Altair

HyperWorks

Altair HyperView 2019 Tutorials

HV-2040: Creating Sets (Groups)

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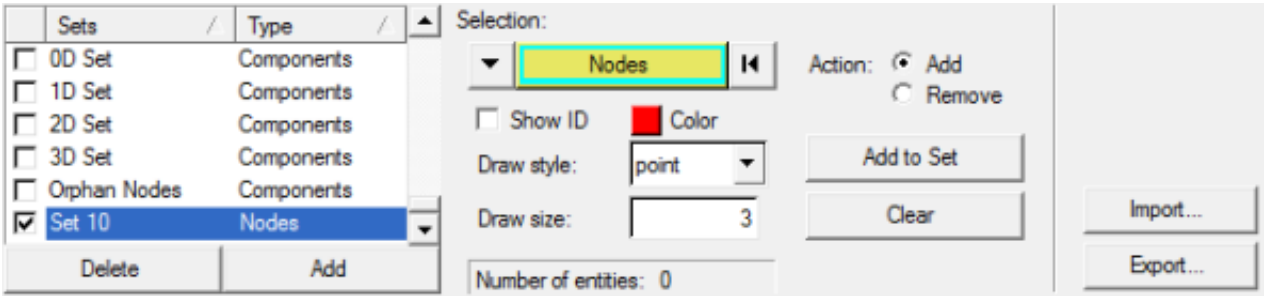
In this tutorial, you will learn how to:

- Create a set (group) of components
- Import and export created sets
- View the components of a set

Tools

To access the **Set** panel, click the ***Sets*** panel button on the **Visualization** toolbar.



The **Set** panel allows you to create sets (groups) of components, elements, or nodes from the active model that is displayed.

Exercise: Using the Set Panel

This exercise uses the `d3plot` file as both the model and the results file.

Step 1: Create and export a set (group) of components.

1. Load the `d3plot` file, located in the `animation\truck` folder.
2. From the **Model** menu, select ***Create > Sets*** to create a new set.

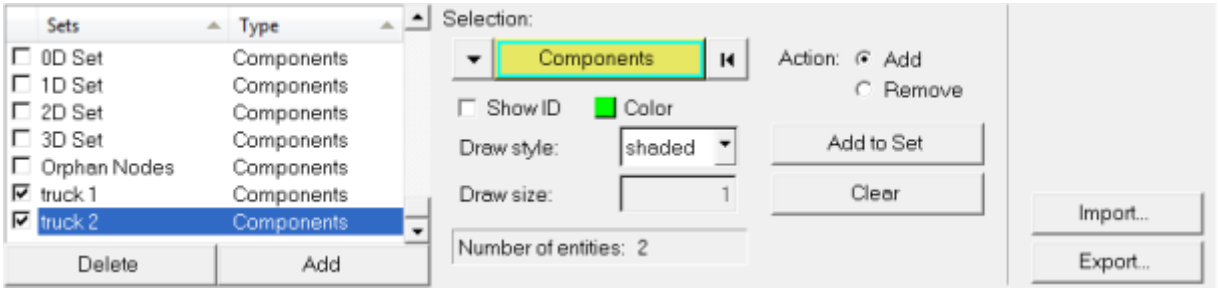
   A new set is created using the **Entity Editor** in the **Results Browser**.
3. Under the **Standard** section in the **Entity Editor**, click in the **Label** field and enter `truck 1`.
4. Click in the **Entity IDs** field and make sure that the selector is set to ***Components***.
5. In the graphics area, pick the truck bed and the rear tire of the model.
6. Under the **Display** section in the **Entity Editor**, click on the icon next to **Color** and select any new color.
7. Right-click in the **Results Browser** and select ***Create > Set*** from the context menu to create a new set.
8. In the **Label** field, enter `truck 2`.

9. Click in the **Entity IDs** field and then pick the side door and the roof of the truck in the graphics area.
10. Change the color of the set using the **Color** field in the **Entity Editor**.
11. Under the **Display** section in the **Entity Editor**, change the **Draw Style** to ***shaded***.

    Observe that the components are now shaded the color defined for the **Set**.

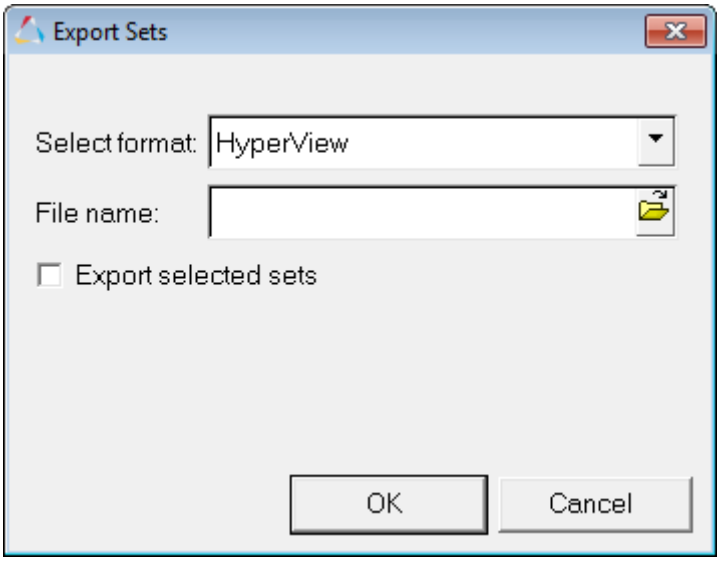
Step 2: Export a created set.

1. In order to export a set, enter the **Set** panel by selecting the ***Sets*** icon from the toolbar.
2. Select the ***truck2*** set in the **Sets** list.



3. Click ***Export***, to export the created sets (groups).

   The **Export Sets** dialog is displayed.



4. Verify that **Select format** is set to ***HyperView***.
5. Click on the file browser icon .
6. Enter `groups.txt` as the file name.
7. Click ***Save***.
8. Click ***OK*** to close the **Export Sets** dialog.

Step 3: Import a created set.

1. From the ***File*** Menu, select ***New > Session*** to start a new HyperView session.

   Answer ***Yes*** to the question "*This operation will discard all current session file data. Continue with new session?*".

2. Load the `d3plot` results file from the `truck` folder.
3. Go to the **Set** panel.
4. Click ***Import***, to import a saved set.
5. Verify that **Select format** is set to ***HyperView***.
6. Click on the file browser icon  .
7. Select the ***groups.txt*** file.
8. Click ***Open***.
9. Click ***OK*** to import the selected file and close the **Import Sets** dialog.

   Observe that both the **truck 1** and **truck 2** sets (groups) are imported.

   Activating either of the check boxes will display the components, feature lines, and colors of each set (group) on the screen accordingly.

Step 4: Viewing the components in a set (group) from the Results Browser.

1. From the **Results Browser**, right-click on the ***Components*** folder and select ***Hide***.
2. Expand the ***Sets*** folder.
3. Right-click on the ***truck 1*** set and select ***Show***.
4. Right-click on the ***truck 2*** set and select ***Show***.

   The **truck 1** and **truck 2** imported sets are now displayed.