

Using the 3D Camera in Motion 5

1. Building a Set in 3D

- Setting up the Project
- Importing a Saved Motion Group
- Examining the Animation Components
- Adding a Second Motion Group
- Examining the Hexagon Group
- Tip for Working with Groups
- Working in 3D Defined
- Determining the Placement and Orientation of the Hexagon
- Adjusting Transform Controls in the Inspector
- Moving the Group in Z Space
- Understanding Visual Priority in 2D Groups
- Working with Rotation
- Identifying a 2D Group
- Changing a 2D Group to a 3D Group
- Understanding Visual Priority in 3D Groups
- Using the Adjust 3D Transform Tool
- Making 3D Adjustments in the HUD
- Resetting Your Adjustments
- Understanding Local Axis vs. World Axis

2. Manipulating the Camera

- Adding a Camera to the Project
- Exploring the Camera Controls
- Moving Around in 3D Space
- Using the Compass
- Identifying the Focal Plane of the Camera
- Using the Compass to Display Different Views
- Using the 3D View Tools
- Resetting the 3D View
- Working in the Perspective View
- Toggling Between Perspective & Active Camera Views
- Manipulating the Camera in the HUD

3. Building a 3D Environment

- Changing the Viewer Background
- Adding a Floor
- Enabling Reflections

- Adding a Design Element to the Floor
- Adding a Color Solid to Create a Background
- Viewing a Scene with the 3D View Tools
- The Benefits of Changing a 3D Group to a 2D Group
- Viewing the Scene with the Background

4. Arranging Sets in 3D Space

- Understanding the Project Game Plan
- Choosing the Optimal Camera Starting Position
- Moving the Floor Graphic
- Creating Copies of the Set and Arranging them in 3D Space
- Changing the Image and Text of Each Set
- Using Fit Objects into View and Frame Objects Command
- Removing the Word "Copy" from Duplicated Layers
- Replacing the Drop Zone Image
- Framing Objects That Don't Face the Camera
- Adding a Closing Title Graphic

5. Camera Animation with the Framing & Sweep Behaviors

- The Animation Goals for the Project
- Moving the Final Scene Group
- Motion's Camera Animation Tools Defined
- Using the Camera Framing Behavior
- Trimming the Behavior
- Setting a Play Range for the Behavior
- Optimizing Playback Performance
- Adjusting the Animation Timing
- Duplicating the Framing Behavior
- Customizing the Final Framing
- Changing the Camera's Path of Travel
- Altering the Framing of Sets 2 and 3
- Using the Camera Sweep Behavior
- Changing the Sweep Angle
- Copying the Sweep Behavior to the Other Sets
- The Key Tip When Using Multiple Sweep Behaviors
- Changing the Stacking Order of Behaviors
- Saving the Project as a Final Cut Pro X Preset

6. Project Breakdown

- Viewing the Finished Project
- Opening the Project File
- Deconstructing the Project

- Improving Playback Performance
- Adding Text to the Scene
- Matching Element Position
- Animating the Text

7. Camera Controls and Depth of Field

- Controlling the Camera
- Using the Framing Camera
- Using the Viewpoint Camera
- Changing the Angle of View
- Using the Far Plane Control
- Using the Far Fade Control
- Using Near Plane & Near Fade
- Using the Depth of Field Controls
- Changing the Point of Focus
- Changing the Focal Plane
- Expanding the Range of Focus
- Animating the Focal Plane

8. Camera Framing Tips

- Changing the Sweep Parameter
- Changing the Framing Offset
- Benefits of Changing the Camera's Scale
- Scaling and Rotating the Camera Simultaneously
- Changing the Framing Offset in the Viewer
- Animating the Camera with an Invisible Layer

9. Camera Animation with Keyframes

- The Benefits of Using Behaviors
- The Benefits of Using Keyframes
- Adding a Second Camera
- Setting Keyframes for Camera Position & Rotation
- Using the Keyframe Editor
- Changing the Keyframe Interpolation
- Adjusting Keyframe Timing
- Changing Keyframe Position in the Viewer
- Using the Walk 3D View Tool
- The Key Thing to Remember when Animating with Keyframes

10. Preparing a Complex 3D Scene for Animation

- Locating and Viewing the Project in the Finder

- Deconstructing the Project
- Navigating to Keyframes
- Improving Playback Performance
- Understanding How Motion Allocates Memory
- Analyzing the Camera's Motion Path
- Determining What Layers to Trim in a Complex Scene

11. Animating the Camera in a Complex 3D Scene

- Deciding Where to Place the Camera
- Framing the Bus Layer
- Creating and Using an Invisible Frame Target to Control the Camera
- Auditioning Camera Framing Layers
- Animating the Camera with a Framing Behavior

12. Cutting Between Cameras and Camera Animation with Other Behaviors

- Adding More Cameras
- Framing the Building with the Active Camera
- Dollying the Camera
- Using the Move Behavior
- Using a Behavior to Pan a Moving Object
- Using the Point At Behavior
- Tracking the Camera with the Match Move Behavior
- Using Parameter Behaviors to Animate the Camera
- Making the Camera "Wriggle"
- Oscillating the Camera