

# Release Notes for RISAFloor Version 4.0

## Version 4.0.0 Enhancements / Corrections

### *Wall Panels Enhancement*

- Added Wall Panels, giving user the ability to model entire portions of walls without using plates.
  - Ability to create Masonry walls with openings to get gravity design. The model can be brought into RISA-3D for design for in plane and out of plane forces, as well as the ability to design lintels.
  - Ability to create Wood walls (currently without openings) and get analysis results for gravity loads. The model can be brought into RISA-3D for design for in plane and out of plane forces,.
  - Ability to create General walls with uniform properties and openings for analysis. A way for analysis of concrete walls.

### *Interface & Graphics Enhancements/Corrections*

- Added the option of changing design rules from the Modify Walls dialog box.
- Added Lbyy and Lbzz to Beams spreadsheet for cases where beams receive significant axial load.
- Added beam axial info (e.g. unbraced length, KL/r, P, fa) into data.
- Changed H,V,E rotation toolbar icons to X,Y,Z.
- Corrected the display of incorrect stress block selection in the concrete detail reports
- Fixed a bug where the program was not properly re-assigning a rebar layout that had naming conflicts.

### *Interaction Enhancements/Corrections*

- Added the ability for the Lbyy and Lbzz values to be transferred into RISA3D when using the Director tool.
- Added ability to retain "inactive" flag for RISAFloor diaphragms in RISA-3D. Previously, this value was being reset every time user entered RISA-3D from within RISAFloor.

### *Concrete Design Enhancements/Corrections*

- Added a slender compression check to RISAFloor concrete column design.
- Corrected concrete beam code check to consider the the last span in continuous concrete beams for the governing code check. The steel reinforcing call out in this span was not affected.
- Corrected the Shear UC to not always be taken at the first section of a continuous beam.

### *Sloping Members Enhancement*

- Ability to slope the top floor in a model to add sloping roof functionality.
- Switched to a 6 Degree of Freedom solution to allow for sloped floors

### *Miscellaneous Enhancements/Corrections*

- Corrected callouts for minimum studs in the exported DXF drawing file.
- Fixed Unity Check problem for columns that need rebar close to the maximum specified for the Mexican Code.
- Corrected the display of saved Cold Formed code checks. Phi was not being properly stored in or read from the results file.

- Added program exception where is Lcomp-top is left blank while Lbyy is entered, Lcomp-top will default to Lbyy.

## Version 4.0.1 Corrections

- Corrected an issue where the link from RISAFloor to RISA-3D would not guard the bottom two joints in a wall panel from being manipulated independently in RISA-3D
- Activated the "Detail Report For Current Item" in cases where it was not working.
- Corrected printing of the Project Grid spreadsheet
- Corrected the "orient to point" option for columns.
- Fixed a bug where files that included RISAFoundation data no longer change the "include SW & overburden."
- Corrected the display of grout weight in the wall panel editor.
- Fixed a bug where when you copy a floor with wall panels to a new floor, the wall panels on the copied floor were deleted.
- Fixed a bug where the program was not properly re-assigning a rebar layout that had naming conflicts.
- Corrected an issue where crack control requirements for concrete members could produce tight bar spacing.
- Corrected wall panel rendering issues when all floors of the model were displayed in Full Model View
- Corrected wall panel meshing issues.

## Version 4.0.2 Corrections

- Removed requirement for users to break their wall panels at deck corners and edges of openings (Error Code 2130). RISAFloor now addresses these situations automatically.
- Added the automatic generation of a backup file (\*.RF3) for all legacy files opened in version 4.0.
- Corrected issue with line load attribution which could result in incorrect load distribution to members.
- Corrected an issue with the End Reactions spreadsheet which could result in reported reactions of #00.
- Corrected column moments that were reported incorrectly below sloped floors.
- Corrected an issue where the wood wall results spreadsheet showed "No val" for all entries.
- Corrected point load transfer on wood walls to walls below.
- Corrected miscellaneous meshing errors and region errors associated with wall panels.
- Corrected an issue which prevented RISAFloor models from performing a dynamic analysis in RISA-3D.

## Version 4.0.3 Enhancements and Corrections

- Enhanced the status bar display for multi-monitor or odd resolution screens.
- Enhanced concrete column optimization for situations where the starting shape had a  $P_u > 0.75P_c$ .
- Corrected a hatching display problem on steel joist detail reports for members with applied uplift forces.
- Enhanced program mesher for wall panels, eliminating errors.
- Fixed a RISAFloor / RISA-3D issue where the moment of inertia for a diaphragm could be reported as infinity which caused errors during a dynamic analysis.
- Fixed a problem in wood design where the  $R_b$  calculation was computed as if the bottom flange was in compression when the top flange was actually in compression.
- Corrected an error where duplicate nodes would be created when a RISA-3D model came in from RISAFloor.
- Corrected issue with column force diagrams when sloped roofs were used in conjunction with the "use column stiffness" flag.
- Fixed a bug whereby general walls were always created as 12" thick regardless of thickness specified by user in "Draw Walls" dialog.
- Modified the default boundary conditions for wood walls to be consistent with the stand-alone version of RISA-3D.

- Corrected an issue where lateral members that could not be sized or designed in RISAFloor were receiving bad information when their RISA-3D design / optimization results were transferred back into RISAFloor.
- Fixed a memory issue with using the Cancel button to exit out of the Wall Panel Editor.
- Fixed an issue which occurred when performing a model merge on wall panels that had duplicate, but distinct joints in the RISA-3D and RISAFloor models.
- Corrected an issue that could occur when sorting the Joint Reactions spreadsheet from within RISA-3D. Should only occur with RISAFloor models brought into RISA-3D.
- Corrected a display issue which would cause the full model view to render openings in a wall one floor above where they should have appeared. This issue did not affect calculations at all.
- Corrected a DXF importing issue where the import failed if the model did not already have an existing floor level defined.