Moving Images Day 3

*Apple Final Cut Pro*

- **Static Motion Controls**
  - double click the clip to be altered in the timeline to open it in the viewer
  - position the edit line in the timeline over the clip to be altered so that changes in the motion controls are visible in the canvas window
  - click the motion tab in the viewer window
- **Basic Motion**
  - **Scale**
    - changes the scale of the clip while maintaining proportions
    - 100 is original, range is 0-1000
    - move slider or type new scale into the box
  - **Rotation**
    - rotates the clip around the anchor point the specified number of degrees
    - negative numbers are counter-clockwise rotation
    - positive numbers are clockwise rotation
    - numbers greater than 360/less than -360 are divided by 360 then the remainder used to determine static rotation (520° rotation is the same as 160°)
  - **Center**
    - changes the position of the center of the clip relative to the center of the canvas
    - effectively repositions the clip on the canvas
    - first box is horizontal movement in pixels
      - positive number – right
      - negative number – left
      - 0 is center
      - 360 is far right edge of canvas
      - -360 is far left edge of canvas
    - second box is vertical movement in pixels
      - positive number – down
      - negative number – up
      - 0 is center
      - -240 is top edge of canvas
      - 240 is bottom edge of canvas
    - 120,60 moves the clip 120 pixels to the right and 60 pixels down
  - **Anchor Point**
    - controls the point that the clip is rotated around
    - uses the same coordinate system as center
    - default anchor point is 0,0
- **Crop**
  - crops edge of the clip
  - left, right, top, bottom
  - 0-100 scale
    - 0 – no cropping
    - 100 – no image visible
  - edge feather softens the edges of the clip
    - 0 – no softening
    - 100 – maximum softening
- **Distort**
  - change the position of each corner of the clip
  - coordinate system is the same as for basic motion/center
  - the image distorts to fit the new shape
- **Opacity**
  - alter the opacity of the clip
  - 0-100 scale
  - 0 – fully transparent
  - 100 – fully opaque
• Controls directly in the Canvas
  ○ View > Image + Wireframe
  ○ zoom in or out of canvas if needed
    • Command-plus zooms in
    • Command-minus zooms out
    • or change scale with left-most dropdown at top of canvas
  ○ select desired clip in timeline or by clicking on it in the canvas
  ○ with arrow tool (“a”)
    • scale
      • position cursor over corner of clip
      • cursor turns to a + with no arrowheads
      • click and drag from corner to scale proportionately
      • shift-click and drag to scale and change aspect ratio
    • rotation
      • position cursor over edge of clip
      • cursor turns into a curved arrow
      • click and drag to rotate
      • hold shift while dragging to constrain to 45° increments
    • center
      • position cursor over clip
      • cursor should be a 4 headed arrow
      • click and drag to reposition clip
      • hold shift while dragging to constrain movement to horizontal or vertical axis
  ○ with crop tool (“c” or second from bottom of tool palette)
    • position cursor over edge of clip
    • cursor turns into the crop icon
    • click and drag to adjust cropping of that edge
    • hold command while dragging to adjust parallel edges in unison
  ○ with distort tool (“d” or second from bottom of tool palette behind crop)
    • position cursor over corner of clip
    • cursor turns into distort icon
    • click and drag to reposition that corner and distort clip
    • hold option while dragging to change scale of clip without distorting
    • hold option and shift while dragging to change aspect ratio and scale of clip
    • hold shift and drag to distort two points simultaneously
      • horizontal drag – mirrors on vertical axis
      • vertical drag – mirrors on horizontal axis

• Keyframing Motion
  ○ keyframing defines the value for an attribute at a series of times, which Final Cut Pro then creates intermediate values for to make a smooth transition between the two values
  ○ for example, with scale as the attribute, if a keyframe is set at 00:00:01:00 with a value of 30% and another at 00:00:04:00 with a value of 60%, the scale will smoothly increase from 30% to 60% and be 40% at 00:00:02:00
  ○ motion keyframes are edited in the viewer window’s motion tab
    • to add a keyframe
      • in the viewer, move to the desired point in time
      • click the button with a diamond label to the right of the desired attribute(s)
      • alter the attribute(s) value as desired
      • if you are not trying to set an attribute's value at a given time, you do not need a keyframe there
        ○ for example, no need to add a rotation keyframe if you're altering scale only
    • to move between keyframes
      • in the desired attribute, locate the triangles to either side of the keyframe button
      • right triangle moves to next keyframe for that attribute
      • shift-K moves to next keyframe for any attribute
      • left triangle moves to previous keyframe for that attribute
      • option-K moves to previous keyframe for any attribute
• to edit a keyframe
  • move to the desired keyframe
  • add/remove keyframe button for the desired attribute should have a green diamond
  • edit attribute as desired

• to remove a keyframe
  • move to the desired keyframe
  • add/remove keyframe button for the desired attribute should have a green diamond
  • click add/remove keyframe button to remove the keyframe
  • add/remove keyframe button for the desired attribute should now have a outline diamond

• to remove all keyframes for a section
  • at the top of the section, click the red “X”