

Reading in Files & Plotting Results



Requesting Results Files



- Time history data must be requested in the LS-DYNA keyword, before the LS-DYNA analysis is run.
- The output is requested under the following keywords:
 - ***DATABASE_ASCII**: e.g. DATABASE_GLSTAT
 - ***DATABASE_BINARY**: e.g. DATABASE_BINARY_D3PLOT
 - ***DATABASE_HISTORY**: e.g. DATABASE_HISTORY_NODE
- ***DATABASE_ASCII** files can be requested in both ASCII and binary file formats.



Summary of Results Files




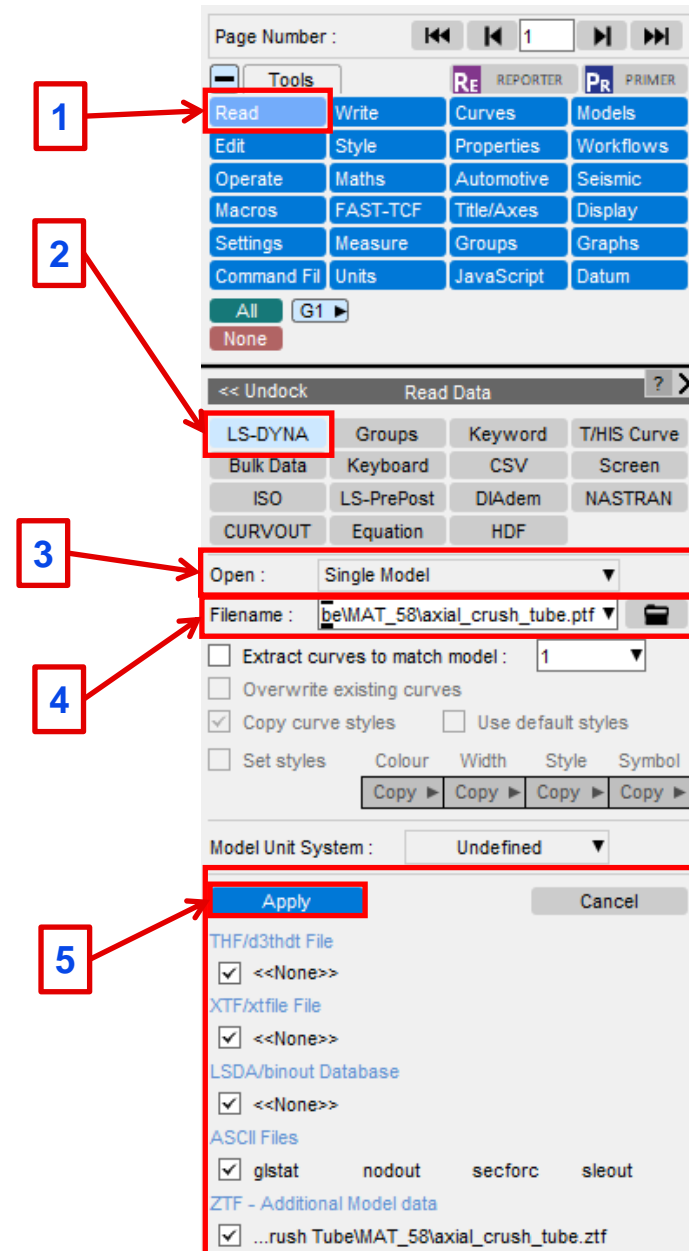
File	Contains
ASCII / glstat, matsum, nodfor, nodout, jntforc, elout, etc	ASCII formatted time history data from *DATABASE_ASCII
Binout / LSDA	binary formatted time history data from *DATABASE_ASCII
thf / D3THDT	binary database containing time histories for requested elements and nodes

Note: binout file is generally read in quicker than an ASCII file containing the same information.



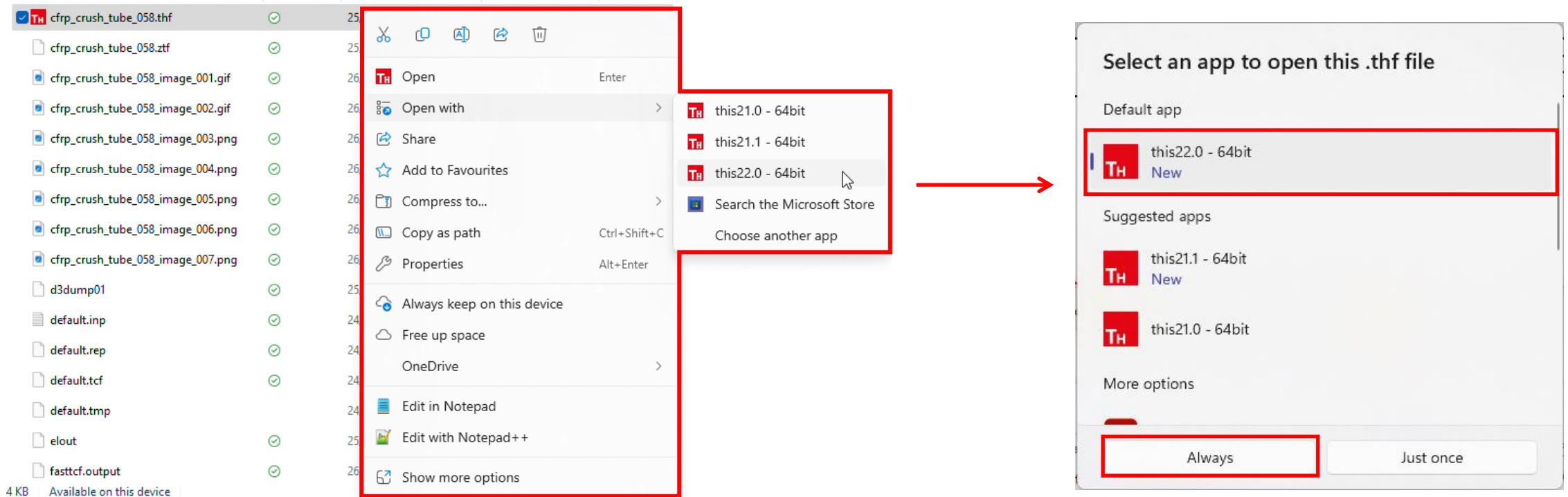
Reading in Data

1. Ensure the **Read** menu is selected.
2. Select the source of the file to be read.
3. Choose the model(s) to be read. For this example, a Single Model will only be read (see multiple models tutorial, for reading in multiple models).
4. Filenames for the file to be opened can be either typed into the text entry box or use the folder button  to search for the required file.
5. Click the **Apply** button to read in the data. Output files to be read in can also be de-selected before clicking the apply button.



File Association

- File association is another method to open a results file in T/HIS.
- To open an associated T/HIS file in Windows, right click on the desired results file to open (in this example, a thf file will be used) in Windows Explorer > Open with > More apps > select T/HIS. The file should then automatically open within T/HIS.

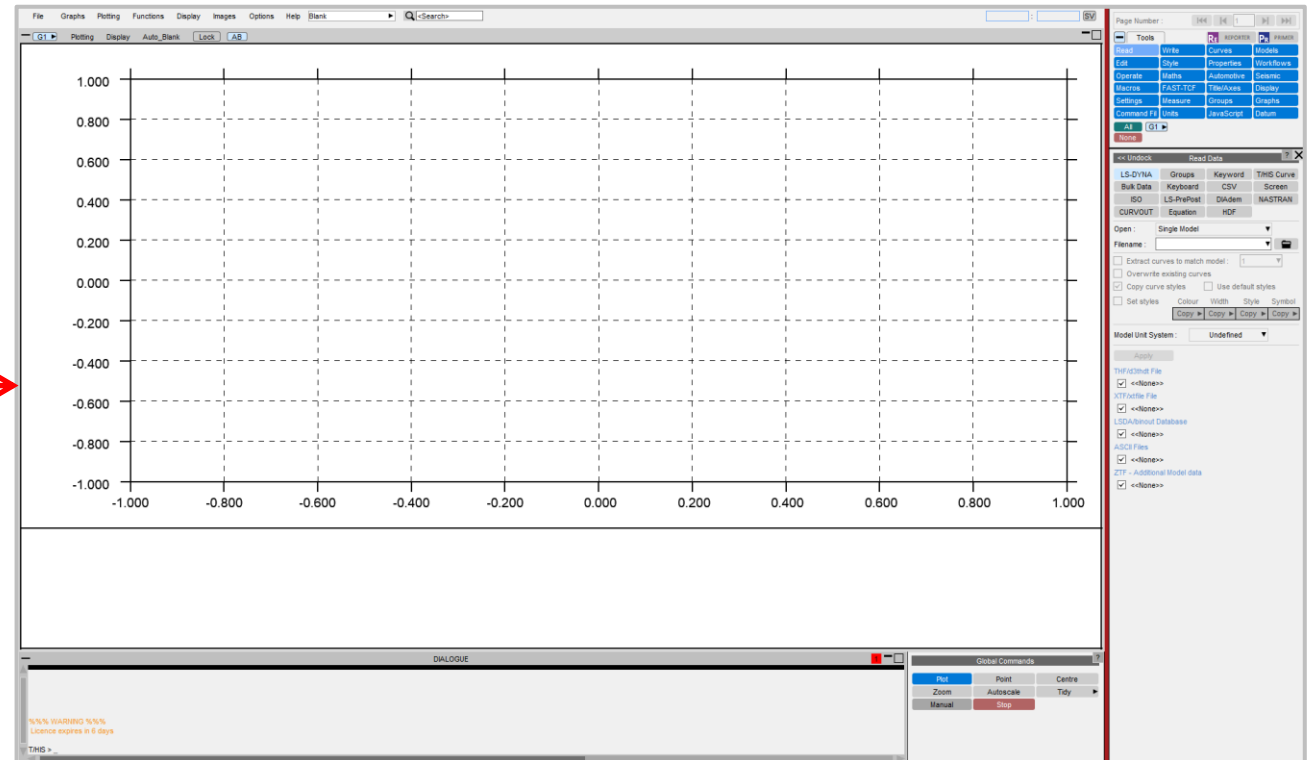


Drag & Drop

- With T/HIS open, you can also drag in a results file and it will read in.

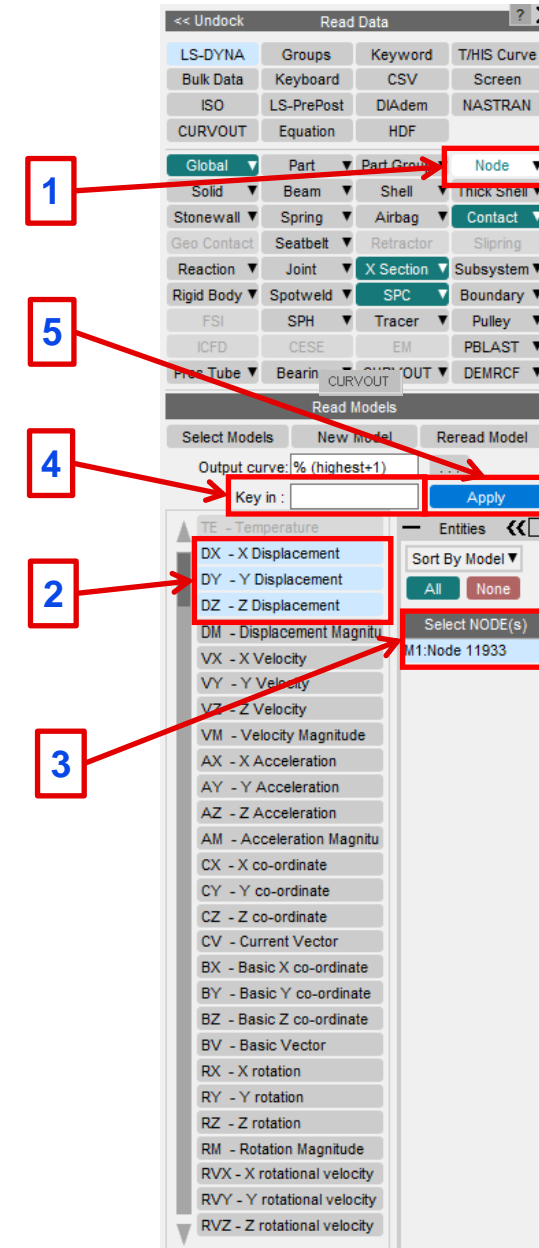


cfrp_crush_tube_058.ptf	✓	25/02/2025 15:30	LS-DYNA Plot File	608 KB
cfrp_crush_tube_058.ptf01	✓	25/02/2025 15:32	PTF01 File	120,528 KB
cfrp_crush_tube_058.ptf02	✓	25/02/2025 15:35	PTF02 File	120,528 KB
cfrp_crush_tube_058.ptf03	✓	25/02/2025 15:38	PTF03 File	120,528 KB
cfrp_crush_tube_058.ptf04	✓	25/02/2025 15:40	PTF04 File	120,528 KB
cfrp_crush_tube_058.ptf05	✓	25/02/2025 15:42	PTF05 File	120,528 KB
cfrp_crush_tube_058.ptf06	✓	25/02/2025 15:43	PTF06 File	120,528 KB
cfrp_crush_tube_058.ptf07	✓	25/02/2025 15:44	PTF07 File	120,528 KB
cfrp_crush_tube_058.ptf08	✓	25/02/2025 15:45	PTF08 File	90,396 KB
cfrp_crush_tube_058.ptf09	✓	25/02/2025 15:45	PTF09 File	30,132 KB
cfrp_crush_tube_058.temp	✓	25/02/2025 15:30	TEMP File	1 KB
cfrp_crush_tube_058.thf	✓	25/03/2025 11:19	LS-DYNA Time Hi...	125 KB



Plotting Data

1. With the results file read into T/HIS. To plot data, under the **Read** menu, select the entity type. Any entity type for which time-history data is available will appear in green. The entities that appear in green depend on what was requested in the ***DATABASE_BINARY** and ***DATABASE_ASCII** cards.
2. Choose the data component(s) for which to display data. Holding the 'Ctrl' button on a keyboard while selecting data components, will allow multiple data components to be selected. Holding the 'Shift' button on a keyboard while selecting data components will select a range.
3. Choose the entities for which to display data. Multiple entities can be selected without holding 'Ctrl'. Holding the 'Shift' button on a keyboard while choosing an entity(s) will select a range.
4. Instead of selecting the entities, an alternative is to "key in" the entity ID(s). This is done by entering the ID(s) into the **Key in** text box.
5. Click the **Apply** button to read the data.



Plotting Data

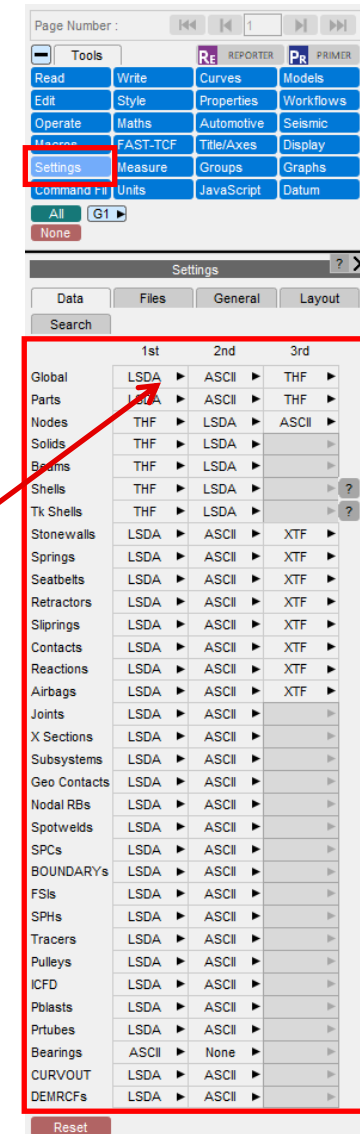
6. The data requested should then be displayed.



Reading LS-DYNA Results

- Many types of time-history data are available from more than one output file type.
- The **Settings** menu defines which output file type to read first for each data type.
- The XTF file is not available for MPP LS-DYNA. It is recommended to use the LSDA (binout) file instead.

Right Click
to select a
file type.



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