

# Release Notes for RISACONNECTION

## Version 8.0.2 Enhancements / Corrections

- Resolved an issue introduced in the Windows 10 Semi-Annual Update (KB 4103721) which prevented Standalone Licensing functions from operating as expected.
- Improved Report Printing options:
  - Improved selection options in the Report Printing dialog:
  - Added the option to attach external PDFs to the printed report.
- Improved the HSS Plastification checks for shear tab plates on rectangular HSS columns:
  - Removed the HSS Flexural Plastification check for direct weld shear tabs to rectangular HSS columns to meet compliance with the *AISC 360-10 Chapter K* provisions. This check is required for round HSS connections, but not rectangular HSS.
  - Removed the HSS Transverse Plastification check for direct weld shear tabs to rectangular HSS columns which only see shear load. Per *AISC 360-10 Chapter K*, this check is only required when there is axial load in the connection.
- Updated the wording of the 'Eccentricity Consideration' input to "Eccentric Moment Calculation" and its options to better clarify the functionality.
- Corrected an error where the Max Edge Distance bolt check was considering all bolt edge distances, not just those 'to the nearest edge' per the code requirements.
- Added the restriction that a tapered gusset plate on SCBF Diagonal Brace connections may only use the "2t Linear" Offset" for the Gusset Plate Clearance. This was made because the "8t Elliptical Offset" theory is based on rectangular plates only.
- Removed erroneous second set of Beam Tensile Yield and Beam Tensile Rupture checks that were being checked against seismic level loads in seismic moment connections.
- Corrected an error in the effective eccentricity calculation for weld strength checks where the shear load has a negative sign.
- Corrected an error in the calculation of anchor bolt area in the Anchor Bolt Bearing limit state check.
- Corrected an error where Property Grid tabs were cut short on high resolution monitors.

## Version 8.0.1 Enhancements / Corrections

- Added the new 'Required Load Calculation' result report to show detailed calculations of how the forces in a Vertical Brace connection are derived.
- The loading type (ASD vs. LRFD) is now shown in the Property Grid for *AISC 360-05* and *AISC 360-10* design codes.
- The program now reports which configuration (Conventional or Extended) applies to the Rotational Ductility check for shear plates.
- Improved the selection options in the Report Printing Dialog.
- Clarified the code references for coped beam checks for both the *AISC 360-05* and *AISC 360-10* design codes.
- Clarified a failure warning message on the Column Flange Bending check.
- Removed the unnecessary 'Branch Aspect Ratio Check' on HSS connections where the branch is not an HSS section.
- Corrected an error in the Bolt Interaction at Column check for Canadian design where the bolt shear strength was erroneously taken as zero.
- Corrected an issue which did not save the proper bolt edge distance geometry for Base Plate connections in previously saved models which resulted in an erroneous model view where the column floated above the base plate.
- Corrected a problem where the clip angle would not grow in length to accommodate more bolts on a double-sided beam to column shear connection.

- Corrected a problem which would not save the proper beam offset distance for the Girder/Beam Clip Angle Shear connection.
- Corrected an error where the Whitmore section was not being correctly calculated on tapered gussets and resulted in a limit state error.
- Corrected an error where slip critical bolt checks were not properly considering two slip planes when connected to double column web stiffeners.
- Corrected an error where the Max Edge Distance bolt check was considering the inside bolts rather than just the outside bolts.
- Corrected an error in the length of ineffective zone calculation in the Weld Strength check for a C shaped weld on an HSS member.
- Corrected an error where the plate flexural buckling  $V_n$  capacity was incorrectly multiplied by the phi factor twice.
- Fixed an error which flashed a black initialization window at program start up.
- Fixed an issue where custom default RISAConnection Model Settings were not used when a model exported from RISA-3D or RISAFloor.

## Version 8.0.0 Enhancements / Corrections

- Added a Vertical Brace to Column Base Plate connection.
  - Brace and gusset connect to the column flange or web.
  - Designed per methodology in *AISC Design Guide #29: Vertical Bracing Connections - Analysis and Design*.
  - WF, Tube, or Pipe shape columns available.
- Added double-sided shear connections:
  - Beam to column shear connections with beams on either side of the column web.
  - Beam to girder shear connections with beams on either side of the girder web.
  - Two sided connections with staggered bolts.
  - Added positive and negative sign convention for shear load input to properly consider two sided shear connections.
- Added weak axis moment connections:
  - Added design for Flange Plate Moment connections between a beam and a column web.
  - Added design for Direct Weld Moment connections between a beam and a column web.
- Added the ability to taper (cut back) gusset plates on Vertical Diagonal Brace and Knee Brace connections.
- Added design for Vertical Brace connections per the Canadian design codes: *CSA S16-09* and *CSA S16-14*.
- Added a new entry to allow the user to define the location of the eccentricity on shear beam to column and beam to girder connections.
- RISA-3D and RISAFloor integration enhancements:
  - HSS Truss connections may now be imported from RISA-3D version 16 and newer.
  - Double-sided shear connections may now be imported from RISA-3D or RISAFloor.
  - Added an option to import a welded web plate on a Direct Weld Moment connection from RISA-3D.
  - Allow RISA-3D integrated Chevron and Diagonal Brace connections with two braces to have different brace shapes.
  - Corrected an error where the gusset-beam connection for a Chevron Brace connection would not carry over the connection type when integrated with a RISA-3D model.
- Updated input dialog boxes.
- Corrected some graphical errors that occurred on high resolution or 4K monitors.
- Removed the unnecessary 'Check Workpoint Offset' check for Knee Brace connections.
- Corrected a rounding error that resulted in erroneous failure of the Rotational Ductility check.
- Corrected a metric unit conversion error for the development length check under Web Weld Limitations.
- Corrected an error where clicking ENTER in the Notes section of Global Model Settings closed the dialog rather than advancing to the next line down.
- Corrected an error where the list of Available Connections would not scroll to the right.