eye clip, right click "Add to the Bin as a Sequence" > "Choose Clip". That will create a separate sequence for the Left-eye view.

After doing the same for the Right-eye view, place each of the new sequences into the source sequence and apply the Side-by-Side preset. The video should be able to properly place the graphic or text on the screen.

Q2) Can you use dissolve or other transitions, instead of just cutting the clips?

A2) When two 3D clips with different depths are transitioned, the resulting effect can result in viewer discomfort. For this reason, dissolves or other transitions are not recommended.

Q3) What happens if the tracks are out of sync?

A3) Since the Left-eye and Right-eye images do not properly align, the brain cannot properly process the image, thus the resulting image can cause viewer discomfort.

Q4) Is the 3D video played back using EDIUS hardware automatically recognized by the TV as 3D?

A4) No. You must be able to set the television to 3D (Side-by-Side) mode.

Q5) How do I play back the finished video?

A5) Using a 3D television:

- Connect the 3D television using the Grass Valley HDSTORM™ or HDSPARK™ HDMI outputs for EDIUS
- Set the television to 3D mode (refer to the TV manual)
- Play back the Side-by-Side video from the EDIUS timeline

On compatible PC monitors:

- PC monitors support not only Side-by-Side, but also individual Left-eye and Right-eye video channels, so you can play back the video once the correct format has been chosen.

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