Release Notes for the RISA-Tekla Link

Version 13.0.0 Enhancements

- Updated the link to be compatible with Tekla Structures V2023.
- Enhanced behavior where additional information is provided in the warning/error window for unsupported connections during integration.

Version 12.0.0 Enhancements

- Updated the link to be compatible with Tekla Structures V2022.
- Improved behavior of program to prevent incorrect connections to be integrated between TEKLA and RISAConnection.

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 forvertical brace connections for wide flange braces using Component **Wraparound gusset (58)**.
- Added support for 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 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 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 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 use 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..