



Altair

---

**HyperWorks**

Altair HyperView 2019 Tutorials

HV-3010: Viewing Deformed Shapes

---

## HV-3010: Viewing Deformed Shapes

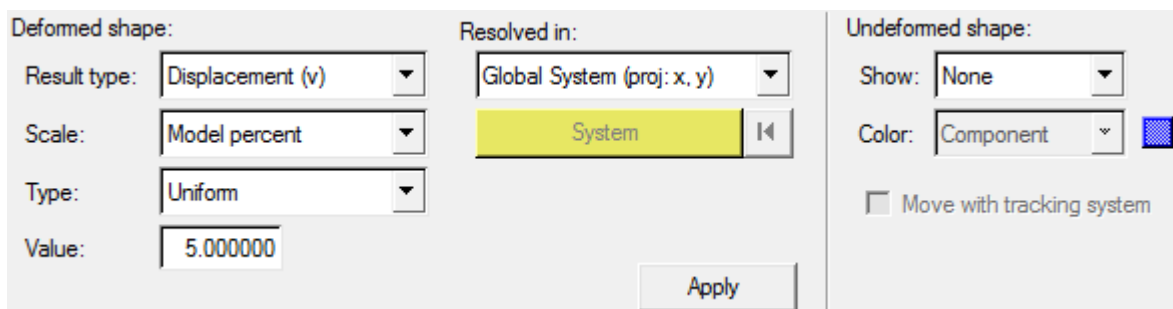
In this tutorial, you will learn how to:

- Apply a scale factor for a deformed shape and animation

### Tools

To access the **Deformed** panel:

- Click the **Deformed** panel button  on the **Result** toolbar.
- OR
- Select **Results > Plot > Deformed** from the main menu.



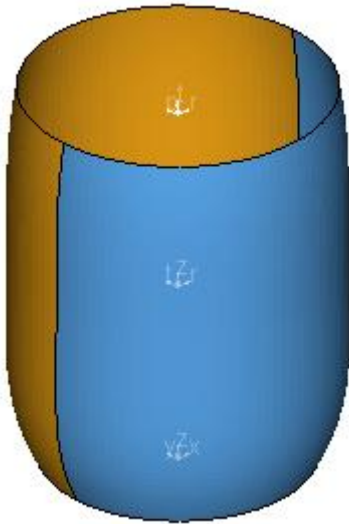
The **Deformed** panel allows you to specify parameters for deformation display. You can use this function to see the motion of your model after analysis. You can display the original structure and the deformed shape to see the total amount of movement, or view the deformed shape by itself. You can also create an animation sequence of the structure's movement that shows the motion of the structure in a series of frames, based on what the analysis code has predicted the model will do.


### Exercise: Using the Deformed Panel


This exercise uses the file, `deformed.mvw`.

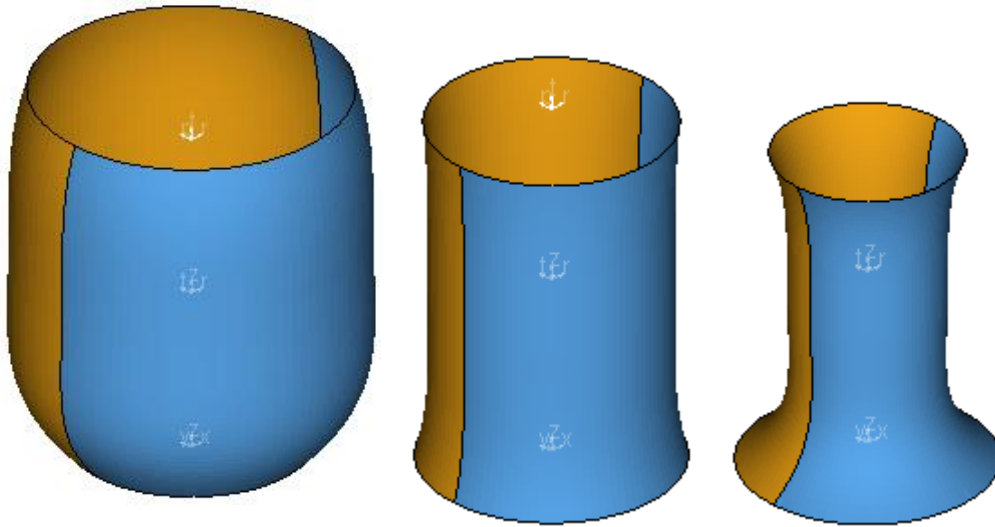
## Step 1: Deform a model and observe the animation.

1. From the **File** menu, open the `deformed.mvw` session file, located in the `animation` folder.




2. Click the **Deformed** panel button  on the **Results** toolbar to enter the **Deformed** panel.
3. Select **Displacement (v)** as the **Result type**.
4. Select **Model percent** for the **Scale**.  
This scales the maximum displacement as a percentage of the model size. This percentage is entered in the **Value** field.
5. Select **Uniform** for the **Type** to scale the model uniformly in the X, Y, and Z directions.
6. Change the value to 10.
7. Click **Apply**.

- Animate the model .



*Various stages of modal animation.*

- Stop the animation.
- Open the **Animation Controls** panel .
- Change the **Angular Increment** to 10.
- Return to the **Deformed** panel.
- Select **Component** as the scaling **Type**.

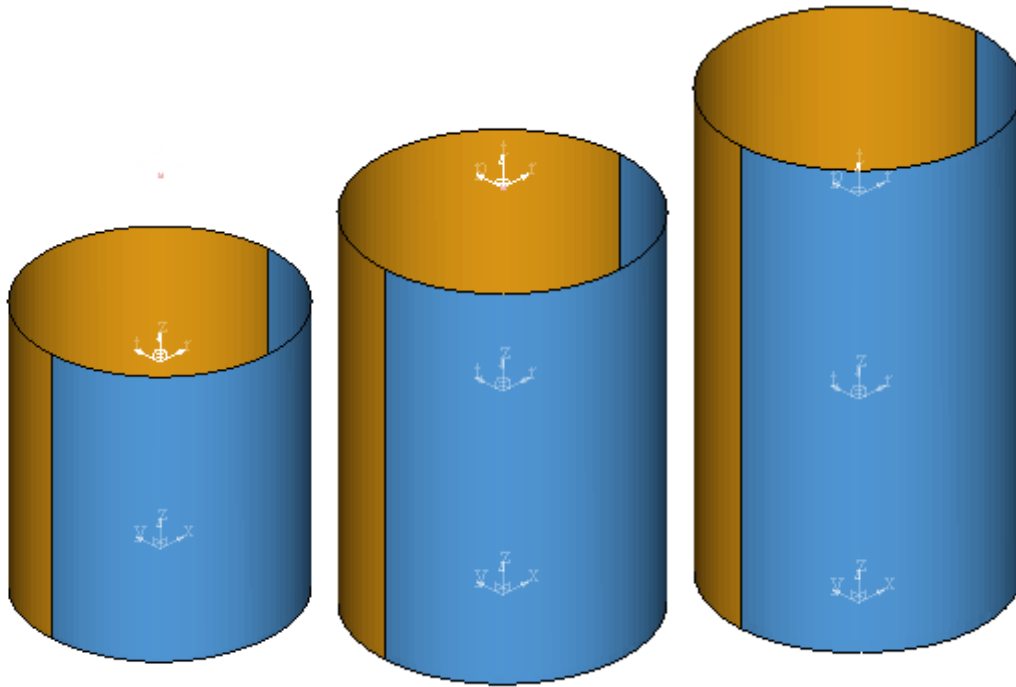
This option allows you to scale X, Y, and Z directions separately.

- Enter:
  - 0 for **X**
  - 0 for **Y**
  - 20 for **Z**
- Click **Apply**.

---

16. Animate the model.

The animation is exaggerated in the Z direction only.



*Various stages of animation in the Z direction.*