

## UPDATE 2 RELEASE NOTES

JUNE 2015 (BUILD 20617)

Changes incorporated in the 64-bit StressCheck 10.1 Professional Edition Update 2 - Build 20617.

### RESOLVED ISSUES

- Several reported issues with the automatic mesh generator were fixed. MeshSim version 9.0 is now part of StressCheck 10.1 Update 2.
- Several issues related to TLAP loads were fixed:
  - Summation of TLAP in the Case Definition window was based on displayed data instead of actual data, which in certain cases provided inaccurate information.
  - Selecting a row of the table in the Case Definition window when multiple Case IDs were available would cause the Current Case combo to switch to the first entry of the list.
  - After reopening a StressCheck project file (SCP) containing Point Load data, the load summation in the Case Definition window would show all values as zeros.
  - Multiple importations of TLAP data on a StressCheck session with TLAP assignments would incorrectly update the Status column of the Case Definition Window which shows the number of times a particular point load was assigned.
  - Under certain conditions, the TLAP point symbols would disappear from the model display window after creating or purging a load record.
- Check of applied loads from the Solver interface that was not working after saving the StressCheck Project file was fixed.
- Increasing size of the project file was for subsequent runs of the same solution ID was resolved.
- Loss of load associativity after h-Discretization was applied to the model and node merging in contact regions were fixed.
- Wrong position of the symbol to show the location of the minimum value of a function computed from the Min/Max Results interface was corrected.
- Tractions defined in Planar Elasticity in reference to a local coordinate system were not applied correctly when the system was rotated out of plane.
- Formula load applied to a surface sharing an edge with a contact zone that was not being evaluated correctly during the computation of the load vector was fixed.
- The Point > Path extraction from the Results interface was fixed.

### NEW FEATURES

#### BATCH SOLVER

A Batch Solver script was added to the StressCheck distribution MSI. A command-line interface to SC10.1 as a replacement for the SC9.2 batch solver.

The StressCheckBatch.exe can be found in the installation directory of StressCheck PE 10. Additionally, there is a Start-menu shortcut under ESRD, Inc. > Utilities. Instructions on how to use the batch solver functionality can be found in the Master Guide Addendum which is available in the main menu of StressCheck under Help.

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#### TLAP FUNCTIONALITY

**Automatic creation of coordinate systems when creating TLAP-Bearing loads.** Systems may automatically be created by StressCheck for the application of TLAP bearing loads. When using this method, a system is automatically created and associated to the load record, requiring the user to only pick the surface and the corresponding TLAP point(s) for the surface. For more details, please refer to the Master Guide Addendum.

**Load summation TLAP update:** The moment summation was updated to include the moments of the forces with respect to (0, 0, 0). For example, instead of computing  $M_x = \sum M_{x0}$ , the summation value will report  $M_x = \sum (M_{x0} + F_z \times Y - F_y \times Z)$ , where the summation is performed for all the data points in the table,  $M_{x0}$  is the value of the moment-x for each entry in the table,  $F_y$  and  $F_z$  are the values of the y- and z-components of the forces and  $Y$  &  $Z$  are the coordinates of the points. Analogously expressions are used for the other moment components.

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#### STRESSCHECK SERVER INSTALLATION

StressCheck 10.1 Update 2 can be deployed to run registration free. This allows users to run a 'server version' of StressCheck without any administrative privileges or registry modifications. StressCheck 10.1 can be deployed on a remote computer so that an engineer can mount the drive where the software is installed and run the application. The same installation file can be used to install StressCheck Professional 10.1 to a network drive or to a user's local machine.

See *StressCheck Professional Server Installation Instructions.pdf* for additional details.

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#### BLANK AND UNBLANK OBJECTS

Additional Blanking and Unblanking options "All Geometry" and "All Mesh" have been added to the user interface. Blanking behavior has been modified so that pressing Blank will blank all selected objects on the screen regardless of the current A/O/M setting. Blanking of specific components can be done by selecting entities and picking the appropriate drop-down category. Unblanking objects works analogously.

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#### OPTION DIALOG

The functionality to control turning on/off Perspective was added to the Options dialog accessible from the Main Menu > File.