Release Notes for RISAFoundation

Version 14.0.6 Enhancements/Corrections

- General:
  - Compatibility with RISA-3D V20.0.6 and RISAFloor V16.0.6.

Version 14.0.5 Enhancements/Corrections

- General:
  - Corrected an internal meshing issue that would occur when drawing a triangular mat footing.

Version 14.0.4 Enhancements/Corrections

- Concrete:
  - Added the analysis and design of Welded Wire Fabric Design for foundation mat slab, footing, and pile cap.
- Solution:
  - Corrected a rare instance where the soil pressures were being incorrectly calculated when there are several slabs and pedestals present in a model.
  - Resolved an issue that the slab thickness in overturning checks was calculated incorrectly when there are multiple stem walls on a slab.

Version 14.0.3 Enhancements/Corrections

- Updated the interoperability between RISA programs and RISA-Revit link.

Version 14.0.2 Enhancements/Corrections

- Concrete:
  - Fixed an issue in the calculation of the size effect modification factor (lambda_s) in ACI 318-19 code when metric units are used.
  - Corrected the calculation of As,min for flexure when using American concrete design code (ACI) and metric units.
- Footing:
  - Fixed an issue with Overturning (OT) resistance calculation when considering SDS.
- Slab:
  - Fixed an issue where the dead load factors in the load combination were not considered for the slab stabilizing moment.
- Detail Report:
  - Corrected an issue where opening a detail report for a wall panel would cause the program to terminate in some instances.
  - Resolved an issue where display of distributed loading occasionally created strange lines on member detail reports.
- Interface/Graphics:
  - Fixed an issue where the program would close unexpectedly when trying to view soil pressure contours in a retaining wall model.
- Operations:
  - Corrected the wall footing label and reinforcement schedule for the DXF export Foundation Plot.

- Resolved an issue that prevented the deleting of nodes when using the 'Delete Marked Lines' option in the Point Coordinates spreadsheet.
- Integration:
  - Resolved a rare issue that caused the gravity column reaction from RISAFloor to be double counted in RISAFoundation.

Version 14.0.1 Enhancements/Corrections

- Concrete:
  - Fixed an issue with wall shear capacity calculation in strip footing and retaining walls using ACI 318-19 code.
- Detail Report:
  - Resolved a graphical issue where the phi factor being used did not match the phi factor being displayed in the detail report.

Version 14.0.0 Enhancements/Corrections

- Concrete:
  - Enhanced optimization in slab rebar design when maximum and minimum reinforcement spacing were the same value in Slab Design Rules.
  - Resolved an issue with Vc calculation in Footing and Wall Footing for ACI 318-19.
  - Corrected an issue where the program would incorrectly use a phi factor from ACI 318-05 for pile cap punching shear for newer codes.
  - Resolved an issue where the designed reinforcement and reported UC for flexure was incorrect for some footings when the CSA design code was selected.
  - Corrected an issue that erroneously reported an overturning moment when no lateral loads were applied in the model.
  - Resolved an instance that incorrectly triggered a 'No Punching Shear Check for piles under beams' error for piles supporting slab elements.
  - Fixed an issue where mat slabs with reinforcement set to mid-depth were not properly calculating the shear capacity for design cuts with positive moment.
- Operations:
  - Added the ability to quickly change the thickness of a thickened region within a slab.
  - Added the ability to draw continuous footings without causing overlapping slabs at the corner. Check the 'Keep Wall Continuous' option when drawing a Lateral/Custom Strip Footing.
  - Enhanced ability to modify slab properties such as slab openings and modified slab thicknesses.
  - Resolved an issue that happened to isolated model files where the program closes unexpectedly when using the Contour Cut tool on slab contours.
- Analysis:
  - Added analysis and design feature for a single pile without a slab.
  - Enhanced the method used to calculate the critical shear section in pile cap groups.
  - Resolved a behavior that set pile reaction to 0 upon solving certain models.
  - Fixed an issue with reinforcement ratio calculation for round shape slabs.
- Solution:
  - Corrected an issue with backfill slope height calculation for retaining walls when heel batter exists.
  - Resolved an issue with the angle of active pressure resultant for Coulomb's Method.
  - Resolved an issue with active earth pressure coefficient for soil below the water table when Coulomb's method is used.
  - Fixed an issue with lateral earth pressure due to surcharge if at rest condition is activated when the passive force exceeds the active force.
- Detail Report:

- Resolved an issue with negative rebar number displayed for some spread footing detail reports when metric units were used.
- Corrected an issue that caused a model to close unexpectedly when opening the pile detail report in certain scenarios.
- Resolved a behavior that did not recognize user-input load combinations as Service load combinations and resulted in Stability checks not being provided in the Footing Detail Reports.
- Fixed the pile cap Detail Report which showed overlapping graphics.
- General:
  - Enhanced the program behavior when an invalid active earth pressure is calculated such that it displays a message warning the user in the detail report and does not provide results.
  - Enhanced the grade beam reinforcement design to provide a warning when the explicit rebar spacing provided exceeds the maximum allowed by code.
  - Updated the location where user data files are stored during default installation to prevent certain file access issues.
  - Updated text of 'Material Strengths' units to 'Material Stiffness' to better match the property the units apply to.
  - Resolved an issue where the program would close unexpectedly when using the Cut tool for the soil pressure contour.
  - Resolved an issue where changing units did not properly update the stem wall density.
  - Resolved an issue that would cause the program to close unexpectedly when a model is solved that has Design Strips with no Design Cuts.
  - Fixed a rare instance where the program does not prompt to save the model when opening a different model.
- Integration:
  - Fixed an issue where RISAFoundation results were not cleared after making changes in RISA-3D.
- Interface/Graphics:
  - Corrected an issue that reported strange symbols in the warning message.
  - Resolved a graphical issue with the hydrostatic pressure reported in the detail report at the top of the footing.
  - Fixed a scaling issue with printing reports when the display scale for the screen is set to something other than 100%.