

# Release Notes for RISACconnection

## Version 3.0.1 Enhancements/Corrections

- Modified the program to better support the RISA-Tekla link
- Enhanced the connection grouping behavior for integration with RISA-3D and RISAFloor. Properties which previously could only be modified at the connection group level may now be modified for individual connections within the group.
- Added slip critical information to DXF drawing output
- Enhanced the compression capacity calculations for various failure states to consider the case when  $KL/r > 25$
- Removed Max Weld Length limitations in a number of connections for which it was not deemed applicable
- Overhauled the Rotational Ductility checks for shear tab connections. Previous checks were overly conservative
- Modified weld assumptions for end plate shear connections to neglect fillet distance on either side of plate per AISC design examples.
- Improved the way we report local buckling checks for end plate stiffeners
- Corrected an issue in integration with RISA-3D / RISAFloor where RISACconnection could identify the wrong governing LC
- Corrected a units conversion issue with RISA-3D / RISAFloor integration for cases where strength and stress units were not consistent
- Corrected an issue where weld strength of doubler plates was incorrectly using the 1.5 strength increase factor intended for welds loaded at 90 degrees
- Corrected an issue where the plate flexural buckling check (for shear tab connections) was being overly conservative with its calculation of shear demand
- Corrected an issue where continuity plate stiffener welds were not correctly accounting for weld angle in the base material proration factor calculation
- Corrected an issue where 8ES bolted end plate connections were not identifying a failure with the bolt prying assumptions

## Version 3.0 Enhancements/Corrections

- Added the AISC 360-2010 (14th edition) steel code.
- Added the ability to add and design column transverse stiffeners and web doubler plates for moment connections.
- Added a Directly Welded beam to column moment connection.
- Added a Directly Welded moment splice connection.
- Updates to Bolted End Plate Moment Connections
  - Added 8 bolt option for the bolted end plate moment connections.
  - Added thin plate/prying considerations per AISC Design Guide 16.
- Updates to Vertical Brace Connections
  - Removed the restriction on gusset plate aspect ratios for bracing connections. This expands the geometry options available and removes the Uniform Force Method restrictions.
  - Added the ability to use non-concentric brace work points.
  - Added the design of gusset plate to beam or column connections to resist moment.
  - Major revisions to the chevron brace connection analysis and limit states. The Uniform Force Method is no longer used for this connection as it was found to not be applicable.
- Added a Report Printing Generator to allow quick printing of multiple connections at once.
- Added 1/2" bolt sizes to all connection types.
- Added the ability to use full depth shear tab connections.
- Added compatibility to support the upcoming release of the RISACconnection/Tekla Structures Link.
- Allow the option to switch between a welded or bolted connection for a column moment plate splice connection.
- Added the ability to consider moment due to eccentricity in clip angle shear connections.
- Added a check for combined tension and shear in bearing-type connections.
- Modified shear tab flexural yielding and rupture checks to better account for the interaction between flexure and axial forces and be more consistent with the AISC 14th edition manual.

- Corrected metric weld units to be mm instead of 16ths of an inch.
- Corrected an issue with the max edge distance for bolts.
- Corrected multiple locations where single angle bolt shear checks were doubling the capacity.
- Corrected an issue that gave incorrect results for plate flexural yielding checks.
- Converted the .NET Framework to 4.0 for Windows 8 compatibility.