

Release Notes for RISAFloor 5.1

Version 5.1.0 Enhancements/Corrections

Enhancements

- Added Concrete Wall Panels per ACI 318-05 and ACI 318-08 specifications for axial design
- Made changes to the Masonry and Concrete Materials spreadsheets:
 - Moved the definition of the yield strength of the reinforcement (F_y) from the Design Rules spreadsheet to the concrete and masonry tabs of the materials spreadsheet.
 - Moved the masonry self weight definition from the Design Rules spreadsheet to the Materials spreadsheet.
 - This could result in reduced backwards compatibility of Concrete and Masonry Materials with older versions of the program.
- Added a number of improvements for the Cold Formed Steel code checks
 - AISI 2004 Cold Formed Steel code
 - AISI 2007 Cold Formed Steel code
 - Added Mexican (Canacero) 2004 and 2007 codes
 - Updated the AISI and SSMA database shape properties to reflect the new 2007 code provisions.
 - Added Omega and Phi factors to cold formed steel detail reports and spreadsheets.
- Added AF & PA NDS-08: ASD Wood code.
- Added ACI 530-08 Masonry code.
- Added ACI 318-08 Concrete code.
- Added back in the ability of the program to launch in "Demo Mode" when a license is not detected. Feature now requires the creation of a Demo sub-folder.
- Updated internal defaults for Area Load Definitions with a Roof Load option and more realistic values for Dyn Loads.
- Improved the Area Load attribution for two-way deck.
- Modified the CL calculations for glu-lams with $d/w < 2.0$.
- Added the ability to graphically display wall panel Design Rules.
- Added the C_b calculation for cold formed steel members.
- Improved the automated generation of boundary conditions for walls that come over from RISAFloor into RISA-3D.
- Simplified the interface by splitting the Design Rules spreadsheet into a Wall Design Rules and a separate Member Design Rules spreadsheet. This could result in reduced backwards compatibility of design rules with older versions of the program.

Corrections

- Corrected an issue where trying to delete unattached points (for models with a very large number of points) could cause the program to crash.
- Corrected an issue with the Tee beam flange width calculations for the Canadian Concrete code. Previously, slab thickness (conservatively) and span length (non-conservatively) limits were based on the ACI code.
- Corrected a display issue where the CV value for glu-lams was not being properly displayed in the member detail report.
- Corrected an issue with the Chinese shape database where the x-bar values for channels were incorrect and were preventing code checks from being calculated.
- Corrected issues with the calculation of wall self weight used for seismic force calculations. Issues were most apparent in base weight calculations and for Masonry Walls with large openings.
- Corrected an issue with the unbraced lengths where the program was over conservatively ignoring the deck unbraced length for the $L_{comp-top}$.
- Corrected a memory issue which could prevent the user from printing the Warning Log spreadsheet.
- Corrected an issue where a wall drawn by the user was not properly remembering its assigned design rules.
- Corrected an issue with sloped floors where member self weight was being erroneously interpreted as a projected (PY) distributed load.
- Corrected an issue which caused the program to consider only one "OL" (Other Load) area load category when multiple were assigned to the RISAFloor model.
- Corrected an issue with pinned end concrete beams which could result in un-conservative design or rebar optimization.
- Corrected some issues with the databases installed for certain wood products (Pacific Wood and Standard Structures).

Version 5.1.1 Enhancements/Corrections

- Added integration with RISACONNECTION for hot rolled steel connection design
- Made a number of enhancements associated with database shape values and presentation
 - The AISC Database has been updated to include new shapes in the 13th Edition AISC Manual.
 - The section properties of AISC shapes have been updated to reflect new values in the 13th Edition AISC Manual.
 - When installing over an older version, the database of obsolete AISC shapes is retained as an "AISC_Backup" shape database.
 - AISC shapes in existing models, which have section properties that differ from current database values by less than a specific tolerance, are automatically assigned the new section properties. However, if the difference in section properties exceeds the tolerance then the existing section properties are retained with a new shape name which has an _HRA suffix.
 - Added "k" values to hot rolled steel databases to allow for better integration with RISACONNECTION
 - Design Lists updated for the new AISC shapes. Backups of older design lists are saved with a *.bak extension.
 - Enhanced integration with RISASECTION (version 2.0) to allow for code checks on imported Hot Rolled Steel shapes
 - Added a Print function to the Edit/View dialog in the Shape Database.
 - Enhanced the graphical rendering of General and Arbitrary Shapes to allow for easier identification of strong and weak axes
- Added the IS 800-2007 Indian Steel code
- Improved the processing time for the creation of results browsers or flat file printing.
- Added a warning log message for masonry walls that use uncommon material strengths with uncommon block sizes. Self-weight will not be accounted for these walls and must be applied manually.
- Adjusted self weights of some of the LH and DLH joists to include more significant figures in order to improve joist optimization.
- Updated the cold-formed steel databases to be fully editable.
- Added a graphical Re-Labeling options so that users can selectively re-label existing items based on the current selection state. This also allows user to apply a different prefix to selected items.
- Fixed an optimization issue where RISAFLOOR could have erroneously downsized columns which had been explicitly sized in RISA-3D.
- Corrected a units issue in the RISAFLOOR display of member end reactions.
- Corrected a problem with DXF imports and stacked walls.
- Corrected a problem that caused an error with tapered area loads on two-way decks.
- Fixed an issue with wall panels between RISAFLOOR and RISA-3D, where having wall panels only in the RISA-3D portion of the model could cause an error in RISAFLOOR when creating a new floor.
- Fixed an issue with Joist Girders where the calculation for moment of inertia was off when the units of force were not in kips.
- Corrected an issue with the calculation of tributary area of columns which support continuous beams. The tributary area from the I end of Beam segment had been erroneously assigned to the J end and vice versa.
- Fixed an issue where the program wouldn't run if there was a multi-story concrete wall without a deck at a lower level.
- Fixed an issue where printing of the Masonry Wall Reinforcement results browser could cause the program to crash
- Fixed an error which could cause the Custom Wood Species counter to be off, preventing the model from opening.
- Fixed a graphics problem that would cause the program to randomly shut down.
- Corrected an issue with the sign convention used for end reactions displayed when members are bent about their weak axis.