Release Notes for RISA-3D

Version 21.0 Enhancements/Corrections

- General:
    - Added compliance with the 2021 International Building Code.
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        - Added compatibility with SDPWS 2021.
        - Added compatibility with AA ADM1-2020 aluminum design code.
        - Added compatibility with AISI S100-20, AISI S240-20 and S400-20.
    - Resolved an Exception Message when clearing a basic load case from the Basic Load Cases spreadsheet with the loads spreadsheet open.
    - Corrected an issue that would close the program unexpectedly in certain models with concrete wall panels solved with the CSA A23.3-14 design code.
    - Improved behavior of copying nodes such that new nodes generated are numbered in an orderly fashion.
- Interface/Graphics:
    - Updated the user interface to enhance user experience and make it easier to navigate and interact with the program.
    - Enhanced the '2D Lock ON' visual to appear when opening a model with the 2D mode enabled.
    - Resolved a graphical issue where the Basic Load Case description did not populate when viewing loads graphically.
    - Resolved an issue with the Ignore After tool in the seismic tab of the Wall Panel Design results spreadsheet.
    - Fixed an issue where the reactions were not able to be displayed through the Quick View toolbar after solving the model.
    - Resolved an issue where the Radial Drawing Grid would not update in the 3D view.
    - Fixed a graphical issue where minimized ribbon toolbar dropdowns did not expand to the full application width.
- Analysis:
    - Added a warning for users to perform a model merge or check analysis results when duplicate nodes are detected in the model.
    - Enhanced the ability to detect misaligned wall panels that would cause polygon mesher errors to be triggered for models integrated with RISAFloor.
    - Corrected an issue that the P-Delta amplification factor was included for ASD solutions of AISI S100-16 and AA ADM1-05 design codes.
    - Resolved an issue with the calculation of brace forces for models with flexible diaphragms that are solved with Capacity-Limited load combinations.
    - Fixed an issue where the Wind Load Generator was not updating the Base Elevation and Height correctly after modifying the Length unit.
- Cold Formed Steel:
    - Resolved a warning issue that would incorrectly hide results in the Detail Report for Cold Formed Steel Wall Panels and state the CFS code was set to 'None'.
- Detail Report:
    - Added more information to variables that are used within the detail report for steel members.
    - Enhanced reporting of design capacity summaries in the Detail Report for concrete members.
    - Reorganized layout of wood wall detail report for enhanced clarity.
    - Updated the description for S and Z as the Elastic Section Modulus and Plastic Section Modulus.
    - Improved reporting of governing load combination in the Detail Report for concrete members.
    - Improved reporting of equation used for calculation of the moment gradient factor calculation for Hot Rolled Steel design using the Canadian codes.

- Resolved a rendering issue for the Detail Report of wood members solved with CSA O86-09: Ultimate design code.
- Corrected a graphical error that would incorrectly display the governing load combination for certain limit states in the Code Check Summary Display section of the Detail Report for concrete members.
- Resolved incorrect summary display of Bending Steel Requirement checks for concrete members.
- Corrected a graphical issue that prevented the analysis of a concrete deep beam from being shown in the detail report.
- Corrected an issue that prevented the SGAF factor from being considered in Wood Wall Design unity check ratios.
- Fixed an issue that prevented rendering of Detail Report results for Hot Rolled Steel members solved with iterative stiffness adjustment per AISC.
- Resolved overlapping display issues with texts in the Rebar Detailing section of Detail Report for concrete members.
- Fixed a graphical issue causing some member's Detail Report to show up blank.
- Removed display of Detail Reports results for Excluded and Inactive Wall Panels
- Fixed the reporting of the deflection ratios for a member such that they are consistent throughout the program.
- Hot Rolled Steel:
  - Resolved an issue with the properties of certain HSS shapes in the Canadian Hot Rolled Steel database.
- Integration:
  - Improved integration functionality to prevent invalid results by limiting users to set design codes in RISAFloor for integrated models.
  - Fixed an issue where the wall panel rendering, analysis mesh, and contours were not displaying for a model imported from Revit.
  - Corrected a rare issue that would prompt an error message "related to process address space" when importing a model from REVIT.
- Masonry:
  - Improved calculation of governing required shear strength Vsu in the Seismic Shear Strength Check in Special Masonry Wall Panels to account for applicable limits.
  - Fixed an issue where the 'Special Inspection' checkbox was not available for the UBC 1997: ASD masonry design code.
- Operations:
  - Improved the right click menu option Create Point Loads from Moving Loads to display in the Properties Panel.
  - Resolved an issue where the program closed unexpectedly after switching the display of batch results between Load Combination and Element.
  - Fixed an issue where the automatic Check For Updates was unable to be turned off neither when installing the program manually nor via a silent install.
  - Resolved an issue when generating a Project Grid Arc using negative radial increments.
  - Corrected an issue that would unexpectedly shutdown specific models upon solving with results present.
  - Fixed an issue where the Save Database As Default option was not working properly in the Shape Database.
  - Resolved an issue that generated an 'Unhandled Error' message when adding additional load cases in the Basic Load Cases Spreadsheet.
  - Corrected an issue with loading saved Drawing Grids.
  - Resolved an issue where negative Project Grid increments were added as positive.
  - Fixed an issue where the Edit Project Grid Line dialog did not reflect the correct axes.
  - Resolved an issue where the internal cold formed record counter would become mismatched and prevent the program from opening model files.
- Printing/Reports:
  - Added the report logo to printed graphics.
  - Improved the ability to filter loads and results spreadsheets within the report printing.

- Resolved an issue where the time was not included in the footer for printed graphics.
- Corrected a printing issue where input and results were not filtered as expected when using the Filter Input and Filter Results feature.
- Spreadsheets:
  - Enhanced the spreadsheet behavior to prevent invalid entries when using the Fill command.
  - Resolved an issue with sorting the UC Shear In Plane column in the Concrete Seismic Design spreadsheet.
  - Fixed the display of weight and volume for solid elements in the Material Takeoff Spreadsheet.
  - Corrected an issue in the Distributed Loads spreadsheet for wall panels that prevented the use of the Fill command for the Start and End Location.
  - Resolved an issue in the Surface Loads spreadsheet where the Fill and Math commands did not update the Magnitude column.
  - Fixed an issue where the Load Category was not able to be copied and pasted in the Basic Load Cases spreadsheet.
  - Corrected a metric units issue where the center to center rebar spacing was still in inches when increasing the number of rebar layers.
  - Resolved an issue that reset the row focus when editing loads through the Basic Load Cases spreadsheet.