

Release Notes for RISA-2D

Version 18.0 Enhancements/Corrections

- Analysis:
 - Added compatibility with *IBC 2018*.
 - Added *ASCE 7-16*
 - Added Load Combination generation
 - Added design response spectra
 - Added *NBC 2015* Canadian building code provisions
 - Added Load Combination generation
 - Added design response spectra
 - Added capability to designate member end support as cantilever or not cantilever in order to calculate the proper deflection ratio.
 - Improved the optimization process for Suggested Designs for members and section sets.
 - Corrected the C_b coefficient calculation for Hot Rolled members when the user enters L_b out 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.
- Hot-Rolled Steel:
 - Added member design per the *AISC 15th Edition Manual (360-16): ASD & LRF*.
 - Updated 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 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.
 - Resolved a graphics issue where the axial force diagram for concrete members was not displaying properly in the Member Detail Report.
- Masonry:
 - Added the view of the FEA analysis to the shear and moment diagrams for masonry lintel detail reports.
 - Updated the tabulated radius of gyration values for masonry walls per the 2007 NCMA TEK 14-1B document.
- Wood:
 - Added *AWC-NDS 2018* wood code (ASD).
 - Added strap design for wood shear walls.
 - 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:
 - Added 14" and 16" depth CS shapes from SSMA database for cold formed steel design.
 - Improved R factor implementation for C and Z shapes.
 - Corrected an issue where changing the cold formed steel code after running multiple solutions was not automatically clearing the stiffness matrix.

- 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.
- General:
 - Increased the DXF file limit for the number of polylines the program can import as a drawing grid to 5000.
 - Corrected a display issue with the Envelope Only spreadsheet results not opening on the first click.
 - Corrected display of Results toolbar after the Solve Again with Suggested Shapes is performed.