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HyperWorks

Altair HyperView 2019 Tutorials

HV-1010: Using the Animation Controls

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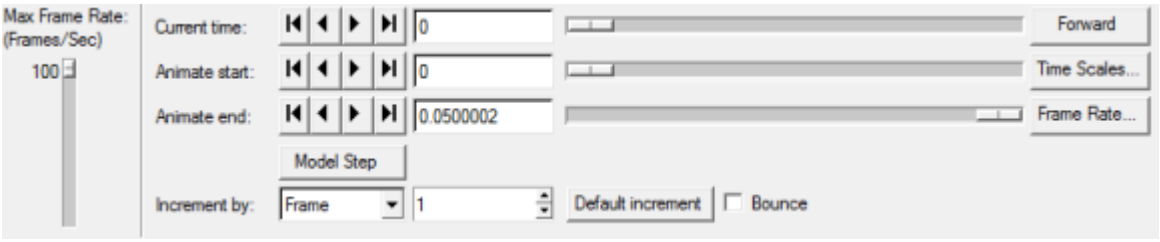
HV-1010: Using the Animation Controls

In this tutorial you will learn how to:

- Animate a file
- Use the **Animation Controls** panel
- Use the **Change load case** toolbar
- View the model on full screen and animate the model

Tools

To animate and control the animation rate of your model, click on the ***Start/Pause Animation*** button or on the ***Animation Controls*** button .



Animation Controls panel for transient animation mode

You can animate a result file in HyperView by clicking on the ***Start/Pause Animation*** button on the **Animation** toolbar. Based on the analysis type, you can animate a model using the **Transient**, **Modal**, or **Linear** animation type. You can also control the rate of the animation through the ***Animation Controls*** panel.

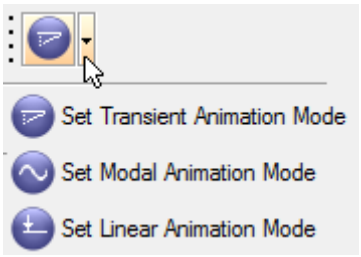
Exercise: Controlling the Animation

This exercise uses the file `bumper_deck.key` and the corresponding `d3plot`.

Step 1: Animating models using the Transient animation mode.

1. Click the ***Load Results*** icon on the **Standard** toolbar to enter the **Load Model** panel.
2. Load the model file `bumper_deck.key` and the corresponding results file `d3plot`, located in the `animation\bumper` folder.
3. Click the ***Start/Pause Animation*** button, , to animate the window.
4. Click the button again to stop the animation.

5. Click on the arrow next to the **Set Transient Animation Mode** button and note the various animation types available.



Animation Types

A brief description of each animation type is given below:

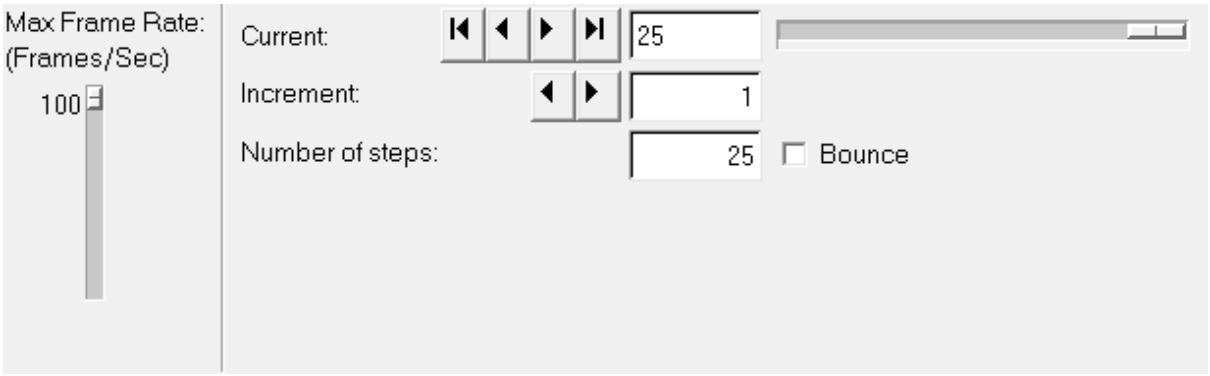
Transient	Displays the model in its time step positions as calculated by the analysis code.
Linear	Creates and displays an animation sequence starting with the original position of the model and ending with the fully deformed position. An appropriate number of frames are linearly interpolated between the first and last positions.
Modal	Creates and displays an animation sequence starting and ending with the model's original position. The deforming frames are calculated based on a sinusoidal function.

Step 2: Animate from time zero to 0.04.

1. Click the ***Animation Controls*** button on the **Animation** toolbar to enter the **Animation Controls** panel.
2. Click the ***Current time*** first arrow to display the page at time ***0***.
3. Move the ***Animate end*** slider to the time ***0.04***.
4. Move the slider bar under ***Max Frame Rate:*** down, to slow down the animation.
5. Animate the model.

   Note the model animates between ***0*** and ***0.04***.
6. Stop the animation .
7. Click the ***Animate end*** forward arrow until the slider bar reaches the end of the animation.

8. Change the animation type to ***Linear*** and note the difference in the panel.



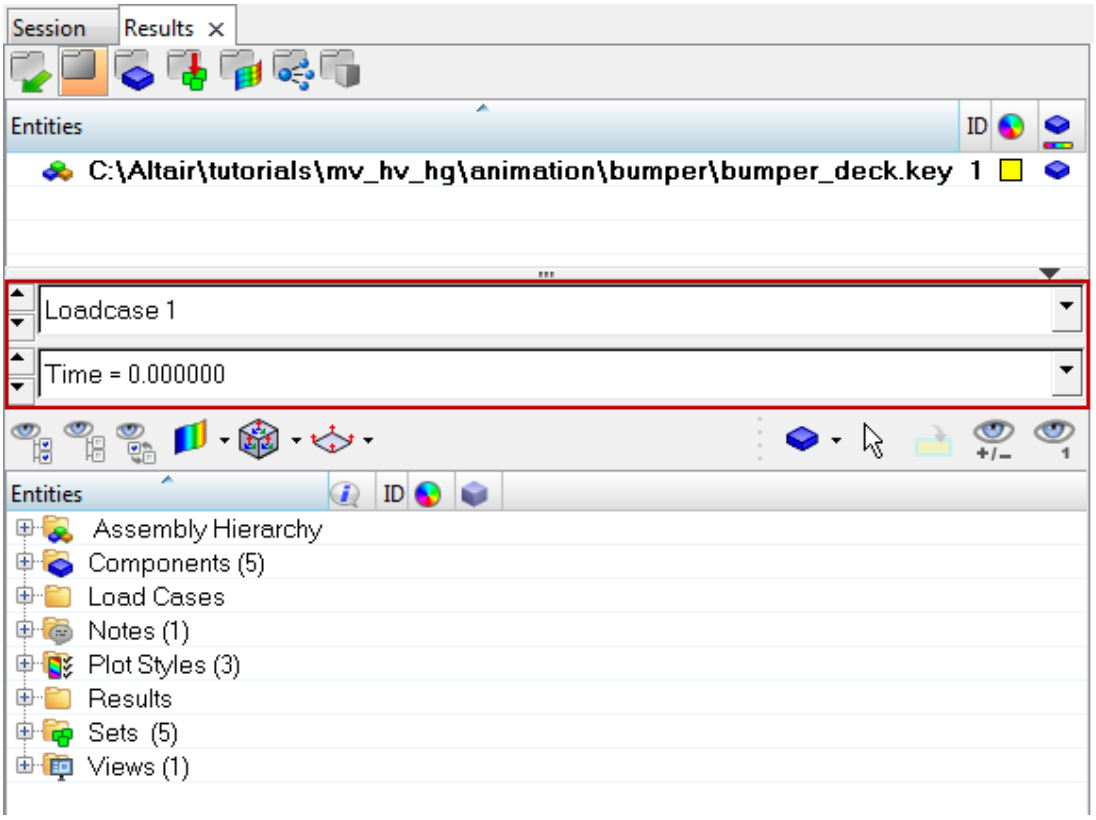
Animation Controls panel for linear animation mode

9. Change the animation type back to ***Transient*** .

Step 3: Choose a specific time step using the Change load case toolbar.

The active load case and simulation are displayed in the **Results** browser.

Note The **Change load case** toolbar visibility can be toggled on/off using the **Configure Browser** option (located in the **Results Browser** context menu).



Change load case toolbar

1. From the **Results Browser**, verify that the **Change load case** drop-down menu is set to ***Loadcase 1***.
2. Use the second drop-down menu to set the simulation to ***Time = 0.03***.
3. Use the ***Current Time*** arrows  to move through the time steps.

   You can also move through loadcases/subcases and modal shapes using this option.