Altair

HyperWorks

Altair HyperView 2019 Tutorials

HV-4000: Querying Results

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HV-4000: Querying Results

In this tutorial, you will learn how to:

- Query contoured results

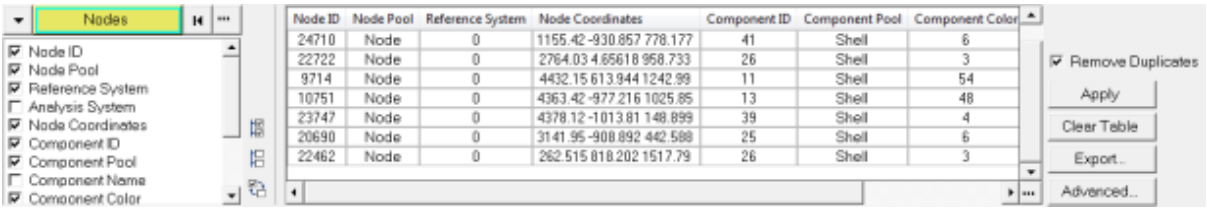
Tools

To access the **Query** panel:

- Click the **Query** panel button  on the **Result** toolbar.

  OR

- Select ***Results > Query*** from the menu bar.



The **Query** panel allows you to view and export properties, as well as other information, for all nodes, elements, components, and systems contained in the active model. Once the model has been contoured, you can also access the **Query** panel directly from the **Contour** panel by clicking on the ***Query Results*** button.

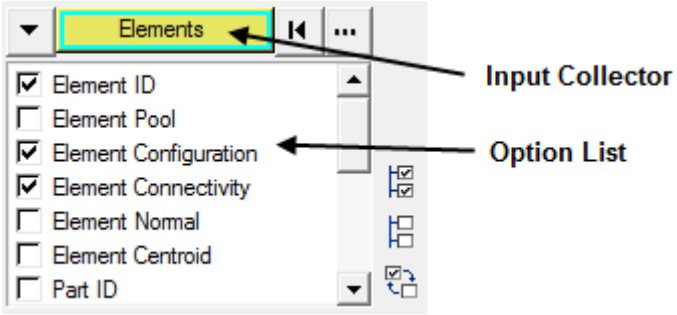
Exercise: Using the Query Panel

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

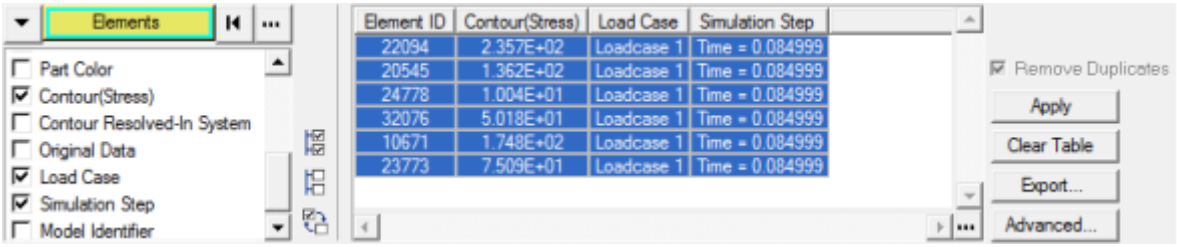
Step 1: Contouring the model and querying the results.

1. Load the `truck.key` model file and the `d3plot` results file, located in the `animation\truck` folder.
2. Click the ***Contour*** panel button  on the **Result** toolbar to enter the **Contour** panel.
3. Contour the model for ***Stress (t) > vonMises*** stresses.
4. Click ***Apply***.
5. Animate the model  .
6. Stop the animation.
7. Select the ***Query*** panel from the toolbar  .

8. Verify that the entity input collector is set to **Elements**.



9. Click the icon to deselect all items in the option list.
10. Select the following four items in the option list: ***Element ID***, ***Contour(Stress)***, ***Load Case***, and ***Simulation Step***.
11. In the graphics area, pick a few elements on the model.



Observe the table in the panel shows the element ID, the corresponding contour value, the load case, and the simulation step for each of the selected elements.

12. Return to the **Contour** panel .
13. From the **Averaging method** drop-down menu, select ***Simple***.
14. Click ***Apply***.
15. Return to the **Query** panel .
16. Verify that the entity input collector is set to **Nodes**.

    Once the results are averaged, the values become nodal based and are no longer elemental based. This change is reflected in the **Query** panel entity input collector.

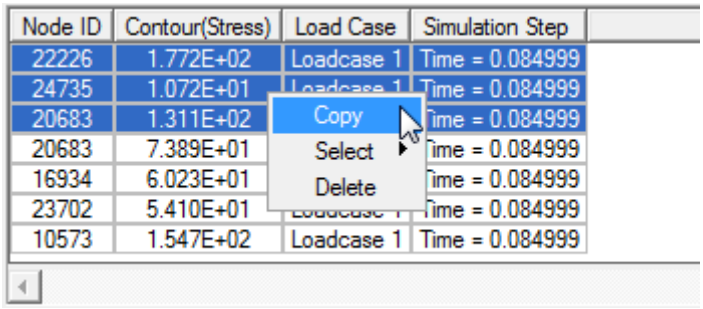
17. Deselect all items in the **Option** list except for the following four items: ***Node ID***, ***Contour (Stress), Load Case***, and ***Simulation Step***.
18. In the graphics area, pick a few nodes on the model.

19. Click on the ***Export*** button (located in the lower right corner of the panel), and save the table as `query.csv`.

    The **Export** option allows you to save the data that you have queried as a `.csv` file, which can then be used for further study, preventing the need to query the same data again.

20. Highlight a few rows in the table.

21. Right-click on the highlighted rows, and select ***Copy*** from the list of available options.



You can now paste the copied rows into a text editor or a spreadsheet application.