



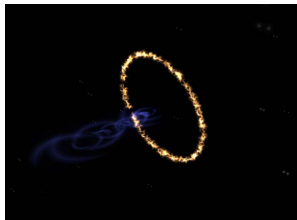
New Features in Motion 3

This document explains the new features and enhancements released in Motion 3. For more information about these features and their use, see the *Motion User Manual* and the *Motion Supplemental Documentation*, available from the Motion Help menu.

3D

Motion 3 now supports a three-dimensional, multiplane compositing environment, allowing you to create sophisticated 3D motion graphics with depth and new levels of realism. In the Motion 3D workspace, you can:

- Add and animate cameras, images, and text along paths in three dimensions.
- Create particle systems and replicators with height, width, and depth.
- Apply behaviors such as Throw, Spin, and Vortex in 3D space.
- Apply new camera behaviors that automate sweeping pans and dramatic zooms.
- Stylize your projects with a combination of blend modes and scene lights.



Motion Tracking and Stabilization

Using the new Motion Tracking behaviors, you can stabilize handheld camera shots, track the individual points of a shape or mask to background element, and more. The new Motion Tracking behaviors include:

- **Match Move:** Apply tracking data to from one element in the Canvas to another, thereby “locking” them together. For example, you can match an image file of a logo to the background video of a billboard so that the logo appears to be superimposed on the billboard even when the camera moves. Additionally, you can apply the transformation data of an animated source object to another destination object without analysis. As a result, the destination object moves just like the source object.
- **Stabilize:** Analyze a movie or image sequence with the Stabilize behavior to remove unwanted movement. For example, use the Stabilize behavior to smooth handheld camera shots.
- **Unstabilize:** Restore movement to a previously stabilized clip. This behavior is useful when you’ve stabilized a video clip in order to add a foreground effect but wish to restore camera movement to the final composite. After you’ve completed the foreground effects work, use the Unstabilize behavior to reapply the original motion data to the both the original background element and also the new foreground elements.
- **Track Points:** Track the control points of a shape or mask (including paint strokes) to moving elements in a clip. For example, you can draw a mask around a car in a movie clip, then track the control points of the mask to the edges of the moving car, thereby isolating the car from the rest of the clip. You can then apply effects to the isolated car without affecting surrounding areas of the clip. The Track Points behavior also allows you to apply existing tracking data recorded by the Analyze Motion, Match Move, or Stabilize tracking behaviors to the control points of a shape or mask.
- **Track Parameter:** Track a parameter of a filter to single point in a movie clip. For example, you can make the center point of an applied Light Rays filter follow a moving light in a clip. In this case, the tracking data is applied to a single parameter of the filter (the Center parameter), rather than to the filter as a whole.

Paint

Motion allows you to design painterly elements using customizable brushes and vector-based strokes that weave through 3D space. You can create animated brush strokes that respond to pressure, tilt, and speed when using a graphics tablet. You can also design custom brushes using color, gradients, text, images, and QuickTime movies. There are two new paint features in Motion:

- **Paint Strokes:** A shape that is created by “painting” a stroke in the Canvas using the Paint Stroke tool in the Toolbar, or by modifying the outline of an existing shape. The Paint Stroke tool allows you to use a stylus and graphics tablet (or a mouse) to create a paint stroke, rather than drawing the shape in a point-by-point fashion (like a Bezier or B-Spline shape). In addition to sharing other shape outline parameters, paint strokes have a unique tool set that allows you to change the look of the paintbrush and to create particle-type effects with the stroke. Use the Write On feature to record a stroke so that it draws across the Canvas over time.
- **Sequence Paint:** A new behavior called Sequence Paint allows you to animate the dabs of a paint stroke in sequence over time. Using the Sequence Paint behavior, you can customize a paint stroke to fade in, fade out, rotate, shrink, or grow over time.



Final Cut Pro Integration

Motion now offers tighter integration with Final Cut Pro 6. Send timelines from Final Cut Pro to Motion and retain more project detail than ever before. Send Timeline information such as cuts, layers, and basic motion parameters. Send SmoothCam clips from Final Cut Pro to Motion without having to reanalyze the clip. You can also send retiming data from Final Cut Pro to Motion for further modification.

- You can add motion graphics created in Motion directly to your Final Cut Pro sequence, without rendering.
- You can immediately see changes to a Motion project in your Final Cut Pro sequence.
- You can create new Motion projects based on a selection of clips or a sequence in Final Cut Pro. You can use this feature to sketch a motion graphics sequence in Final Cut Pro and then refine it in Motion. The new Motion project can then be embedded in your Final Cut Pro sequence.

Final Cut Pro Templates

You can now set up templates in Motion that can be used as masters in Final Cut Pro, allowing changes to a single project to cascade to a number of Final Cut Pro projects and sequences. Edit text from Motion templates directly in Final Cut Pro while retaining layout, format, and animation. “Drop zones” created in Motion projects carry over to Final Cut Pro so content can easily be replaced in editorial.

- You can create templates in Motion that can be used directly in Final Cut Pro.
- You can edit master templates into sequences and then customize parameters such as text and video within drop zones. You can globally modify the look of all template clips in your project by editing the original Motion template file.

Audio Behaviors

Several new behaviors in Motion allow you to generate audio-driven animations. Use the Audio Parameter behavior to trigger and animate any parameter according to audio amplitude or waveform transients. For example, make a particle system pulse to the beat of music or have an audio track’s bass amplitude affect an object’s opacity. You can also modify the threshold and frequency at anytime without having to recalculate keyframes or type expressions.

- **Audio Auto Pan:** Automates commonly used panning effects in an audio track. For example, you can animate a car moving from right to left and have the audio in the project move from right to left as well.
- **Audio Fade In/Fade Out:** Automates fading in and fading out an audio track.
- **Audio Parameter:** Performs an analysis of a specific property of an audio track, then applies an animation curve to an object parameter based on that analysis.

Retiming Behaviors

The new Retiming behaviors in Motion let you create sharp, clean speed changes in video clips. Some of the new Retiming behaviors allow you to make a clip speed up, slow down, strobe, repeat, flash random frames, stutter, scrub, or reverse. The Set Speed behavior allows fine control over how variable speed is applied to a clip. You can also access retiming data from Final Cut Pro and use traditional keyframes for variable speed effects.

Advanced Keyframe Editor

New, advanced Keyframe Editor tools let you animate with more keyframing precision and speed. Use keyboard shortcuts to display only the animation curves you need.

- **Sketch tool:** Drag an intuitive pen tool to sketch animation curves in the Keyframe Editor, creating keyframes as you go, for any parameter.
- **Box tool:** Drag this tool to select multiple of keyframes, then squish, stretch, or reposition them by adjusting onscreen handles.