

# Release Notes for the RISA-Revit 19.0Link

Every release of the RISA-Revit Link contains numerous program fixes. These fixes are often related to one specific user's model, and it is not usually possible to explain the exact nature of the problem. Therefore many fixes are omitted from the release notes since they cannot be easily explained. Below is a list of enhancements that were added, as well as problems of a general nature that were fixed.

## RISA-Revit 2019 Link (19.0)

- Added compatibility with Revit 2019 API
- Added import of Concrete Beam rebar to Revit
- Disabled RISACONNECTION integration until update

## RISA-Revit 2018 Link (18.1)

- Added linking compatibility for the following connections:
  - Shear Splice Connections (Beam to Beam)
  - Shear Splice Connections (Column to Column)
  - Moment Splice Connections (Beam to Beam)
  - Moment Splice Connections (Column to Column)
  - Moment End Plate Connections (Beam to Column Flange)
- Added round-trip support for K joints
- RISA wood wall design information is now exported to Revit
- Corrected an issue where a custom mapping file was overwritten during export
- Fixed the RISA Parameters On/ Off button to reflect when RISA parameters are available in Revit
- Corrected an issue where a sloped roof in a RISAFloor model transferred over as flat

## RISA-Revit 2018 Link (18.0)

- Added compatibility with Revit 2018 API

## RISA-Revit 2017 Link (17.2)

- Added a link with RISACONNECTION
  - Shear Tab Shear Connection (Beam to Column)
  - Shear Tab Shear Connection (Beam to Girder)
  - Clip Angle Shear Connection (Beam to Column)
  - Clip Angle Shear Connection (Beam to Girder)
  - End Plate Shear Connection (Beam to Column)
  - End Plate Shear Connection (Beam to Girder)
- Fixed a bug that prevented the RISA Label from being updated on HBrace members during a "Update Member Sizes Only" import
- Added support for exporting wall openings that are intersected by Floors to RISAFloor
- Increased limits on maximum number of elements to match 64-bit RISA applications
- Added support for "Approximate Curve" analytical curved beams
- Added the ability to import RISA-3D walls into Revit from a combined RISAFloor/RISA-3D model

## **RISA-Revit 2017 Link (17.1)**

- Added support for skewed and curved Project Grid lines (requires RISAFloor v11.0 or higher, RISA-3D v15.0 or higher)
- Added RISAWall Label parameter to bring wall labels into Revit from RISA
- Fixed many miscellaneous bugs

## **RISA-Revit 2017 Link (17.0)**

- Added compatibility with Revit 2017 API
- Revised version number to match Revit year

## **RISA-Revit 2016 Link v4 (14.3)**

- Added an auto-backup folder which backs up all relevant files immediately before an import/export in Revit
- Modified Import/Export dialog box layout to be High DPI friendly
- Corrected an issue that caused Wood walls in Revit to be exported as General walls to RISA
- Added a warning when trying to export from a Revit file that is not a .rvt file
- Added support for file path names with > 100 characters
- Fixed an issue where "Update Member Sizes Only" was also modifying geometry in the Revit model
- Enabled the "Use Only Existing Levels" feature for imports to new (blank) Revit models
- Added support for Revit Level names with > 32 characters
- Added a check for missing "Project Information" in Revit model
- Fixed the "Exchange File Cannot be Edited" bug
- Fixed many miscellaneous bugs

## **RISA-Revit 2016 Link v3 (14.2)**

- Added the option to prevent the Link from creating new Levels in the Revit model when importing from RISA-3D
- Added the import of Member End Forces to Revit for analytical Beams/Columns/Braces
- Removed the limitation on importing to Revit twice in a row
- Corrected a problem where nodes in RISA-3D were being deleted during round-trips
- Added the option to import rebar to Revit for RISAFoundation footings and footing pedestals
- Added support for Foundation Slab Pedestals from RISAFoundation to be linked with Revit
- Added the option to import rebar to Revit for Foundation Slab Pedestals
- RISAFloor ES thickened floor slab regions are now linked with Revit
- RISAFloor ES Drop Panels are now imported to Revit
- Added the option to reset the Revit Merge Tolerances to more reasonable values than the Revit Defaults during import/export
- Fixed a problem where a Batch+Envelope solution in RISA-3D would not import End Reactions to Revit
- Horizontal Brace members in RISA-3D are now linked to Revit as Beam elements of type Horiz Brace as opposed to Brace elements
- Improved the ability of the Link to detect when a RISA model was previously linked with a different Revit model. This fixes many previously unexplainable problems
- Added a warning to close RISA models that are currently open when importing to Revit. This fixed many previously unexplainable problems

- Fixed a problem where exporting to RISAFloor using the Revit Analytical Model option the Link was using the columns' Physical Model regardless
- Fixed many miscellaneous bugs

## **RISA-Revit 2016 Link v2 (14.1)**

- Added compatibility with Windows 10
- Added Check for Update feature
- Added RISA Member Labels for Physical Elements as well as Analytical Elements
- Fixed a problem where Foundation Slabs would always export to Project North orientation
- Fixed several bugs related to round-tripping

## **RISA-Revit 2016 Link (14.0)**

- Added compatibility with Revit 2016 API.
- Added support for Concrete Floor Slabs to be linked to RISAFloor ES.
- Overhauled file/folder structure to install to Program Files and Documents folders.

## **RISA-Revit 2015 Link v4 (13.3)**

- See RISA-Revit 2016 Link v2 (14.2). Same changes

## **RISA-Revit 2015 Link v3 (13.2)**

- Added import of Concrete Column rebar to Revit
- Added RISAFoundation linking for Foundation Slabs and Spread Footings
- Added support for Revit "Stacked Wall" elements.
- Overhauled Import/Export dialogs to make them easier to understand
- Eliminated the mapping of wood materials. Wood members are now always mapped to a Default wood material. This addresses file corruption issues caused by custom wood species.
- Added support for negative floor elevations in RISAFloor
- All import/export settings are now "remembered" in the Exchange File so that they are not reset for each round-trip.

## **RISA-Revit 2015 Link v2 (13.1)**

- Fixed many more bugs than usual, including old bugs that made round-tripping unreliable
- Wall Openings in Revit which span across multiple Levels are now discarded when exporting to RISA

## **RISA-Revit 2015 Link (13.0)**

- Added compatibility with the Revit 2015 API
- Added support for walls with a sloped top. They now import/export to RISAFloor without being squared off.
- Introduced a new INI file to make file location mapping more transparent.

## **RISA-Revit 2014 Link v2 (12.1)**

- Added round-tripping support for curved beams between RISA-3D and Revit
- Wall openings in Revit created using the Edit Profile method now map to RISA as Wall Panel openings
- Shapes imported to Revit that cannot be mapped are now imported as a default shape type. They are color coded purple in the import summary view. Previously nothing was imported for those shapes.
- Added support for exporting portions of the Revit model to multiple RISA models, then recombining those multiple RISA models into the Revit model during import. The "Export Selected Items Only" option must be used for this.
- Added a check for elements which the Revit user does not have permission to edit. Provided a warning during import from RISA regarding these elements.
- Fixed a problem with materials being duplicated in RISA during repeated round-trips with Revit
- Added an option to link RISAFloor model with Revit Analytical model. Previously RISAFloor only linked with Revit Physical Model
- Added an option to round Revit coordinates to the nearest 1/8" during export to RISA
- Added support for Revit languages other than English
- Made the default splice distance "smart" when exporting from Revit to RISAFloor
- Added support for Analytical Links in Revit to map to Rigid Links in RISA-3D
- Added a "RISA Member Label" parameter to Revit so that the RISA label can be viewed in the Revit model.
- Improved the import of Project Grids from RISA to Revit so that they are not deleted and recreated every time.
- Added mapping of many miscellaneous material properties
- The Link will now remember the name of RISA elements during round-trips, and will not overwrite them with each export to RISA.
- Added ability to not export Project Grids from Revit to RISA. Previously they were always exported
- Added support for "disabled" analytical wall openings so that they are now ignored when exporting to RISA
- Added a "RISA Structural Floor" parameter to Revit Levels so that the user can control which Levels in Revit should be exported to RISAFloor as "Floors"
- Corrected a problem with Area Loads being mapped to the wrong Basic Load Case in RISA
- Wall openings which touch a wall edge are now ignored during export to RISA
- Concrete members are now always exported to RISA as non-composite

## **Compatibility Cutoff**

- The RISA-Revit 2014 Link (12.0) and older versions of the RISA-Revit Link will only work on versions of RISA-3D older than v12.0. They will not work on newer versions of RISA-3D
- The RISA-Revit 2014 Link (12.0) and older versions of the RISA-Revit Link will only work on versions of RISAFloor older than v8.0. They will not work on newer versions of RISAFloor
- The RISA-Revit 2014 Link v2 (12.1) and newer versions of the RISA-Revit Link will only work on versions of RISA-3D v12.0 and higher. They will not work on older versions of RISA-3D
- The RISA-Revit 2014 Link v2 (12.1) and newer versions of the RISA-Revit Link will only work on versions of RISAFloor v8.0 and higher. They will not work on older versions of RISA-3D

## **RISA-Revit 2014 Link (12.0)**

- Added compatibility with the Revit 2014 API
- Disabled the Analytical model in the RISA Import Summary view

## **RISA-Revit 2013 Link v2 (11.1)**

- Corrected a problem with Project Grids resetting to elevation zero during each round-trip
- Eliminated the link between RISA-3D Plate Elements and Revit Wall Elements
- Shape types that cannot be mapped are now exported to RISA as a default shape instead of not being exported at all. A warning is provided when opening the RISA model.
- Added option to control the prefix of element names created in RISA. Previously a "REV" prefix was always applied.
- Added a verification routine prior to import/export to warn user of potential problems before an import/export overwrites their model.
- Added support for aluminum members
- Improved the round-tripping behavior of Wall Regions when walls are resized in Revit and then exported back to RISA
- Added support for cold-formed members
- Members set to "Inactive" in RISA no longer import to Revit
- Members with zero camber now populate the Camber parameter in Revit to blank rather than zero.
- Added mapping of wall material and thickness
- Added a "Composite" parameter in Revit so that beams may be exported to RISA as non-composite
- Added support for Shaft Openings in Revit as Diaphragm Openings in RISA.
- Improved progress bar
- Corrected problems with column rotation angles
- Import/Export Summary Reports now report members by type (beams, columns, etc) rather than one broad category (Members)
- Speed improvements during import to Revit
- Extended the "Update only changed elements" behavior to the "update member sizes only" import.
- Added an option to export only changed items from Revit. Only elements that were changed in Revit since the last import from RISA will be exported back to RISA.
- Added aluminum family libraries to install

## **RISA-Revit 2013 Link (11.0)**

- Added compatibility with the Revit 2013 API
- Beams from RISA are now always exported to Revit as type "Other" instead of "Automatic"
- The "Analyze As" parameter for Analytical Floors in Revit is now mapped to the "Two Way" checkbox in the Deck Definitions spreadsheet in RISAFloor
- The "Analyze As" parameter for Analytical Walls in Revit now maps to the Gravity/Lateral flag in RISAFloor. Previously this mapped to the "Bearing/Shear/Combined" setting in Revit.
- The rupture strength of steel (Fu) now maps between the Materials spreadsheet in RISA and the Material properties in Revit.
- Added an import option to update only elements that changed during the round trip, when importing to Revit. Previously all RISA elements would overwrite all Revit elements.
- Added support for Architectural Window/Door openings in Revit to be mapped to RISA as Wall Openings.
- Set the Base File name to always match the Exchange File name by default during Export from Revit to RISA.
- Added color coded view to show what elements have been added/modified since the last import to Revit
- Added dialog after import/export which displays a summary of what was imported/exported and modified/added/deleted
- Eliminated "Family Instances" checkbox. All beams/columns/braces with an analytical element are always imported/exported now.
- Renamed Coordinate System options to reflect new names in Revit.