

# Release Notes for the RISA-Tekla Link

## Version 11.0.0 Enhancements

- Updated the link to be compatible with Tekla Structures V2021.

## Version 10.0.0 Enhancements

- Updated the link to be compatible with Tekla Structures V2020.
- Added the ability to align the top of beam elevation using the detailing information and cardinal points.
- Added the ability to round-trip rigid link elements.
- Resolved an issue where the 'OK' button was missing from the import dialog.
- Corrected the alignment of the columns during import from RISA-3D into Tekla.

## Version 9.0.1 Enhancements

- Added the ability to transfer RISA-3D's member detailing cardinal points to the physical member position in Tekla.
- Added Import Process options so the user may choose to update geometry and sizes, update member sizes only, or overwrite Tekla elements while importing a RISA-3D model into Tekla Structures.
- Added Export Process options for the user to select to export only changed items or overwrite all RISA items while exporting a Tekla Model into RISA-3D.
- Enhanced the round-tripping behavior for member end releases.
- Improved the round-tripping behavior for node labels.
- Enhanced the round-tripping behavior for boundary conditions.
- Improved the file path workflow when exporting a Tekla Analysis Model to RISA-3D.
- Corrected an issue transferring end reactions for interior beams framing into girders.
- Fixed a problem creating the exchange file when the username in the file path contains a period.

## Version 9.0.0 Enhancements

- Updated the link to be compatible with Tekla Structures V2019 and discontinued support of Tekla Structures V2017.
- Updated the link to be compatible with RISACONNECTION v10.0.1.
- Updated the link to be compatible with RISA-3D v17.0.2.
- Added support for the **US Base Plate (1047)** connection to transfer to RISACONNECTION's single column base plate connection.
- Added support for the **Weak Axis Direct Weld Moment (182)** connection round-trip transfer to RISACONNECTION.
- Added the ability to preserve the user's RISACONNECTION setting to include eccentricities for the eccentric moment calculation setting during round-trip.
- Improved speed transfer while importing RISA-3D models into Tekla Structures.
- Updated the shape database for pipe shape names to match the AISC's 15th Edition nomenclature.

## Version 8.0.1 Enhancements

- Updated the link to be compatible with Tekla Structures V2018i and discontinued support of Tekla Structures V2016i
- Updated the link to be compatible with RISACONNECTION v9.0.
- Added support for Tekla's **Full Depth S (185)** connection to transfer to RISACONNECTION as a Girder Beam Shear Tab connection.
- Added support to transfer double shear plates for **Splice Connection (77)** to RISACONNECTION.
- Added the ability to transfer both web doublers and transverse stiffeners from connections **Bolted Moment Connection (134)**, **Column With Stiffeners (182)**, and **End Plate (144)** to RISACONNECTION.
- Added support for the **Bolted Moment Connection (134)** oriented in the weak axis to transfer to RISACONNECTION as a weak-axis flange plate moment connection.
- Corrected an issue when launching the Mapping File Editor caused by symbols used in the Chinese shape database.
- Fixed an erroneous warning regarding bolt holes not supported for a welded vertical brace chevron connection.

## Version 8.0.0 Enhancements

- Updated the link to be compatible with the newly released Tekla Structures V2018 and discontinued support of Tekla Structures V2016.
- Added round-tripping capabilities between Tekla Structures and RISA-3D.
- Added the ability to import enveloped member reactions from RISA-3D into Tekla Structures.
- Improved the behavior of load transfer from RISA-3D and Tekla
- Added the ability to identify added and deleted members when importing a round-trip RISA-3D model back into Tekla Structures.
- Added the ability to identify modified members during import into Tekla Structures when their properties have changed in RISA-3D.
- Added support to retrieve a back-up model file when integrating RISA-3D with Tekla Structures.

## Version 7.0.1 Enhancements

- Updated the link to be compatible with Tekla Structures V2017i
- Added the ability to use Custom loads in RISACONNECTION in a model linked with Tekla Structures.

## Version 7.0.0 Enhancements

- Updated the link to be compatible with the Tekla Structures V2017 and discontinued support of Tekla Structures V21 and V21.1.

### ***RISA-3D Link***

- Initial release of the RISA-3D/Tekla Structures link. Includes:
  - Support for one-way model transfer, either from RISA-3D to Tekla Structures or vice-versa.
  - Support for US Imperial and US Metric environments.
  - Linking/transfer of:

- Geometry
- Materials
- Shape properties
- End releases
- Design parameters
- Load Categories
- Point & Line Loads
- Member Reactions (single load combination solutions only)

## ***RISAConnection Link***

- Increased the tolerance on member alignment for column/beam connections. We previously required the beam to frame within 1 mm of the centerline of the column flange/web. We've now relaxed that tolerance to 2".

## **Version 6.0.1 Enhancements**

- Updated the link to be compatible with the newly released Tekla Structures V2016i and discontinued support of Tekla Structures V20.1.

## **Version 6.0 Enhancements**

- Updated the link to be compatible with Tekla Structures V21.1 and Tekla Structures 2016. This includes removing support for V19.1 and V20.
- Updated the interface to make it easier to select/unselect and view connections for transfer to RISAConnection.
- Added the ability to use End Condition loading on beams and braces for connection design, rather than solely considering Component forces.
- Added the ability to define loads using the UDL designation.
- Added the ability to transfer seismic end plate moment connections for **End Plate (144)** for BEEP OMF, IMF and SMF connections.
- Added the ability to transfer seismic flange plate moment connections for **Bolted moment connection (134)** for BFP OMF, IMF and SMF connections
- Added the ability to transfer reduced beam section moment connections using **Column with Stiffeners W (182)** and **Dogbone (1)** for RBS OMF, IMF and SMF connections.
- Added support for vertical brace connections for wide flange braces using Component **Wraparound gusset (58)**.
- Added support for chevron brace connections for L's, LL's, tubes, pipes and WT brace members using Component **Bolted gusset (11)**. These connections are for use if the brace attaches directly to the gusset.
- Added support for chevron brace connections for tube and pipe brace members using Component **Tube gusset (20)**. These connections are for use if the brace attaches to a knife plate that then attaches to the gusset.
- Added support for chevron brace connections for wide flange braces using Component **Gusseted cross (62)**.
- Added the ability to use tubes and pipes for columns for vertical brace Components **Wraparound gusset (58)**, **Hollow brace wraparound gusset (59)**, and **Wraparound gusset cross (60)**.
- Added support for many configurations of column/beam **Clip angle (141)** and **Shear plate simple (146)** connections with **Wraparound gusset (58)**, **Hollow brace wraparound**

**gusset (59)**, and **Wraparound gusset cross (60)** that can be different shape types top and bottom.

- Added the ability to transfer seismic brace connections for **Wraparound gusset (58)**, **Hollow brace wraparound gusset (59)**, and **Wraparound gusset cross (60)**.
- Added support for full depth shear tab girder/beam connections using Component **Full depth (184)**.
- Fixed an issue where certain girder beam shear tab connections that were defined near the bottom flange of the girder were shown at the top flange in RISACONNECTION.

## Version 5.0 Enhancements

- Updated the link to be compatible with Tekla Structures V21 and discontinued support of Tekla Structures V19.
- Added support for Component **Stanchion weld (85)** for direct weld moment connections between two tube members.
- Added support for end plate moment connections through the **End Plate (144)**. This component supports Flush End Plate, Extended End Plate and Extended on the Tension Side Moment Connections.
- Added an Automatic Roundtrip Solution Option button in the Tekla Structures interface to speed up subsequent solutions after the first.
- Added support for channel sections to be used as beams (**Clip angle (141)**, **End plate (144)**, **Shear plate simple (146)**, **Hollow brace wraparound gusset (59)**, and **Wraparound gusset cross (60)**) and braces (**Wraparound gusset cross (60)**).
- Added support for Component **Shear plate tube column (189)** for Column/Beam Shear Tab Shear connections where the column is a tube or pipe and the connection is a through plate.
- Added an option in the installer to install to the Program Files and Documents folders.
- Added support for the China, India, Sweden, Norway, and Australasia Tekla Structures environments.
- Added a field to allow a customer to directly define a connection name. Previously only the CONNECTION\_RUNNING\_NUMBER was used.
- Added an option to allow the program to select or deselect all connections to go to RISACONNECTION. By default all connections try to export to RISACONNECTION, which isn't always preferred.
- Added mapping of a Tekla Structures components "Thread in Mat" field. Previously this field was ignored.
- Updated the link to allow Brace Min Clearance and Brace Workpoint Distance to be editable in Components 59 and 60 in RISACONNECTION.
- Eliminated the transfer of some dimensions for Components 59 and 60. It was found that setting all dimensions could over-restrain the connection and cause problems.

## Version 4.0.1 Enhancements

- Updated the link to be compatible with the newly released Tekla Structures V20.1 and discontinued support of Tekla Structures V18.1.

## Version 4.0 Enhancements

- Added support for Component **Wraparound gusset cross (60)** for vertical brace connections for L's, LL's, tubes, pipes and WT's. These connections are for use if the brace attaches directly to the gusset.

- Added support for Component **Hollow brace wraparound gusset (59)** for vertical brace connections for tubes and pipes. These connections are for use if the brace attaches to a knife plate that then attaches to the gusset.
- Added a warning for shear connections if there is a moment force applied in Tekla Structures. This moment force will be ignored for standard shear connections in RISACONNECTION.
- Added WT's and LL's to our default mapping files.
- Added support for the German and UK Tekla Structures environments.

## Version 3.0.1 Enhancements

- Updated the link to be compatible with the newly released Tekla Structures V20 and discontinued support of Tekla Structures V18.

## Version 3.0 Enhancements

- Added support for Component **Column with Stiffeners W (182)** for column/beam direct weld moment connections.
- Added support for Component **Splice Connection (77)** for beam and column splices. This component supports shear tab splices, moment plate splices, and directly welded moment splices.
- Added support for Component **Joining Plates (14)** for beam and column extended end plate splices.
- Added support for Components **Clip angle (141)**, **End plate (144)**, and **Shear plate simple (146)** for HSS and Pipe columns.
- Updated the link to be compatible with the German and UK environments.
- Enhanced many aspects of the US Imperial and US Metric environments.
- Added a Mapping File Editor utility to help quickly map custom shapes, materials and bolts between Tekla Structures and RISACONNECTION.
- Added an option that allows a user an option to not send the connection to RISACONNECTION.
- Updated many items related to problems with different Windows region settings.
- Updated registry settings to be more Windows friendly.
- Fixed a problem where using the RISA-Tekla Link with a demonstration version of RISACONNECTION would only work if RISACONNECTION was already open.

## Version 2.0.1 Enhancements

- Updated the link to be compatible with the newly released Tekla Structures V19.1.

## Version 2.0 Enhancements/Corrections

- Fixed many miscellaneous issues with the transfer of information with the link.
- Updated warning and error messages both in the program and in the help to be more accurate and give more information.
- Added the ability for the link to read the joints.def file to find properties of the connection.
- Updated which ID's are used to map to the connections in Tekla Structures. The program now uses the GUID to map to and reports the CONNECTION\_RUNNING\_NUMBER as the name of the connection. Previously the Connection ID was used.
- Updated the naming scheme for the RISACONNECTION files created. The actual RISACONNECTION file was renamed to *TeklaFileName.rcn* and the exchange file was renamed to *TeklaFileName.exc*.

- Added slip-critical bolt mapping for Bolt Standards in Tekla Structures that have SC or SC\_TC at the end of the name. Previously this was ignored.
- The Column Force and Story Shear fields are now editable in RISACONNECTION. Previously these were always taken as zero.
- Fixed a rounding issue that could cause 3/16 welds in Tekla Structures to come into RISACONNECTION as 2.997/16's that would cause weld checks to fail.
- Updated the sign of the axial forces in connections. Tekla has a nomenclature of a positive value meaning tension, while RISACONNECTION uses a negative value for tension. This has now been accounted for.
- Updated the behavior with stiffeners for connection 134 to link the behavior. Previously, each program worked separately and there was no linking of geometric properties.
- Fixed an issue where the cross-sectional areas of columns were being brought over as 0. This could cause 0 capacity for some column checks.
- Removed support for connection components 116, 120, 29, 101, 103 and 131. These are all redundant connections that can be supported off of Components **Clip angle (141)**, **End plate (144)**, and **Shear plate simple (146)**.
- Fixed a problem with connection **Shear plate simple (146)** where filling in information in the "Name" field (on the Plates tab) could cause the link not to work.
- Fixed a problem in mapping the size of holes which could cause errors in block shear and shear rupture checks.

## Version 1.0 Initial Release

- Added support for Components 116, 120 and **Clip angle (141)** for column/beam and girder beam clip angle connections.
- Added support for Components 29, 101, and **End plate (144)** for column/beam and girder beam end plate connections..
- Added support for Components 103, 131 and **Shear plate simple (146)** for column/beam and girder beam shear tab connections..
- Added support for Component **Bolted moment connection (134)** for column/beam flange plate moment connections..