

SHELL 19.0

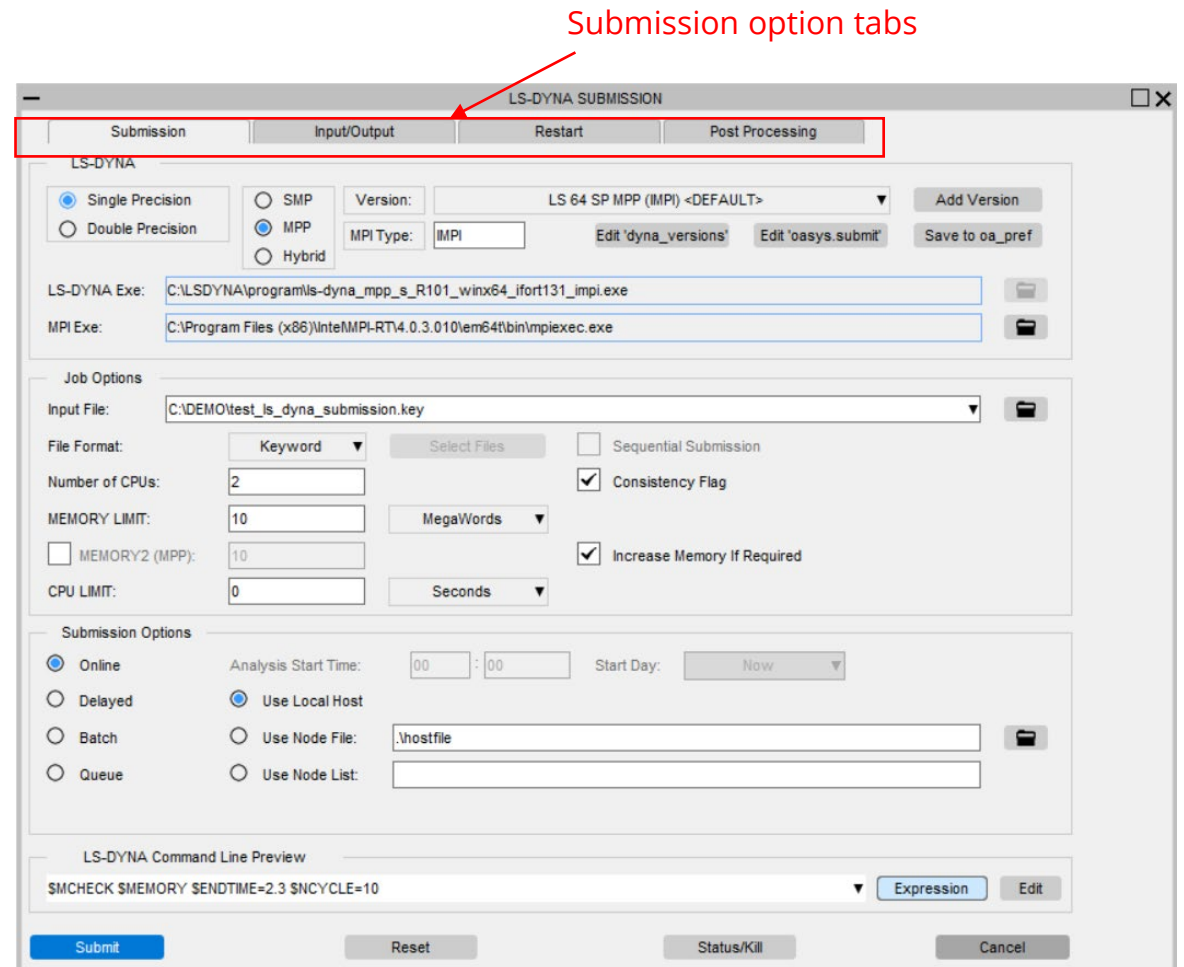
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LS-DYNA Panel Reorganisation

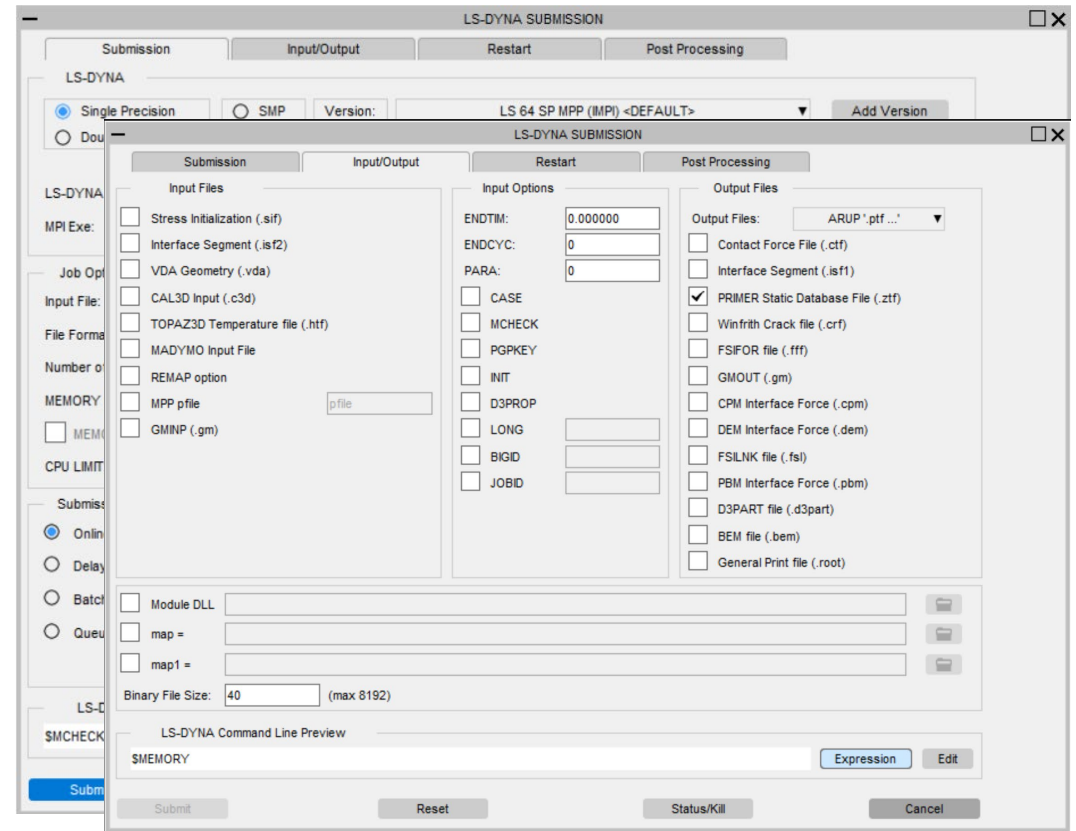
LS-DYNA Panel Reorganisation

- 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.



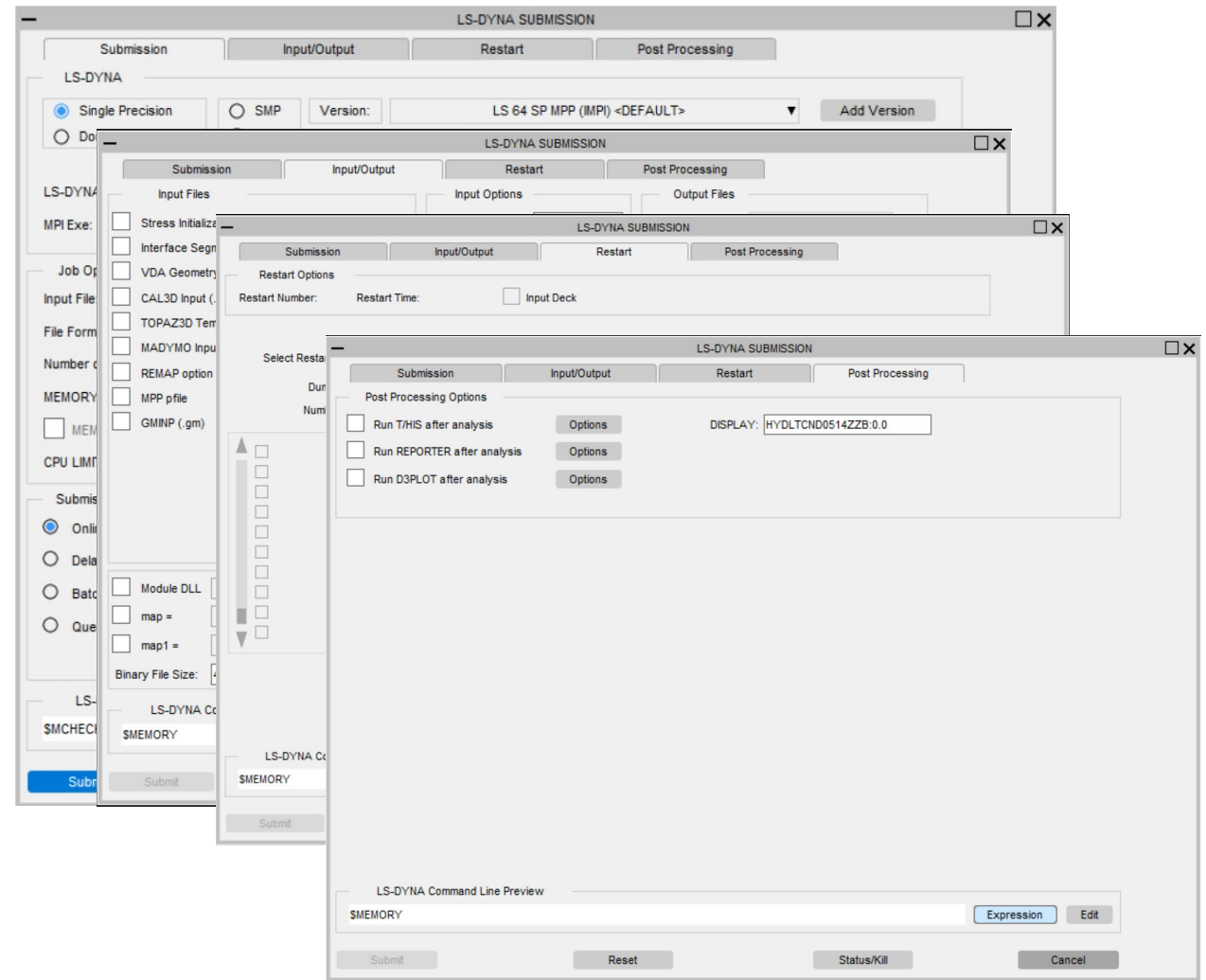
Tabs in LS-DYNA Submission Panel

- 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 radio buttons for 'Single Precision' (selected), 'Double Precision', 'SMP', 'MPP', and 'Hybrid'. The 'Version' dropdown is set to 'LS 64 SP MPP (MPI) <DEFAULT>'. The 'MPI Type' is set to 'IMPI'. The 'LS-DYNA Exe' field contains the path 'C:\LSDYNA\program\ls-dyna_mpp_s_R101_winx64_ifort131_mpi.exe'. The 'MPI Exe' field, which is highlighted with a red box, contains the path 'C:\Program Files (x86)\Intel\MPI-RTV4.0.3.010\em64\bin\mpiexec.exe'. The 'Job Options' section includes 'Input File' (C:\DEMO\test_ls_dyna_submission.key), 'File Format' (Keyword), 'Number of CPUs' (2), 'MEMORY LIMIT' (10), and 'CPU LIMIT' (0). The 'Submission Options' section includes 'Online' (selected), 'Delayed', 'Batch', and 'Queue' options, along with 'Analysis Start Time' (00:00) and 'Start Day' (Now). The 'LS-DYNA Command Line Preview' section shows the command '\$MCCHECK \$MEMORY \$ENDTIME=2.3 \$NCYCLE=10'. The 'Submit' button is highlighted in blue.

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.

The screenshot displays the 'LS-DYNA SUBMISSION' dialog box, which is divided into several sections:

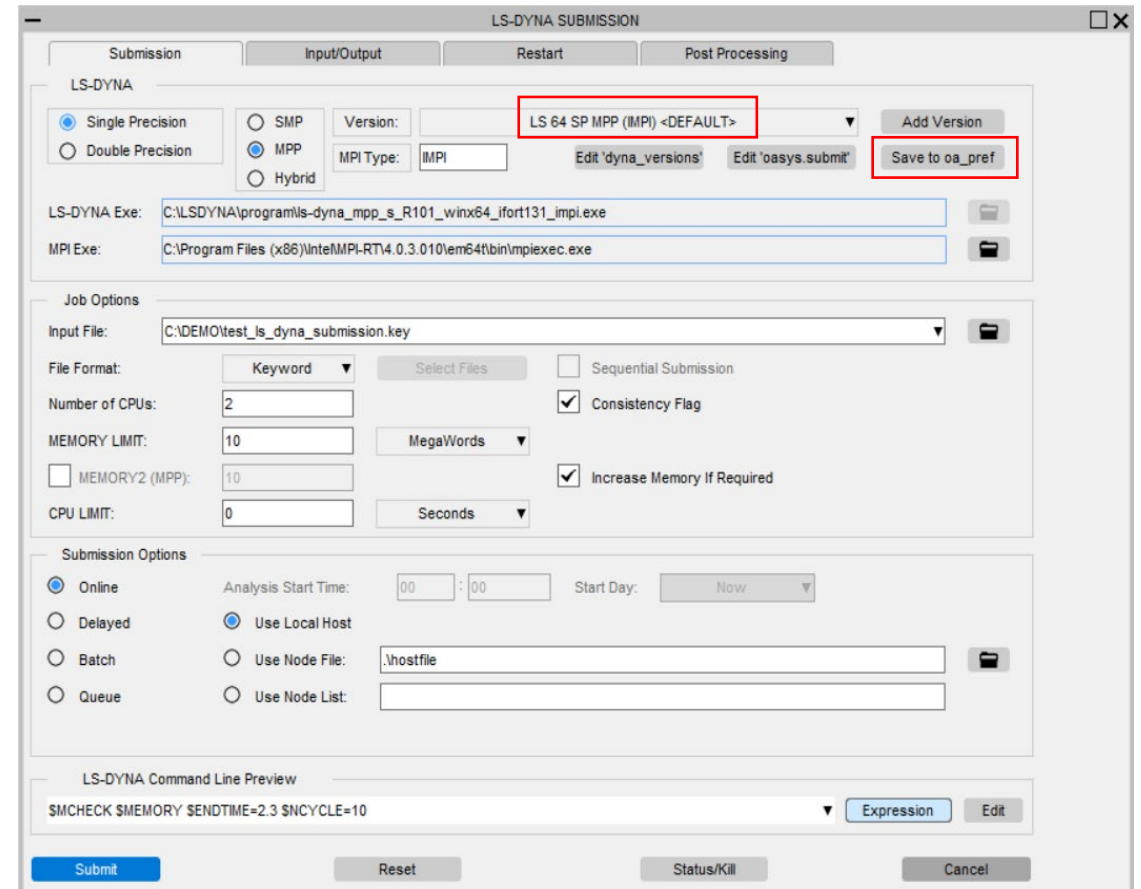
- Submission**: Includes radio buttons for 'Single Precision' (selected) and 'Double Precision', and radio buttons for 'SMP', 'MPP' (selected), and 'Hybrid'. It features a 'Version' dropdown menu set to 'LS 64 SP MPP (IMPI) <DEFAULT>', an 'Add Version' button, and an 'MPI Type' dropdown set to 'IMPI'. Two buttons, 'Edit 'dyna_versions'' and 'Edit 'oasys.submit'', are highlighted with red boxes.
- Input/Output**: Contains text fields for 'LS-DYNA Exe:' (C:\LSDYNA\program\ls-dyna_mpp_s_R101_winx64_ifort131_imp.exe) and 'MPI Exe:' (C:\Program Files (x86)\Intel\MPI-RTV4.0.3.010\em64t\bin\mpiexec.exe), each with a folder selection icon.
- Job Options**: Includes an 'Input File' dropdown, a 'File Format' dropdown set to 'Keyword', and a 'Select Files' button. It also has checkboxes for 'Sequential Submission', 'Consistency Flag' (checked), and 'Increase Memory If Required' (checked). Fields for 'Number of CPUs:' (2), 'MEMORY LIMIT:' (10), and 'CPU LIMIT:' (0) are present, along with unit dropdowns for 'MegaWords' and 'Seconds'.
- Submission Options**: Features radio buttons for 'Online', 'Delayed', 'Batch', and 'Queue' (selected). It includes fields for 'Analysis Start Time:' (00:00), 'Start Day:' (Now), 'Queue CPU LIMIT:' (0), 'Queue MEMORY LIMIT:' (9000000), and 'Queue Name:' (dyna). A 'Queue Options' dropdown is set to '2 CPU x 1 Node', and an 'Edit 'oasys_queue'' button is highlighted with a red box.
- LS-DYNA Command Line Preview**: Shows a preview of the command line with '\$MEMORY' and buttons for 'Expression' and 'Edit'.

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

Preferences to set default LS-DYNA Executable

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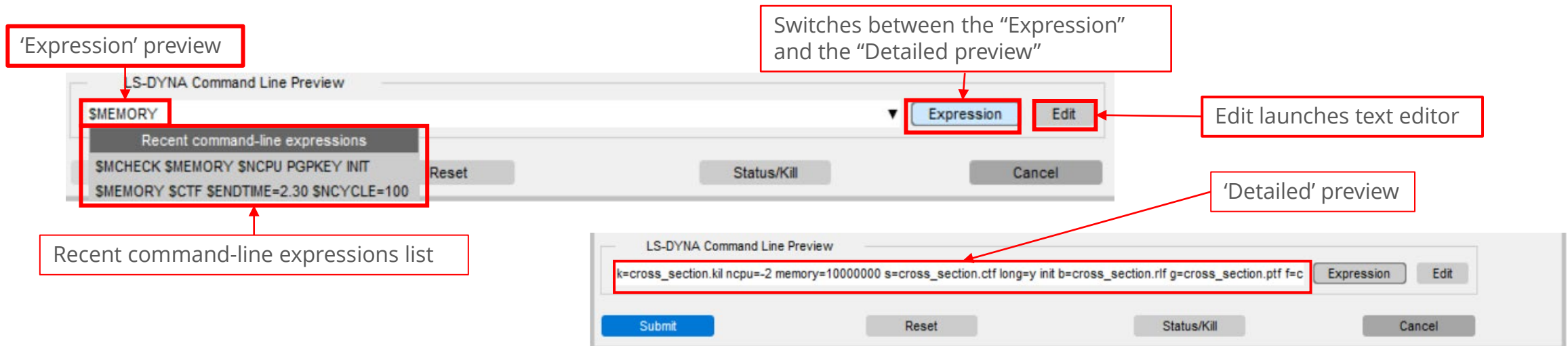
- In the Submission tab, the LS-DYNA executable type (code/precision), MPI executable type and path values for the LS-DYNA and MPI executables can be set as a default into the HOME preference file by pressing the '**Save to oa_pref**' button
- This sets up the "Default" LS-DYNA executable related preferences 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.



LS-DYNA Command Line Preview

LS-DYNA Command Line Preview

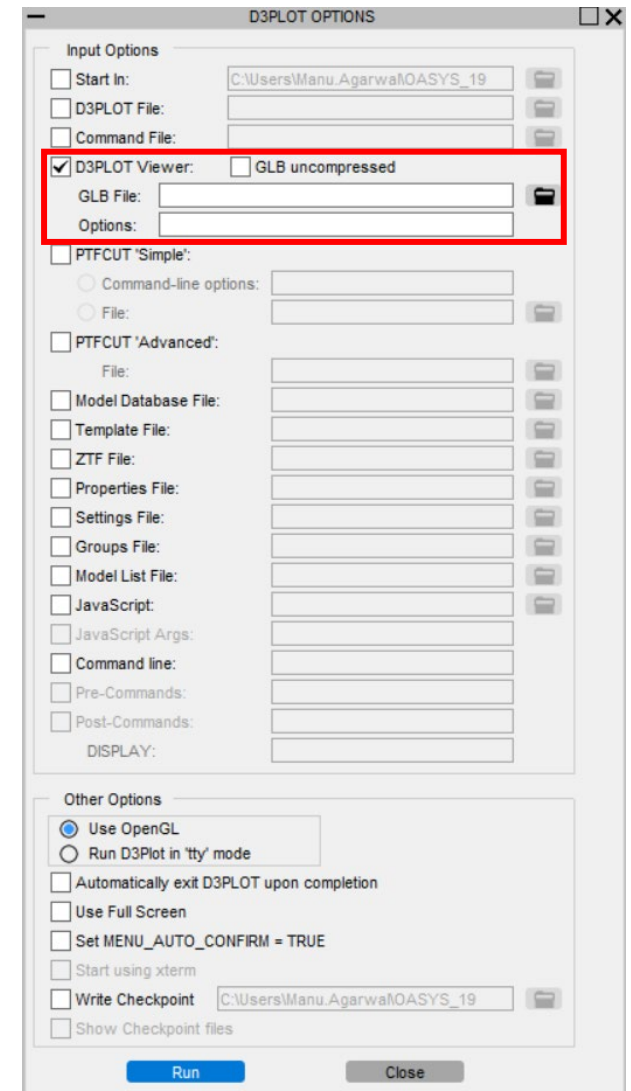
- New LS-DYNA command-line preview has been added in the LS-DYNA submission panel so the user can view and modify LS-DYNA command line inputs.
- The preview can be switched between command-line “Expression” or “Detailed” preview .
- The SHELL also saves the command-line expressions values from the previously 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

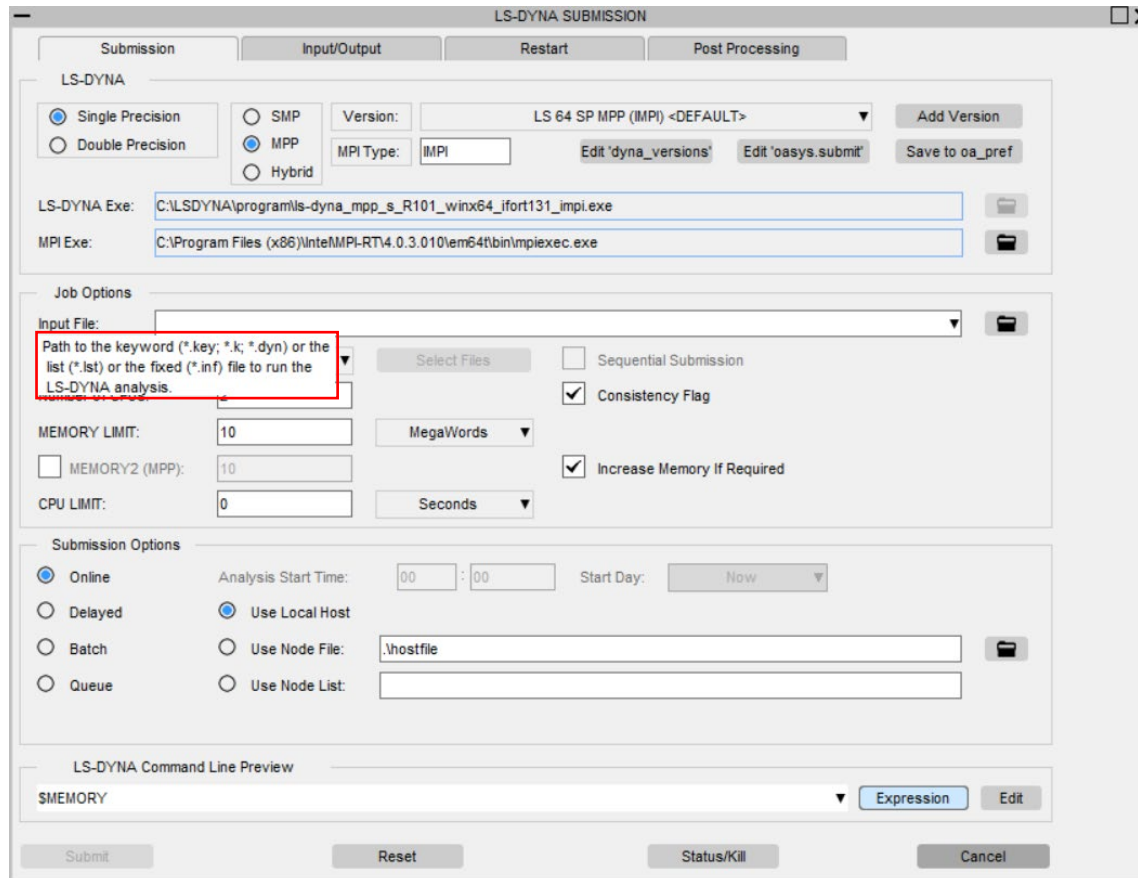
- Renamed the “3D Viewer Export” option to more appropriate “D3PLOT Viewer”
- Added a new option to output uncompressed D3PLOT Viewer files.
 - The uncompressed files are 5-10 times larger in size than their compressed files.
 - The uncompressed files are compatible with Microsoft PowerPoint and other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



Help text for widgets

Help text for widgets

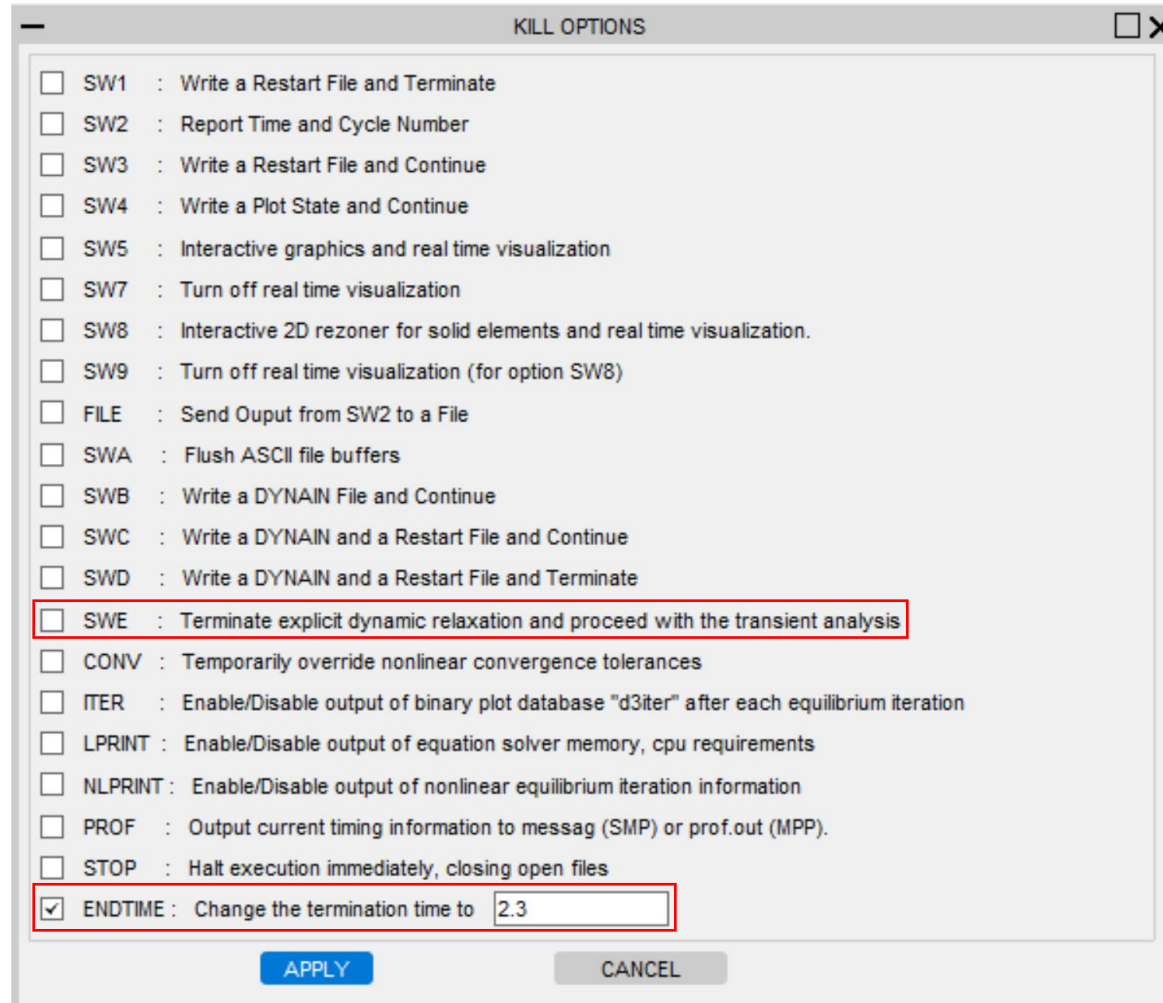
- Added hover text bubbles to all the widgets (buttons or labels) in all the panels in the SHELL, explaining the significance of those widgets.



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



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