

Release Notes for RISA-3D

Version 17.0 Enhancements/Corrections

- Analysis:
 - Added compatibility with IBC 2018.
 - Added *ASCE 7-16*
 - Added Load Combination generation
 - Added wind and seismic load generation
 - Added *NBC 2015* Canadian building code provisions
 - Added Load Combination generation
 - Added wind and seismic load generation
 - Added design response spectra
 - Added partial fixity member end releases using a rotational spring constant to reduce the stiffness of a connection.
 - Updated the display of wall panel axial results in the Detail Report with improved force summation.
 - Improved the optimization process for Suggested Designs for members and section sets.
 - Refined the "Envelope Only" solution for Story Drift to not be overly conservative.
 - Improved Suggested Member design to exclude warping stress for torsionally released member ends.
 - Corrected an issue with tension only members with applied thermal force.
 - Corrected the C_b coefficient calculation for Hot Rolled members when the user enters L_{by} in the $L_{comptop}$.
 - Corrected an issue when the point loads are applied at the ends of member in the same location as a boundary condition.
 - Corrected an issue where members with local y analysis offsets were resulting in larger lateral deflections in local z axis of member.
- Hot-Rolled Steel:
 - Added member design per the *AISC 15th Edition Manual (360-16): ASD & LRFD*.
 - Updated the Chinese hot-rolled steel database per the Standardization Administration of the People's Republic of China (SAC) current DB Standards.
 - Updated the automated calculation of the EuroCode Moment Gradient Factor C_1 to use the widely accepted Lopez, Yong, and Serna method.
 - Corrected a metric units display problem for F_y when using the Canadian hot rolled steel design code.
 - Corrected an issue where the unbraced lengths were not saving in the Member Properties dialog for Stainless Steel shapes.
 - Resolved an issue where stainless steel WT, double angle, and single angle members were reporting NA or negative code check.
- Concrete:
 - Improved how the program recognizes concrete beam spans when combined with semi-rigid diaphragms and wall panels.
 - Improved weight calculations of concrete T and L beam in Material Takeoff results.
 - Added the warning message, "P-Delta Analysis is required for all ACI 318-14 load combinations" to the concrete detail report.
 - Corrected a display issue with the concrete explicit shear reinforcement diagram in the detail report.
 - Corrected an issue where the value for "d" in the out of plane shear capacity calculation was being erroneously taken as the full thickness of the wall for concrete walls with centered reinforcement.
 - Resolved an issue where modifying the thickness of a concrete wall panel did not clear the design results.
- Masonry:
 - Added the view of the FEA analysis to the shear and moment diagrams for masonry lintel detail reports.

- Corrected a display error which showed "Fully Grouted" in the detail report for masonry walls which were designed with partial grouting.
- Corrected a DXF export error for a model with masonry walls that would cause the program to close.
- Wood:
 - Added *AWC-NDS 2018* wood code (ASD).
 - Added strap design for wood shear walls.
 - Corrected an issue for the *NDS-01* code where CF was incorrectly calculated as zero.
 - Corrected an issue which erroneously suppressed wood wall panel errors from showing up in the Warning Log.
 - Corrected the wood wall aspect ratio check to now consider the height of the design region, rather than the full height of the wall panel.
 - Resolved discrepancies with reference design values in the glulam database based on the *NDS 2015*.
- Cold-Formed Steel:
 - Improved R factor implementation for C and Z shapes.
- Aluminum:
 - Corrected an issue where the aluminum pipe shear capacity was conservatively divided by two.
 - Removed the aluminum limit state F8.1.1 from the *ADM1-15* code checks as it is only applicable to the *ADM1-10* code.
- Integration:
 - Added the ability for columns from RISAFloor with pinned top and a shear splice assigned at the base to transfer to RISA-3D with pinned top and bottom end releases.
 - Resolved an issue where columns with pinned tops in RISAFloor had bending moment at the top of the column in RISA-3D.
 - Resolved a display issue where live load reduction options overlapped the stainless steel code selection in the global model settings for models from RISAFloor.
 - Corrected an error during integration from RISA-3D to RISAFoundation for models with wall panel thermal loads.
 - Fixed an error in which HSS Tube columns in diagonal brace connections were oriented incorrectly when exported from RISA-3D to RISAConnection.
 - Corrected an issue which erroneously reported an invalid vertical brace angle for RISA-3D models exporting diagonal brace connections to RISAConnection.
- General:
 - Added sorting to the Beam Deflection spreadsheet.
 - Increased the DXF file limit for the number of polylines the program can import as a drawing grid to 5000.
 - Updated the detail report for members being checked for seismic provisions to include a warning message if a member only meets one of the two flange thickness limits according to Table 6.1 of *AISC 358-10*.
 - Corrected a display problem where the enveloped joint reactions were not shown properly in the model view.
 - Corrected the display of wall panel regions shown flipped in the Wall Panel Editor versus the Detail Report.
 - Resolved an issue where moving wall panels vertically would cause the program to close unexpectedly.
 - Resolved an issue where dummy nodes created from generating lateral loading were reported as unstable.