AUTO DESIGNED CONNECTIONS

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Shear 0.1 Release Notes

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Summary

Included in this update are bug fixes, improvements to the user interface, and updates in the presentation of the calculations. Listed below are the details of every bug fix and update that is being implemented in this release.

Contents

General updates

APPLICABLE TO ALL CONNECTIONS	• All "not good" and "not OK" remarks on every limit state checks were changed to "Fail" in all calculation reports. • Limit state remarks in the calculation reports were made to turn into "green" when result is OK and "red" when it fails. • Calculation sketch and summary were added on the first page of the calculation report. • Limit state remark/s at 'Recommendation' window changes to red text color when connection fails. • Limit state remark/s at 'Check' window changes to red text color when connection fails. • Tab menu for moment, vertical brace, horizontal brace on Main Interface are now disabled when not available for use. • Summary reports were expanded to show more text lines. • Remarks shown on pop-up window were revised when the connection code is not available. • Removed the validation code that checks the connection type. • Removed the "single angle" notation in the main interface • Internal Unit Conversion function was modified to accept and work with negative values. • A function was added to check and match the weld and bolts of clip angle, shear plate or endplate based on the connection requirements.
FOR ALL WELDED CONNECTIONS	• Included the weld checks of angle to beam/support in determining whether the inputted angle thickness will be reduced under Design mode • Location within the program of angle thickness' comment was moved after the weld capacity check.
FOR ALL BOLTED CONNECTIONS	• Consideration of edge distance increment (C2) for checking of vertical edge distance when slot is parallel with the direction of the load. • Fixed bug on hole dimensions when slotted hole type is used • Revised the formula in determining the bolt bearing capacity of the girder and column web only. Note that the revisions will yield the same value to the previous formula used.
FOR ALL BOLTED SINGLE ANGLE CONNECTIONS	• Added condition for angle remarks when thickness of angle is less than the AISC minimum requirement based on bolt diameter used
FOR ALL WELDED-BOLTED CLIP ANGLE CONNECTIONS	• Consideration of minimum angle weld size when determining the max no. of bolts that can fit on a beam web
FOR ALL SHEAR PLATE CONNECTIONS	• Revised the remarks of shear plate thickness if shear plate exceeds the max thickness based on AISC criteria.

Connection Specific Updates

Connection Code	Remarks
SC01-11	• Added "from top of beam" or "from bottom of beam" on value used if Remarks indicates TOS or BOS in the Validations • Fixed bug on Form's location. The Form should not be in top most when the user clicks the "Print" and design "Print summary" button. • Enabled the horizontal edge distance of beam in the Main Form. • Consideration of allowable fillet encroachment for doubler plate's weld
SC01-11A	• Changed "Top/Bottom" remarks to "Top" if value used indicates top and "Bottom" if value used indicates bottom • Changed "Check material of Shear Plate" to "Check material of clip angle" on validation comment • Consideration of allowable fillet encroachment for doubler plate's weld • Fixed bug in stiffener plate distance from the top cope. The value is always 7/8" from top of beam. • Displayed the correct value for Doubler Height in the Main form • Changed the comment on validation from "Check material of web plate" to "Check material of stiffener plate" @ SecondaryPart1 & SecondaryPart2
SC01-12	• Added "from top of beam" or "from bottom of beam" on value used if Remarks indicates TOS or BOS in the Validations • Consideration of allowable fillet encroachment for doubler plate's weld
SC01-12A	• Disabled the "Plate Height" on the interface if doubler plate is not needed. • Changed "gcac" and "gcol" at the sketch to "gcag" and "ggir" • Consideration of allowable fillet encroachment for doubler plate's weld • Fixed bug in validation summary: validation for Design Code and Load Definition are highlighted • Fixed bug in stiffener plate distance from the top cope. The value is always 7/8" from top of beam. • Fixed bug on weld size update. Weld size is not updating (w1 at Secondary Part 1). • Fixed bug on weld size, w1 at Secondary Part 2: If the recommended value of weld size (Secondary part 2) is unchecked, new weld size (Secondary part 2) is being shown at the interface

SC01-13	• Fixed bug in validation summary: validation for Design Code and Load Definition are highlighted
SC01-14	• Fixed bug in validation summary: validation for Design Code and Load Definition are highlighted • Validation added for weld "w1".
SC01-21	• Extended Date Range and expanded length of text in Summary reports • Fixed bug in getting number of vertical bolts' value • Fixed bug in getting incorrect value of bolt spacing in primary part • Fixed bug in validation summary: validation for Design Code and Load Definition are highlighted • Changed "Check material of Shear Plate" to "Check material of clip angle" in the validation comments • Included horizontal spacing value (sv) in Recommendation Form and Report Summary. • Fixed value of vertical spacing of bolts in Get Command.
SC01-22	• Changed AdconX to ADconX in report footer • Fixed bug in validation summary: validation for Design Code and Load Definition are highlighted • Changed "Top/Bottom" remarks to "Top" if value used indicates top and "Bottom" if value used indicates bottom
SC01-23	• Removed the blank page in the calculation report • Changed "Check material of Shear Plate" to "Check material of clip angle" in the validation comments
SC01-24	• Changed "Check material of Shear Plate" to "Check material of clip angle" in the validation comments
SC01-31	• Added note in the Main Interface. "The connection design may be unconservative if there is a shear plate exactly opposite to the connection being designed." • Fixed bug in validation summary: validation for Design Code and Load Definition are highlighted
SC01-32	• Added note in the Main Interface. "The connection design may be unconservative if there is a shear plate exactly opposite to the connection being designed." • Fixed bug for validation of beam cut • Fixed bug on validation. Validation for edge distances appears when D = 3.5in. • Fixed bug on the Recommendation Form. The horizontal spacing was not shown on the Recommendation Form when nv>=2

SC01-35	• Added note in the Main Interface. "The connection design may be unconservative if there is a shear plate exactly opposite to the connection being designed." • Fixed bug in validation when stiffener plate is present. • Fixed bug in validation summary: validation under stiffener tab is highlighted • Rounded-off LCR value in report's summary • Modified the ClassifyWelds function in order to get the weld value from the connection even if the no. of weld in the connection is not equal to two. • Included horizontal spacing value (sv) in Recommendation Form and Report Summary. • Fixed the print command in the Main Form. The print command still continue even though the connection did not passed the validations
SC01-41	-
SC02-11	-
SC02-12	-
SC02-13	• Added Newtontokips functions in CheckRecom function to fix the bug in Rcaps information . • Changed AdconX to ADconX in report footer
SC02-14	-
SC02-15	-
SC02-21	• Fixed the number of vertical bolt lines' value on Get Command • Included horizontal spacing value (sv) in Recommendation Form and Report Summary.
SC02-22	-
SC02-23	• Fixed the value of vertical and horizontal spacing of bolts for primary and secondary part.
SC02-24	-
SC02-31	• Included horizontal spacing value (sv) in Recommendation Form and Report Summary.

SC02-41	• Removed the validation for holes. This validation is not required. • Included check for the maximum no. of vertical bolt lines (nv) that can fit on a column flange. • Fixed bug, message always show "Beam is not perpendicular to column" when Get Command is pressed. • Fixed and updated crystal report.
SC03-11	• Additional validation: Stop and prompt the user when connection is beam to girder • Fixed the number of vertical bolt lines' value on Get Command • Fixed the function in getting the number of bolt in primary and secondary part • Fixed the edge distance value • Fixed bug on validation. ADconX still continue even if there's an error on the validation. • Disabled weld strength box on interface
SC03-11A	• Additional validation: Stop and prompt the user when connection is beam to girder
SC03-12	-
SC03-12A *SC03-13*	• Fixed error in hole size dimension • Fixed bug in calculation report. Failed in loading calculation report.
SC03-14	• Enabled or Disable of command button in the Main Interface when Rcaps is applied • Removed a condition in command print that stop the printing in the main form. This condition is not required. • Fixed bug in printing. Printing still continues in the main form even there's an error in validation.
SC03-15	• Added Newtontokips functions in CheckRecom function to fix the bug in Rcaps information. • Fixed bug in the validation. Math Engine still proceeds even there's error in the validation.
SC03-21	• Included horizontal spacing value (sv) in Recommendation Form and Report Summary.
SC03-22	-
SC03-23	-
SC03-24	• Added Newtontokips functions in CheckRecom function to fix the bug in Rcaps information .

SC03-32	• Added note in the Main Interface. "The connection design may be unconservative if there is a shear plate exactly opposite to the connection being designed." • Added Newtontokips functions in CheckRecom function to fix the bug in Rcaps information. • Included horizontal spacing value (sv) in Recommendation Form and Report Summary.
SC03-41	• Added Newtontokips functions in CheckRecom function to fix the bug in Rcaps information. • Included check for the maximum no. of vertical bolt lines (nv) that can fit on a column web.
SC05-31	• Added validation for number of shear plate • Added validation in hole dimension when reverse. • Added Newtontokips functions in CheckRecom function to fix the bug in Rcaps information. • Included horizontal spacing value (sv) in Recommendation Form and Report Summary. • Fixed the incorrect get value of edge distance in the Main Form.
SC11-21	• Modified the sketch in the Main Interface, two vertical bolt lines were shown and svg and svc were added on the sketch. • Fixed the print command in the Main Form. The print command still continue even though the connection did not passed the validations • Added Newtontokips functions in CheckRecom function to fix the bug in Rcaps information.
SC11-22	• Fixed the print command in the Main Form. The print command still continue even though the connection did not passed the validations • Fixed bug in updating capacity and LCR value. • Included horizontal spacing value (sv) in Recommendation Form and Report Summary.
SC11-23	• Fixed the print command in the Main Form. The print command still continue even though the connection did not passed the validations • Added Bolt size and Bolt type in Main Components interface