

Release Notes for RISA-2D

Version 12.0 Enhancements/Corrections

Enhancements

- Added 64-bit version capability.
 - The program will run in 64-bit addressing space, expanding Windows memory limits.
 - Allows for increased [program limits](#) when running on a 64-bit operating system.
- Added the ability to import a DXF underlay; Allows users to snap to the underlay when drawing members and walls.
- Added the AF&PA NDS-12 (ASD) wood code.
- Added the ACI 530-11 (ASD & Strength) masonry code.
 - Added many supplemental values and extra messaging to masonry wall detail reports.
 - Added option for masonry walls to define the wall area ([RMEH or NCMA](#)). Prior versions used only the Reinforced Masonry Engineer Handbook.
- Added the AISI S100-10 (ASD & LRFD)/CSA S136-10: LSD/CANACERO 2010 (ASD & LRFD) cold-formed steel code.
- Added the AA ADM1-10 (ASD & LRFD) aluminum code.
- Added design for tapered members per AISC Design Guide 25.
- Added the CSA S16-09 Canadian steel code.
 - Added code checks for class 4 sections.
 - Added code checks for single angles for both bending and tension/compression.
 - Updated the Canadian steel database per the 10th edition manual.
- Added the NBC 2010 Canadian building code provisions.
 - Added the design response spectra.
 - Added the load combinations (service and strength) to the Load Combination Generator.
- Added the U.K. National Annex provisions to the 2005 EuroCode Hot-Rolled steel design (NA to BS EN 1993-1-1:2005).
- Enhanced modeling with wood materials:
 - Revised dialogs for selecting and adding wood materials to be more user-friendly.
 - Easier access to the Custom Wood Materials spreadsheet.
 - New dialogs allow the user to view/confirm the material design properties.
 - Updated the structural composite lumber design lists so that shape selections match proprietary products.
- Custom moving loads are now saved with the input file.
- Improved animation window controls.
- Improved the accuracy of CSA S16-09 member capacity calculations for Class 3 and Class 4 members.
- Updated the display of the units for Mass.
- Reduced start-up times by using a faster shape-to-database comparison.
- Updated hold-down databases for newer Simpson catalogs (per IBC 2006/2009).
- Added a Virtual Joist Girder database and design list per SJI recommendations.
- Cold-Formed Steel Updates
 - Added AISI provision B4 to the check of the flanges for weak-axis bending.
 - Added the full elastic computation for the " I_s " values in the AISI B4 provision.
 - Fixed an error in the calculation of S_{ey} for ZS shapes.
- Increased the maximum number of modes allowed in a dynamic solution from 500 to 2,000.
- Updated the K factor calculation dialog to remove reference to K-out.

Corrections

- Corrected an issue which would cause color-coded code checks to display all black for concrete members.
- Corrected an issue which would cause the program to shut down if viewing color-coded code checks.

- Corrected the calculation of the weak axis bending capacity of non-compact and slender channels designed to AISC 13th or 14th edition steel codes.
- Corrected an issue where wood wall design results were not given for a wall with two regions stacked on top of each other with no diaphragm present.
- Corrected an issue where the program was incorrectly calculating some cross section properties for the principal axes of single angles.
- Corrected a calculation error relating to minimum vertical reinforcement in concrete shear walls.
- Corrected some issues with concrete column optimization which could cause overly conservative code checks.
- Corrected an issue where an install path with long file / directory names could cause the program to fail to launch when using file association.
- Corrected a bug in Cold-Formed Cb calculations where Cb could change (conservatively) in a non-AISC Hot-Rolled steel code was selected.
- Corrected an error in the CF factor calculation for 12" wide members.
- Fixed values for H and HN sections in the Chilean Steel shapes database.
- Corrected an issue with the Australian steel code where members with axial force greater than Euler buckling capacity would calculate a negative moment capacity.
- Fixed a refreshing issue with General shapes where they would not show up within the "Assign Shape Directly" dialog.
- Corrected a bug in which sorting the member force results for a concrete member would cause the detail report force diagram to change.
- Fixed an issue with concrete and masonry walls where the code check would incorrectly produce "INF" or some design forces could be reported as zero.
- Fixed an issue that didn't remember user entered seismic Ta for Canadian codes.
- Corrected errors in the Chinese shape database for the following shapes: TM170X250 and TW150X300A.
- Fixed an issue that caused a major error while using the Out-of-Plane-Flip tool on a wall panel.
- Corrected an issue where h/w ratios for wood walls with multiple openings could be calculated incorrectly for the FTAO design method.
- Corrected a problem with exporting models using Rigid Links to DXF.
- Removed "Trimmer" from wood wall opening detail reports, as it had no impact on the design.
- Corrected an issue with lintel forces for masonry walls where the design ignores any applied forces if the lintel depth went to the top of the wall.
- Fixed an issue where some footings would not be designed if the allowable soil bearing was set to "Gross."
- Corrected a display bug in which the graphical display dimensions for a General Arbitrary shape did not update when the shape properties were edited.
- Corrected an issue with shear and deflection diagrams of single angles with nodes along the length of the physical member.
- Corrected an error in which area loads were not being properly copied when using the Mirror Copy command.
- Changed Le/d calculation for SCL wood members to use actual rather than nominal dimensions.
- Updated Append behavior to compare the Section Set information between two models before appending. Previously a member defined as Section Set 1 in one model would become Section Set 1 in the 2nd model even if the two shapes were not the same.
- Fixed a units conversion issue with wood wall stiffness.