Altair HyperWorks Desktop 2019 Tutorials

HWD-0050: Translating Results - HvTrans

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In this tutorial you will learn how to:

- Translate FEA animation data files to an Altair Hyper3D file

- Learn how to create Hyper3D files

- Translate animation data files using HyperMesh results translators
Tools

To open the HvTrans GUI

- On Windows:

  From the **Start** menu, select *Programs/Altair HyperWorks / Tools / HvTrans*.

- On UNIX:

  Run the script `[HyperWorks install directory]/altair/scripts/hvtrans`.

HvTrans allows you to extract or translate results into an H3D file. A Hyper3D (H3D) file is a compact file containing model data, results data, or both, depending on the method used to create the file. The H3D file format is Altair proprietary. All H3D files, regardless of the method used to create them, can be loaded into HyperView.

The HvTrans utility runs in GUI mode and in batch mode. In GUI mode, you can select the results you want to extract or translate, include the model information from the results file or corresponding input file. In batch mode, perform a translation without invoking the GUI so you can translate results on a file server if required.

To access the HyperMesh Results Translator

- On Windows:

  Through **HyperMesh**, on the **Analysis** page select **Solver**.

  Through **DOS**, run the HyperMesh results translator scripts, which are located in the directory
  `[HyperWorks install folder]\io\translators\bin\win32`.

- On UNIX:

  Run the HyperMesh results translator scripts, which are located in the directory
  `[HyperWorks_install_directory]/altair/scripts`.

For CAE solver results files that HyperView does not directly support, you can translate them to a Hyper3D file or to a HyperMesh results file by using the appropriate HyperMesh result translator.
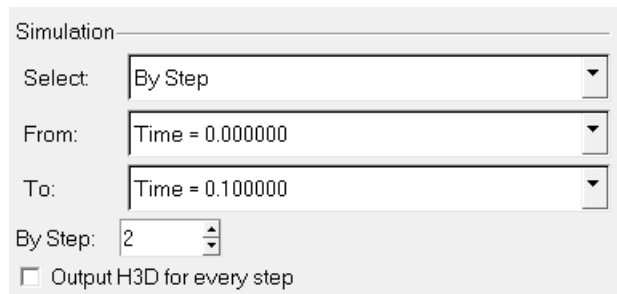
To run a HyperMesh Results Translator

- The command syntax for running a HyperMesh results translator is:

  `translator_name [arguments] results_file output_file`

- To see a list of all available arguments for a results translator, run the command:

  `translator_name -u`

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Exercise: Translate Results using HvTrans

Step 1: Extract results from d3plot files using HvTrans.

1. From the **Start** menu, select **Programs**.

2. Select **Altair HyperWorks > Tools > HvTrans**.

3. From the **File** menu, select **Open Result File**.

4. Select and open the file d3plot, located in the
   ../tutorials/mv_hv_hg/animation/truck folder.

5. Under **Simulation**, select **By Step** and increase **By Step:** to 2.

6. Under **Result Types**, deselect all result types, ⊞, and re-activate **Stress** by checking the corresponding box.

7. Under **Options**, leave **Include model with translated results** active and set it to **From input deck**.

8. Click **Browse** and select the model file truck.key.

9. Click **Translate**, then specify the name d3plot.h3d for the H3D file, and then click **Save**.

10. From the **File** menu, select **Exit** to close **HvTrans**.

11. Open the saved file, d3plot.h3d, in HyperView.