Release Notes for RISA-2D

Version 14.0 Enhancements/Corrections

- Cold Formed Steel:
  - AISI S100-12
  - CANACERO-2012
  - CSA S136-12
  - Added code checks for back to back cold formed steel members.
- Masonry:
  - Added the ACI 530-13 masonry code.
  - Corrected an issue where the masonry wall panel shear check results where displaying values that did not correspond to the governing load combination.
  - Fixed an issue with the detail report for masonry walls where the shear and moment diagrams could be inaccurate if the wall thickness was changed during that session.
  - Updated the "a" calculation for masonry in-plane strength design. Previously the "b" was always using the effective thickness. Now the program checks the "a" value against the length of the boundary zone. If the "a" is greater than the boundary zone then the effective thickness is used. If the "a" is less than the boundary zone then the nominal width is used.
  - Addressed an issue with masonry wall panels where the tolerance between the design UC and the user's max UC was increased to alleviate changes in reinforcement for the same load combination.
- Hot Rolled Steel:
  - Added the AISC Historic shape database.
  - Updated an error in the Chinese Single Angle Shape Database where the program was previously taking rx as rz.
  - Corrected an issue with the detail report display of KL/r values for tapered members in the AISC 13th / 14th editions. Code checks were correct, but KL/r values could be incorrect for yy value and show na for zz value.
  - Corrected a problem where an error message flag caused negative capacity results for hot-rolled steel members.
- Wood:
  - Added wood member design per the Canadian CSA Standard 086-09 design code.
  - Added new glulam material databases per NDS Tables 5B and 5D.
  - Improved error reporting for mismatched wood sizes/species/grades.
  - Fixed an issue where we were not properly filtering out the non-full height region results for wood wall panels with a segmented design.
  - Corrected a problem with explicit wood header materials unintentionally changing when deleting lines from the Wood Materials spreadsheet.
- Concrete:
  - Updated the dimensioning of column reinforcement in the detail report to account for the presence of stirrups.
  - Updated the shear area of steel output to be on a per foot basis vs a per inch basis in the detail report.
  - Corrected an issue with the viewing of detail reports for concrete round columns for the NZS code.
  - Corrected an issue where concrete wall panel in-plane transfer parameters were not being updated when solving one LC from another. This affected the Δ_{NS} value for a batch solution.
- Dynamic Solution Improvements
  - Added a Ritz Vector dynamic solution option.
  - Added a dynamics solution option for considering residual rigid response.
  - Minor changes to simplify the dynamic solution dialog.
  - Corrected an issue where modes with a frequency higher than the last frequency defined in the spectra did not get assigned the proper zero period acceleration.

- Improved Install Behavior
  - Improved ability of Network Client versions to find a license server.
  - Reorganized all files (databases, defaults, etc) into new sub-folder locations.
  - Added an option in the installer to install to the Program Files and Documents folders.
- Loading:
  - Moving loads can now be included in a Batch + Envelope solution.
  - Increased the width of the Load Combinations to allow for 10 Basic Load Cases per Load Combination.
  - Added a feature to generate point loads per a specific moving load time step.
  - Enhanced the Load Combination Generator in order for each RISA program to read its own default settings.
  - Corrected load combination equations for the SBC 301 2007 Saudi Arabia code.
- Installation & Licensing Updates:
  - Released an update version of Sentinel RMS License Manager to be compatible with Windows Server 2012 R2.
  - Fixed the Network.ini behavior to allow for the file to be placed in the root RISA directory and still be seen by the client installs.
- General Updates:
  - Enhanced the Wall Panel Editor with local dimensions for openings and design regions.
  - Added a "Memory" to the Copy Loads with Members checkbox in the Copy Offset tool
  - Added an option to the truss generator to allow for pinned end releases.
  - Added the ability to save a video of the animated deflected shape and mode shapes.
  - Added links to all Warning Log messages that take you directly to the relevant section in the help file.
  - Added new icon to "Select Marked Lines in the Model View" toolbar icon.
  - Added a graphic verification that confirms if you are running in a demonstration version.
  - Changed the name of the Global Parameters dialog to Model Settings. Changed the name of the Plot Options dialog to Model View Options. Changed the name of the Preferences dialog to Application Settings.
  - Added a Degenerate Plate Check tool to identify and fix plates that are not planar, or that are poorly shaped.
  - Corrected an issue where the footer for PDF reports was not included on the last page.
  - Corrected an issue related to envelope solution reporting a moving load step for a non-moving load combination.
  - Fixed a rare memory allocation issue with the Joint Reactions calculation that could cause the program to shut down if an unstable model with multiple load combinations was run with tension-only members.
  - Corrected the DXF export display for metric Footings Details.
  - Fixed a problem where the internal PDF writer would print spreadsheet results as images rather than text, causing PDF sizes to be much larger than necessary.
  - Corrected a units conversion issue with joint reaction COG calculations when units where changed with existing calculations.
  - Common input spreadsheet entries will be merged for appended models.