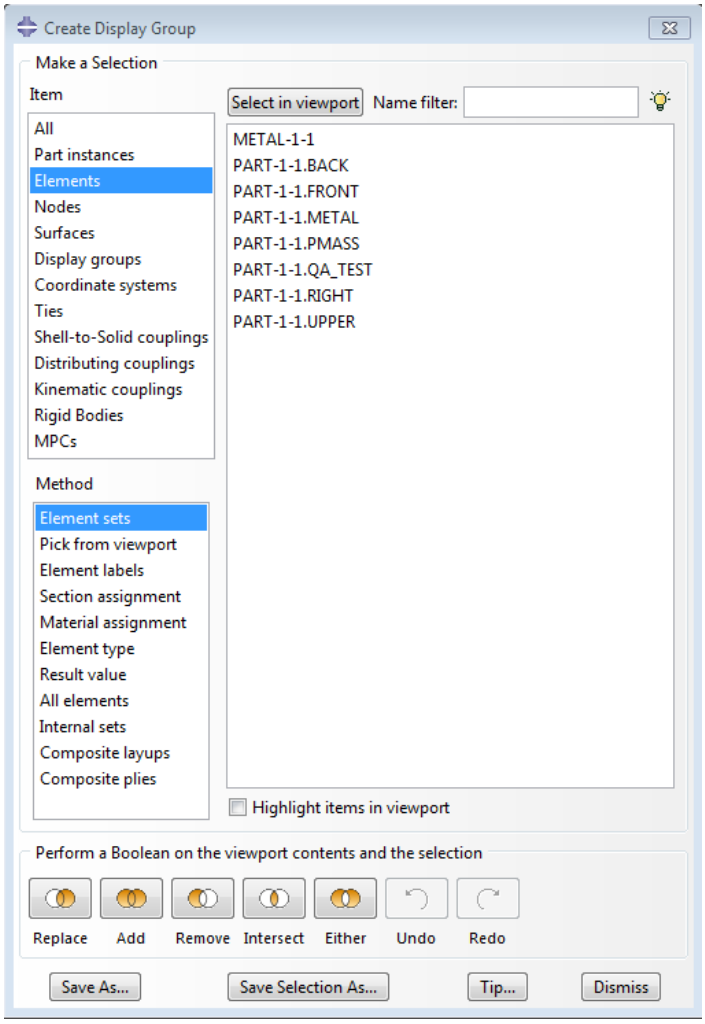
Display Group

A display group is a collection of viewable objects which allows you to visualize data along certain surfaces or nodes or within certain volumes.

To create a display group:

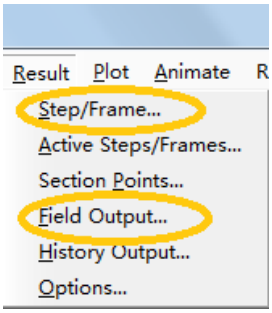
1. Select particular items of interest.
2. Perform a Boolean operation from the **toolbar**on your selection and the contents of the current viewport.



Field Output Visualization

Viewing Undeformed and Deformed Models

Click on one of the two icons in the first row of the **toolbar area**. (You can choose the step at which to view the model by selecting **Result→Step/Frame** from the **main menu**.)



Tips: Click **Apply** in each options dialog box to implement your changes in the viewport. The shape of your deformed model is based on the values of the particular deformed field output variable that you select. Locate the options that control the deformed field output variable.

From the **main menu**, select **Result→Field Output**. Click the **Deformed Variable** tab in the dialog box that appears.

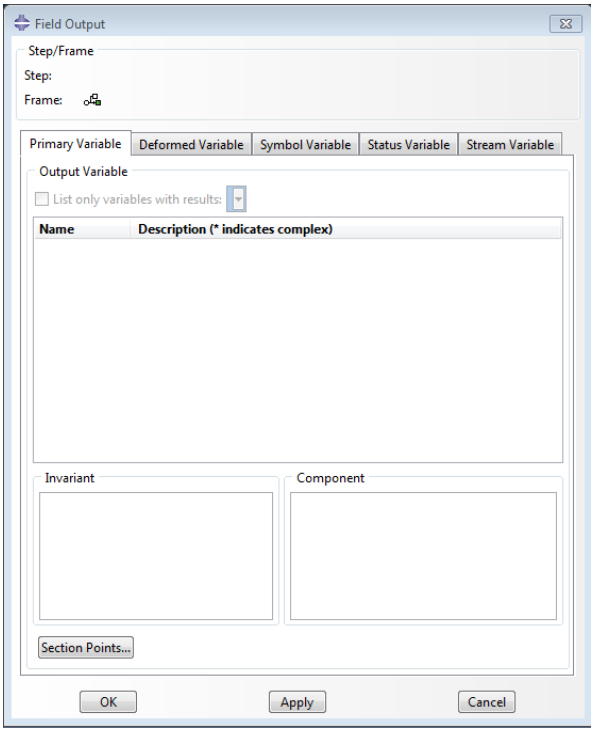
Viewing Both

1. To combine undeformed and deformed model shapes into a single plot, select **Plot→Contours, Symbols, or Material Orientations→On Both Shapes** from the **main menu** or use the , , and tools in the **toolbox area**by clickingand holding on the icon for a moment.

2. To superimpose the undeformed and deformed shapes without contours, symbols, or material orientations or to display any combination of plot types for the same results, use the tool and select all of the desired plot types from the toolbox.

Contours

1. Locate the options that control the primary field output variable. From the **main menu**, select **Result→Field Output**. Click the **Primary Variable** tab in the dialog box that appears.



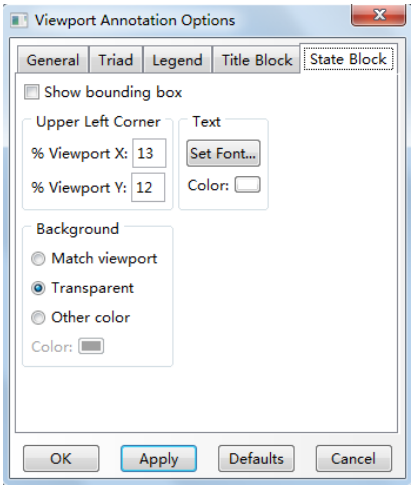
Symbol Plot
Use the **Field Outputtoolbar** to specify the variable you want to plot. When you select a symbol variable from the toolbar, the **Visualization** module automatically switches the display to plot symbols on the deformed model shape.

1. To create a symbol plot of nodal displacement:
    a. From the list of variable types on the left side of the **Field Output toolbar**, select `Symbol`.
    b. From the list of output variables in the center of the toolbar, select `U (spatial displacement at nodes)`.
    c. From the list of vector quantities and components on the right side of the toolbar, select `RESULTANT` as the vector quantity. This selection indicates that you want to plot the magnitudes of the displacement vectors.

Customize
To customize the appearance of the undeformed shape.
Use the **toolbar area** icons to affect the display.

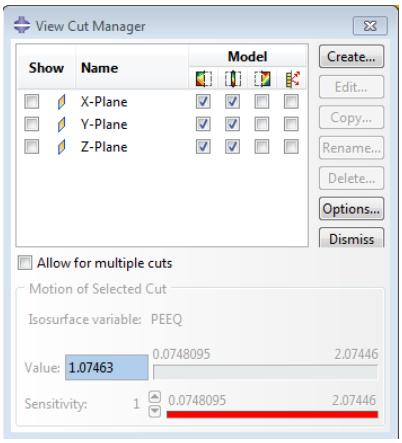
Tips: You can also customize the undeformed plot shape using the  tool in the toolbox. To customize the similar options for the deformed shape, select **Options→Common** or use the  tool in the toolbox.

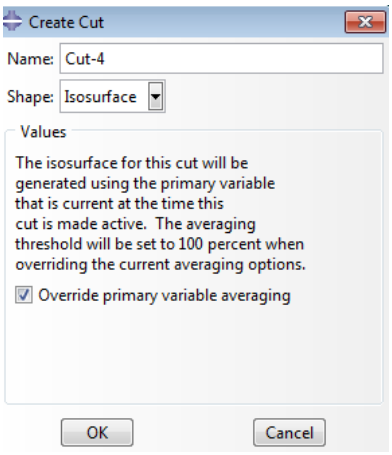
To customize the viewport.
Locate the **State Block** options. From the **main menu**, select **Viewport→Viewport Annotation Options**.



Cutting Through AModel

1. From the toolbox bar, select **View Cut**.The **View Cut Manager** appears with a list of all the view cuts that have been created during the current session. A check mark appears in the **Show** column to the left of the active view cut.





   a. Click the check boxes in the Model columns to the right of the view cut to display the model *below*, *on*, and/or *above* the cut (these positions are not mutually exclusive). The selected portion of the model is displayed in the **viewport**.

   b. To create a view cut, select **View Cut→Create**. The **Create Cut** dialog box appears. Click the arrow next to the **Shape** text field, and select a shape from the list that appears: `Plane`, `Cylinder`, `Sphere`, or `Isosurface`.

   c. Click the check box under the Freebody cut icon in the Model columns for the active view cut to display the resultant force and moment along that view cut, acting on the visible component.