

Release Notes for RISA-3D Version 8.0

Version 8.0.0 Enhancements / Corrections

Walls Panels Enhancement

- Added Wall Panels, giving user the ability to model entire portions of walls without using plates.
 - Ability to create Masonry walls with openings to get reinforcement design for in plane and out of plane forces, as well as the ability to design lintels.
 - Ability to create Wood walls (currently without openings) and get design results for in plane and out of plane loads
 - Ability to create General walls with uniform properties and openings for analysis. A way for analysis of concrete walls.

Interface & Graphics Enhancements / Corrections

- Changed notation for "projected" global axes from L, V, and H to Px, Py, and Pz
- Correct the display of incorrect stress block selection in the detail reports.

Interaction Enhancements / Corrections

- Added the ability for the Lbyy and Lbzz values to be transferred from RISAFloor when using the Director tool.
- Added the ability for the RISAFloor selection of an "inactive diaphragm" to be saved between the RISA3D /RISAFloor transfer.

Concrete Design Enhancements/Corrections

- Corrected concrete beam code checks to consider the last span in continuous concrete beams for the governing code check. The steel reinforcing design optimization was not affected.
- Corrected the Shear UC to not always be taken at the first section of a continuous beam.

Sloping Members

- Ability to bring sloping members over from RISAFloor for analysis.

Miscellaneous Enhancements / Corrections

- Added orthotropic plates. Plate materials with inconsistent E and G will now use both in the element stiffness formulation rather than internally defining G based on the entered E value.
- Changed Emin calculation for SCL members
- Added warning to prevent poorly formed plate from being extracted into a corrupted solid element.
- Fixed a bug where changes to the "Detach from Diaphragm" option did not automatically clear the stiffness matrix.
- Corrected possible corruption of the Report Name database which could result in seemingly unrelated memory errors.
- Corrected printing for the Project Grid spreadsheet
- Fixed Unity Check for columns under the Mexican code that need rebar close to the maximum specified.

- Corrected an issue where editing a model in the embedded version of RISAFoundation could temporarily break the existing RISA3D deflection diagram.
- Corrected member orientation issue associated with the opening of RISA-2D files in RISA-3D
- Corrected an issue with the Material Take Off results which would occur anytime more than 500 section sets were used in a model.
- Removed the potential for "padded spaces" from dialog boxes. When these fields were being padded this would prevent user from entering data in those fields.
- Corrected the display of saved Cold Formed code checks. Phi was not being properly stored in the results file.

Version 8.0.1 Enhancements / Corrections

- Added option to view the local axes of wall panel elements.
- Activated the "Detail Report For Current Item" in cases where it was not working.
- Changed the sorting of joint coordinates to include wall panel nodes
- Corrected the graphical display of wall panel surface loads and reaction values
- Corrected the display of grout weight in the wall panel editor.
- Corrected the top value of the wall panel surface load to consider the load factor.
- Corrected the interaction between RISA-3D and RISAFoot to allow footing design within RISA-3D.
- Corrected the calculation of rz (radius of gyration about principal axis) of custom single angles created in RISA-3D.
- Corrected the importing of steel joists from a STAAD file.
- Fixed a bug where the program was not properly re-assigning a rebar layout for naming conflicts.
- Corrected an issue where crack control requirements for concrete members could produce tight bar spacing.
- Corrected printing of Project Grids and Wall Panel Surface Loads.

Version 8.0.2 Corrections

- Corrected dimensions in Euro Steel database for HD360x147, HE1000A, HE1000AA.
- Corrected the contours and contour legends display.
- Fixed a bug where all wall panel surface loads were being placed in Basic Load Case 1 regardless of the specified BLC.
- Fixed a bug where wall panel thickness changes did not automatically clear the stiffness matrix
- Fixed a bug where envelope and batch solutions were considering the last load combination as the controlling one for wall panels only.
- Corrected miscellaneous hold down database errors for wood wall panels.
- Corrected results for wall panels with surface loads applied in the local axis directions.
- Corrected Wall Panel force diagrams in detail reports for models when the Z-axis was set to vertical.
- Corrected the "d" value calculation for masonry wall panels design.
- Corrected out of plane strength design for masonry wall panels.
- Corrected the display of the controlling location masonry wall panel design.
- Corrected miscellaneous wall panel meshing errors.

Version 8.0.3 Enhancements / Corrections

Enhancements

- Enhanced the status bar display for multi-monitor or odd resolution screens.
- Enhanced masonry detail reports to give more clear and relevant output.
- Enhanced the masonry horizontal shear reinforcement graphics in the wall panel editor.

- Improved wood wall panel detail reports to give more relevant output.
- Added general wall panel region detail reports.
- Enhanced wood wall panel detail report to explicitly show chord and hold down forces with the controlling load combination.
- Improved truss generator to allow user to specify "Segment" for unbraced lengths.
- Improved truss generator to recognize triangular trusses and thereby not create duplicate chord end joints.
- Improved wall panel mesher to account for joints with boundary conditions that fall within wall panels.
- Modified the way wood schedules were checked, thus removing unnecessary warnings from the warning log.
- Added code to prevent creation of non-rectangular wall panel regions which could cause errors.
- Enabled users to delete point loads using graphical delete load feature.
- Improved load generation treatment of Base Elevation to properly allow for negative elevations.

Corrections

- Fixed a bug where the self-weight of masonry wall panels had values reversed between 140 pcf grout and 105 pcf grout.
- Corrected some unit conversions from imperial units to metric for the output in masonry detail reports.
- Fixed a bug where the allowable stress increase factor was not being considered correctly for masonry wall panels.
- Corrected calculation for stress in the steel for out of plane calculations with bars in both faces of masonry wall panels.
- Fixed miscellaneous inconsistencies between region editor input and the detail report output for masonry.
- Corrected a Wall Panel detail report error where regions that were auto-split could report an over-conservative axial force.
- Corrected graphics in masonry out of plane detail report for "both faces" and "staggered" locations of reinforcement.
- Fixed a bug where wall panel reactions were not being included in response spectra analysis scaling of base shears.
- Corrected units conversion error with the y1 and z values in custom rebar layouts.
- Fixed a units conversion problem with the Canadian code where the moment value was reported as a negative number.
- Removed wall panel end releases because they were being applied incorrectly. They will be added at a later time.
- Modified hold down design and database procedure for wood wall panels to eliminate errors.
- Corrected over-conservative wood wall panel chord force calculation in certain cases.
- Corrected an issue in the load combinations spreadsheet, where adding a line in the spreadsheet would confuse any nested load combinations below.
- Fixed a bug that would cause distributed loads to be cut off if a model merge was performed on non-physical members.
- Corrected an error where duplicate nodes would be created in a RISA-3D model that came in from RISAFloor.
- Corrected a K-factor issue where Nodes with blank lines in the Boundary Conditions spreadsheet were being interpreted as restrained joints for the K approximation.
- Enhanced program mesher for wall panels, eliminating errors.
- Fixed a problem in wall panel detail reports where envelope force and moment diagrams were reported as a maximum of batch forces, as opposed to an absolute maximum
- Fixed Miscellaneous database and default issues associated with the Wood Wall Design Rules.
- Corrected an issue with the wall panel detail reports where the Window Title could list the wrong wall panel label.

- Fixed a problem in wood design where the R_b calculation was computed as if the bottom flange was in compression when the top flange was actually in compression.