

Release Notes for RISA-3D

Version 11.0.2 Enhancements/Corrections

Enhancements/Corrections

- 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.
- Added the U.K. National Annex provisions to the 2005 EuroCode Hot-Rolled steel design (NA to BS EN 1993-1-1:2005).
- Custom moving loads are now save with the input file.
- Improved animation window controls.
- Added automatic save of RISAFloor results when transferring a model from RISAFloor to RISA-3D.
- 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.
- 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.
- Corrected a problem with deleting distributed loads using a spreadsheet.
- Updated the masonry P-Little Delta procedure to properly account for all support conditions.
- Corrected an issue where 64-bit network clients were not displaying the Key ID in the Help-About dialog.
- Fixed values for H and HN sections in the Chilean Steel shapes database.
- Corrected a member optimization issue in RISA-3D under RISAFloor where RISA-3D would not recommend smaller shapes for members which were now well below failing due to a decrease in loads.
- 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 DXF grids import to include arcs.
- Corrected errors in the Chinese shape database for the following shapes: TM170X250 and TW150X300A.
- Corrected a problem with reading CIS/2 files containing quotation marks.
- Fixed an issue with the Cm calculation for out of plane concrete wall design. The program was previously using a value of 0.6 when it should have been using 1.0.
- Fixed an issue that caused a major error while using the Out-of-Plane-Flip tool on a wall panel.
- Fixed a tolerance issue which could cause the seismic self-weight calculation to be incorrect when member area loads are used as part of the self-weight.
- 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.
- Fixed a units issue with the Deflection Ratio value on the detail report for out of plane concrete wall design. Previously this ratio was conservatively off by a factor of 12.
- Fixed an issue with out of plane design of concrete walls where the in plane axial force (entire wall) was being used instead of the per foot axial force.
- 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 that didn't save the dynamic solution inside RISA-3D from under RISAFloor.
- Fixed an issue with out of plane concrete walls where the minimum moment was not being used in all cases.
- Fixed an issue where some footings would not be designed if the allowable soil bearing was set to "Gross."
- Corrected an error where a RISA-3D model under RISAFloor would not solve a dynamic solution unless the user had previously used the Seismic Load Generation to generate nodes on the diaphragm.
- Corrected an error where user-input seismic parameters were being incorrectly reported on the printed output.
- 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.
- Fixed an issue with the axial, shear and moment enveloped diagrams for concrete walls in the out-of-plane direction.
- 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.
- Corrected an issue with ACI threshold torsion calculations which caused them not to be reported for envelope solutions.
- 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.
- Corrected a minor issue with AISC 13th and 14th editions where incorporating torsional shear stresses into the code check was overly conservative.
- Corrected an issue where outdated information was sent to RISAConnection from RISA-3D and/or RISAFloor due to inconsistencies.

Version 11.0.1 Enhancements/Corrections

- RISA-Revit Link Updates
 - Compatible with RISA-Revit Link 2013 version 2
 - Added BIM ID's for RISAFloor slab openings.
 - Fixed a wall panel issue where changes made to walls would affect all walls except one.
- RISAConnection Integration
 - Corrected column connection orientation when using the RISAFloor/RISA-3D to RISAConnection integration. Previously the integration was always producing a connection framed to the flange.
- RISAConnection/Tekla Structures Link Updates
 - Added compatibility to support the upcoming release of the RISAConnection/Tekla Structures Link
- 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.

Version 11.0 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 AISC 341/358-10 seismic design provisions.
- 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 wind and seismic load generation.
 - Added the design response spectra.
 - Added the load combinations (service and strength) to the Load Combination Generator.
- 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.
- Added the ability to perform concrete member design for overstrength load combinations.
- Added an upper limit on design moment for ordinary moment frames per AISC 341 commentary Section 11.2a.
- Increased the maximum number of modes allowed in a dynamic solution from 500 to 2,000.
- Added new connection features for integration with RISACONNECTION 3.0.
 - Added the AISC 360-10 (ASD & LRFD) code for RISACONNECTION integration.
 - Added support for slightly non-concentric braces.
 - Added new Connection Types to the Connection Rules spreadsheet.

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 an issue where seismic factors (Rho, Omega, Sds) were not properly applying to structure self weight. These values were using a value of 1.0 to factor the self-weight portion of the load.
- 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 with the seismic detailing calculations where the horizontal component of the unbalanced brace force (for Chevron brace frames) was reported incorrectly.
- 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 2b/h calculation for slender piers on segmented wood walls could be incorrect for version 10.
- Corrected an issue where the program was incorrectly calculating some cross section properties for the principal axes of single angles.
- Corrected an issue with area load attribution which caused odd transient area loads.
- Corrected a calculation error relating to minimum vertical reinforcement in concrete shear walls.
- Corrected an issue where seismic web compactness check could erroneously fail for brace members.
- 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 issues related to masonry wall design regarding unreinforced walls.
- Corrected a problem with RISA-3D clearing results when using the Director tool to switch between RISAFloor and RISA-3D.