Sequence Tool

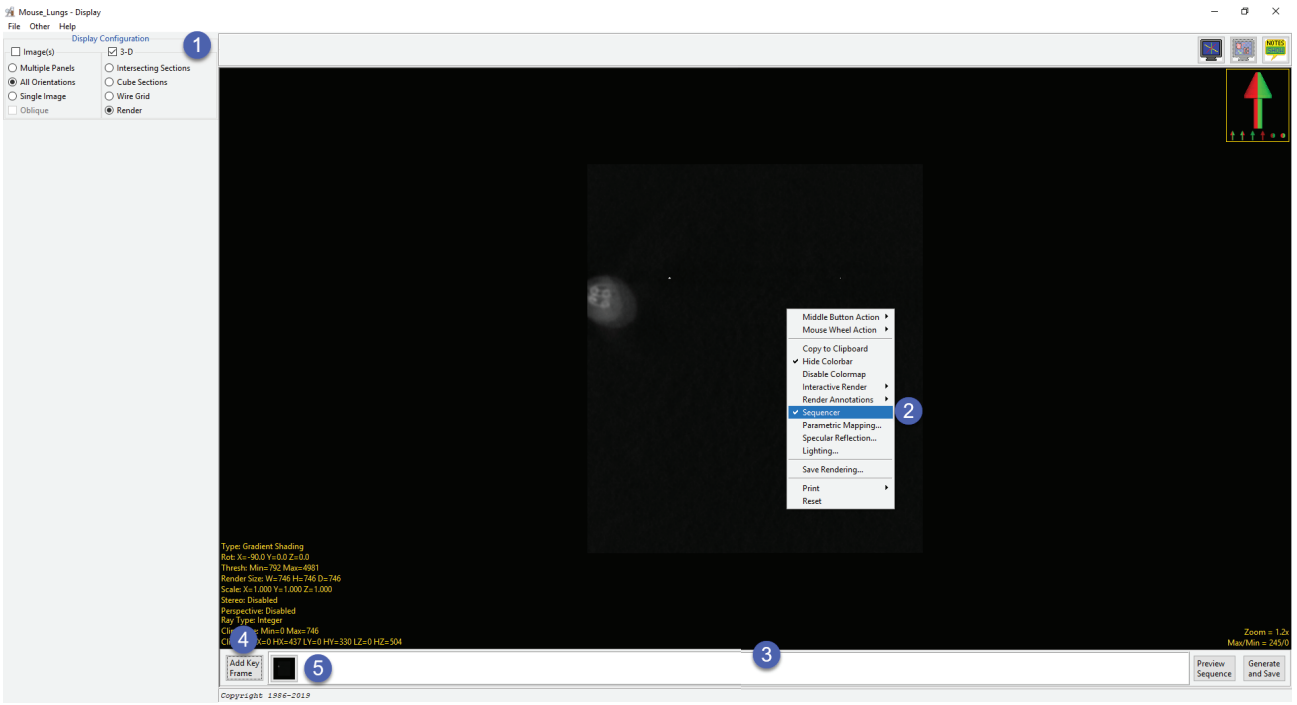
Creating a Basic Movie

The Sequence tool provides users with an intuitive interface to quickly create impressive movies of the rendered image data.

Download the Mouse_Lungs.avw data set to follow along, from https://analyzedirect.com/data.•

Use the Input/Output module to load the Mouse_Lungs.avw.

Select the Mouse_Lungs data set and then open Display.



In Display set the Display Configuration to 3-D and choose the Render option. Uncheck the Image(s) option. (1)

Right-click in the Render window and select Sequencer from the menu (2). The Sequencer tool will be displayed below the rendering. (3)

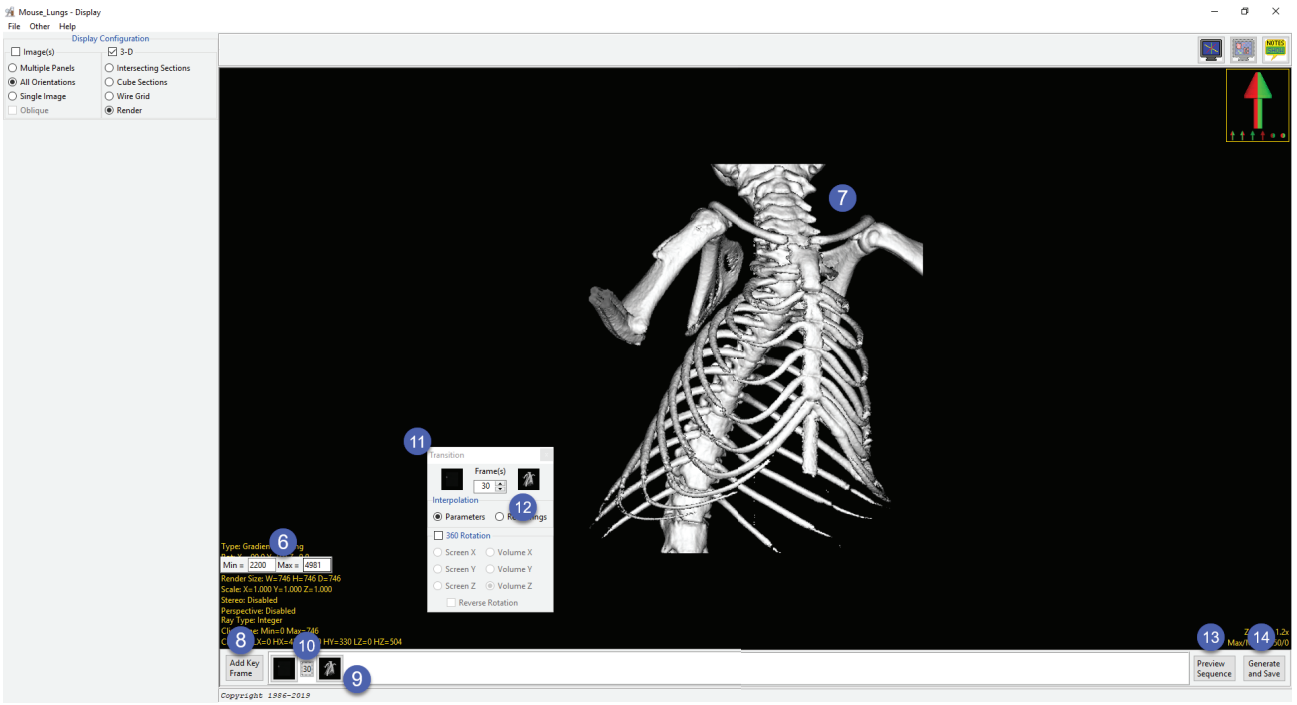
Click the Add Key Frame button (4) to add a starting key frame to the sequencer (5).

Sequence Tool (continued)

Double-click the Yellow Thresh text in the lower left-hand corner of the Render window and change the minimum value to 2200 (6). Note the updated rendering. (7).

Click the Add Key Frame button (8) to add a new key frame to the sequencer (9).

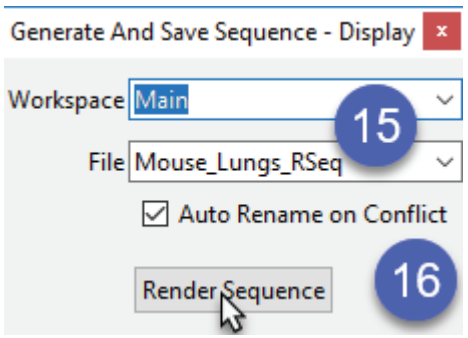
Left click the Transition button (10) between the key frames to open the Transition parameters window (11), here set the number of Frame(s) to 30 (12).



Click the Preview Sequence button (13) to preview the movie.

To save the movie to the Analyze workspace select Generate and Save. (14).

In the Window returned name the movie (15) and then select Render Sequence (16). The movie file will be saved to the workspace. Use the Input/Output module to save the movie out of the software as an .AVI, QuickTime, or Animated GIF.



Sequence Tool (continued)

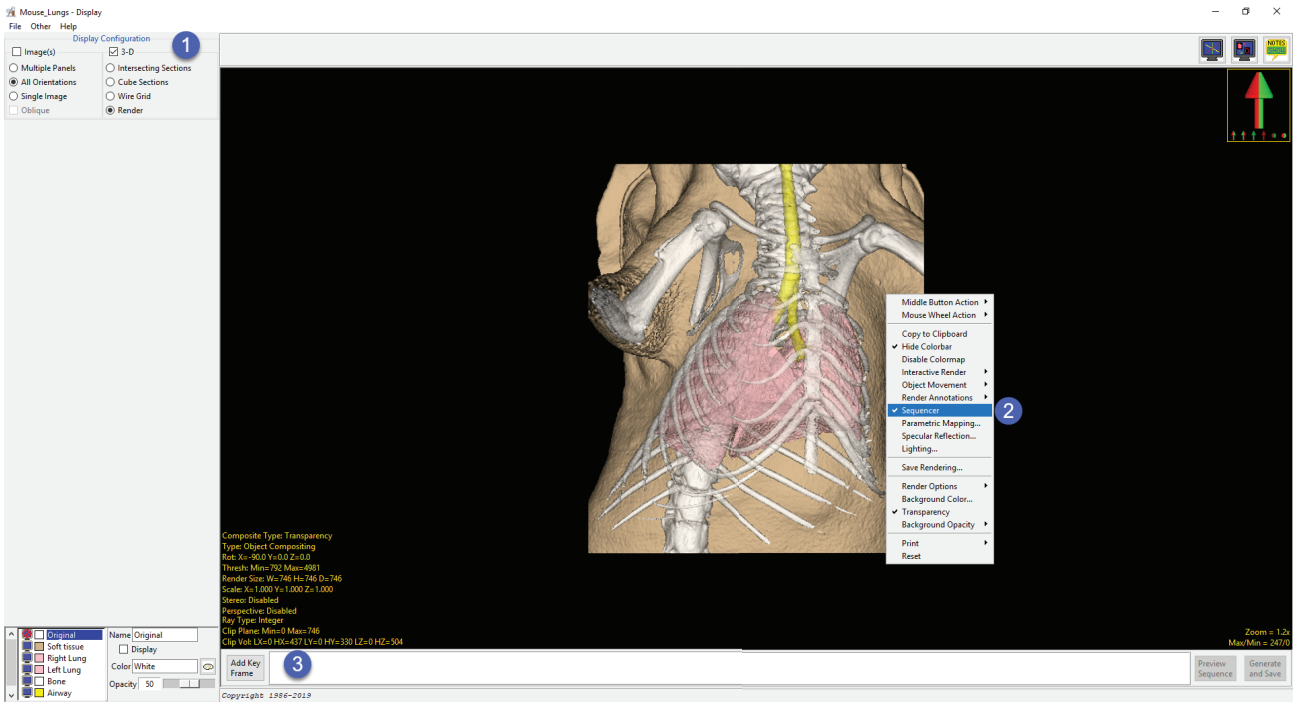
Creating a Rotational Movie

Download the Mouse_Lungs.avw and the Mouse_Lungs.obj files to follow along, from https://analyzedirect.com/data

Use the Input/Output module to load the Mouse_Lungs.avw.

Select the Mouse_Lungs data set and then open Display.

Select File > Load Object Map and load the Mouse_Lungs.obj.



In Display set the Display Configuration to 3-D and choose the Render option (1). Uncheck the Image(s) option.

Right-click on the Rendering and then choose Transparency from the menu.

After Transparency has been applied right click again and select the Sequencer option (2).

The Sequencer tool will be displayed below the rendering (3)

Sequence Tool (continued)

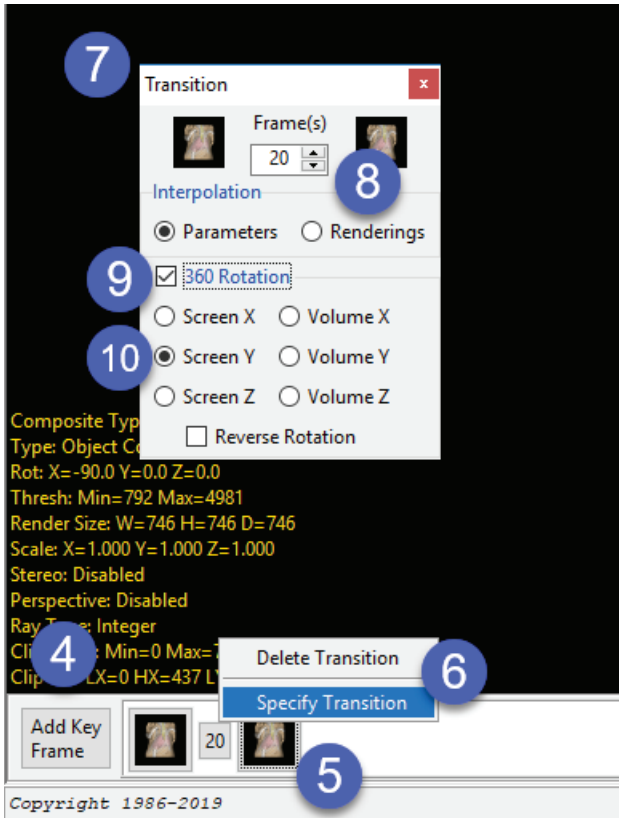
To create a simple rotational movie, click the Add Key Frame button (4) twice to add two key frames to the sequencer (5).

Left click the Transition button between the key frames (6) to open the Transition parameters window (7).

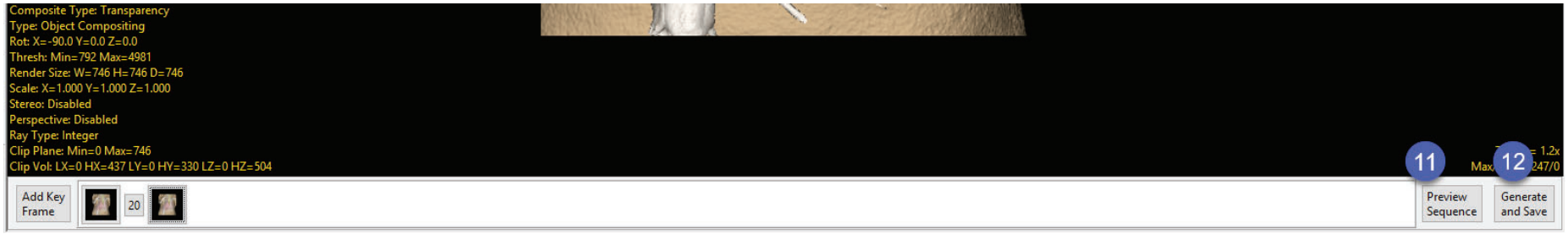
In the Transition window set the number of Frames to 20 (8), next check the 360 Rotation option (9) and then select Screen Y (10).

Select the Preview Sequence button to review the movie (11).

To save the movie to the Analyze workspace select Generate and Save. (12)



In the Window returned, name the movie and then select Render Sequence. The movie file will be saved to the workspace. Use the Input/Output module to save the movie out of the software as an .AVI, QuickTime, or Animated GIF.



Sequence Tool (continued)

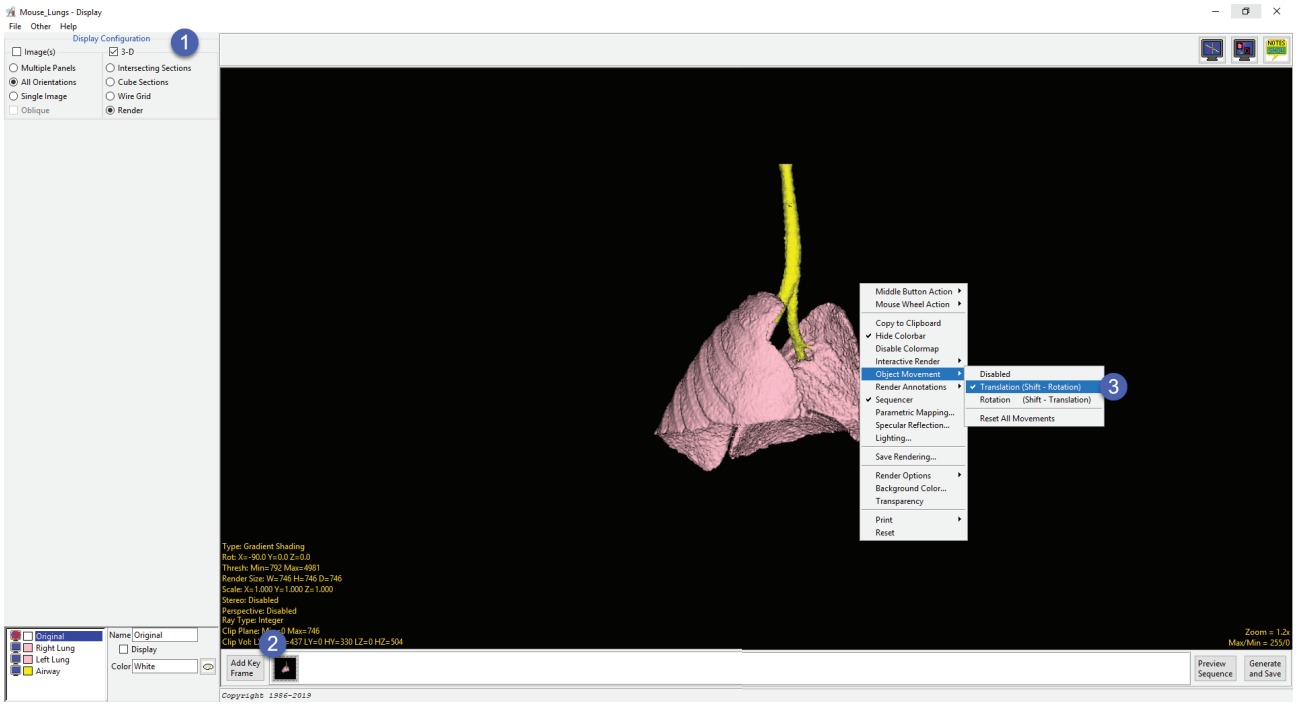
Enhanced Movie Making: Object Movement and Rotation

Download the Mouse_Lungs.avw and the Mouse_Lungs_2.obj files to follow along, from https://analyzedirect.com/data

Use the Input/Output module to load the Mouse_Lungs.avw.

Select the Mouse_Lungs data set and then open Display.

Select File > Load Object Map and load the Mouse_Lungs_2.obj.



In Display set the Display Configuration to 3-D and choose the Render option (1). Uncheck the Image(s) option.

Right click in the Render window and select the Sequencer option.

The Sequencer tool will be displayed below the rendering, click the Add Key Frame button (2) to add a starting key frame to the sequencer.

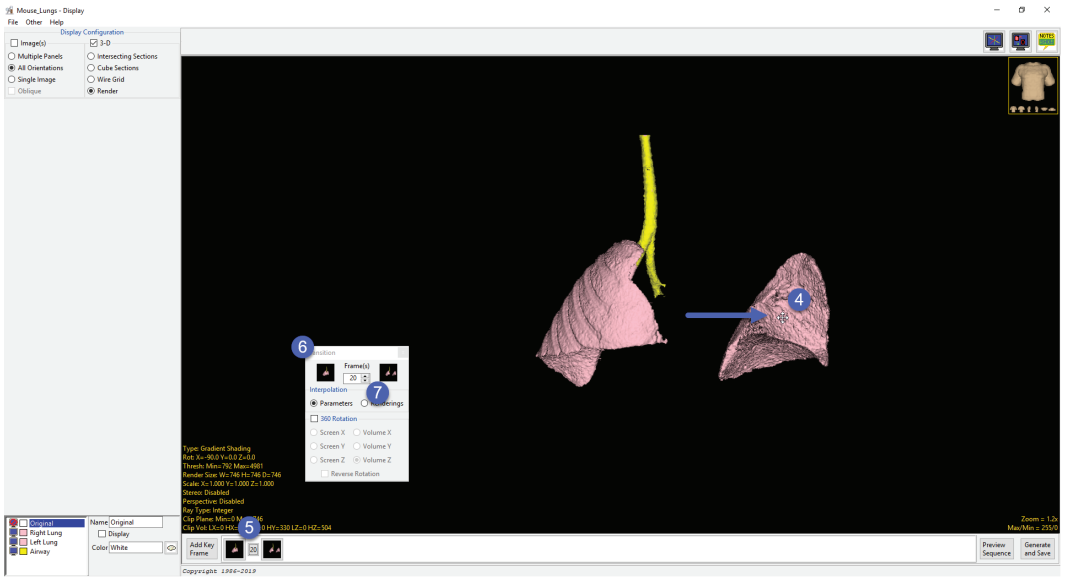
Next, right-click on the in the Render window and choose Object Movement > Translation (3).

Sequence Tool (continued)

Click on the left lung object to select it and then drag it to the right (4). When complete click Add Key Frame (5).

Click Transition button between the two key frames to open the Transition parameters window (6), set the Frame(s) to 20.

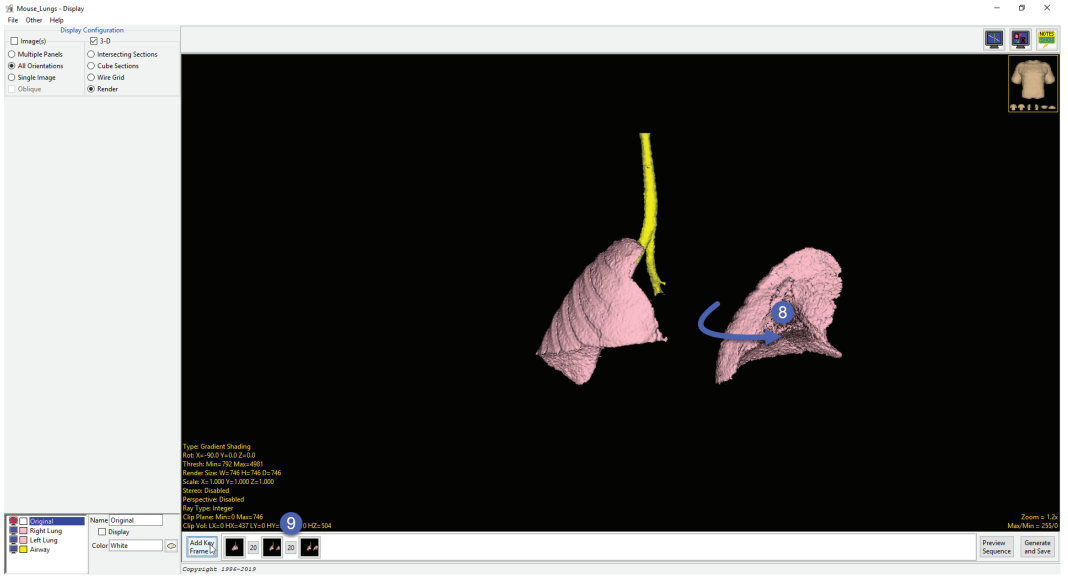
Click Preview Sequence to preview the movie so far.



Next, press the Shift key and then select the left lung, the Object Transformation will be changed from a translation to a rotation, rotate the left lung (8).

When complete click Add Key Frame, note that the transition is automatically set to 20 frames (9).

Click Preview Sequence to preview the movie so far.



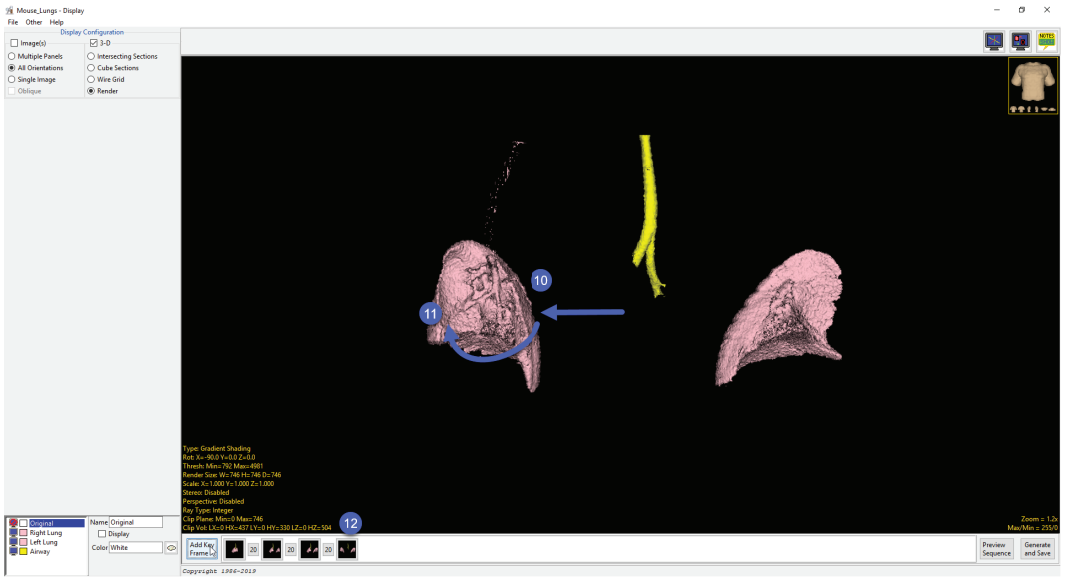
Sequence Tool (continued)

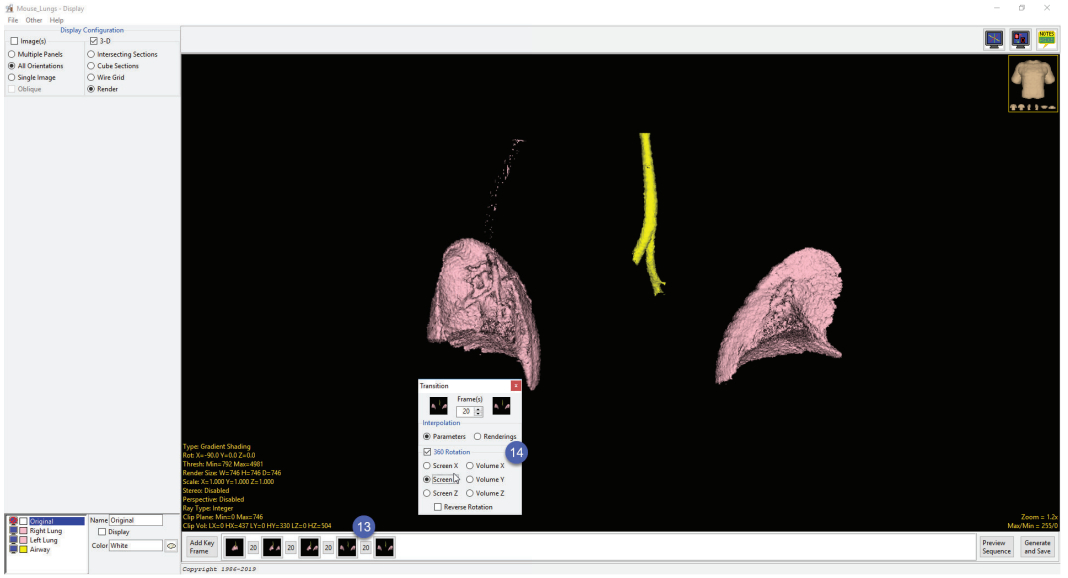
Next, let's perform the translation and rotation on the right lung in one key frame. Click on the right lung object to select it and then drag it to the left. (10) Press the Shift key and select the right lung again, rotate the right lung (11).

When complete click Add Key Frame, again the transition is automatically set to 20 frames (12).

Click Preview Sequence to preview the movie so far. The movie will show the left lung moving out the right side followed by a rotation, next the left lung will move out to the left side while performing a rotation.

Now let's add a rotation. Click the Add Key Frame button again to add a new key frame, click on the Transition button added before the last key frame (13). In the Transition window check the 360 Rotation option and choose Screen Y (14).



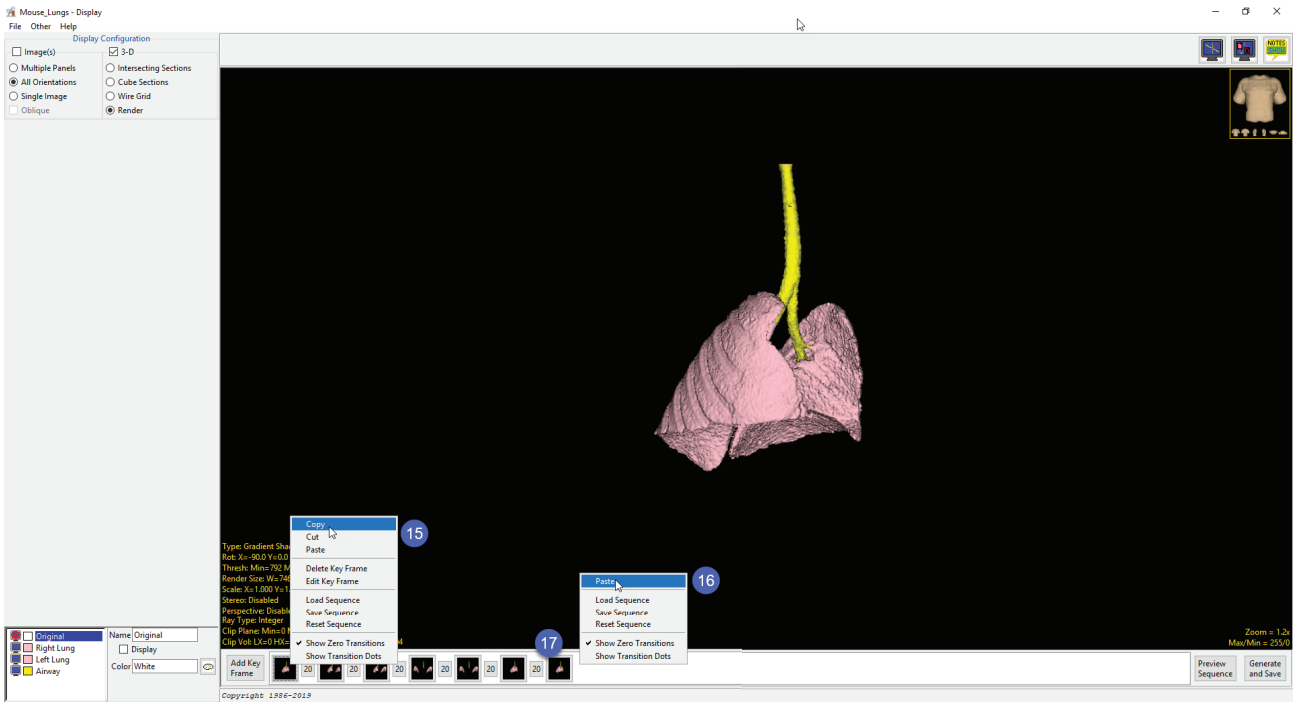


Sequence Tool (continued)

To end the movie, let's have all objects move back to their original positions. You could achieve this by right-clicking on the Render window and choosing Object Movement > Reset All Movements. However, in this case we will copy the first key frame and paste it to the end of the sequence we have generated.

Right-click on the first key frame and choose Copy from the menu (15).

Right-click at the end of the sequence and choose Paste (16) to paste a copy of the first key frame and the end (17).



This provides a nice movie that starts and ends with the all objects in the same position, important for when looping the movie for a presentation.

Preview the movie and then use the Generate and Save option to save a copy to the workspace.

Explore the other rendering options to help enhance your movies, for example use the Scale option to give the effect of zooming in or out of your rendered image and use the Clip Plane or Clip Volume options to clip into the data.

Sequence Tool (continued)

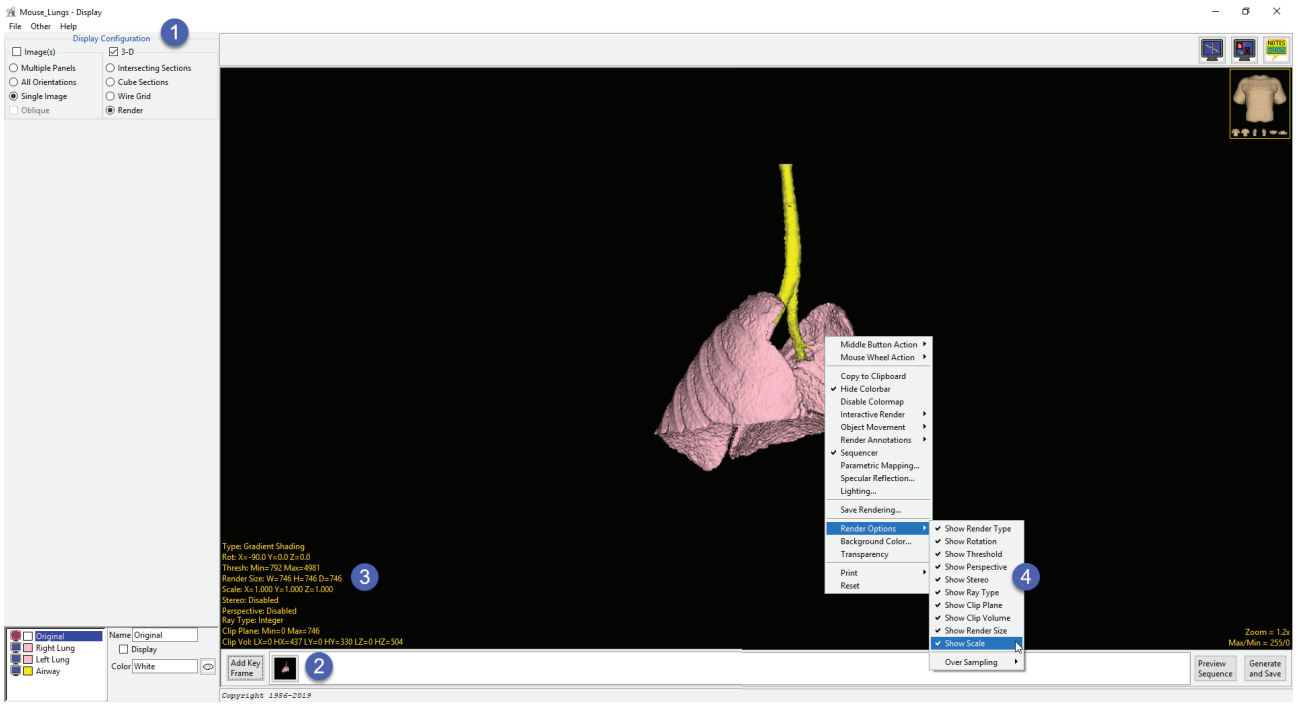
Enhanced Movie Making: Zooming and Clipping

Download the Mouse_Lungs.avw and the Mouse_Lungs_2.obj files to follow along, from https://analyzedirect.com/data

Use the Input/Output module to load the Mouse_Lungs.avw.

Select the Mouse_Lungs data set and then open Display.

Select File > Load Object Map and load the Mouse_Lungs_2.obj.



In Display set the Display Configuration to 3-D and choose the Render option (1). Uncheck the Image(s) option.

Right click in the Render window and select the Sequencer option.

The Sequencer tool will be displayed below the rendering, click the Add Key Frame button (2) to add a starting key frame to the sequencer.

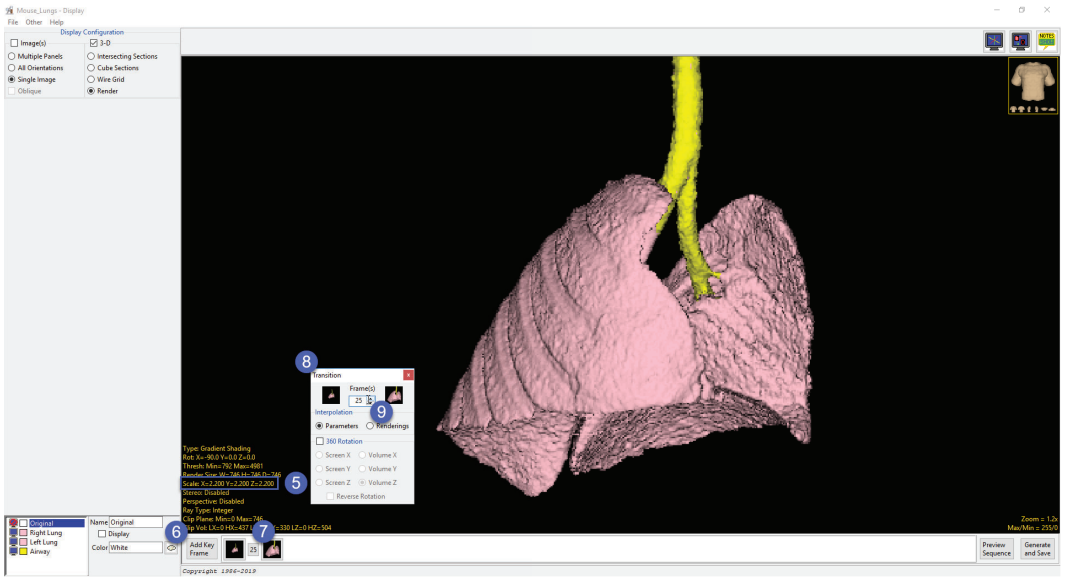
If the additional rendering options are not visible in the lower left hand corner of the Render window (3) enable the options by right-clicking in the Render window and then choosing Render Options from the menu, check the Show Scale and Show Clip Plane options, but feel free to enable all options (4).

Sequence Tool (continued)

Double click the yellow Scale text and change the X, Y, and Z Scale values to 2.2 (5). Note that the rending display size will increase.

Click Add Key Frame (6) to add a new key frame to the sequence.

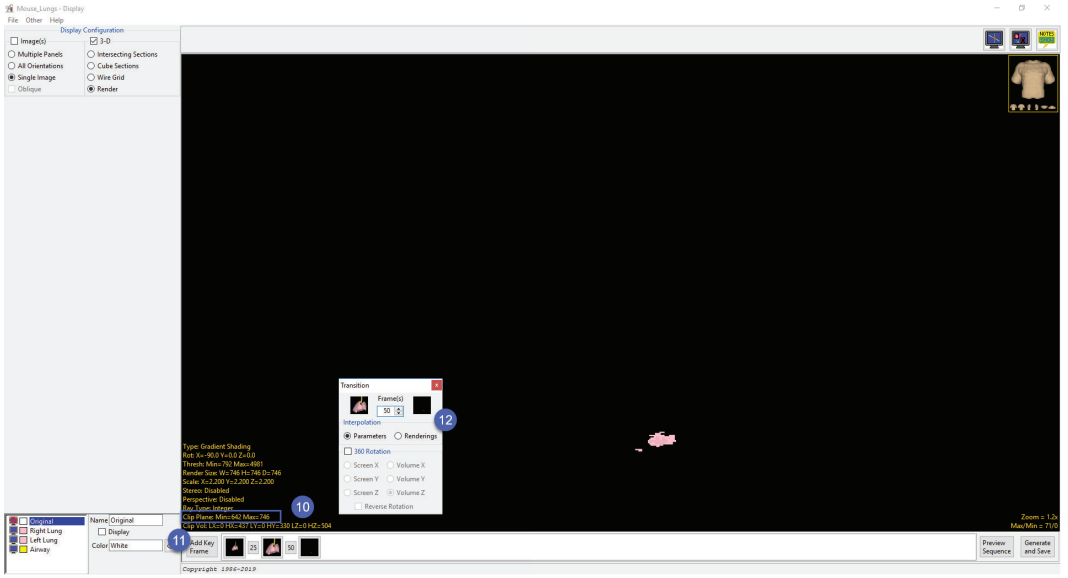
Click the Transition button (7), in the Transition parameters window (8) set Frame(s) to 25 (9).



Double click the yellow Clip Plane text and change the Min value to 642. (10) Note that the rendering display will be clipped.

Click Add Key Frame (11) to add a new key frame to the sequence.

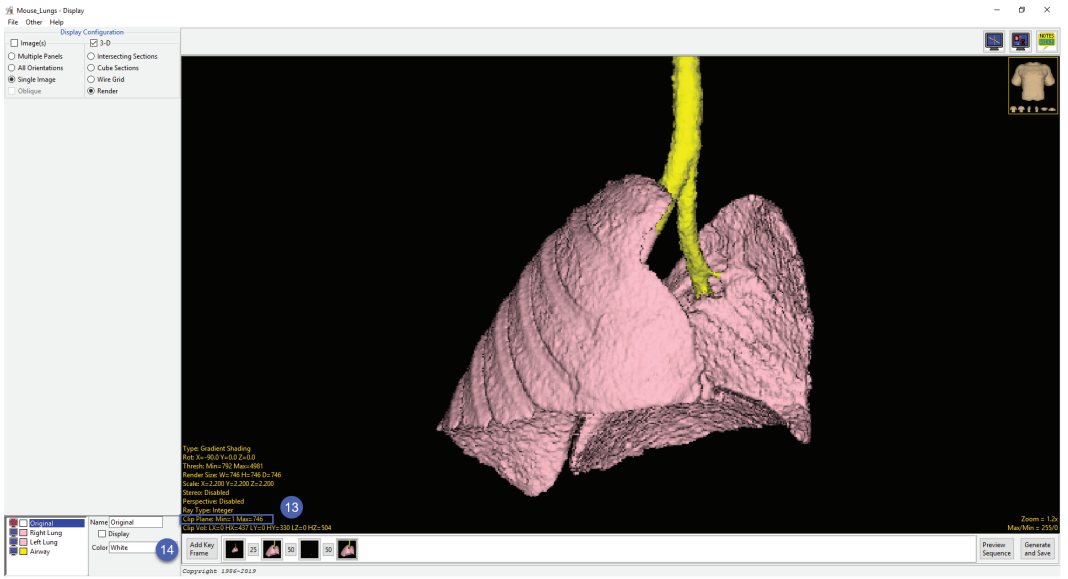
Click the Transition button and increase the number of Frame(s) to 50 (12).



Sequence Tool (continued)

Double click the yellow Clip Plane text and change the Min value back to 1. (13) Note that the rending display will update.

Click Add Key Frame (14) to add the new key frame to the sequence.



Double click the yellow Scale text and change the X, Y, and Z Scale values back to 1. (14) Note that the rending display size will decrease.

Click Add Key Frame (15) to add the new key frame to the sequence.

Click Preview Sequence (16) to preview the movie.

Click Generate and Save (17) to save the movie to the workspace.