

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.

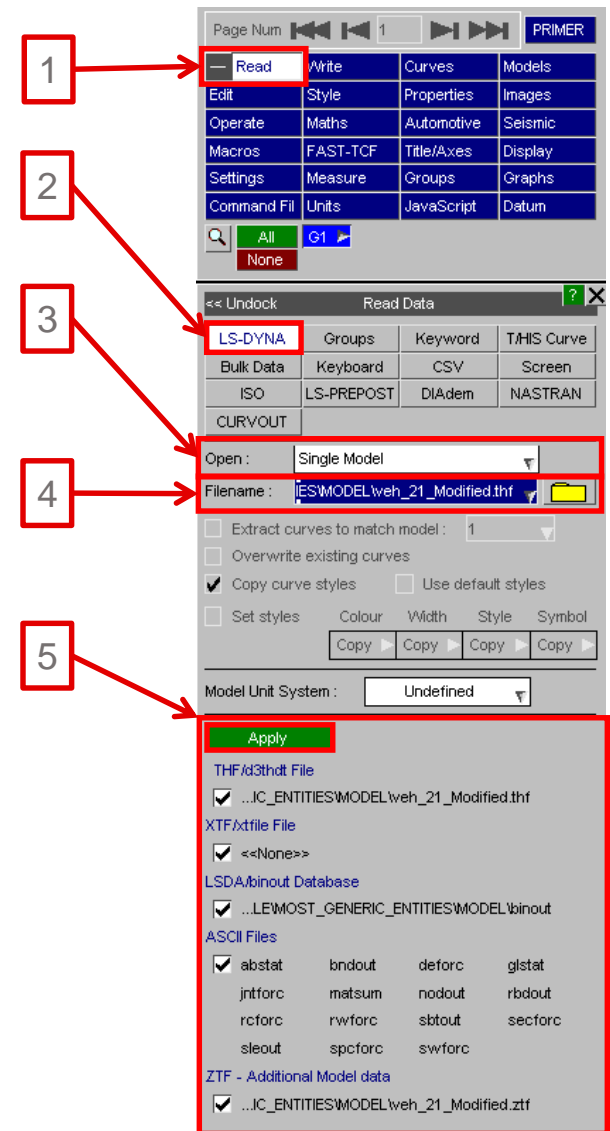
Summary of Results Files

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.

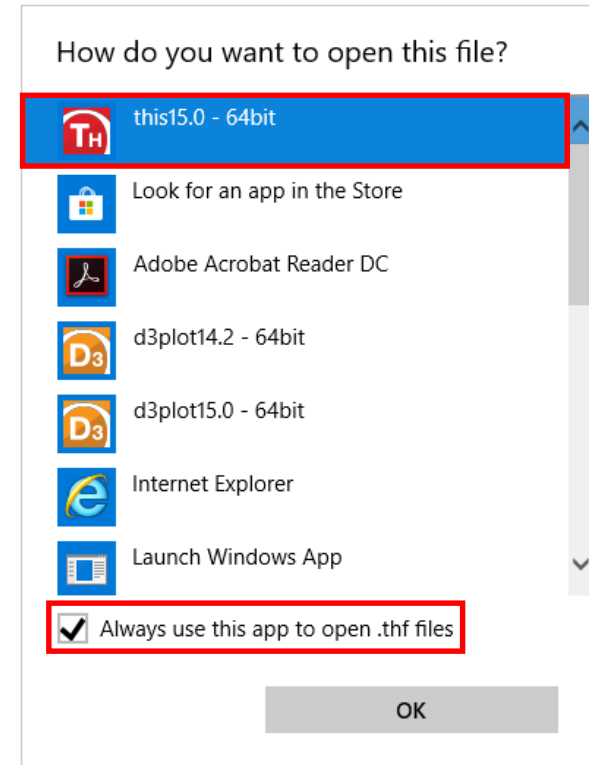
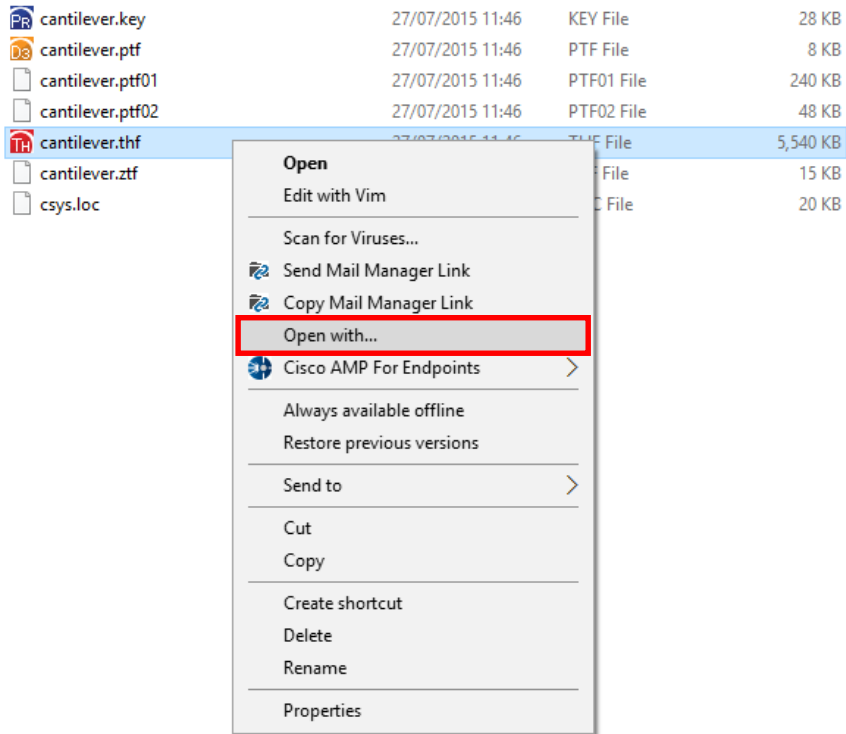
Reading in Data

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

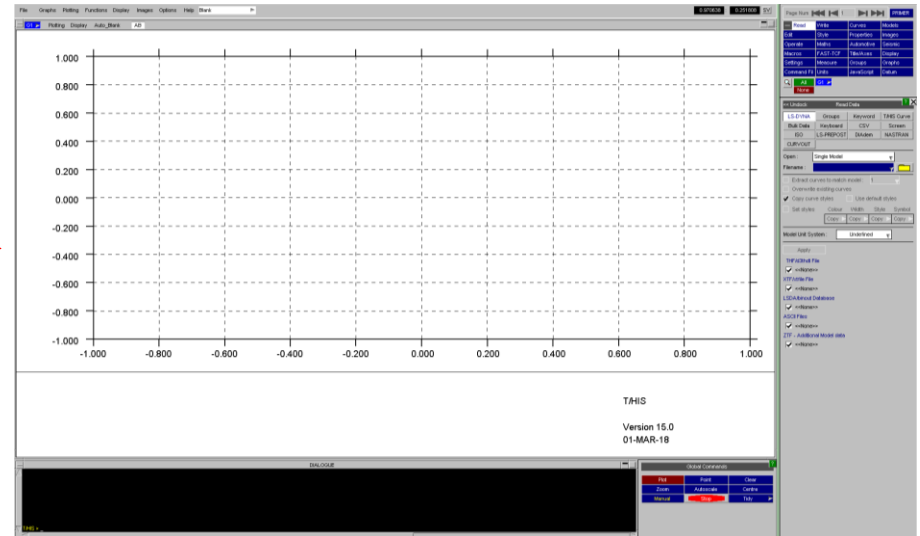
- File association is another method to open a results file in T/HIS.
- To open an associated T/HIS file in Windows, right click on the desired results file to open (in this example, a thf file will be used) in Windows Explorer > Open with > More apps > select T/HIS. The file should then automatically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



Drag & Drop

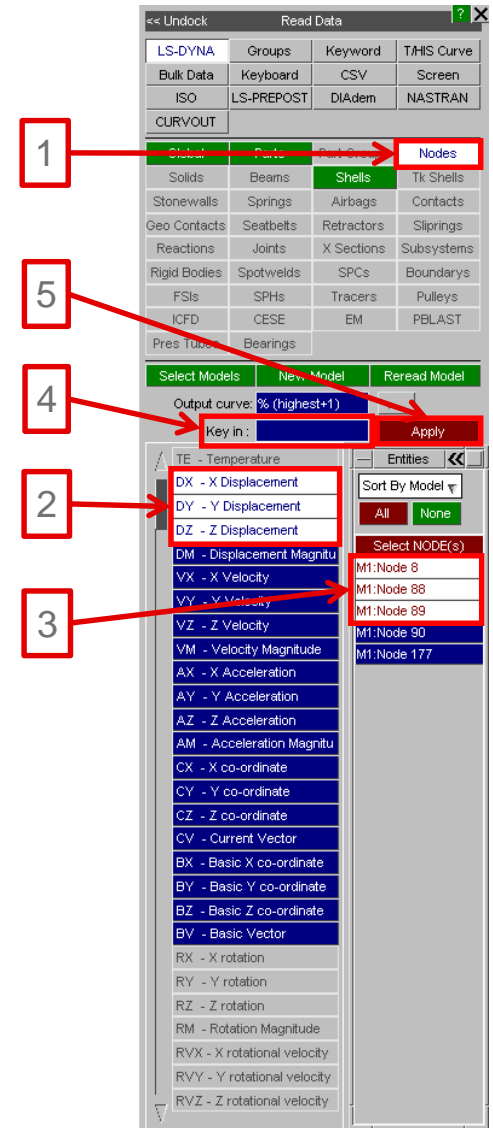
- With T/HIS open, you can also drag in a results file and it will read in.

 veh_21.ptf	17/05/2013 09:30	PTF File	57,174 KB
 veh_21.ptf02	17/05/2013 09:30	PTF02 File	82,724 KB
 veh_21.ptf04	17/05/2013 09:31	PTF04 File	82,724 KB
 veh_21.ptf06	17/05/2013 09:31	PTF06 File	82,724 KB
 veh_21.ptf08	17/05/2013 09:31	PTF08 File	82,724 KB
 veh_21.ptf10	17/05/2013 09:31	PTF10 File	82,724 KB
 veh_21.ptf12	17/05/2013 09:31	PTF12 File	82,724 KB
 veh_21.ptf14	17/05/2013 09:31	PTF14 File	82,724 KB
 veh_21.ptf16	17/05/2013 09:31	PTF16 File	82,724 KB
 veh_21.ptf18	17/05/2013 09:31	PTF18 File	82,724 KB
 veh_21.ptf20	17/05/2013 09:32	PTF20 File	82,724 KB
 veh_21.ptf22	17/05/2013 09:32	PTF22 File	82,724 KB
 veh_21.ptf24	17/05/2013 09:32	PTF24 File	82,724 KB
 veh_21.ptf26	17/05/2013 09:32	PTF26 File	82,724 KB
 veh_21.ptf28	17/05/2013 11:55	PTF28 File	82,724 KB
 veh_21.ptf30	17/05/2013 11:55	PTF30 File	82,724 KB
 veh_21.ptf32	17/05/2013 11:55	PTF32 File	82,724 KB
 veh_21.thf	17/05/2013 11:55	THF File	191,972 KB
 veh_21.ztf	17/05/2013 11:55	ZTF File	4,932 KB
 veh_21_001.prp	01/02/2018 09:56	PRP File	849 KB
 veh_21_002.prp	01/02/2018 09:58	PRP File	849 KB
 veh_21_003.prp	01/02/2018 10:02	PRP File	849 KB



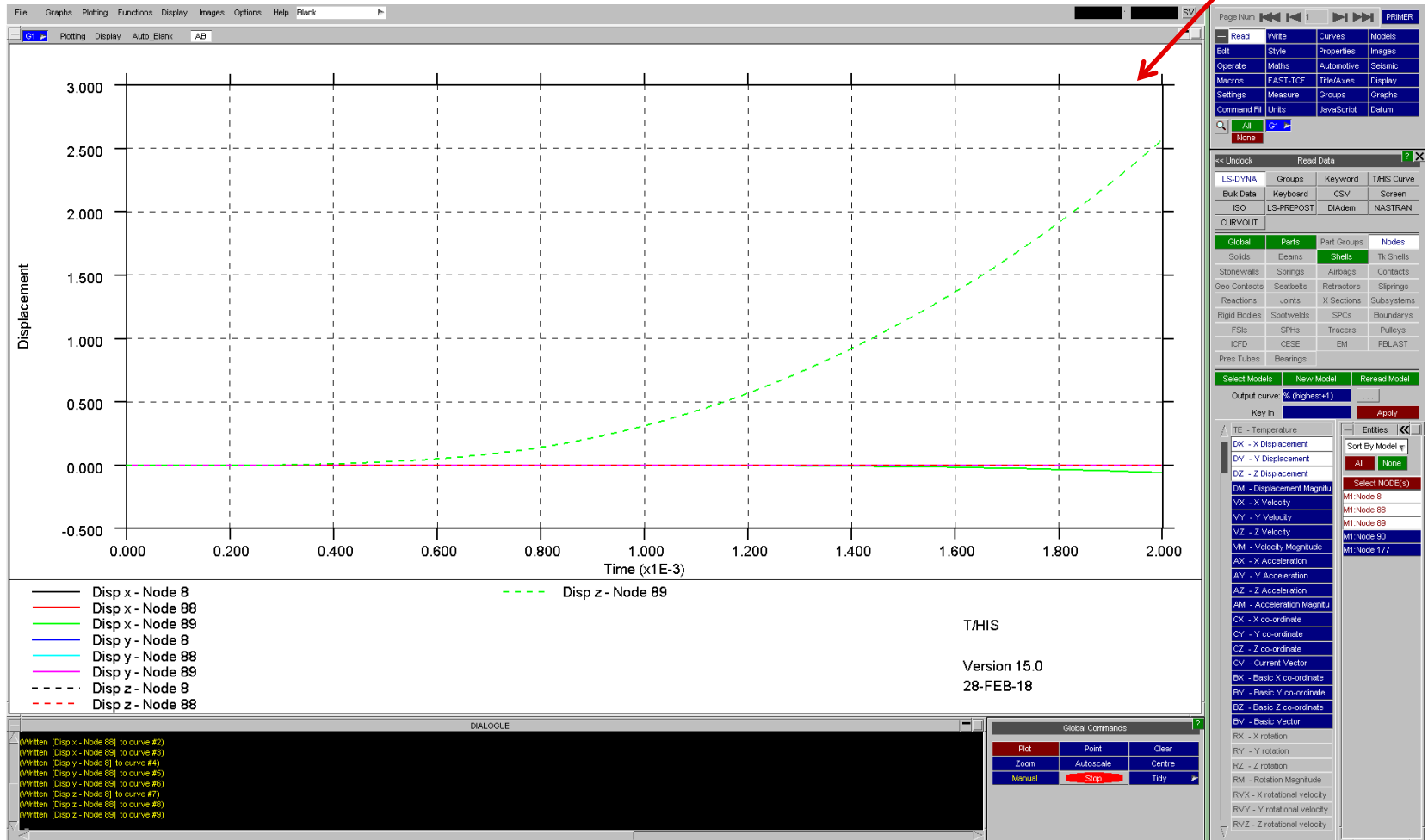
Plotting Data

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 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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Read	Write	Curves	Models
Edit	Style	Properties	Images
Operate	Maths	Automotive	Seismic
Macros	FAST-TCF	Title/Axes	Display
Settings	Measure	Groups	Graphs
Command Fil	Units	JavaScript	Datum

All G1 None

Settings

Data Files General Layout

	1st	2nd	3rd
Global	LSDA	ASCII	THF
Parts	LSDA	ASCII	THF
Nodes	THF	LSDA	ASCII
Solids	THF	LSDA	
Beams	THF	LSDA	
Shells	THF	LSDA	?
Tk Shells	THF	LSDA	?
Stonewalls	LSDA	ASCII	XTF
Springs	LSDA	ASCII	XTF
Seatbelts	LSDA	ASCII	XTF
Retractors	LSDA	ASCII	XTF
Sliprings	LSDA	ASCII	XTF
Contacts	LSDA	ASCII	XTF
Reactions	LSDA	ASCII	XTF
Airbags	LSDA	ASCII	XTF
Joints	LSDA	ASCII	
X Sections	LSDA	ASCII	
Subsystems	LSDA	ASCII	
Geo Contacts	LSDA	ASCII	
Nodal RBs	LSDA	ASCII	
Spotwelds	LSDA	ASCII	
SPCs	LSDA	ASCII	
BOUNDARYs	LSDA	ASCII	
FSIs	LSDA	ASCII	
SPHs	LSDA	ASCII	
Tracers	LSDA	ASCII	
Pulleys	LSDA	ASCII	
Pblasts	LSDA	ASCII	
Prtubes	LSDA	ASCII	
Bearings	ASCII	None	

Reset

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