Web Gallery Using Flash

Title: Web Gallery Using Flash

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Chapter 8 Motion Tween, Onion Skinning & Camera

Learning Outcome

Objectives of this chapter are: -

- Animation types
  - Motion tween animation
  - Onion Skinning
  - Animating Camera

Motion tweens

Use motion tweens to set properties for an object, such as position and alpha transparency in one frame and again in another frame. Animate then interpolates the property values of the frames in between. Motion tweens are useful for animation that consists of continuous motion or transformation of an object. Motion tweens appear in the Timeline as a contiguous span of frames that can be selected as a single object by default. Motion tweens are powerful and simple to create.

- Lock the message layer.
- Click "+" sign to create new layer – rename it to Plane
- Go to file – Import - Import to Library
- Choose Plane.PNG and click Open
- Move Playhead in timeline to "1".
- While the plane layer selected - Drag and drop the Plane.PNG outside the stage area about X position = 1540 and Y position = 200
- Right click on Plane.PNG on stage and choose convert to Symbol or Press F8
- Give the name Plane and click ok
- Right click on timeline in Plane layer and choose Motion Tween.
- Move Playhead to 10" in the timeline – select Plane, while pressing Shift – move to left side of the stage area. X position = -400 and Y position = 200
- Lock the Plane layer
- Click "+" sign to create new layer – rename it to Audio
- Go to file – Import - Import to Library
- Choose Plane.MP3 and click Open
- Move Playhead in timeline to "1".
- While the Audio layer selected - Drag and drop the Plane.MP3 into the stage
- Try click play and test it.

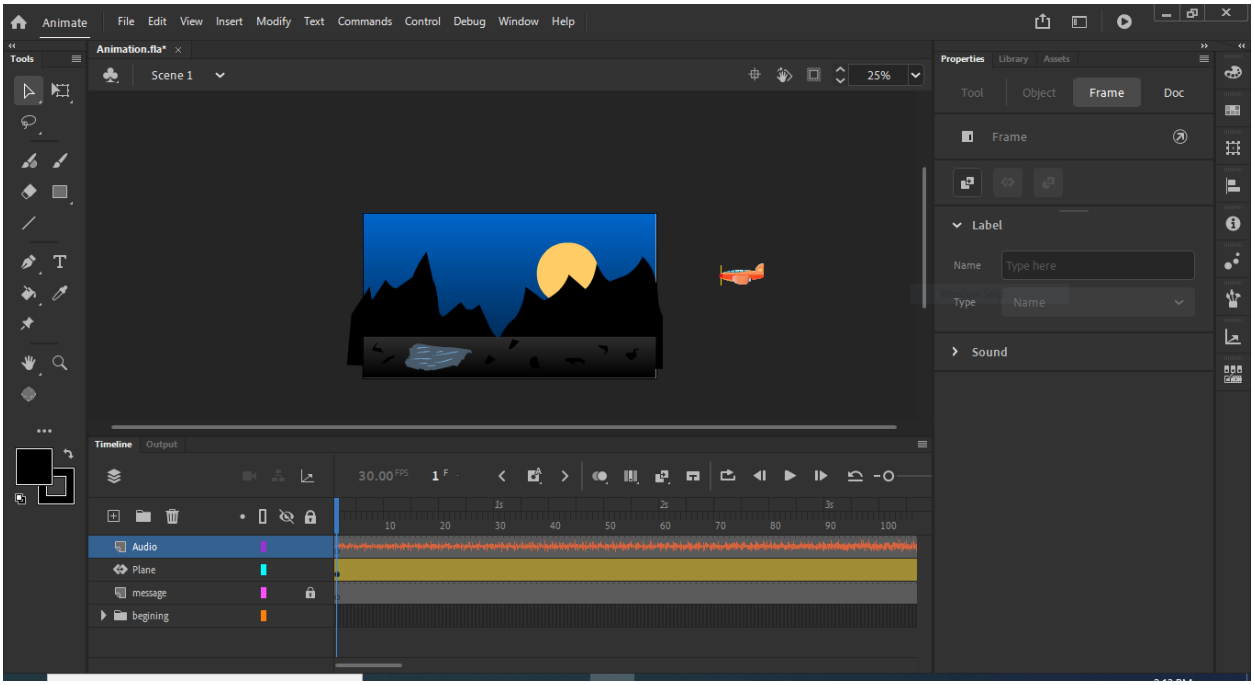

Figure 1 creating Plane and audio layer.

Controlling shape changes with shape hints

To control more complex or improbable shape changes, you can use shape hints. Shape hints identify points that correspond in starting and ending shapes. For example, if you are tweening a drawing of a face as it changes expression, you can use a shape hint to mark each eye. Then, instead of the face becoming an amorphous tangle while the shape change takes place, each eye remains recognizable and changes separately during the shift.

Shape hints contain letters (a through z) for identifying which points correspond in the starting and ending shapes. You can use up to 26 shape hints.

Shape hints are yellow in a starting keyframe, green in an ending keyframe, and red when not on a curve.

Example: - we want to create ocean wave.

- Start adobe animate – choose any presets
- Click on create - Rename the layer to Ocean
- Select the rectangle tools - Choose color blue – no stroke
- Draw a rectangle on the bottom of stage.
- Use Ctrl + selection tools to make some angle to rectangle so it is look like wave form.
- Go to frame 30 and press F6 to create keyframe.
- Right click on between keyframes and choose Shape tween

- Move playhead to frame 1 and insert a shape hints as much as required. In our ocean we have 4 wave and 4 corners, so we need 7 Shape hints.

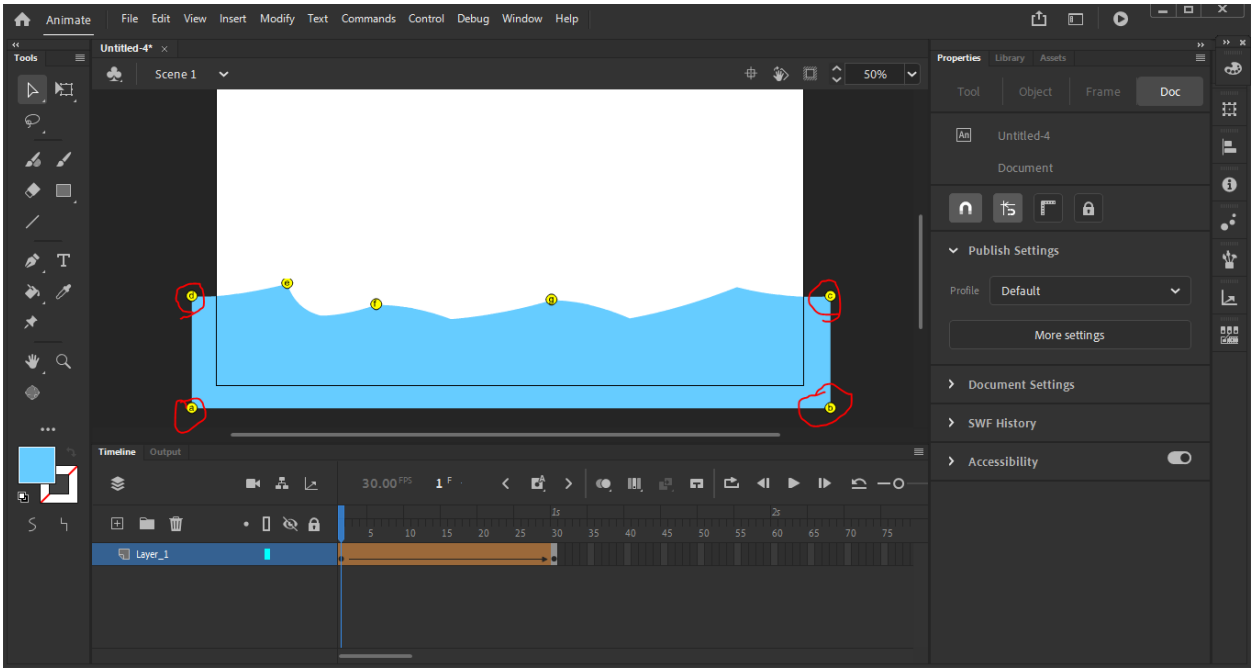

Figure 2 Shape hints as letters

- We place the a, b, c, d on 4 corners of the rectangle which we don't want to move and we place e, f, g on top of every wave from left as shown in the figure above.

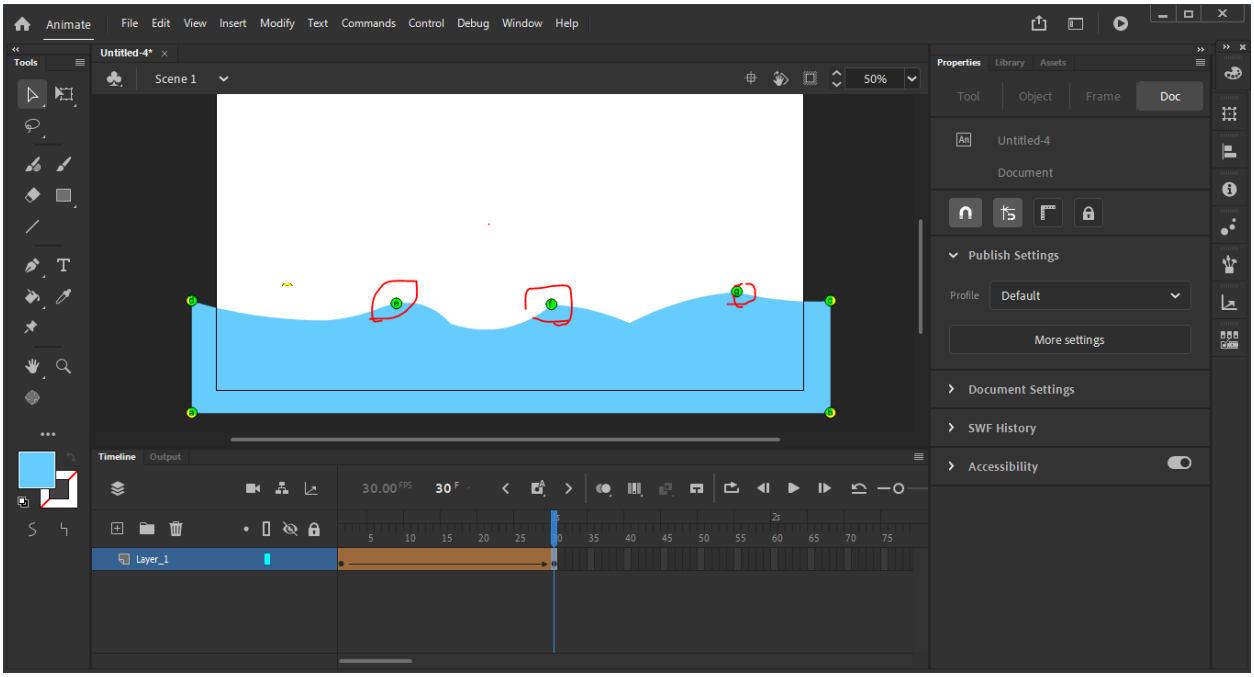

Figure 3 Shape Hint

- Move playhead to frame 30. We place a, b, c, d in the same place as were in frame 1. But we move e, f, g one wave a right side as shown in figure below.
- Now play the animation, you can see that it is look like ocean wave form.

More about Shape Hints

For best results when tweening shapes, follow these guidelines: -

- In complex shape tweening, create intermediate shapes and tween them instead of just defining a starting and ending shape.
- Make sure that shape hints are logical. For example, if you are using three shape hints for a triangle, they must be in the same order on the original triangle and tween triangle. The order cannot be a, b, c in the first keyframe and a, c, b in the second.
- Shape hints work best if you place them in counterclockwise order beginning at the upper-left corner of the shape.

Use shape hints

1. Select the first keyframe in a shape-tweened sequence.
2. Select **Modify** > **Shape** > **Add Shape Hint**. The beginning shape hint appears as a red circle with the letter *a* somewhere on the shape.
3. Move the shape hint to a point to mark.
4. Select the last keyframe in the tweening sequence. The ending shape hint appears as a green circle with the letter *a* somewhere on the shape.
5. Move the shape hint to the point in the ending shape that corresponds to the first point you marked.
6. To view how the shape hints change the shape tweening, play the animation again. To fine-tune the tweening, move the shape hints.
7. To add more shape hints, repeat this process. New hints appear with the letters that follow (*b*, *c*, and so on).

View all shape hints - Select **View** > **Show Shape** Hints. The layer and keyframe that contain shape hints must be active for **Show Shape Hints** to be available.

Remove a shape hint - Drag it off the stage.

Remove all shape hints - Select **Modify** > **Shape** > **Remove All Hints**.

Now we are going to add exhaust smoke for plane in project.

- Go to Library panel - Double click on Plane symbol - It will open in symbol timeline - Rename the layer to Plane
- Select frame 30 in the timeline right click and choose insert frame or press F5, to insert frame
- Lock the plane layer.
- Click "+" sign in the timeline to create new layer and rename it Smoke.

- While your Playhead in frame 1, select Fluid brush tools, set a color and draw a shape like smoke on the stage.
- Align the rectangle with back of the plane engine

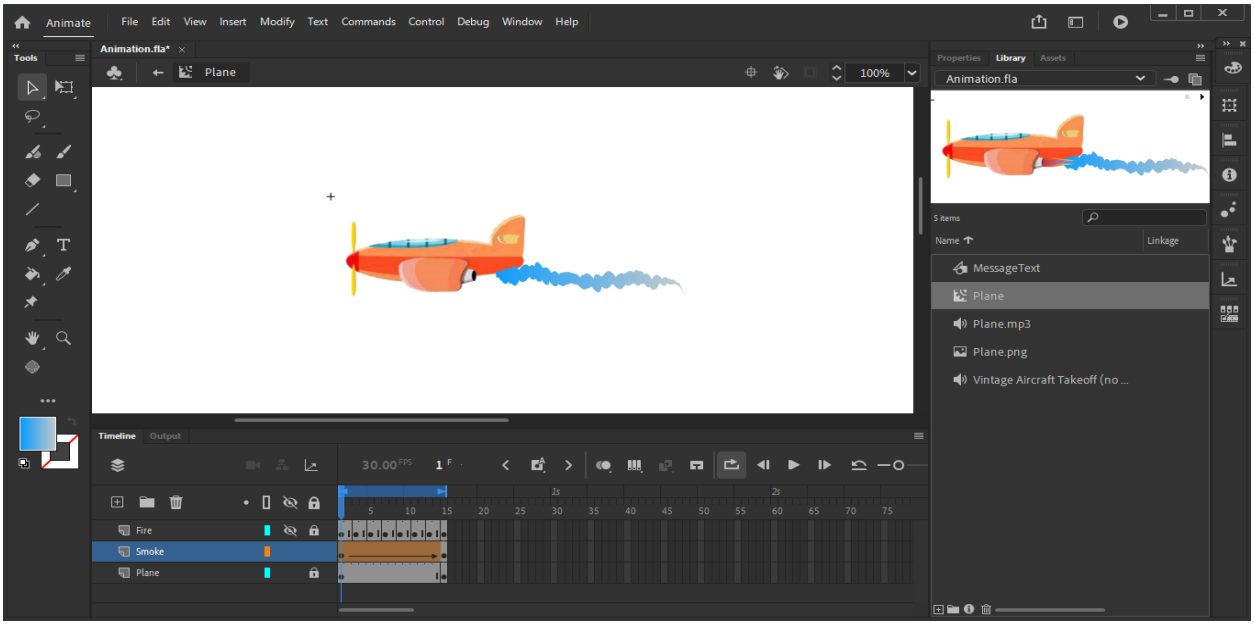

Figure 4 Drawing smoke shape

- Move Playhead to frame 30 in timeline and right click and choose insert keyframe or press F6, to insert keyframe.
- Right click on timeline of smoke layer and choose Shape Tween.
- While Playhead on frame 1, Click on modify menu – Shape – Add Shape Hint or press and hold Ctrl + Shift and press letter "h" shortcut for shape hint

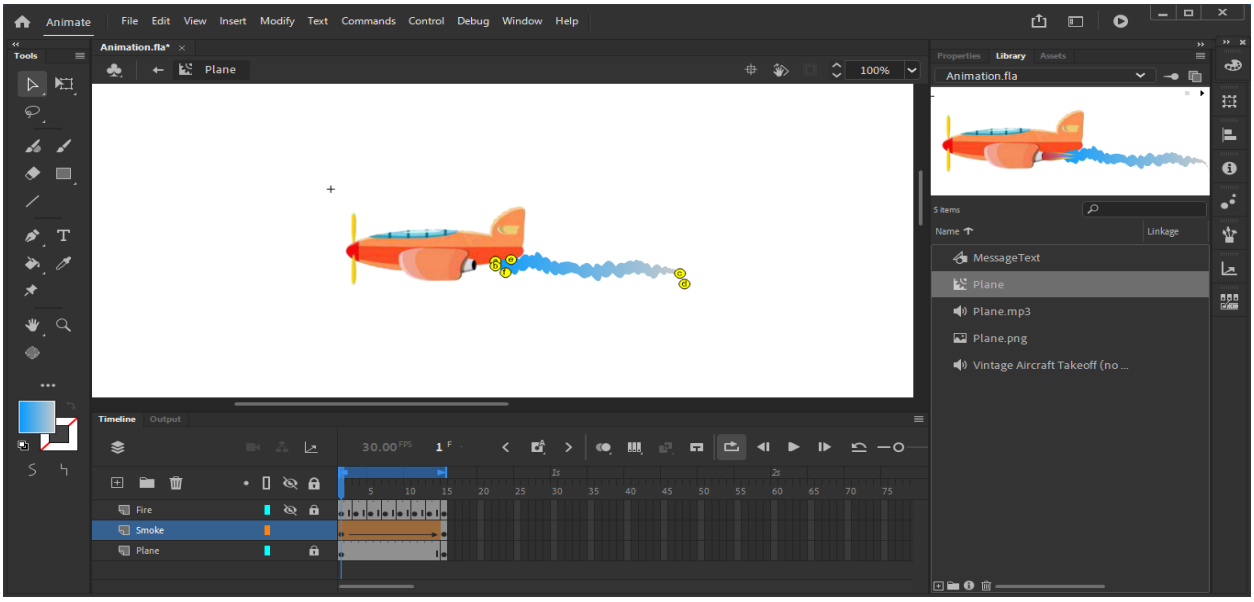

Figure 5 Add Shape Hint

- It will add little hint with letter "a", press Ctrl + Shift + h for 6 times until it creates 6 letter hints, from a, b, c, d, e, and f.
- Now move playhead to frame 30, you can see that all hints are in the center. Move a, b, c, d to the corners as in frame 1 and move "e" to top right side of the smoke shape and "f" to the right down side of the smoke shape.

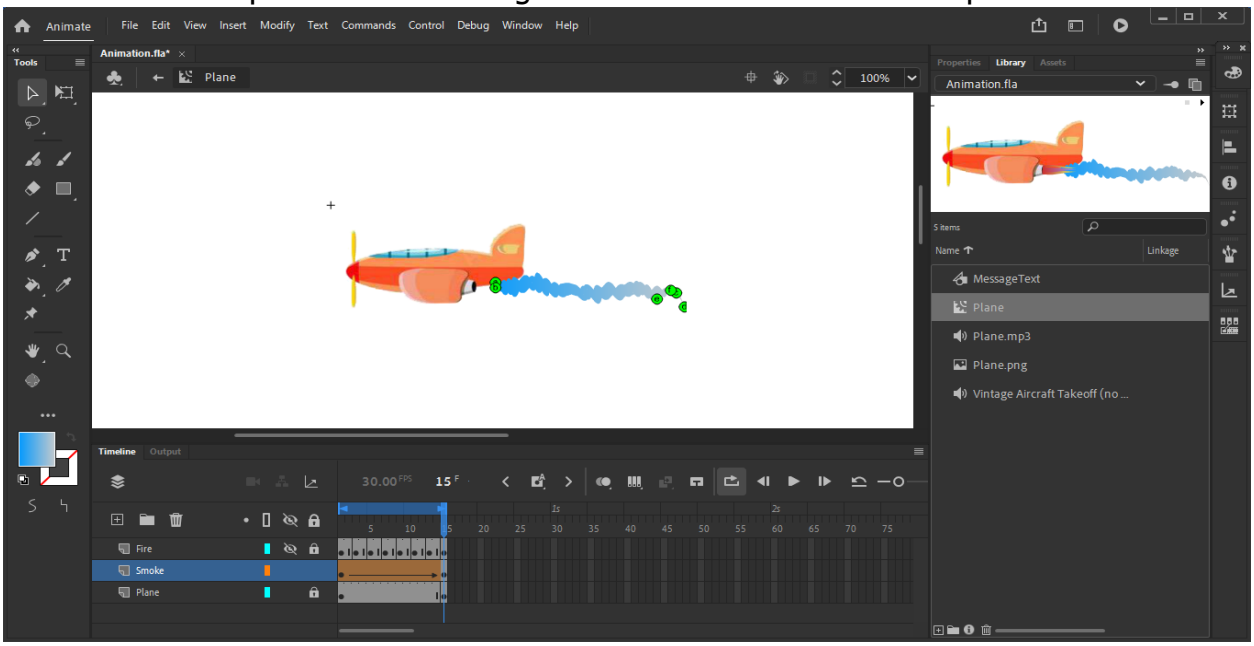

Figure 6 Shape hints at frame 30

Click back to go back the main scene and play to test. Control – test.

Figure 7 Shape Hint after finish

USE ONION SKINNING

Usually, one frame of the animation sequence at a time appears on the Stage. To help draw, position and edit frame-by-frame animations, onion skinning provides reference by displaying contents of the previous and the following frames on the stage. The frame under the playhead appears in full color and apply color and alpha to differentiate between past and future frames.

The previous and the following frames of onion skinning have default color tints. To customize these colors, use the Advance Settings option.

Enable and disable onion skinning

- Click the Onion Skin button to enable and disable onion skinning.
- To exclude or include frames, in the timeline header, right click any onion skin frame within the onion skin range.
- Click and hold the mouse on the Onion Skin button to view and select the options.

Advance settings in onion skinning - Click and hold the mouse on the Onion Skin button and select Advance Settings.

Customizing Range

CUSTOMIZING COLORS FOR ONION SKIN DISPLAY

- To customize the color of the onion skin frames, select the **Onion skin frame** in the Timeline bar.
- Click and hold the mouse on the Onion Skin button and select **Advance Settings**.
- Modify the color-tint of the previous and future frames.

OUTLINE AND FILL MODE

CUSTOMIZING OPACITY

- To modulate the opacity of onion skin frame on either side of the active frame, click and drag the **Starting opacity** slider.
- To decrease the delta of every onion frame by percentage, drag the **Decrease by** slider.

SHOW KEYFRAMES ONLY

- To customize the color of the onion skin frames, select the **Onion skin frame** in the Timeline bar.
- Select **Edit>Preferences**.
- In the **Onion Skin Color** option, select the color swatch buttons to customize and set colors for the **Past, Present, and Future** frames.

Anchor Markers

Simultaneously view several frames of an animation on the Stage

Click the Onion Skin button. All frames between the Start Onion Skin and End Onion Skin markers (in the Timeline header) are superimposed as one frame in the document window.

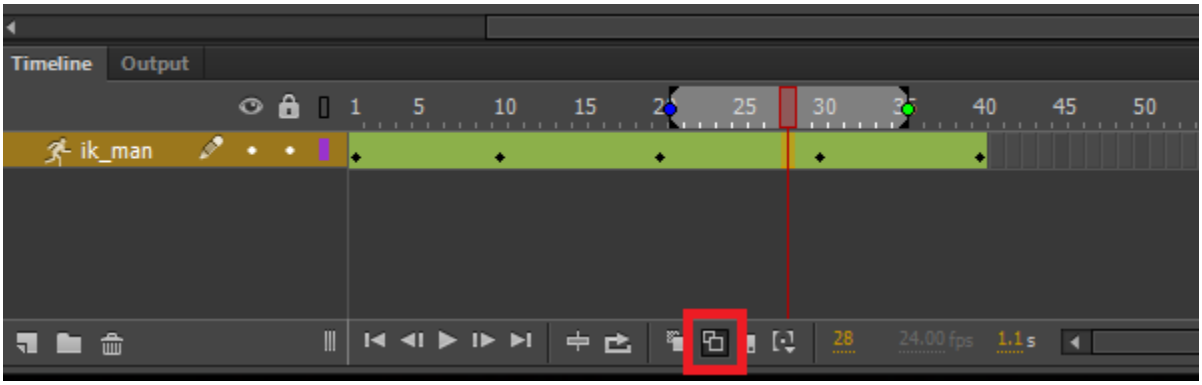

Figure 8 Onion skin markers

Color Coded Onion Skinning

Onion skinning color coding helps you distinguish between the past, present, and future frames. Onion skin frames that move away from active frame appear with progressively decreasing transparency.

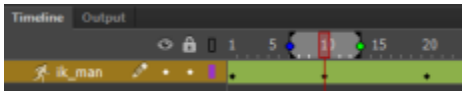

Figure 9 Onion skinning on the timeline

Figure 10 Color-coded onion skinning that shows the past, present, and future frames

Figure 11 Onion Skinning Outline Mode

Customizing Colors for Onion Skin Display

1. To customize the color of the onion skin frames, select the **Onion skin frame** in the Timeline bar.
2. Select **Edit>Preferences**.
3. In the **Onion Skin Color** option, select the color swatch buttons to customize and set colors for the **Past, Present, and Future** frames.

Note: Color code is also applicable for outline mode.

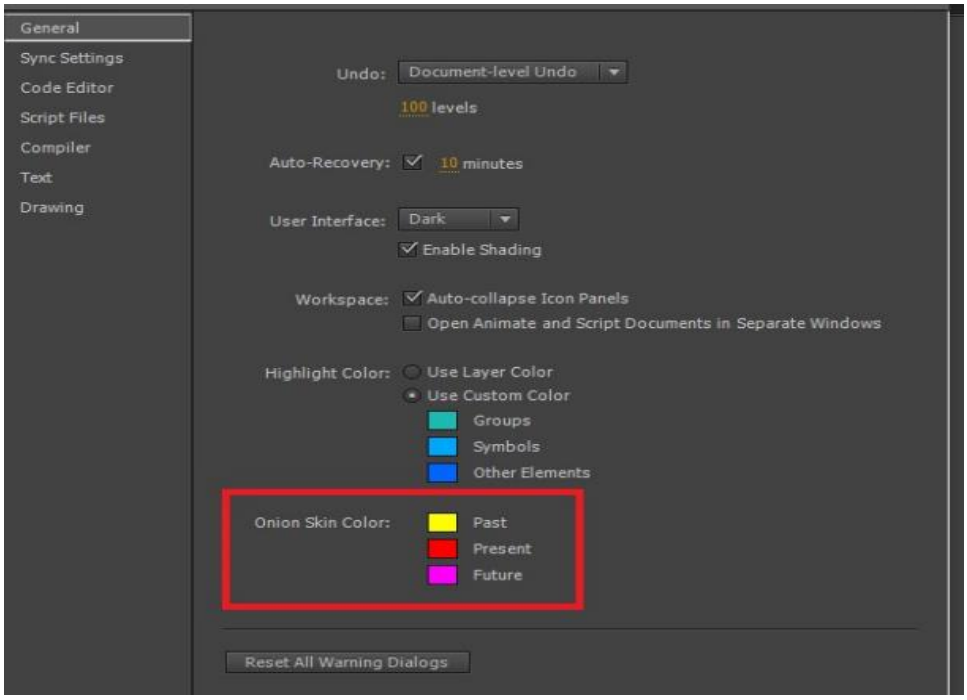

Figure 12 Onion skin color

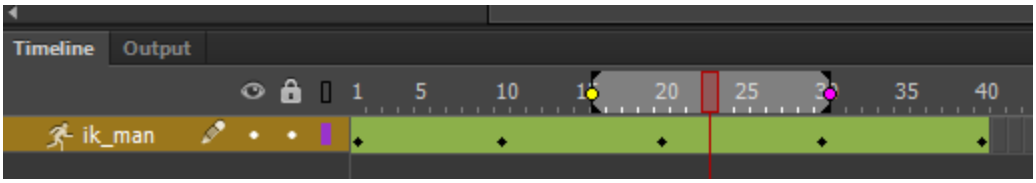

Figure 13 Onion Skin Timeline Mode

Figure 14 Customized Onion skinning

- To change the position of either onion skin marker, drag its pointer to a new location. Normally, the onion skin markers move with the current frame pointer. Use Control/Command+ drag to increase or decrease the position on both sides.
- To enable editing of all frames between onion skin markers, click the Edit Multiple Frames button. Usually, onion skinning lets you edit only the current frame. You can display the contents of each frame between the onion skin markers and edit them.
- To move the loop range across the timeline to any position that includes the playhead position, use the markers in the timeline to hold the Shift key and drag the range.
- To set the range markers, use the Shift key and drag the range markers or the loop range using the markers across the Timeline.

Note: Locked layers (with a padlock icon) are not displayed when onion skinning is turned on. To avoid a multitude of confusing images, lock or hide the layers you don't want to be onion skinned.

Preview your work

To check how your onion skinning is coming along, hover the mouse across the entire span on the timeline. Your animation plays in colored outlines giving you a precise preview of the changes.

ANIMATING CAMERA

Aside from animating individual shape and symbol assets, it's also possible to zoom, pan, and rotate the contents of the entire document at once using a virtual camera, adding a whole other level of animation to your project.

Camera in Animate allows animators to simulate a real-life camera. Previously, animators relied on third-party extensions of varying quality and compatibility, or modified their animations to mimic a camera's movement. Animators can use the following features that are integral to any motion film.

- Panning with the subject of the frame
- Zooming in the object of interest for dramatic effect
- Zooming out of a frame to remind the viewer of a larger picture
- Modifying the focal point to shift the attention of the viewer from one subject to another
- Rotating the camera
- Using color tint or filters to apply color effects on a scene

When you set a camera view for your composition, you look at the layers as though you were looking through that camera. You can also add tweens or keyframes on a camera layer.

Camera tool is available for all the built-in doc-types in Animate - HTML Canvas, WebGL, and ActionScript.

Enabling or disabling the camera

Use any of the following options to enable the camera tool:

- Click the camera icon from the tools panel.
- Click the Add/Remove camera button from the timeline.

When a camera is enabled, a stage boundary is displayed in the same color as the camera layer.

If the camera is not enabled, do the following: -

Advanced Layers mode is enabled by default. You can enable or disable Advanced Layers using Modify > Document settings. After applying the changes, click Make default to preserve current setting for the subsequent documents and across Animate sessions.

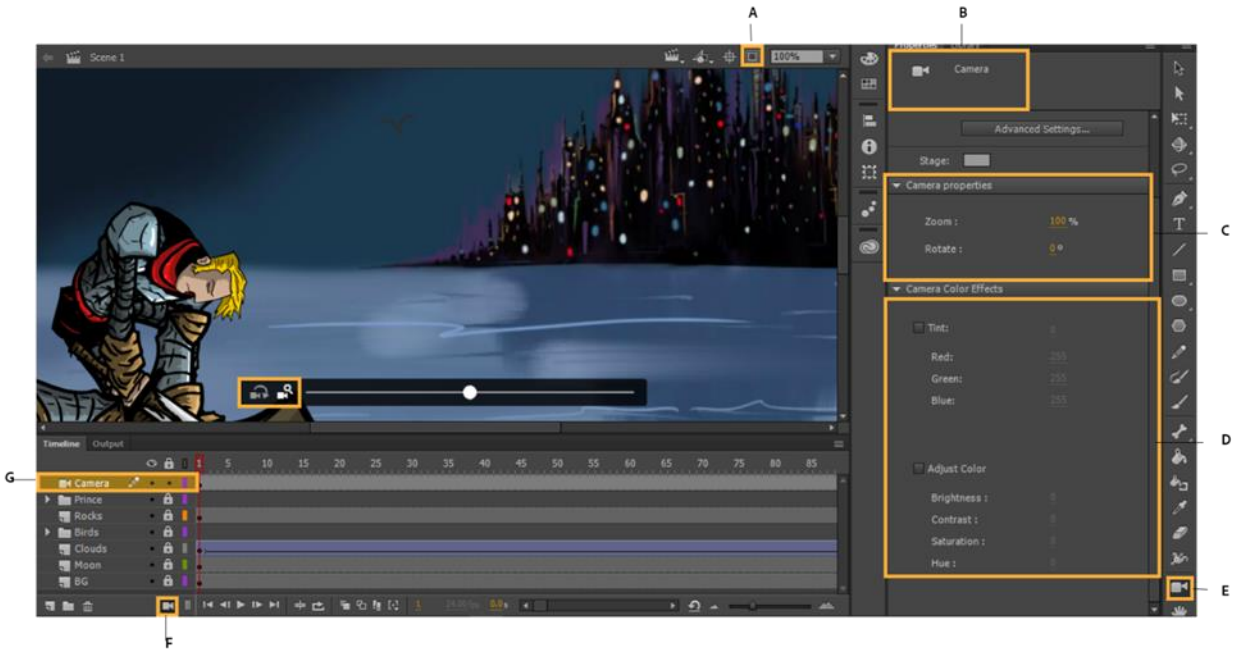

Figure 15 Camera workspace

A. Stage outline **B.** Camera icon **C.** Camera properties **D.** Camera color effects **E.** Camera tool **F.** Camera icon **G.** Camera layer

The stage now behaves as a camera for the document. A new camera layer with the camera object is added to the **Timeline** panel. When you select the camera tool, the camera icon is enabled in the Property inspector.

When the camera is enabled: -

- The current document is placed in the camera mode.
- The stage is turned into a camera.
- Camera border is visible in the stage boundary.
- Camera layer is selected.

What is Camera Zoom?

In photography, camera zoom refers to making a subject appear closer or further away in an image. Zooming in gives you a closer look at objects, while zooming out will let you capture a wider space. This can be done by using optics to magnify an image or simply cropping into an image area.

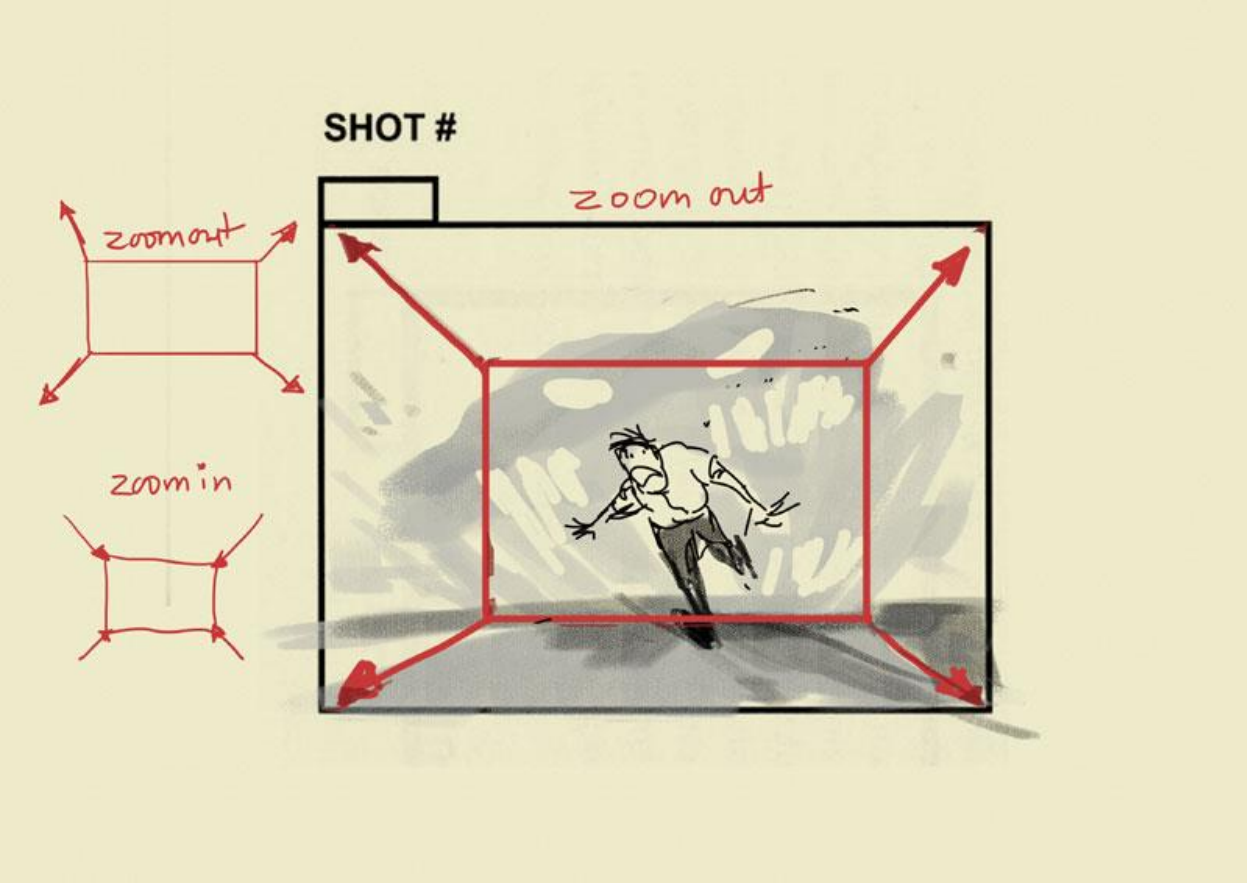

Figure 16 zoom in and out

Zooming the camera in Animate

1. Use the onscreen zoom controls to zoom the object or set the zoom values in the Camera Properties panel.
2. To zoom into the scene, modify the zoom values or select the slider bar at the bottom of the stage.
3. To zoom in the content, move the slider toward the + side and to zoom out the content move the slider toward - side.
4. To enable infinite level of zoom values on either side, release the slider to snap it back to the middle position.

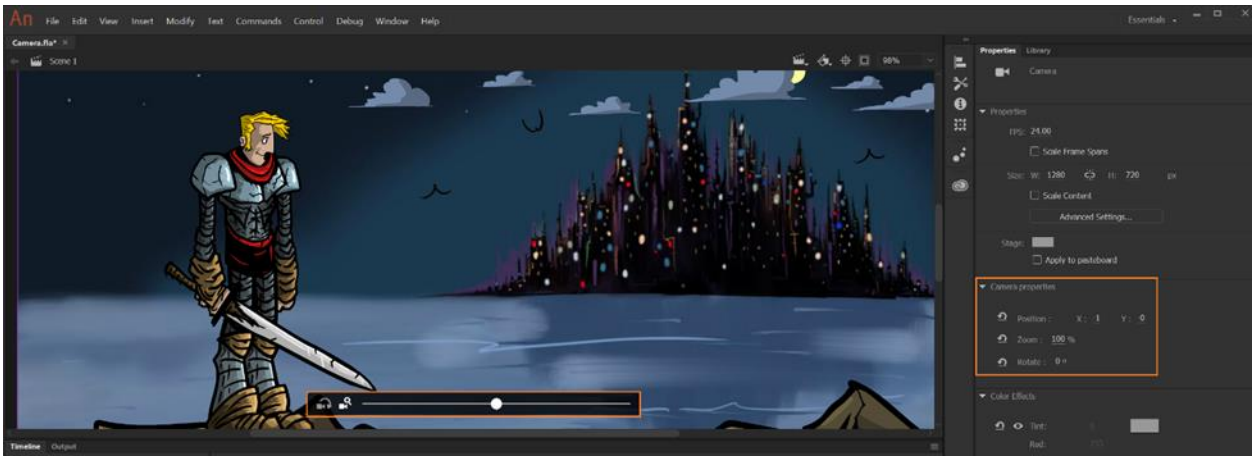

Figure 17 Zoom and Rotate

Rotating the camera in Animate

1. Use the onscreen zoom controls to rotate the object or set the Rotate values in the camera properties panel.
2. To specify the rotation effect on each layer, modify the rotate values or use the rotation slider controls to manipulate the rotation.
3. To enable infinite levels of rotation on either side, release the slider to snap it back into the resting position. The number in the middle of the control indicates the degrees of rotation currently applied.

Panning and Tilting

What is panning?

Panning is when you move your camera horizontally; either left to right or right to left, while its base is fixated on a certain point. You are not moving the position of the camera itself, just the direction it faces. These types of shots are great for establishing a sense of location within your story.

What is tilt?

Tilting is when you move the camera vertically, up to down or down to up, while its base is fixated to a certain point. Again, like panning, this move typically involves the use of a tripod where the camera is stationary but you move the angle it points to. These shots are popular when introducing a character, especially one of grandeur, in a movie.

Figure 18 Panning

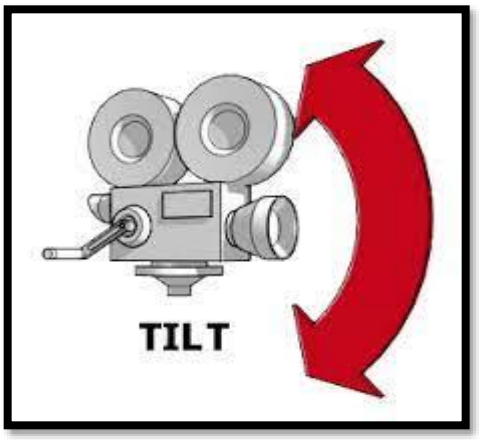

Figure 19 Tilting

Panning the camera in Animate

1. Click the camera bounding box and drag anywhere within the camera layer on the stage.
2. To pan the selected object, scroll up or down or use the shift key to pan horizontally or vertically without any tilt.
3. When the camera tool is active, any drag action is a pan operation within the camera boundary.

USING CAMERA PANNING CONTROLS

You can use camera coordinates **X** and **Y** in **Camera properties** of camera Property inspector to pan the camera with accuracy.

Figure 20 Camera panning controls

To pan objects in horizontal direction, move the mouse over x coordinate value and drag the slider to right or left.

To pan objects in vertical direction, move the mouse over y coordinate value and drag the slider to right or left.

Reset options for camera effects

You can reset the changes that you make with camera for pan, zoom, rotation, and color effects whenever you want to go back to original settings. To retain your previous property values, click the reset icon next to each of the properties.

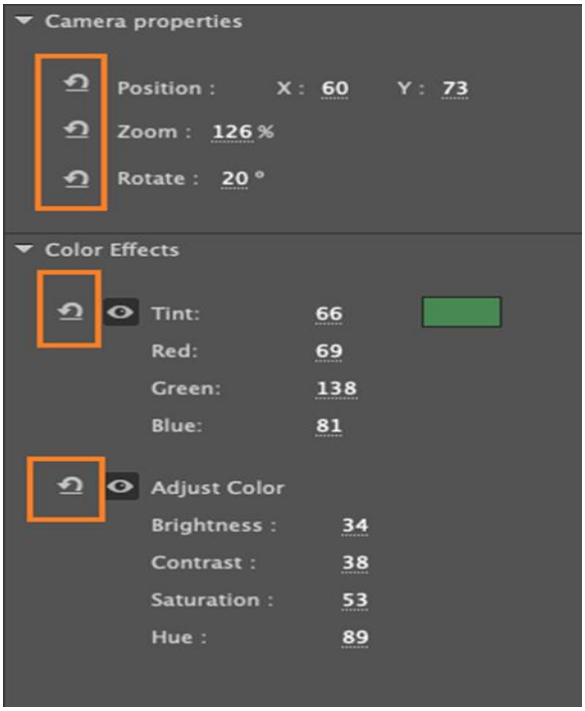

Figure 21 Camera Property panel

Applying tint on a camera layer

1. Select **Camera > Properties** panel. To enable or disable the tint effect, select the **Tint** check box.
2. Modify the tint value (percentage) and the RGB tint color for the current frame.

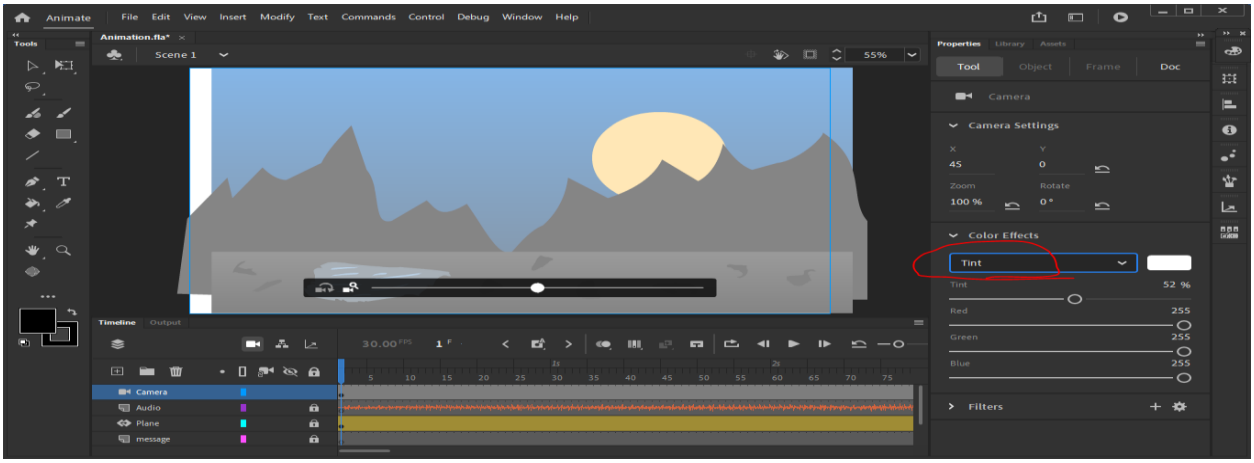

Figure 22 Tint Effect

Adjusting color filters on a camera layer

1. In the camera properties panel, select the Adjust Color check box to enable or disable the filter effect.
2. Modify the Brightness, Contrast, Saturation, and Hue values for the current frame. The acceptable range for Brightness, Contrast, Saturation is -100 % to 100 %, and Hue -180° to 180°.

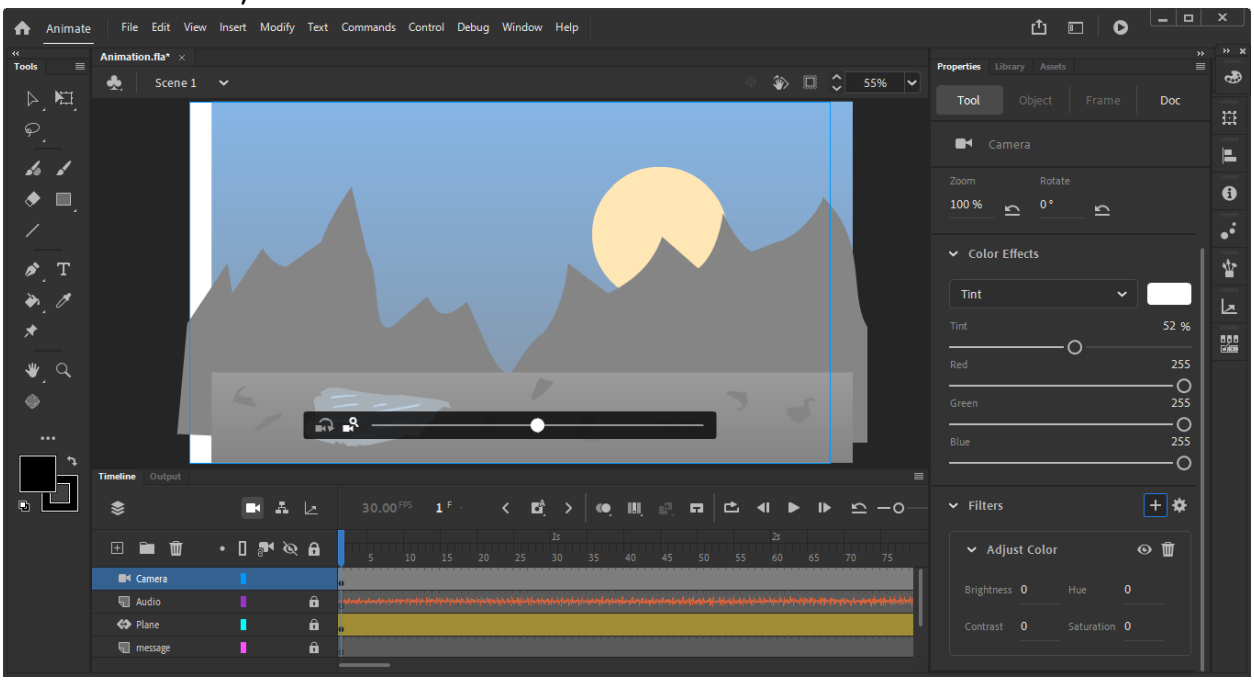

Figure 23 Adjust color

CONTINUE WITH THE PROJECT

On top of the layer, there is camera button, if we toggle this on, we get a special camera layer inside of our timeline. If we decide we don't want to use the virtual camera at any time, we can always turn it off as well. We do want to use it though, so go ahead and turn that back on.

Notice we also get a little overlay of controls on the stage. This allows us to visually change or adjust the camera settings. Let's go back to our initial key frame here. And what we are going to do is sort of zoom in.

There are two different controls here we can activate. One is a zoom, which is activated right now and then there is also a rotate. Additionally, if I move this around, this is a panning control when that camera is active. The first thing we want to do is zoom in to about 120%.

- Move the playhead to frame 1.
- Click on zoom in the stage and zoom in the stage or change the zoom value in property panel. Let's change it to 120%.

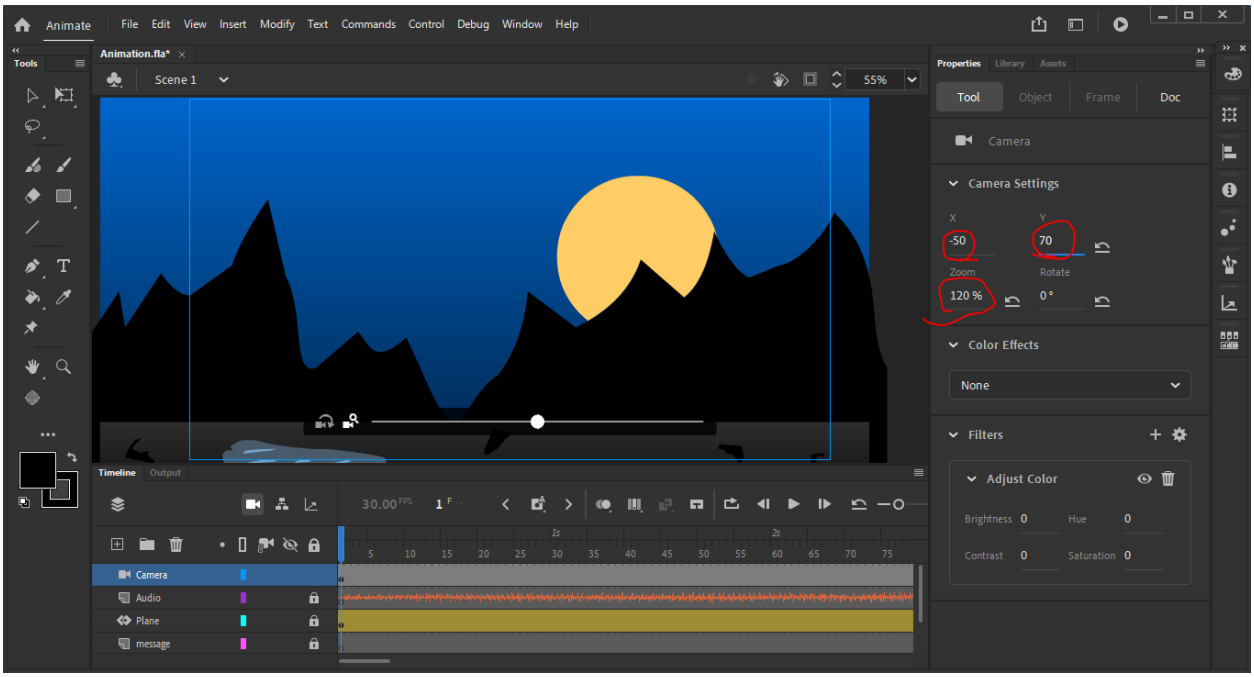

Figure 24 Zoom 120%

- And also, we can pan using X value or tilt using Y value. Let's pan and tilt a little, about change X value to X = -50 and Y = 70.
- Move playhead to fame 90. In this point we want the camera go back to his original position. We can change the values in the properties panel or just press rest button to change the values automatically.

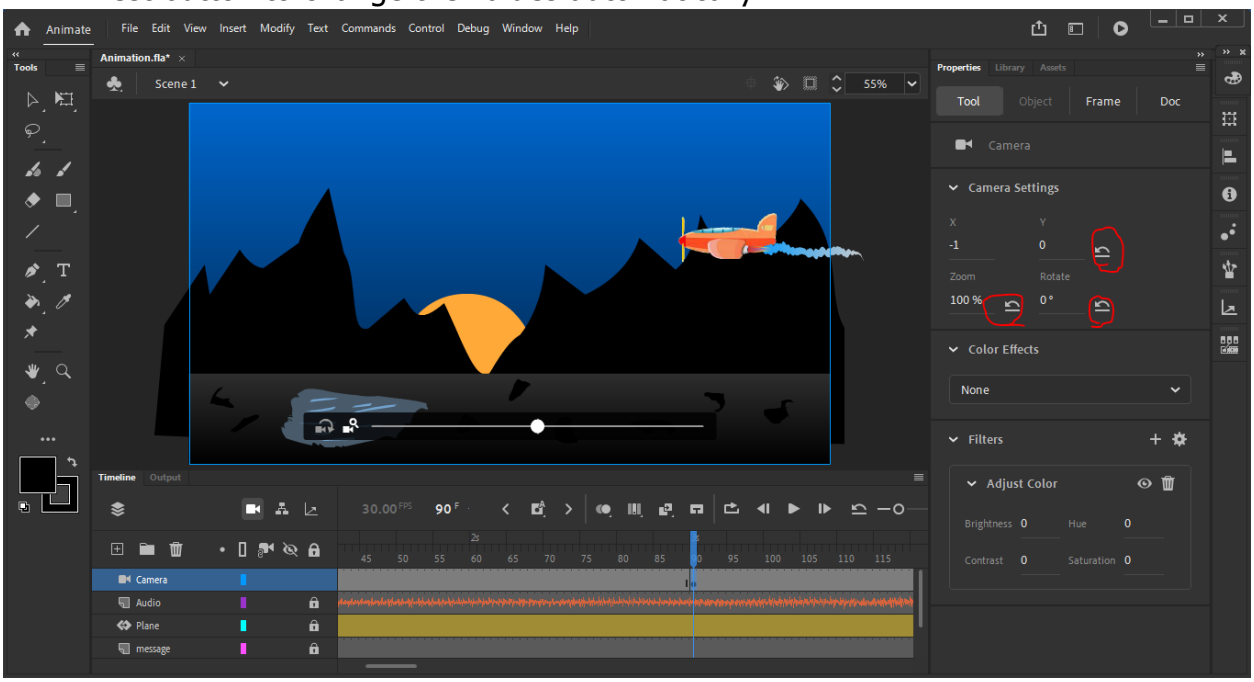

Figure 25 change values for camera

- Click between two keyframes we just created and choose classic tween.
- For smooth zoom in and out, we can use ease out from the property panel. Click on Classic Ease to open and choose, Ease out, Sine. And test your animation.
- Move to frame 150, right click and choose insert keyframe or just press F6, and move to frame 200 and insert another keyframe and change zoom to 120%.
- Right click in between two keyframes and choose classic tween. For Ease in, we choose Ease In out, choose Quad.
- We move the playhead to frame 230, insert keyframe, and move to frame 280 insert another keyframe, right click in between and insert a Classic tween.
- While we are in frame 280, we change zoom value to 135. For Ease in, we choose Ease In out, choose Quad.

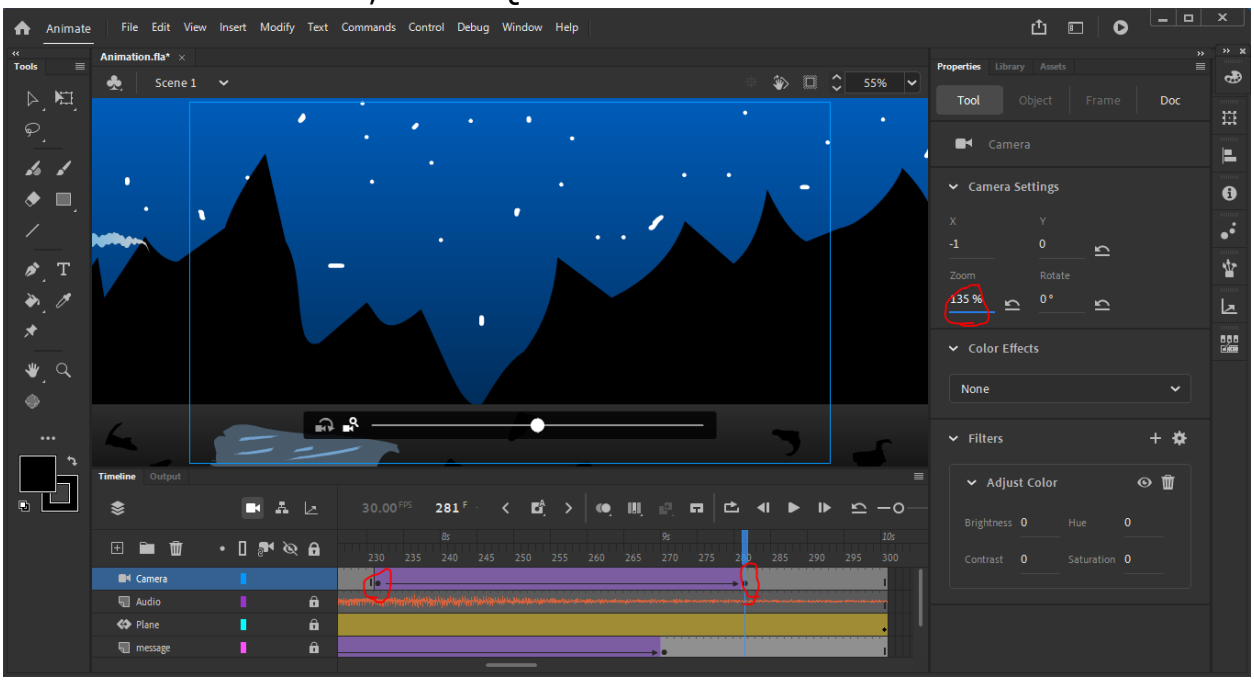

Figure 26 final camera change