How You Can Use the Viewer

The Viewer is extremely versatile. You can use the Viewer to:

- Define In and Out edit points for clips before editing them into a sequence

- Adjust audio levels and panning in the Audio tab

- Open clips within sequences to adjust durations, In and Out points, and filter parameters

  Note: Changes you make to a clip opened from a sequence are applied to the clip only in that sequence. If you make changes to a clip opened from the Browser, the changes appear only in the clip in the Browser.

- Add filters to clips and adjust filters applied to clips

- Adjust the motion parameters of clips to modify or animate such parameters as Scale, Rotation, Cropping, and Opacity

- Adjust generator clip controls

  Generators are special clips that can be generated by Final Cut Pro, so they don't require source media. Final Cut Pro has generators that create color mattes, text of different types, gradients, color bars, and white noise. For more information, see Using Generator Clips.

- Open a transition, such as a dissolve or a wipe, from an edited sequence for detailed editing

  For more information, see Adding Transitions.

Before you can work in the Viewer, it must be the currently selected, or active, window. Otherwise, any commands or keyboard shortcuts you use may perform the wrong operations. To display the Viewer (if it's not open already), you must open a clip from the Browser or the Timeline. See Opening a Clip in the Viewer.

To make the Viewer window active

Do one of the following:

- Click the Viewer.

- Press Command–1. (Press this again to close the Viewer.)

- Press Q to switch between the Viewer and the Canvas.

Opening a Clip in the Viewer

The Viewer is where you look at source clips from the Browser before editing them into a sequence. You can also open clips that are already in a sequence in order to adjust durations, In and Out points, and filter parameters. There are a variety of ways to open clips in the Viewer. You can choose the method that you find most convenient.

Tip: You can tell whether a clip in the Viewer has been opened from the Browser or from a sequence in the Timeline. Sprocket holes appear in the scrubber bar for clips opened from a sequence. You can also tell the origin of the clip from the name of the clip in the Viewer title bar.

To open a clip in the Viewer from the Browser

Do one of the following:

- In the Browser, select the clip, then choose View > Clip.

- In the Browser, Control-click the clip, then choose Open in Viewer from the shortcut menu.

- In the Browser, double-click the clip.

- Drag the clip from the Browser to the Viewer.

- In the Browser, select the clip and press Return.

   Note: In the Browser, pressing Enter is different from pressing Return. Pressing Enter allows you to rename the clip.

- In the Viewer, select a clip name from the Recent Clips pop-up menu in the lower-right area of the window.

To open a sequence clip in the Viewer from the Timeline or Canvas

Do one of the following:

- In the Timeline, double-click the clip.

- In the Timeline or Canvas, move the playhead over the clip, then press Return or Enter.

   The clip on the lowest-numbered track with Auto Select turned on is opened in the Viewer.

- In the Timeline, select the clip and press Return or Enter.

- Drag the clip from the Timeline to the Viewer.

Sprocket holes indicate that this is a sequence clip.

Learning About the Viewer

The following is a quick summary of the Viewer controls. For a more detailed description of Viewer controls, see the sections starting with Tabs in the Viewer.

Controls in the Top Part of the Viewer

The top part of the Viewer has the following controls.
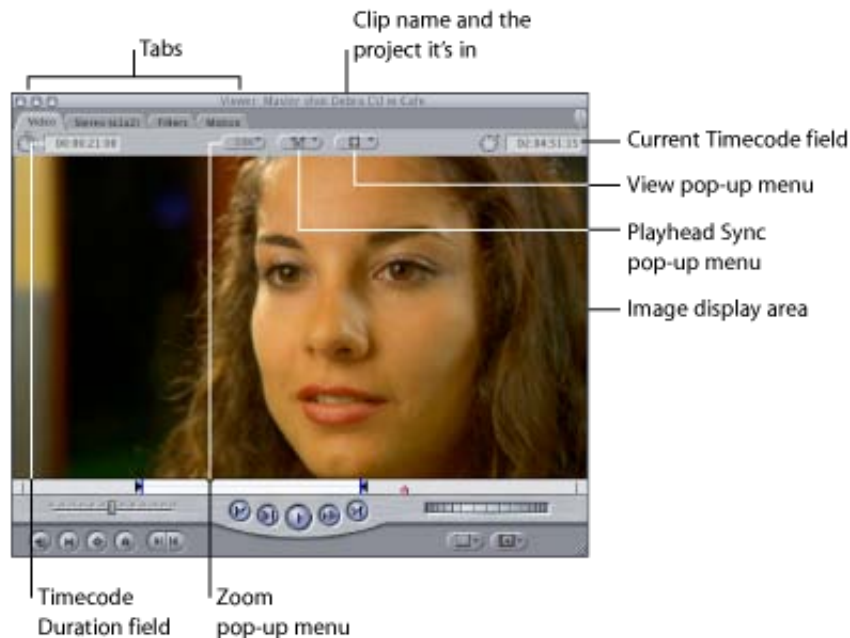
- *Tabs:* There are five tabs that can be shown in the Viewer—Video, Audio, Filters, Motion, and Controls—each providing certain editing functions. For more details, see Tabs in the Viewer.

- *Timecode Duration field:* This field shows the current duration between the clip In and Out points. You can change the duration here, which automatically adjusts the clip Out point.

- *Zoom pop-up menu:* This pop-up menu lets you enlarge or shrink the image that appears in the Viewer.

- *Playhead Sync pop-up menu:* This pop-up menu gives you options for locking the movement of the playheads in the Viewer and the Canvas together in different ways while scrubbing through clips. For more information, see Matching Frames and Playhead Synchronization.

- *View pop-up menu:* The View pop-up menu allows you to control display options such as timecode and marker overlays, as well as the background color for transparent pixels.

- *Current Timecode field:* This field displays the timecode of the frame at the current position of the playhead. You can enter timecode numbers here to navigate to a new position in the clip.

- *Image display area:* This is the area of the Viewer where you can see the video from your sequence play back.

- *Scrubber bar:* The scrubber bar represents the entire duration of a clip. You can click anywhere in the scrubber bar to automatically move the playhead to that location.

Controls in the Bottom part of the Viewer

The bottom part of the Viewer has the following controls.
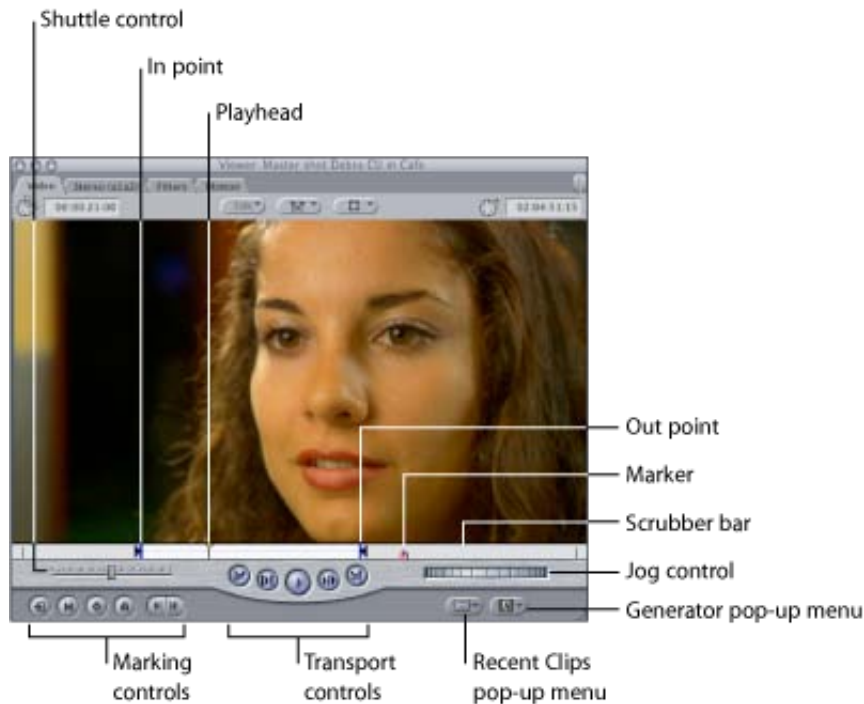
- *Jog and shuttle controls:* You use the jog and shuttle controls to navigate within your clip, much like traditional VTR controls.

- *Marking controls:* You use the marking controls to set edit points (In and Out points) and add markers and keyframes to your clips.

- *Playhead:* The position of the playhead corresponds to the currently displayed frame. You can move the playhead to go to different parts of a clip.

- *Transport controls:* You use these controls to play clips and move the playhead within clips and sequences.

- *In point and Out point:* In and Out points allow you to define a specific portion of a clip to include in a sequence. A clip In point marks the first frame of a clip to be edited into a sequence. A clip Out point specifies the last frame of the clip to be used. For more information, see Setting Edit Points for Clips and Sequences.

- *Recent Clips pop-up menu:* This pop-up menu allows you to open recently used clips in the Viewer for modifying and editing into your sequence.

- *Generator pop-up menu:* You use this pop-up menu to select and open generators in the Viewer for modifying and editing into your sequence. Generators are special clips that can be generated by Final Cut Pro; for example, they can be used to create color mattes and text of different types.

Transport Controls in the Viewer

Transport (or playback) controls let you play clips in the Viewer. (The same controls also appear in the Log and Capture and Edit to Tape windows.) These controls play clips at 100 percent (or 1x) speed. There are keyboard shortcuts for each control.
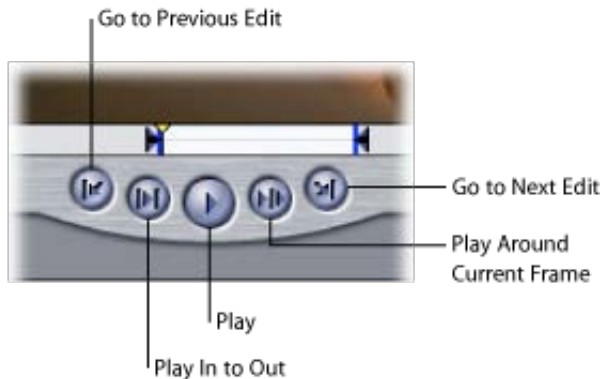
- *Play (Space bar):* Plays your clip from the current location of the playhead. Clicking it again stops playback.

- *Play In to Out (Shift-Vertical Bar):* Moves the playhead to the current In point of a clip and plays forward from that point to the Out point.

- *Play Around Current Frame (Backslash):* Plays the selected clip "around" the current playhead position. When you click this button, the playback begins before the playhead position based on the value in the Preview Pre-roll field in the Editing tab of the User Preferences window. Playback continues through the original position of the playhead, and then continues for the amount of time set in the Preview Post-roll field in User Preferences. When you stop playback, the playhead jumps back to its original position. For more information, see Choosing Settings and Preferences.

- *Go to Previous Edit (Up Arrow) and Go to Next Edit (Down Arrow):* When you have a Browser clip open in the Viewer, these controls navigate between the In, Out, and Media Start and End points of the clip. When you have a sequence open, these buttons let you navigate between sequence edit points; sequence In and Out points are skipped over.

Playhead Controls in the Viewer

The playhead lets you navigate through and locate different parts of a clip quickly and easily.
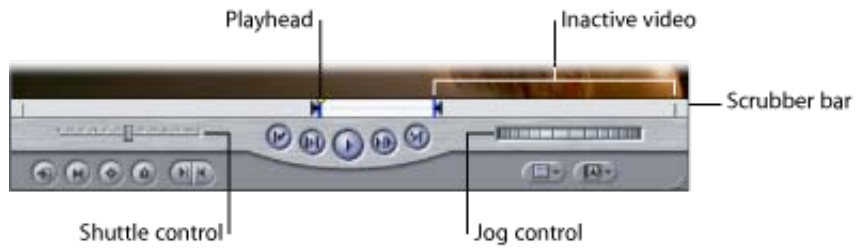
Playhead and Scrubber Bar in the Viewer

The playhead shows the location of the currently displayed frame within the current clip. The scrubber bar runs along the entire width of the Viewer, below the video image. To scrub through a clip, drag the playhead across the scrubber bar. You can click anywhere in the scrubber bar to instantly move the playhead to that location.

The playhead's movement in the scrubber bar is affected by whether "snapping" is turned on. When snapping is on, the playhead "snaps," or moves directly, to any markers, In points, or Out points in the scrubber bar when it gets close to them. (To turn snapping on or off, choose View > Snapping, or press the N key.)

To move the playhead to the next In or Out point, or Media End

- Press the Down Arrow key.

To move the playhead to the previous In or Out point, or Media Start

- Press the Up Arrow key.

To move the playhead to the beginning of your clip

- Press Home on your keyboard.

To move the playhead to the end of your clip

- Press End on your keyboard.

Jog Control in the Viewer

To move forward or backward in your clip very precisely, use the jog control. The jog control allows you to move the playhead as if you were actually moving it with your hand, with a one-to-one correspondence between the motion of your mouse and the playhead's motion. This control is useful for carefully locating a specific frame (for instance, if you're trimming an edit). For more information, see Jogging Through a Clip or Sequence.

To move the playhead backward, one frame at a time

- Press the Left Arrow key.

To move the playhead forward, one frame at a time

- Press the Right Arrow key.

To move the playhead one second at a time

- Hold down the Shift key and press the Left Arrow or Right Arrow key.

Shuttle Control in the Viewer

This control lets you quickly play through clips at different speeds, in fast and slow motion. It also shifts the pitch of audio as it plays at varying speeds. In slow motion, this can make it easier to locate specific words and sounds for editing.

Drag the slider to the right to fast-forward and to the left to rewind. Playback speed varies depending on the distance of the slider from the center of the control. When the slider is green, playback speed is normal (or 100 percent speed). The further away from the center you move, the faster the playback speed. The keyboard equivalents of the shuttle control are the J, K, and L keys. For more information, see Shuttling Through a Clip or Sequence.

Zoom and View Pop-Up Menus in the Viewer

The two pop-up menus near the top of the Viewer let you quickly select the magnification level and a viewing format to control the way media in the Viewer is displayed.

Note: These menus also appear in the Canvas, and the options are the same.

- *Zoom pop-up menu:* Choose a magnification level from this pop-up menu. Your choice affects only the display size of the image; it doesn't affect the scaling or frame size of the footage in the Viewer. You can also change the magnification level by pressing Command-Equal Sign (=) to zoom in and Command-Hyphen (-) to zoom out.

Zoom pop-up menu

When playing back media with the Viewer scaled to 100 percent, both fields of interlaced video are displayed. If the Viewer is scaled to anything other than 100 percent and you're displaying a DV clip, only one field is shown during playback or while scrubbing through the clip. When playing back media captured with a third-party video interface, some interfaces display both fields regardless of the scale of the Viewer, which may result in visible artifacts in the picture. These are display artifacts only, and do not exist in the video signal output to tape.

Important: Clips may not play back smoothly if you zoom in on them so far that part of the image is obscured, and you see scroll bars to the right and below the Viewer windows. Other windows blocking the Viewer will also affect playback. Choosing a window layout or pressing Shift-Z are easy ways to remedy playback quality in this situation.

Besides simply choosing a magnification level, you can choose one of the following:

- *Fit to Window:* Increases or decreases the size of your media's image to match any size of the Viewer window. You can also do this by clicking the Viewer to make it active, and then pressing Shift-Z (Zoom to Fit).
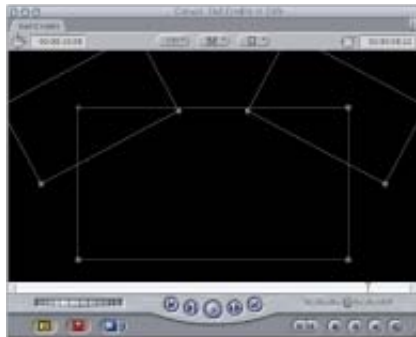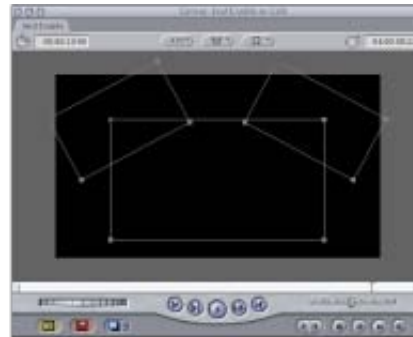

Before   After

- *Fit All:* This is similar to the Fit to Window command, but this command takes into account clips whose borders extend beyond the current Viewer boundaries.


Before

After

- *Correct for Aspect Ratio:* Displays non-square pixel images as square pixels so they look correct on your computer screen. Standard definition (SD) video equipment displays video using non-square pixels, whereas computer monitors display video with square pixels. Because of the difference in the shape of the pixels, the same video image looks different on each kind of monitor. Final Cut Pro can simulate how your images will look on a video monitor using the computer's display, so that your video images look correct as you edit. This does not permanently affect your picture; it's only for display purposes. Final Cut Pro always displays video in Production aperture display mode. For more information about aperture display modes, see About QuickTime Aperture Display Modes.

Displaying native, non-square pixels
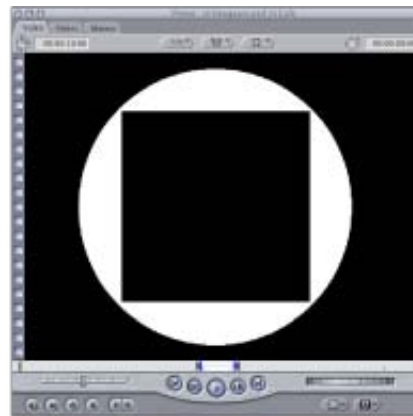
Display pixel as square

- *View pop-up menu:* You can choose various options from this pop-up menu for how you view your clips and sequences in the Viewer.

Viewer: Master shot Debra CU in
Motion
59%   View pop-up menu

Note: None of these view options affect either rendered output or material sent to tape. They only affect display in Final Cut Pro.

- *Image, Image+Wireframe, or Wireframe mode:* Image is the default, and simply shows the video of your clip or sequence as it plays back. Image+Wireframe is useful when you're using motion effects or compositing. Each video layer in the Viewer has a bounding box with handles (or a *wireframe*) that can be used to adjust that clip's size, rotation, and position. Wireframe mode shows only the bounding box and handles of each clip in your sequence, without the corresponding image. For more information on using motion effects, see Changing Motion Parameters. You can also refer to Adjusting Parameters for Keyframed Effects. For information on compositing, see Compositing and Layering.

- *Overlays:* Final Cut Pro provides translucent visual cues, called *overlays*, that help you easily recognize certain parts of your edit in the Viewer, such as the markers and In and Out points of clips in your sequence. To view overlays such as title safe and timecode overlays, you need to turn on this option.

- *Title safe and action safe overlays:* These overlays show you the boundaries within which you need to keep your graphics and text so they'll appear when the sequence is played back on television. For more information, see Creating Titles.

- *Timecode overlays:* These overlays display the source timecode for clips and are color-coded to show which items are in sync. For more information, see About Timecode Overlays and Sync Color Coding.

- *Excess luma:* This overlay indicates whether the luma levels of your footage are acceptable for broadcast. For more information, see About Color Correction.

- *RGB, Alpha, or Alpha+RGB:* When you're compositing, it can sometimes be handy to have a quick look at the alpha channel of your clip. The alpha channel defines areas of transparency, and can change if various filters are applied. Viewing your sequence with the Alpha or Alpha+RGB option selected shows you exactly which areas of your image have transparency. Additional controls are available in the View menu for viewing the individual Red, Green, and Blue channels. If the image display area in the Viewer is all black or all white, it may be because the Canvas is set to view only the alpha channel instead of the RGB channels. Try changing the channel view to RGB to solve this problem.

- *Black, White, Checkerboard:* When working with clips that have an alpha channel, you can choose different backgrounds to make it easier to see which areas of your picture are transparent. For example, translucent clips or generated text may be more visible if you choose a background that emphasizes them, such as Checkerboard 1 or 2. You can also view Red, Green, and Blue background colors using the View menu.

Generator Pop-Up Menu

Use this pop-up menu to create a generator clip, such as bars and tone, text, black, a color matte, or a gradient. A generator clip appears in the Viewer; you can then customize it using the Controls tab. For more information, see Using Generator Clips.

Marking Controls in the Viewer

Marking controls let you set In and Out points, add markers and keyframes, and navigate to matching frames in master or affiliate clips. (This is called performing a *match frame*.) There are keyboard shortcuts for each control.
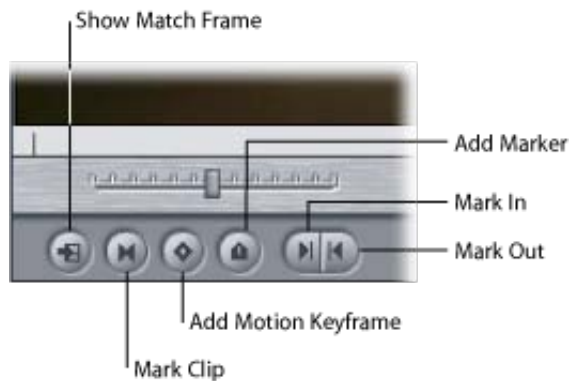
- *Show Match Frame (F):* When you click this button, Final Cut Pro searches the current sequence for the same frame shown in the Viewer. Specifically, Final Cut Pro looks for any sequence clips that are affiliated with the clip in the Viewer. If the frame shown in the Viewer is used in the current sequence, the Canvas/Timeline playhead is positioned to that frame. The result is that you see the same frame in both the Viewer and the Canvas, but the clip you see in the Canvas is actually an affiliate of the clip in the Viewer. This is useful if you want to see where you have already used a particular frame in your sequence.

  Each time you click the Show Match Frame button, Final Cut Pro navigates to the next occurrence of that frame in the sequence. To make sure you find the first occurrence of the frame, you can move the Canvas/Timeline playhead to the start of the sequence.

  For a more comprehensive discussion of the Match Frame controls, see Matching Frames and Playhead Synchronization.

- *Mark Clip (X):* Click to set In and Out points at the boundaries of the clip.

- *Add Motion Keyframe (Control-K):* Click to add a keyframe to the current clip at the position of the playhead for clip parameters such as Scale, Rotate, Crop, Distort, and so on. By default, this button sets keyframes for all clip motion parameters at once. To add keyframes for individual parameters, Control-click this button and choose a parameter from the shortcut menu. For more information, see Adjusting Parameters for Keyframed Effects.

- *Add Marker (M):* Click to add a marker at the current playhead position. While editing, you can use markers to make notes about important points in your sequence, such as areas to change, potential edit points, or sync points. For more information, see Using Markers.

  Important: If a clip is selected in the Timeline, and the playhead touches that clip, a marker is added to the sequence clip, not the sequence.

- *Mark In (I):* Click to set the In point at the current position of the playhead.

- *Mark Out (O):* Click to set the Out point at the current position of the playhead.

Tabs in the Viewer

Each tab in the Viewer provides a specific set of editing functions: Video, Audio, Filters, Motion, and Controls. You can drag tabs out of the Viewer so they appear in separate windows. This is useful, for example, if you want to adjust filter or generator parameters while watching the results in the Video tab.

Video Tab

The video tab lets you view a clip's video media, set In and Out points, and add markers and keyframes. This tab appears when you open a clip that includes video clip items. This tab is shown by default. (See Learning About the Viewer.)

Audio Tabs

Audio tabs display audio waveforms for audio clip items. If your clip has audio items, each audio item opens in its own Audio tab. (If you open an audio–only clip, you only see Audio tabs with no accompanying Video tab.) Clips in Final Cut Pro may have up to 24 audio items.

An Audio tab may represent a single (mono) audio item or a stereo pair of audio items. Stereo audio items appear together in a single tab, while mono audio items appear separately in individual tabs. Controls in each Audio tab allow you to change the audio level and the stereo panning parameters, creating keyframes if necessary to adjust levels over time. You can also use an Audio tab to set In and Out points, markers, and keyframes for audio clips. To learn more, see Audio Editing Basics.

Filters Tab

You use this tab to adjust parameters for any video or audio filters you've applied to a clip. You can also set keyframes to adjust filter parameters over time. For more information on video filters, see Using Video Filters. For more information on audio filters, see Using Audio Filters.
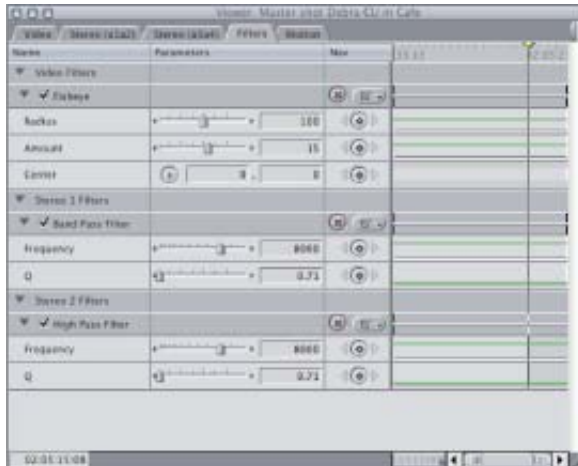
Motion Tab
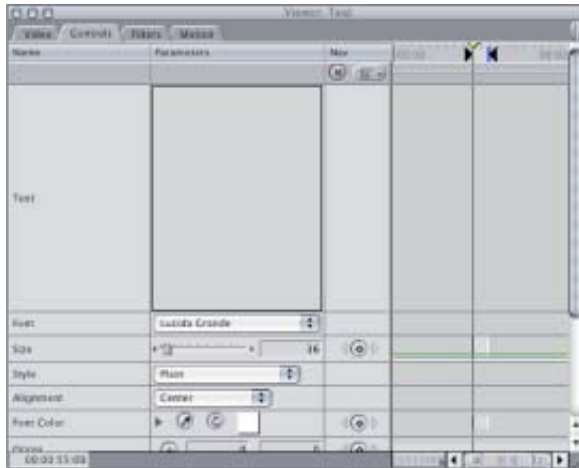
Every clip with a video clip item, whether it's a video, still image, or generator clip, has the same motion parameters: Scale, Rotation, Center, Anchor Point, and additional attributes such as Crop, Distort, Opacity, Drop Shadow, Motion Blur, and Speed. The Motion tab allows you to adjust these parameters of a clip.

You can create motion effects by setting keyframes for motion parameters over time. For more information, see Changing Motion Parameters. Also refer to Adjusting Parameters for Keyframed Effects.
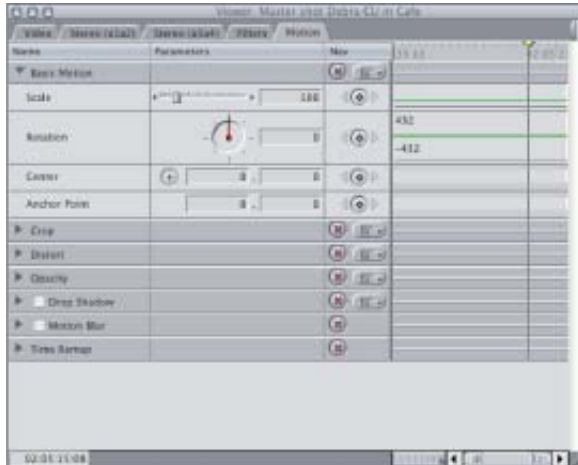
Controls Tab

You use the Controls tab to change the parameters for generator clips, such as the font and text size in a Text generator, or the size of a Circle Shape generator. The Controls tab appears only when a generator is open in the Viewer. For additional information, see Using Generator Clips.