



Altair

HyperWorks

Altair HyperView 2019 Tutorials

HV-5020: Tracking Entities during Animation


HV-5020: Tracking Entities during Animation

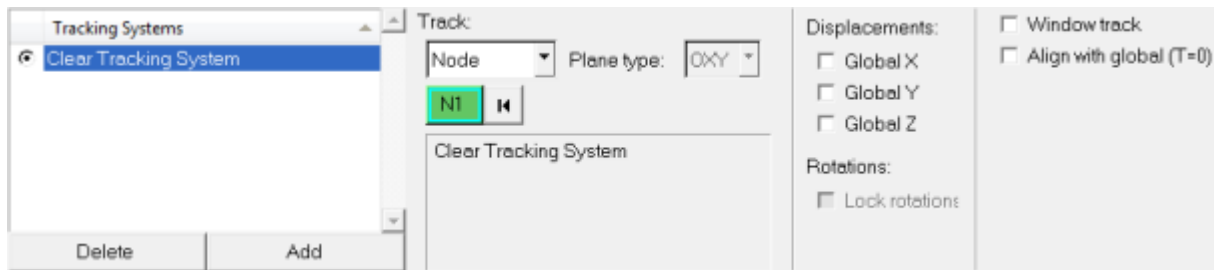
In this tutorial, you will learn how to:

- Track an entity during animation
- Contour displacement results relative to a defined tracking system

Tools

To access the **Tracking** panel:

- Click the **Tracking** panel button  on the **Result** toolbar.
- OR
- Select **Results > Create > Tracking Systems** from the menu bar.






The **Tracking** panel allows you to track any entity during an animation with respect to a node, a plane, or a component.


Exercise: Using the Tracking Panel

This exercise uses the model file, `truck.key` and the corresponding `d3plot` file as the results file.


Step 1: Load and animate a file.

1. Load the `truck.key` model file and the `d3plot` results file, located in the `animation\truck` folder.
2. Choose the left view of the truck, by clicking on the **XZ Left Plane View** button  on the **Standard Views** toolbar.
3. Animate the model .
4. Open the **Animation Controls** panel  and slow down the animation.
Observe the animation without any tracking system defined. The whole truck moves forward as it is animated.
5. Stop the animation.

Step 2: Define a tracking system with respect to a node.

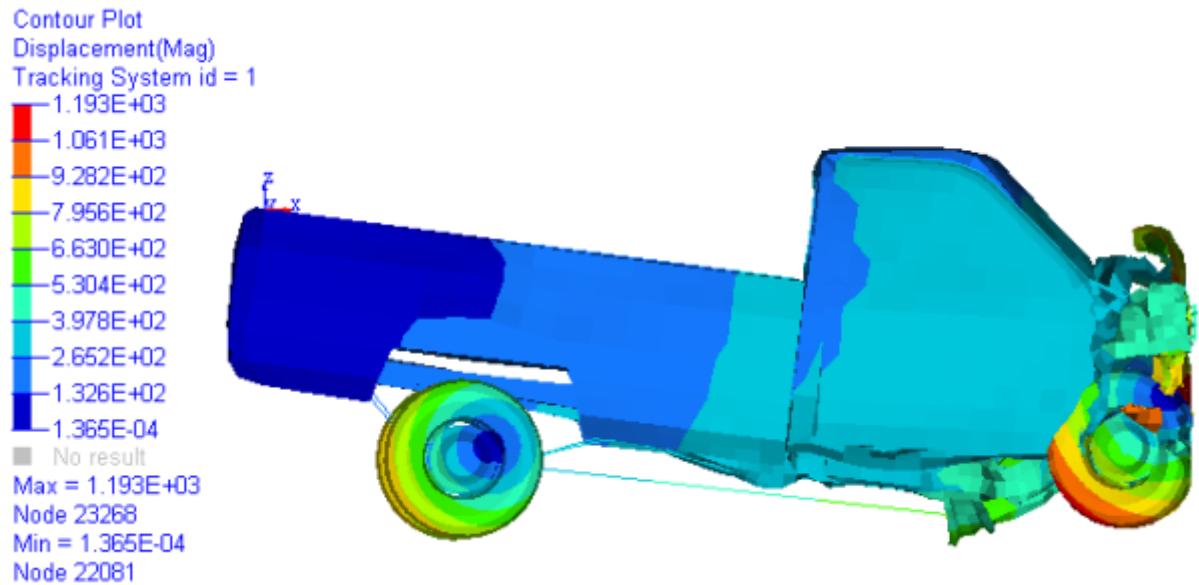
1. Click the **Tracking** panel button  on the **Result** toolbar.
2. Click **Add**, to add a tracking system.
3. Change the name of the system.
 - Right-click on **Tracking System 1** (or anywhere within the **Tracking Systems** list).
 - Select the **Rename** option from the context menu.
The **Rename** dialog is displayed.
 - Enter `System 1` into the **Rename** text box.
 - Click **OK**.
4. Verify that the **Track** option is set to **Node**.
5. In the graphics area, pick a node located on the top left corner of the truck bed.
6. Animate the model.
Observe how the animation varies, with the tracking system that was created. The truck is animated with regard to the node that was chosen.
7. Stop the animation.

Step 3: Contour displacement results relative to a defined tracking system.

1. Click the **Contour** panel button  on the **Result** toolbar.
2. Verify that **Result type** is set to **Displacement**, and that the **Data Component** is set to **Mag**.
3. Click **Apply**.
4. Under **System**, activate the **Use tracking system** option Use tracking system .

5. Click **Apply**.

Observe the changes in the contour, as well as the Legend values that are displayed.



6. Animate the model.
7. Stop the animation.

This allows you to view the selected result with respect to the tracking system that was created.