

SHELL 19.1

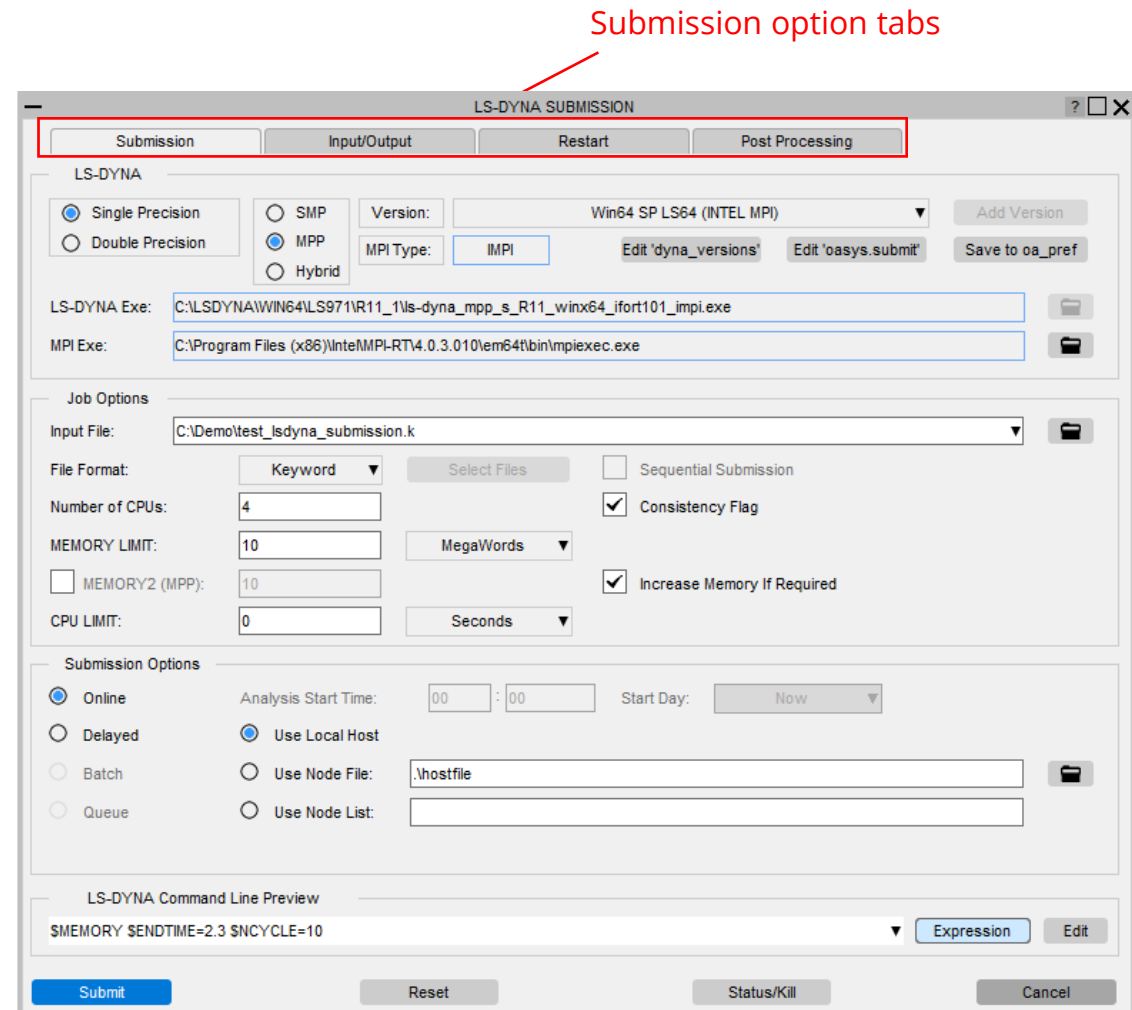
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LS-DYNA Panel Reorganisation

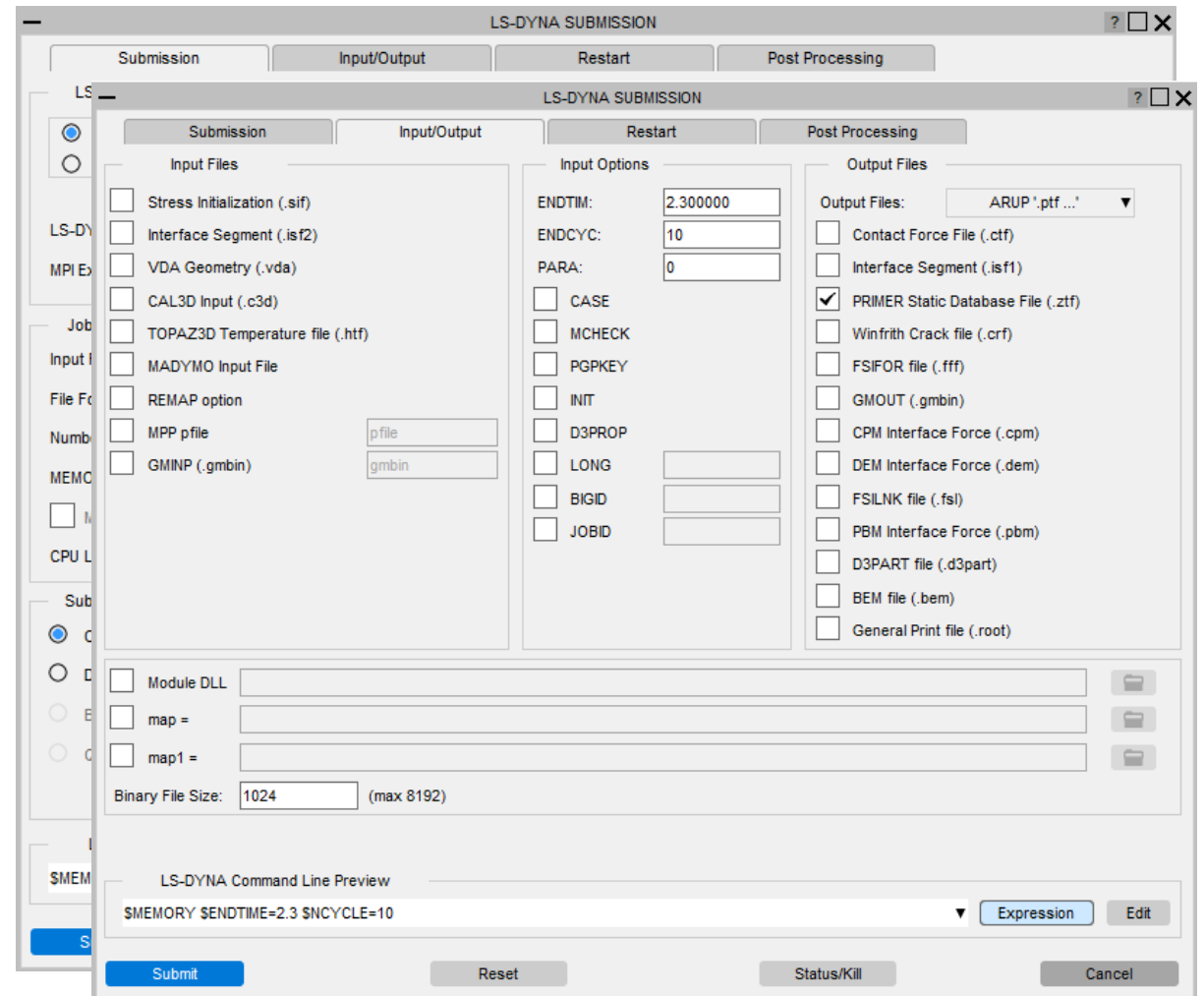
LS-DYNA Panel Reorganisation

- The LS-DYNA Submission panel has been re-organised to account for new and future submission options.
- It is now organised in a 'tabbed' format, with additional options accessed through these tabs instead of individual buttons within main submission window.
- Frequently used LS-DYNA job submission options are kept in "Submission" tab.



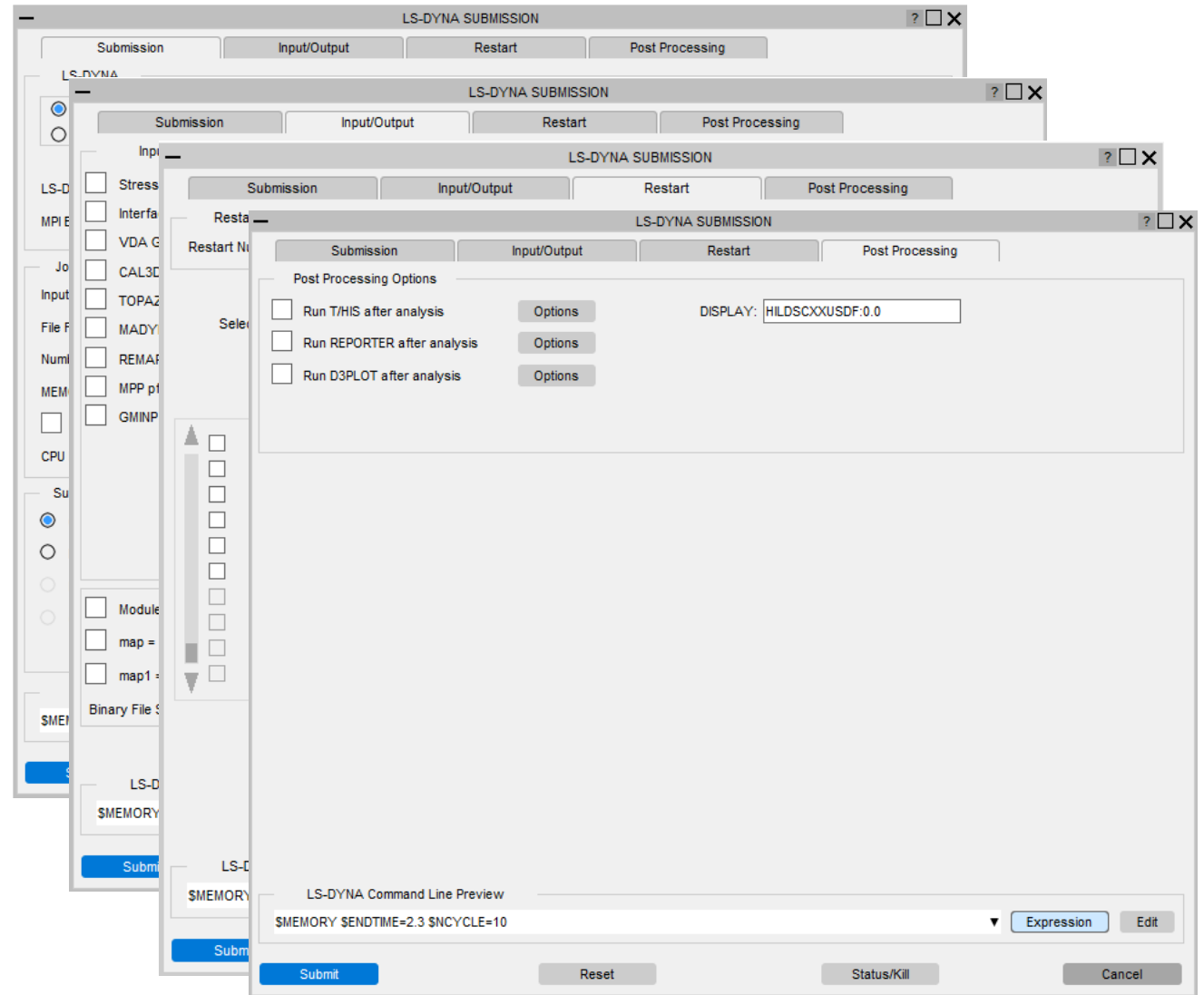
Tabs in LS-DYNA Submission Panel

- Input or Output files related options are kept in the “Input/Output” tab.
(Previously these were accessed via the button “Optional files”)



Tabs in LS-DYNA Submission Panel

- Restart options and Post-processing related options are now kept in respective tab panels.



Option to specify MPI Executable

Option to specify MPI Executable

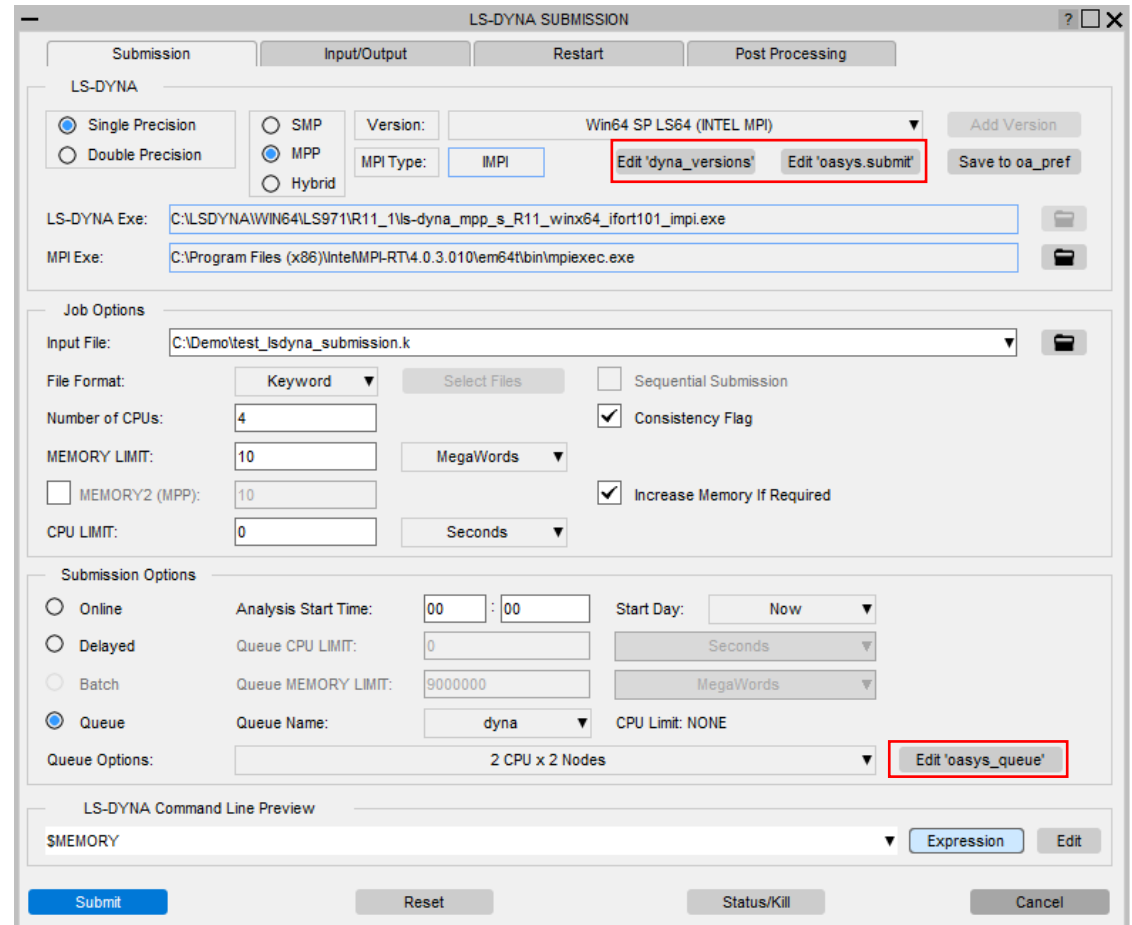
- The user can now specify the path to the MPI executable in the “Submission Tab” .

The screenshot shows the 'LS-DYNA SUBMISSION' dialog box with the 'Submission' tab selected. The 'LS-DYNA' section includes options for precision (Single Precision selected), parallelization (MPP selected), and MPI Type (IMPI). The 'MPI Exec:' field is highlighted with a red box and contains the path: C:\Program Files (x86)\Intel\MPI-RTV4.0.3.010\em64t\bin\mpiexec.exe. The 'Job Options' section includes fields for Input File, File Format, Number of CPUs, MEMORY LIMIT, and CPU LIMIT. The 'Submission Options' section includes options for Online, Delayed, Batch, and Queue, along with Analysis Start Time and Start Day. The 'LS-DYNA Command Line Preview' section shows the command line: \$MEMORY \$SENDTIME=2.3 \$NCYCLE=10. The dialog box has buttons for Submit, Reset, Status/Kill, and Cancel.

View/Edit the SHELL system files

View/Edit the SHELL system files

- The users can now view/edit the following SHELL system files from within the SHELL:
 - **dyna_versions** : Located in the <OA_INSTALL> area, the file lists the paths to the LS-DYNA executables along with their types. The file is used to create the “Versions” menu.
 - **oasys.submit**: Located in the <OA_INSTALL> area, this is a user-configurable to setup and include commands run the LS-DYNA jobs.
 - **oasys_queue**: Located in the <OA_INSTALL> area, this file lists alternative batch queues and queue directives.



Preferences to set default LS-DYNA Executable

Preferences to set default LS-DYNA Executable

- In the Submission tab, the LS-DYNA executable type (code/precision), MPI executable type and path values for the LS-DYNA and MPI executables can be set as a default into the HOME preference file by pressing the '**Save to oa_pref**' button
- This sets up the "Default" LS-DYNA executable related preferences for the SHELL.
 - The "default" LS-DYNA entry is given the tag **<DEFAULT>** in the Versions menu list.
- The "**default_ls_dyna_executable**" preference assigns the given LS-DYNA executable path for a given values of the LS-DYNA type related preferences.
 - "**default_code_type**": Values are SMP/MPP/HYBRID
 - "**default_precision**": Values are Single/Double
 - "**default_mpi_type**"
- The default MPI executable can be given via the "**default_mpi_executable**" SHELL preference.

The screenshot displays the 'LS-DYNA SUBMISSION' dialog box, specifically the 'Submission' tab. The interface is organized into several sections:

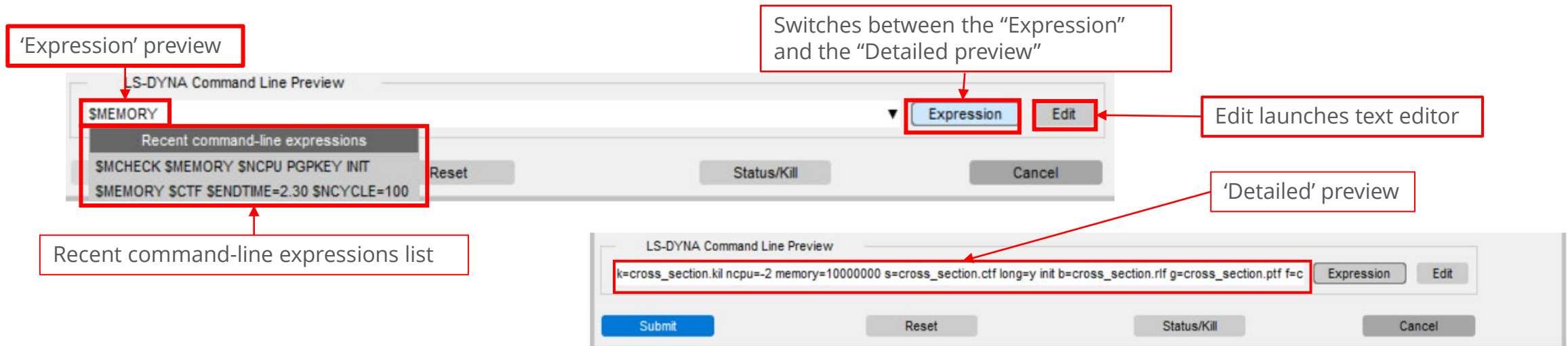
- LS-DYNA:** This section allows for configuring the solver's execution environment. It includes radio buttons for 'Single Precision' (selected) and 'Double Precision'. There are also radio buttons for 'SMP', 'MPP' (selected), and 'Hybrid'. A 'Version' dropdown menu is set to 'Win64 SP LS64 (INTEL MPI)'. The 'MPI Type' is set to 'MPI'. A 'Save to oa_pref' button is highlighted with a red box, indicating that these settings will be saved as the default.
- Job Options:** This section defines the job's parameters. The 'Input File' is 'C:\Demo\test_ls_dyna_submission.k'. The 'File Format' is 'Keyword'. The 'Number of CPUs' is set to 4. The 'MEMORY LIMIT' is 10, and the 'CPU LIMIT' is 0. There are checkboxes for 'Sequential Submission' (unchecked), 'Consistency Flag' (checked), and 'Increase Memory If Required' (checked).
- Submission Options:** This section controls how the job is submitted. The 'Queue' option is selected. The 'Analysis Start Time' is set to 00:00. The 'Start Day' is 'Now'. The 'Queue CPU LIMIT' is 0, the 'Queue MEMORY LIMIT' is 9000000, and the 'Queue Name' is 'dyna'. The 'Queue Options' are set to '2 CPU x 2 Nodes'.
- LS-DYNA Command Line Preview:** This section shows the command line that will be executed, currently displaying 'SMEMORY'.

At the bottom of the dialog, there are buttons for 'Submit', 'Reset', 'Status/Kill', and 'Cancel'.

LS-DYNA Command Line Preview

LS-DYNA Command Line Preview

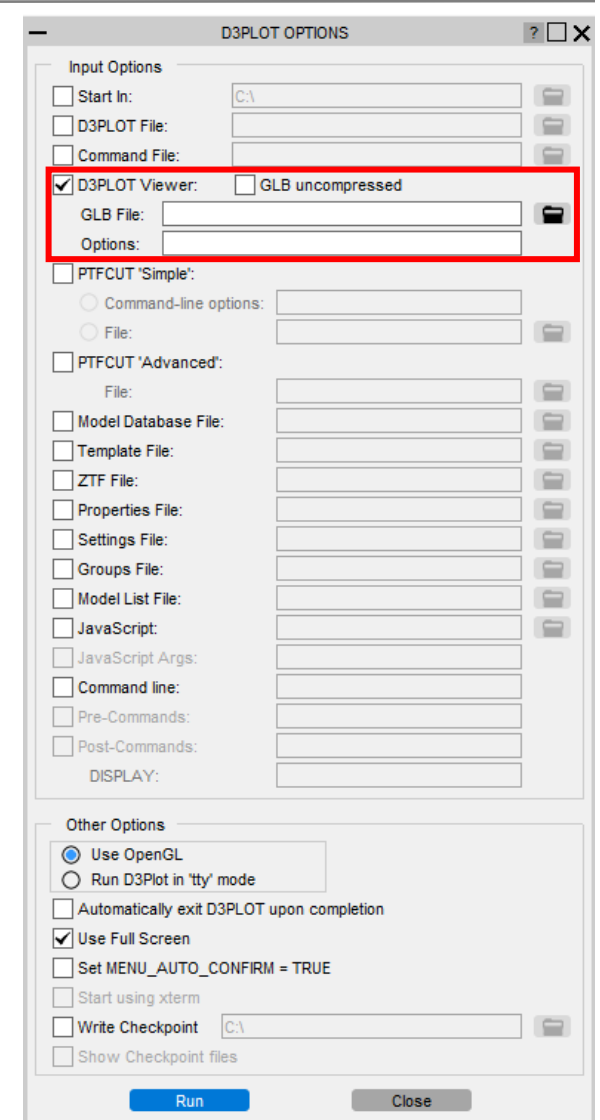
- New LS-DYNA command-line preview has been added in the LS-DYNA submission panel so the user can view and modify LS-DYNA command line inputs.
- The preview can be switched between command-line “Expression” or “Detailed” preview .
- The SHELL also saves the command-line expressions values from the previously completed LS-DYNA submissions.
 - This is for an easy and quick re-submission to LS-DYNA and can be picked up using the '**Recent command-line expressions**' popup menu.
- The LS-DYNA command line can be edited using a text-editor.
 - Job would be submitted using exactly the same command-line input by the user in the editor .
- The text editor can be chosen using the SHELL preference (default for Windows is MS Wordpad):
 - **shell*text_editor:** "C:\Program Files\Windows\NT\Accessories\wordpad.exe"



D3PLOT Options

D3PLOT Options

- Renamed the “3D Viewer Export” option to more appropriate “D3PLOT Viewer”
- Added a new option to output uncompressed D3PLOT Viewer files.
 - The uncompressed files are 5-10 times larger in size than their compressed files.
 - The uncompressed files are compatible with Microsoft PowerPoint and other 3D viewers.



Help text for widgets

Help text for widgets

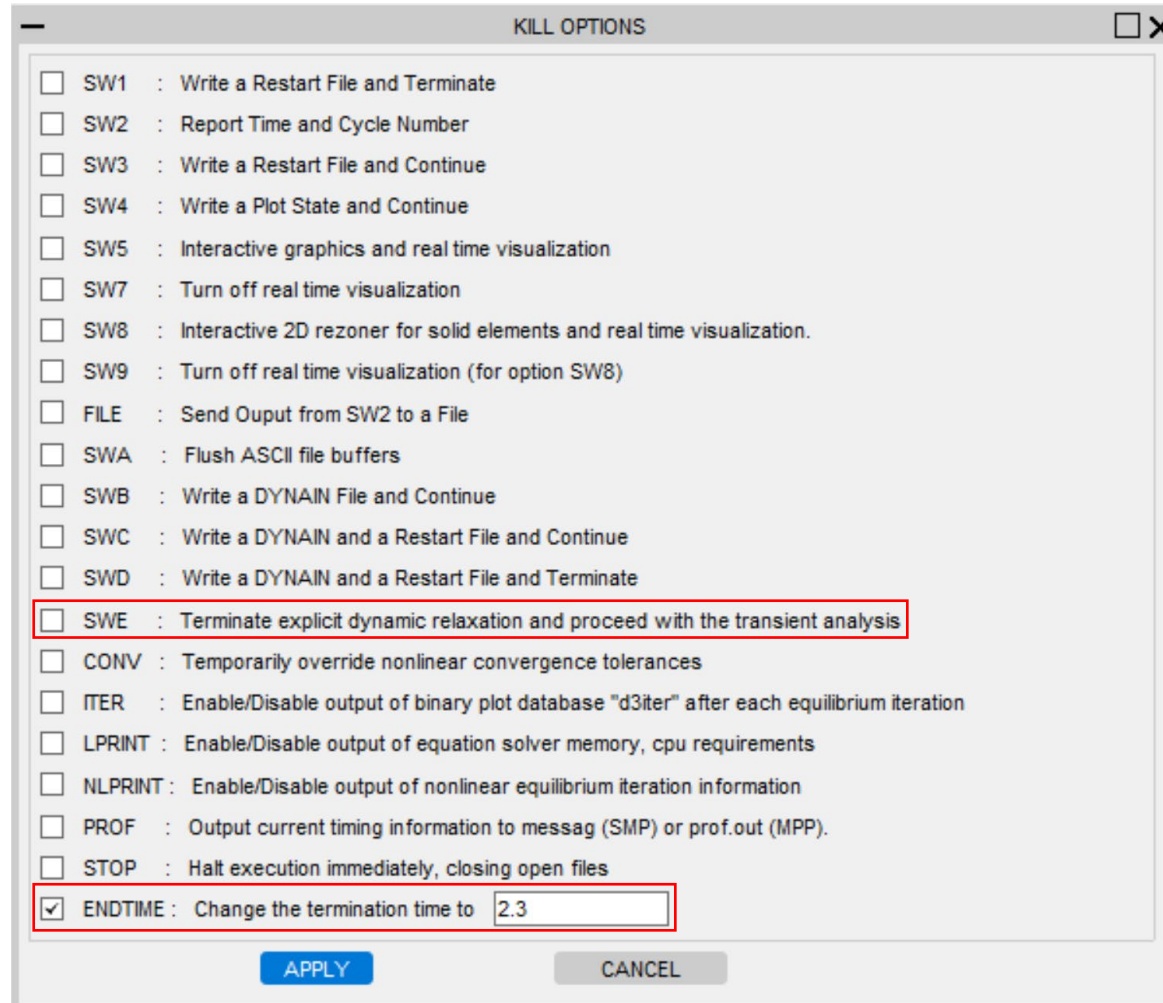
- Added hover text bubbles to all the widgets (buttons or labels) in all the panels in the SHELL, explaining the significance of those widgets.

The screenshot displays the 'LS-DYNA SUBMISSION' dialog box, which is organized into several panels. The top panel, 'LS-DYNA', includes radio buttons for 'Single Precision' (selected) and 'Double Precision', and radio buttons for 'SMP', 'MPP' (selected), and 'Hybrid'. It also features a 'Version' dropdown menu set to 'Win64 SP LS64 (INTEL MPI)', an 'MPI Type' dropdown set to 'IMPI', and buttons for 'Add Version', 'Edit 'dyna_versions'', 'Edit 'oasys.submit'', and 'Save to oa_pref'. Below this, text boxes specify the 'LS-DYNA Exe' and 'MPI Exe' paths. The 'Job Options' panel contains an 'Input File' dropdown, a 'number of CPUs' spinner, and checkboxes for 'Sequential Submission', 'Consistency Flag', and 'Increase Memory If Required'. It also includes input fields for 'MEMORY LIMIT' and 'CPU LIMIT' with unit dropdowns. The 'Submission Options' panel has radio buttons for 'Online', 'Delayed', 'Batch', and 'Queue' (selected), along with fields for 'Analysis Start Time', 'Queue CPU LIMIT', 'Queue MEMORY LIMIT', 'Queue Name', and 'Queue Options'. At the bottom, the 'LS-DYNA Command Line Preview' panel shows '\$MEMORY' and buttons for 'Expression' and 'Edit'. A red box highlights a help text bubble that reads: 'Path to the keyword (*.key; *.k; *.dyn) or the list (*.lst) or the fixed (*.inf) file to run the LS-DYNA analysis.'

New Sense Controls in SHELL for LS-DYNA R13

New Sense Controls in SHELL for LS-DYNA R13

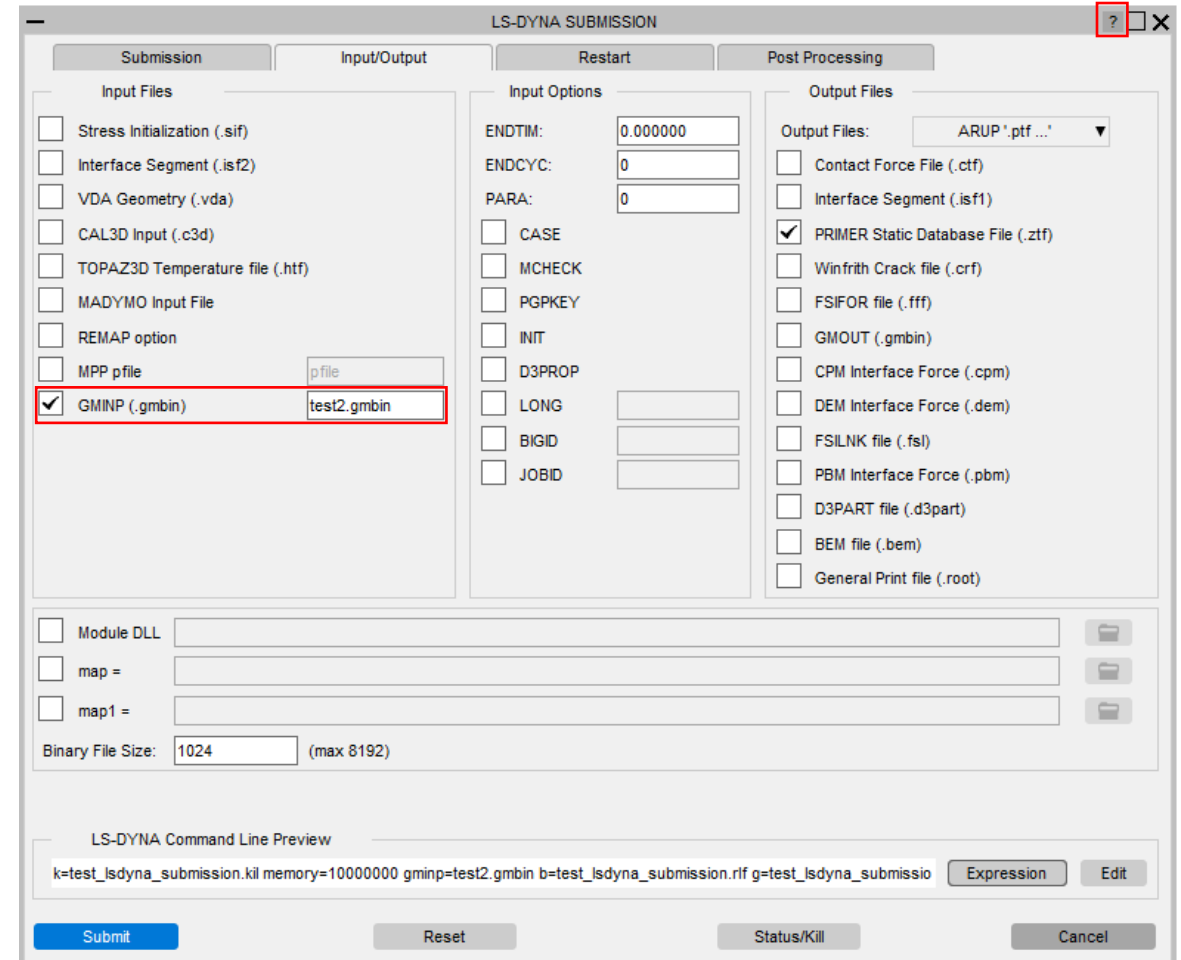
- SHELL V19 now supports the two new sense controls for LS-DYNA R13



SHELL 19.1 Updates

SHELL 19.1 Updates

- Added Help buttons to top right corner of all the SHELL panels, to launch appropriate manual pages.
- Updated the exiting option for GMBIN (.gmbin) in input files section of Input/Output tab to allow users to specify the filename.



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