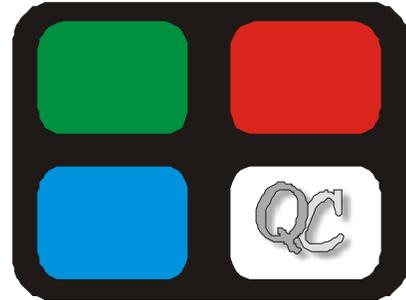# Crossfade Transitions

in

QuadCam

The crossfade, or dissolve, transition is the main hammer in any multi-camera editor's toolbag. Whether it's a thirty second mood setter or a seven frame "soft cut," the crossfade raises the bar noticeably above the piece that is edited "cuts only."

QuadCam, Macrosystems' post production "live switching " software, permits crossfades both from inserted clips to the background video and between adjacent inserted clips. The first is absolutely easy, while the second, although not difficult, does require a bit of forethought and significant mouse manipulation.

Crossfades between an inserted clip and the background video are accomplished simply by inserting the crossfade transition (or any other appropriate transition) at the desired point. Since the inserted clip overlays the background, the effect is rendered without incident.

Crossfades between adjacent inserts can be added, but **the second clip is always pulled forward in the storyboard by the length of the transition**. For example, if a 6 second clip is followed by a one of 5 seconds, their total running time is obviously 11 seconds. If a one-second crossfade is added between the two, the running time becomes 10 seconds. **The problem is that the second clip is no longer synchronized in time with audio tracks of the background video**. In other words, lip-sync no longer exists.

Part of QuadCam's flexibility is the ability to adjust edit points after the initial edit. Each inserted clip can be lengthened by as much as three seconds on each end. In addition to changing edit points based on program content, this capability permits inserted clips to be lengthened to compensate for time lost in crossfades, restoring lip-sync.

This procedure is purely manipulation of data via shifting position and length of clips. Prior to beginning this, all other video editing should be complete, as all the adjacent inserts will be made into a single clip, and the individual clips will no longer be available. Moreover, lip-sync does not correct until the last step in the procedure, so "previewing" the work for accuracy isn't possible. This procedure **does not create** exact lip-synced audio and video; **it preserves it.** Prior to adding crossfades, make sure all aspects of storyboard playback are correct.

For simplicity, all transitions shown in this exercise are the same duration, nominally one second. The drawings are not exact, but are for visual reference only. Also, illustrations use video from only two other cameras, but the procedure is identical using three.

The Beginning

Background video with audio

Video insert 1

Video insert 2

This represents three video clips that will be processed with QuadCam. Red is the continuous background clip with attached audio, yellow is insert 1, and blue is insert 2. For additional information about practice clips see the endnotes.

The Storyboard

1 | | 1A | 2A | 1B | 2B | 1C | |

Figure 1 represents the storyboard after QuadCam processing. The red portion is the background video clip, with five inserts from two other sources. When switching, the background video was used only at the beginning and end. During the body of the edit there are five adjacent inserted clips. The task is to add a one second crossfade between each pair while preserving lip-sync throughout.

Roll out the Video

2 | | 1A | | 2A | 1B | 2B | 1C | |

From the storyboard, with clip 1A highlighted, select "Range, Position, In" and note the starting point of the clip. **Record that time; it will be necessary in the last step of the process.** Roll the start point forward by exactly one second, then click OK. Clip 1A has moved forward in time, and there is now a one second gap between clips 1A and 2A.

Trimming makes more

3 ` ` 1A ` ` 2A ` ` 1B ` ` 2B ` ` 1C

Normally, "Trim" is used to shorten a clip in the clip bin, but here it will be used in the storyboard to lengthen a clip. Highlight clip 2A and select "Range, Trim, In." Adjust the leading edge of clip 2A to the left until it stops. It will "reveal forward" by only one second, filling the one second gap created in the previous step.

Transition This

4 ` ` 1A ` ` 2A ` ` 1B ` ` 2B ` ` 1C

From the Transitions storyboard, highlight clips 1A and 2A, then add a one second crossfade. Clip 2A is pulled forward by one second, represented by the green area above. Note that background video is now visible between clips 2A and 1B.

Do it again

5 ` ` 1A ` ` 2A ` ` 1B ` ` 2B ` ` 1C

In the main storyboard, highlight clip 1B, then "Range, Trim, In" and extend its front edge to fill the gap between 2A and 1B.

Add Transition

6 ` ` 1A ` ` 2A ` ` 1B ` ` 2B ` ` 1C

As before, from the Transitions screen, apply a one second crossfade between clips 2A and 1B. Clip 1B pulls forward, revealing background video.

Repeat the process

7 ` ` 1A ` ` 2A ` ` 1B ` ` 2B ` ` 1C

Clip 2B is trimmed forward to fill the gap.

8

A one second crossfade pulls 2B forward.

9

Clip 1C is trimmed forward to fill the gap.

10

A one second crossfade pulls 1C forward.

Before and after

1

10

Comparing figures 1 and 10, the inserts with transitions appear to be the same length as the originals, but they are shifted forward in time by one second. (Refer to step 2.) It's only necessary to reposition clip 1A to its original start point, the time recorded in step 2. However, clip 1A cannot be moved back in time, as it now butts against the rest of the clips. The solution:

Make a scene

11

Go to the Transitions screen and make a scene of the complete insert set, using "scene, Range" and setting the in and out points carefully to get all of the inserted material. Name the scene appropriately so it can be located. After making the scene, return to the main edit screen.

12

Remove all the inserts from the storyboard EXCEPT the first one. ** See end notes.

13

Use "Range, Position " to move it back to its original starting point, recorded in step 2.

14

Replace clip 1A with the scene made is step 11.

The project is complete!

End notes:

Practice makes perfect. I found the easy way to try this procedure out was to make a practice clip in which I could easily spot lip-sync errors, so I'd know if I was "doin' it right." I recorded one minute of talking head video from one of the news channels. I then went into "Special, Control Color" and made two copies of the original clip. In the first, I removed all red by setting the red slider to zero. On the second copy, I removed all blue. The result is three distinct versions of the same clip. You can open QuadCam, use the regular clip as background, and add the variations as inserts 1 and 2. When you are successful adding crossfades, you will see the colored clips blend smoothly into each other with no loss of sync.

_____

Here's one variation in the end part of the process (see step 12):

Instead of leaving clip 1A on the storyboard, one could just as easily remove all the inserted clips, then insert the created scene into the background video. Use "Range" to position it to the noted original starting point of clip 1A, and the job is complete.

There may be several of these little projects within one finished video, for each group of adjacent inserts must be treated the same way.

There are other ways to approach this task; this is one that works well. After a few practice sessions, it progresses very quickly.