Version information

Version 14 Update 9 Hotfix 3

09-04-2021 build 1000

Bug fixes:

- Correction of some bugs of crane load placing. / CSSUP-2496
- Correction of bugs in design of reinforced concrete beam and column shear and torsion reinforcement. In certain cases, the program did not take into account
  - the value of the stirrup distance entered in column reinforcement,
  - the area of torsional rebars in beam reinforcement.
- Improve the provision of shear reinforcement in the beam reinforcement dialog.
- Improving the unit of stirrup distance of reinforced concrete beams in the documentation.
- Disabling irrelevant reinforced concrete designs in the documentation.
- The method used for design of reinforced concrete columns does not allow direct consideration of the torsion. A new warning message appears in the section module and in the documentation in case of torsion of a column.
- Due to a bug, the design value of the torsional moment of the reinforced concrete beams appeared incorrectly in the documentation. The bug was fixed.

Version 14 Update 9 Hotfix 2

19-03-2021 build 981

Bug fixes:

- In the selection by properties dialog, many property filters were missing in previous releases (U9, U9H1). The bug has been fixed. / CSSUP-2470
- In the slab reinforcement diagram, the fixed marker of result values did not work. The bug has been fixed. / CSSUP-2471
- Improve online license verification

Version 14 Update 9 Hotfix 1

09-03-2021 build 967

Bug fixes:

- Improved interpretation of slope when defining wind surfaces, displaying an appropriate error message, and improving definability. /CSSUP-2466

Version 14 Update 9

05-03-2021 build 965

Bug fixes:

- In the slope range between +5 and -5 degrees, it was previously possible to define a duopitch roof for which the program incorrectly generated wind loads using interpolated pressure coefficient. In such cases, the coefficients applicable to the flat roofs must be used, to which the program now draws attention with an error message.
- Improvement and refinement of the diagnostic tool regarding load transfer surfaces.
- Distributed load representation has become the default way to display loads on load transfer surfaces.
- In the case of a load transfer surface, if the method of load distribution is automatic for all the members in the plane, all members whose reference axis falls in the plane of the surface will be taken into account, regardless of the eccentricity of the members.
- In some very rare cases, members with incorrect geometry were formed (typically in the case of imported models). The more detailed diagnostics tool on the finite element tab now repairs such damaged members as well. / CSSUP-2431 / CSSUP-2181

- Global projected type surface loads for load transfer surfaces were not always distributed to the members correctly. The bug has been fixed.
- Model modifications of models containing a lot of load transfer surfaces has slowed down very much. The improvement made the modifications significantly faster. / CSSUP-2423 CSSUP-2353 CSSUP 2442
- Improving finite element processing of link elements.
- Due to a bug the elastic spring modulus of semi-rigid surface supports was not scaled in function of the finite element mesh size. This caused differences in deformations and stresses. The bug appeared in the build 864 released on October 21, 2020. The bug has been fixed. /CSSUP-2421
- The display of the unit of the elastic foundation modulus of a semi-rigid surface support has been replaced in the surface support dialog box. / CSSUP-2421
- Replacement of documentation of drawn sections.
- Refinement of auto loading of influence graphs / CSSUP-2390
- In the case of beam splices of Consteel Joint, the shear capacity of the bolt was not always taken into account in the load capacity of the entire joint. The bug has been fixed. / CSSUP-2372
- In the results of the critical temperature calculation, the lowest value is now the extreme value instead of the previous highest value. / CSSUP-2366
- The error messages "The requested number of buckling modes is not high enough to reach ..." did not appear in the analysis error messages. With the fix, the error message was reset when relevant. / CSSUP-2077
- In conservative interaction checks of cold-formed sections, the output of the result components was better specified.
- Improved copying, mirroring, and rotation of purlin overlap and support zone objects. Previously, these items could not be properly copied, mirrored, or rotated. / CSSUP-2406

Version 14 Update 8 Hotfix 1

08-12-2020 build 909

Bug fixes:

- Fixed a save error occurred after opening a new model. / CSSUP-2335
- In the documentation of cross-sections checked according to EN 1993-1-3, incorrect standard references were sometimes included. The bug has been fixed. / CSSUP-2329
- Replacement of csPI command buttons due to "Encountered an improper argument" error message under certain circumstances. / CSSUP-1655

Version 14 Update 8

26-11-2020 build 905

Bug fixes:

- When saving a model with the Save As function, another ".csm" extension was added to the end of the file name each time. The bug has been fixed.
- Name of the purlin overlap objects changed after placement, creating objects with the same name. The bug has been fixed.
- Correction of the figure for the intermediate (web- or flange-) stiffeners of cold-formed sections. Correction of the representation of the stiffener length parameter (l).
- The definition of edge stiffeners for hat (omega) macro sections has changed for compatibility reasons. The foot is now part of the edge stiffener.
- Moving surface loads perpendicular to the surface resulted in incorrect load generation. Moving the loads perpendicular to the surface is now disabled.
- The direction of the surface support's coordinate system was displayed incorrectly in the properties panel. By correcting, the real direction (global, local, or user) is now displayed.
- In the Section Module, in some cases, a freezing error occurred when clicking on a row of results. The error has been fixed / CSSUP-2215
- Improve the creation of complex I + U macro sections. Previously, Consteel had not always allowed it to create a cross-section that would have been geometrically possible.

- On the Global checks tab, we've improved the visibility of the drop-down fields.
- In some cases, Consteel did not perform cross-section design check in the section fixed for torsion of closed tubular sections. The bug has been fixed.
- The measure function (on the Geometry tab) sometimes only displayed an empty rectangle, the size was not visible. The bug has been fixed. / CSSUP-1954
- The display of distributed loads of a load transfer surface was incorrect on such members that were changed to eccentric. Sometimes the distributed load was still visible on the members even though the load had already been redistributed in the finite element model. Load display has been fixed.
- Improve the conversion of smart link elements when converting a member to a shell.

Version 14 Update 7

21-10-2020 build 864

Bug fixes:

- Nodes that are very close to each other can lead to incorrect calculations in the finite element model. In this case, the diagnostics sometimes only indicated error by starting it manually. With this fix, this error message will appear also at the start of the analysis, warning the user to fix the model.
- Graphics enhancement of the beam splice connection in csJoint.
- When placing smart links in series, the links were rotated in the FE model if the member itself was rotated around it's axis. The bug has been fixed.
- It was not possible to place an IDEA base plate connection on a horizontal bar. The bug has been fixed. / CSSUP-2254
- In csJoint K-N type truss connections, members connected at an angle near to 90° were changed to 90° by the program and these connections could no longer be placed. The bug has been fixed. / CSSUP-2236
- In csJoint K-N type truss connections the representation of the stiffening plates of the girder was incorrect. It was a graphic error; the calculation was not affected. The bug has been fixed. / CSSUP-2236
- Hardware key management sometimes caused an irregular slowdown in the program, making the interface inactive for a few seconds. The bug has been fixed.
- The Save As command did not always work if multiple Consteel instances were running simultaneously on the computer. The bug has been fixed.
- In the cross-section module, clicking on the interaction results sometimes caused a freeze error. The bug has been fixed.
- When creating cold-formed Z, C, Zeta sections together with the rotated copy, the copy was the same as the original, no rotation took place. The bug has been fixed. / CSSUP-2241
- Fixed a freeze error when deleting a cross-section used in a smart link element.
- Fixing the wrong internal error diagrams in case of overlapping surface loads. The error occurred when a finite element point received a load from multiple overlapping surface loads, or the point was at the boundary of two surface loads. / CSSUP-2231
- Correction of sign error in sectional representation of analysis results.
- When rotating a link element, the rotation of its own local coordinate system did not take place, so the set releases did not work in the correct direction. The bug has been fixed.
- File menu New model command did not work. The bug has been fixed. / CSSUP-2196
- Improving the direction of surface support when specifying it in a local coordinate system.
- In manual linear combinations of modal shapes, the shapes given by negative combination factor were not taken into account. In the analysis view, the summarized results of the selected shapes appeared duplicated. Bugs have been fixed.

Improvements:

- Rename beam-beam link element to smart link element.
- In the case of drawn sections with a wall thickness of less than 3 mm, a warning message is displayed stating that the minimum wall thickness is 3 mm according to EN 1993-1-1.
- Second order calculation error messages have changed. The program breaks down iteration errors into two cases. A different message is displayed depending on whether the calculation could not even run, or it could run at least once and only then does the error occur. In addition, it no longer shows the

number of the node that is considered incorrect because, due to the nature of the calculation, it is not certain that the error is at that point where the calculation stops.

Version 14 Update 6

23-09-2020 build 852

Bug fixes:

- By automatic wind load generation the distributed member loads were sometimes not created for all surfaces. The bug has been fixed. / CSSUP-2239 / CSSUP-2242
- Fixed minor text errors when documenting a fire effect / CSSUP-2214
- For some compound and drawn sections as well as round steel bars and tubular sections, the critical temperature calculation did not run, and these sections also appeared incorrectly in the documentation. The bug has been fixed.
- Among the results of the critical temperature calculation, the utilization value for the placed csJoint connections was also indicated as temperature values, incorrectly. The bug has been fixed.
- In AISC calculation, the program indicated 0% utilization in the frame corners when the frame corner wizard was activated, although in this case no utilization needs to be calculated at all. The bug has been fixed.
- Clarification of AISC calculation. Previously, the calculation of certain values was not accurate, or the program printed bad values (Fcr, Lp, Mp). The bug has been fixed.
- Corrected DXF export of plate reinforcement diagram.

Improvements:

- Display envelope diagrams of deformations for SLS combinations as well.

Version 14 Update 5 Hotfix 1

11-09-2020 build 843

Bug fixes:

- For the latest Windows Update (Version 2004 build 19041.264), installing Consteel caused a freeze error on the computer due to the Sentinel dongle driver. We have updated the driver in the latest installation package, which solves this problem. /CSSUP-2211 /CSSUP-2224

Version 14 Update 5

09-09-2020 build 841

Bug fixes:

- Repair of freeze errors
- In csPI debug mode, the Consteel icons are deactivated. The bug has been fixed.
- csPI analysis start command previously reported an error, which we fixed in this release.
- Loading a model that includes composite profiles or modifying composite profiles sometimes caused a freeze error. The bug has been fixed.
- Automatic wind load generation caused a freezing error on some models. The bug has been fixed. /CSSUP-2078
- Auto checking of haunch parameters when profile changes was not always adequate. The bug has been fixed.

Improvements:

- In the Section Module, mark the point of biggest utilization graphically for each type of section checks.

Version 14 Update 4 Hotfix 1

31-08-2020 build 834

Bug fixes:
- Reinforced concrete model made in an earlier version indicated a false diagnostic error. The bug has been fixed.
- Exporting a model containing both any earthquake parameter and a result to smadsteel (SteelSpace) format resulted in an incorrect export. The bug has been fixed.

Version 14 Update 4

25-08-2020 build 830

Bug fixes:
- Fixed a freeze error when opening Ifc4 files.
- Smart-link element's release settings were reversed as the model was rotated. This bug has been fixed. / CSSUP-2186
- In some cases, the signs of internal forces have been reversed in the joint exported to IDEA StatiCa. The bug has been fixed. / CSSUP-2144
- When importing the TEKLA model, Consteel sometimes ordered concrete material for the steel members. The bug has been fixed. / CSSUP-2177
- Fixed a freeze error in the Section manager dialog box.
- By loading a version 13 model into version 14 and then deleting the existing purlin line element, no new one could be placed on it. The bug has been fixed.
- Clarification of the crane load calculation. Crane load dialog box parameters were not always saved. This bug has been fixed.
- In the case of partial surface load distribution, the load was distributed to the entire length of the beams. This bug has been fixed. / CSSUP-2017
- Improving the creating of fire combinations.
- After loading the influence line, saving the crane load to the selected load case did not work. The bug has been fixed. / CSSUP-1970
- In some cases, the distributed load along the line was doubled on the beam. The bug has been fixed. / CSSUP-1776

Improvements:
- In some cases, the properties of the members have updated very slowly. By optimizing the processes running in the background, this slowness was eliminated. / CSSUP-2148
- Disable the transfer of combinations containing fire to the csJoint connection.
- Improving the calculation of the effective cross section of L sections.
- Further developments of smart-link element, correction of errors.
- In the influence line dialog, we have replaced the units of measure.
- Expansion of the reaction forces results table both on the analysis tab and in the documentation. / CSSUP-1664
- Save the design results of reinforced concrete elements to smadsteel format.
- The name of the applied fire curve was also included in the cross-section module results belonging to the critical temperature.
- Development of documentation of smart-link elements

Version 14 Update 3

24-07-2020 build 807

Bug fixes:
- Improved conversion of RHS and SHS sections to surface model
- When exporting to IDEA software, in some cases the members are merged into one element. The bug has been fixed. / CSSUP-2146
- In the earthquake effect documentation, the cells in the table sometimes slipped apart. The bug has been fixed.
- Negative value input is disabled for the line load position.

- Improved text spelling in the Global check window. Other grammatical and concept clarification errors.
- Improving the SAP imports. / CSSUP-1740
- Clear the erroneous error message when creating a C-section.
- The main dimensions did not appear in the documentation of cold-formed sections. The bug has been fixed.
- When beam reinforcement, it sometimes did not take into account the bars along the entire length of the beam. The bug has been fixed. / CSSUP-1985
- When converting a bar member to a surface element, sometimes a gap was created between the flange and the web. The bug has been fixed.
- If an incorrect model is analyzed, the results are deleted to avoid misunderstandings
- Fix freeze error with csPI clear_all command.
- Fixing a freeze error during the creation of a drawn cold-formed section. / CSSUP-2046
- Correction of shear field malfunction for T and L sections. / CSSUP-2068
- Fixed updating of the position of connecting eccentric elements when deleting a variable cross-section.
- Fix freezing when creating documentation.
- During the conversion of a welded T-section to a surface model, the element moved in the “z” direction. This bug has been fixed.
- In the structural joints of lattice girders, where the chords are made of CHS section, the EC only knows the option where the bracing strut is also a CHS section. By other type of strut sections an error message will now warn you of the incorrect geometry.
- For combinations with an earthquake effect, the second-order calculation is incorrectly activated even if it is not theoretically possible. The bug has been fixed. / CSSUP-2105, CSSUP-2152
- Freezing error occurred in some cases when supplementing an existing model via Pangolin. The bug has been fixed.
- Improve diaphragm operation. / CSSUP-2141
- Modify the color scale of critical temperature results
- Repair of other freeze errors.

Version 14 Update 2 Hotfix 2

10-07-2020 build 798

Bug fixes:

- In case of section modification, the position of the eccentric objects in the graphic was not updated, which caused a freeze error in the operation of Pangolin. The bug has been fixed.
- Creation of omega sections caused a freezing error. The bug has been fixed.

Version 14 Update 2 Hotfix 1

30-06-2020 build 794

Bug fixes:

- Improving the analysis model of HEA profiles

Version 14 Update 2

26-06-2020 build 792

Bug fixes:

- In the earthquake calculation, in some cases the analysis showed zero mass participation. The bug has been fixed. / CSSUP-2114
- Clarification of the calculation of the torsional inertia of cold-formed L-sections. / CSSUP-2081
- Creating a drawn profile caused a freeze. The bug has been fixed. / CSSUP-2097
- In the fire effect table of the documentation, all fire resistance times are written with a value of zero. The bug has been fixed.
- Fix a freeze bug in IFC exports. / CSSUP-2083
- In the intumescent paint design table in the documentation, each line had incorrect finite element numbering. The bug has been fixed.

- In the case of a variable profile, the calculation of the critical temperature was not accurate. The bug has been fixed.
- Exporting documentation to MS Word format did not work. The bug has been fixed. / CSSUP-2063 / CSSUP-2096
- Network hardware key verification was slow. In this release, we have improved the speed at which the key is reached. / CSSUP-2041 / CSSUP-2055
- Improving the eigenvalue solving algorithm.
- Specifying a surface load, if you select a custom polygon and then change the plane element type, the surface selection did not work. The bug has been fixed.
- Purlin line object display was incorrectly rotated for beams. In this build, the object is now always placed in the direction of the local z-axis of the member. / CSSUP-1859
- For some models, DXF exports caused a freeze. This bug has been fixed. / CSSUP-1273

Version 14 Update 1

11-06-2020 build 773

Bug fixes:

- Improve software protection control. In the earlier version, due to an outdated windows driver error, the hardware key check took a very long time. This has been replaced.
- Clarification of the self-weight calculation of composite beams.
- Improve the calculation of the effective cross-section, taking into account the center of gravity shift.
- Fix a freeze error in the csPI module. The Clear All command caused a freeze error.
- Dimensions did not appear in the documentation of cold-formed sections. The bug has been fixed.
- Entering a negative value in the position of a variable distributed load on a beam caused an error. Negative values have been disabled.
- By rotating a beam with a cold formed section, the eccentric support was sometimes incorrectly positioned. The bug has been fixed.

Version 13 Update 12

29-04-2020 build 703

Bug fixes:

- Tekla model export-import development. Consteel is already compatible up to Tekla Structures 2020.
- Fixed occasional crash bugs during model export to Tekla
- Fix an error when requesting a software key from csJoint
- Section check of a thin-walled one-plate section sometimes caused freezing. This bug has been fixed.
- Improving the calculation of effective cross-section of cold formed L-sections

Version 13 Update 11

07-04-2020 build 675

Bug fixes:

- Improving the unit of shear stiffness of Shear Field element
- Fixed incorrect captions when documenting a Shear Field in German
- Completion of the composite beam creation dialog
- Clarification of the calculation of the effective cross-section of class 4 sections
- Extension of privacy statement in case of software key request

Version 13 Update 10

24-03-2020 build 659

Bug fixes:

- Improve copying and moving functions of surface loads
- Fixing crash bugs
- Improving influence line drawing

- Improved calculation of effective cross section according to EN 1993-1-5
- Improve the buckling curves of the drawn cold-formed section
- Elastic critical load factor automatic selection options in purlin design mode
- Improved reading the properties of cold-formed sections imported from old models

Version 13 Update 9

19-02-2020 build 643

Bug fixes:

- Selecting elements by type of profile caused crash in some cases. This bug has been fixed.
- Automatic recognition of KN and YT joints did not work properly when vertical bars were connected to the node. This is now fixed. / CSSUP-1847
- In the case of thin-walled closed sections created in the section drawer, the section model was in some cases wrongly generated, leading to incorrect calculation of parameters. The bug has been fixed. / CSSUP-1846
- An analysis run with an open section design module has caused crash. The bug is fixed.
- The modification of cold formed closed sections created with macro was not working well. In this update the bug is fixed. / CSSUP-1850
- Improvement of the calculation of shear stiffeners in frame corner joints.
- Crash fix of Zeta profiles loaded from catalog.
- The program did not start at certain screen resolutions. The bug is fixed. / CSSUP-1645
- Windows Remote Desktop Connection did not recognize the dongle. The bug has been fixed. / CSSUP-1704
- Correction of calculation of deformations caused by fire loads. / CSSUP-1824
- In some cases, csJoint has wrongly documented the shear strength of the bolt. The bug has been fixed. / CSSUP-1785

Version 13 Update 8

10-01-2020 build 605

Bug fixes:

- Improve the bending curves of cold formed closed sections created from a macro /CSSUP-1780
- Improving the auto pin assignment of composite beams /CSSUP-1625, 1630
- Improvement of utilization calculation of composite columns made by concrete filled closed sections
- Generating csJoint element of a truss-joint with C-profiles caused crash. With this fix the software warns you to the incorrect profile /CSSUP-1753
- IFC export resulted in faulty or empty model. Bug fixed. /CSSUP-1760, 1773, 1775

Version 13 Update 7

28-11-2019 build 588

Bug fixes:

- Fix of SectionProperty functions in case of loading models of previous versions (composite beams, reinforced concrete beam) /CS-6374
- Improving the calculation of the foundation load combinations /CS-6365 , CS-6344
- Fix of documentation language error in case of MSZ 27003-1-5. /CS-6348
- Improving the inertia calculation for analysis of composite beams. /CS-6343
- Improving the import of IFC files /CS-6343, CS-6142, CS-6015, CS-5950, CS-4801, CS-4365, CS-4038, CS-2281
- Improving the inertia calculation for analysis of concrete beams /CS-6335
- Improvement of calculation in member design module /CS-6331, CS-6330
- Language improvement of the error messages of composite beams /CS-6324
- Improving the generation of the documentation of the battened members /CS-6315
- Improving the utilization calculation of the composite beams /CS-6307
- Improving the Member check module /CS-6303 ,CS-6143, CS-6304

- Fix of crash in global design of purlin lines. /CS-5751

Version 13 Update 6

13-11-2019 build 563

Bug fixes:

- Improved point mass placement function, previously not working properly. /CS6295
- Bug fixed for analysis tests. Previously incorrectly displayed data error correction. /CS5856
- Improved selection function. Previously, the selection function was slow. /CS5734
- Improved the use of the AISC standard. It worked incorrectly in several places before. /CS6314
- Improved the use of point support function.
- Improved display mode after running analysis.

Version 13 Update 5

09-10-2019 build 555

Bug fixes:

- Previously it was not possible to set the design parameter of more composite beams together. Whit this fix it is now possible. /CS-6155
- Fix of wrong rotation of cross-section of columns. /CS-2877
- Fix of the calculation of bolt bearing resistance in csJoint. /CS-5914
- Fix of the dialog box of global design. /CS-6117
- Fix of crash in connection with dxf export. /CS-6060
- Fix of crash occurred by purlin overlap element. /CS-6078
- Some minor fixes in section drawer module. Drawing, copying and importing /CS-6052,6058,6059
- Fix of line drawing in section drawer module. /CS-6054
- Fix of the dimension of warping results. /CS-6056
- Previously the relative definition of the length of purlin overlap was not working well. Whit this fix now it is working properly. /CS-6079
- Fix of errors previously incorrectly displayed data in serviceability dialog. /CS-6104
- Orthogonal snap point by drawing of polygons has been fixed. /CS-3872
- The documentation of an end plate bolted connection was insufficient. Now it has been fixed. /CS-4187
- Repair of obscured text in export/import dialog box in German Language. With this fix the bug in the text has been corrected. /CS-4725
- Fixed error of the move point and edge command of load surface. It didn't work before. /CS-6040
- In purlin support zone the design results of the end section did not appeared in the dominant results. /CS-6088
- It was not possible to make a cut-out of a load transfer surface. No, this bug has been fixed. /CS-1249
- Improves the definition of manually created material qualities in the Section Definition dialog box. /CS-2321
- New warning message in the generation of SLS combinations. /CS-4941
- Correction of the analysis report dialog in German and English language. /CS-4948

Version 13 Update 4

05-08-2019 build 532

Bug fixes:

- 2x scaling of the overlap icon
- Fix in the deselection of load transfer surfaces
- Fix of the relative deflection check for 2 points. Could not execute in latest version
- Fix in the documentation of gusset plate connections. Gusset plate thickness was missing from the documentation
- Fix in the documentation of bolted circular flange plate connection. Weld parameters were missing from the documentation

- Fix of the visualization of dimensions when using of perpendicular or Shift+line drawing functions
- Fix of the crash when importing a model file from Tekla Structures 2019

Developments:
- Documentation of design results of purlin lines (stresses, stability, shearbuckling)
- Update of the Cebrau and Zetavor section descriptions

Version 13 Update 3

04-07-2019 build 511

Bug fixes:
- Fix of the calculation of accidental snow load.
- Fix of the calculation of reinforced concrete columns. At the point where the cross-section changes the software were considering the wrong cross-section to the calculation of utilization.
- Improvement of the cross-section loading. Previously it was not possible to load two cross-section with the same name. Now it is possible, the new cross-section gets a * at the and of the name.
- The support zone and purlin overlap objects are now able to copy individually.
- By cold formed sections the calculation of the design thickness was wrong. The thickness tolerance is now considered correctly in the calculation.
- Some minor improvements in the section drawer module.
- Fix of the crash occurred in some cases during the definition of a composite scross-section.
- Fix of the crash occurred during the definition of a macro section of I+U.
- Fix of the crash caused by exporting to ifc of a model containing cold formed elements.

Version 13 Update 2

27-06-2019 build 506

Bug fixes:
- Fix of the crash caused by the coated steel materials during documentation generation
- Fix of the crash caused by plate cad functions in case of diaphragms

Version 13 Update 1

26-06-2019 build 504

Bug fixes:
- Display of the effective plate-width and -length in the Section module has been fixed
- Fix of importing macro sections in the Section drafter module
- Crash fix: in case of data import from an external excel table in a csPI script, it leads to crash if the user closes the excel document during the run of the script.
- Improvement of Place purlin line function: it is now possible to place Purlin line object onto a part of a line with defining two points, or to place Purlin line object onto more Bar members with one crossing window.
- Some minor fixes

Version 12 SP 1 Update 5

14-03-2019 build 401

Bug fixes:
-Update of the crash report sender service (VS2017 redistributable package)
-Fix of the Seismic MRSA result view.
-Minor bug fixes and improvements

Version 12 SP 1 Update 4

05-03-2019 build 395

Bug fixes:
- Fix of an indexing issue, which prevented to export KT truss joints into IDEA StatiCa Connection
- Fix in the word export function, the properties of the exported file will now inherit the users machine parameters on which the file was created
- Fix in the beam-to-beam connection. Web stiffener in transverse tension was not taking into account the effect on the other side of the beam, giving higher utilizations
- Update of the trapezoidal sheets table
- Minor bug fixes and improvements

Version 12 SP 1 Update 3

13-12-2018 build 362

Minor bug fixes and improvements

Version 12 SP 1 Update 2

04-12-2018 build 358

Bug fixes:
- Crash fix: Select by property function could lead to crash
- Crash fix: Calculation of reactions could lead to crashes during the analysis in certain cases
- Crash fix: Dynamic calculation could lead to crashes during the analysis
- csPI: Actualization of available macro sections
- Dominant utilizations grid: Fix of the update of the values in the dominant utilizations table in case of concrete results

Version 12 SP 1 Update 1

14-11-2018 build 352

Bug fixes:
- Fix of the annex handling. There was a bug in the indexes of the user defined standards, caused mistake in the standard selection when changing between user annexes

Version 12 SP 1

12-11-2018 build 351

Bug fixes:
- Fix of the result view of concrete columns with design option. In some cases, the utilizations were not calculated
- Fix of the dominant utilization table. In case of pure torsion, and torsion combined with shear the table was not filled properly
- Fix of the crash of the wall framing joint

Version 12 Update 3

06-09-2018 build 337

Bug fixes:

- Fix in csPI, Haunched_member object could lead to crashes
- Fix of the crash in the stability design based on plastic analysis results
- Fix in csPI, Clear all “csPI” command could lead to crashes, in case if members were deleted which are referenced in the code later
- Fix of the crash of the documentation generation of concrete columns and beams
- Fix of an update issue, of the result view of the imperfection loads
- Fix of an update issue, name of an imperfection case was changed back to default after setting its amplitude
- Fix in the visualization of rotations, they are represented perpendicular to the member reference line
- Fix in the deletion of tapered member object. If one was selected and deleted, all of them were deleted from the model
- Fix in the automatic evaluation of the sign of imperfection, in case if buckling shapes of shell elements were included
- Fix in the minimum reinforcement detailing rule visualization on the rebar editor dialogue
- Fix in the maximum reinforcement detailing rule calculation
- Fix of the Add beam rebar dialogue. Add and Close buttons could be missing in some cases
- Fix in the concrete column design. Slenderness is not calculated in case of tensioned columns
- Fix in the error/warning messages. An error message was added to csJoint’s gusset plate connection, that the gusset plate is not checked for stability loss
- Fix in the handling of detailing rules for stirrups, without longitudinal rebars in compression
- Fix in the space check detailing rule between rebars in a cross section, in case of rebars with different diameters
- Fix in the automatic windload generation, in case of generating loads with wind friction, while wind friction parameters are unset
- Fix of the Trdc, Ak and fctm parameter calculation in case of concrete beam design, shear and torsion interaction check
- Fix in the required torsional reinforcement calculation
- Fix in the vertical space check detailing rule between rebars
- Fix of the update issue of nominal concrete cover visualization on the rebar editor, when changing from area to distance in the combo box
- Fix of the Vrd diagram on the rebar editor, in case if multiple stirrup distributions are applied on the same segment
- Fix in the warning messages in diagnostics. Load to mass conversion falsely triggered a warning message for loadcases without bending moment components
- Added a warning message for imperfection calculation in case of plastic analysis
- Fix in the envelope diagram visualization in case of hidden line view. Minimal envelope diagram was was also displayed when maximal was chosen
- Fix in the detailing rules for aggregate size in case of concrete columns and beams
- Added a missing detailing rule for the minimum numbers of longitudinal rebars for circle shaped concrete column cross sections

Version 12 Update 2

25-06-2018 build 317

Bug fixes:

- Fix in the sensitivity result selection
- Fix in the calculation of bearing resistance in case of splice plate component, due to swapped e1, e2 parameters

Version 12 Update 1

19-06-2018 build 315

Bug fixes:

- Fix of the graphical issue in case of column splice joint with different sections
- Fix of the crash of IFC import function, in case of incorrect .ifc file
- Fix of the crash when pasting data into the Load combination grid with CTRL+V method
- Fix of the mass conversion in case of bending moments
- Fix of the material efficiency dialogue, in case of concrete members
- Fix of the csSection module. In case of composite members, opening csSection from the utilization grid opened wrong section
- Fix of the graphical issue (minus share values) of sensitivity calculation in case of reinforced members
- Fix of the dxf export of reinforcement values. In some cases, the colours were not visible in the exported file
- Fix of the M-N diagram in case of old (CS11) concrete sections
- Fix in csPI's Copy_selected command. Values coming from arrays could not be used for the command
- Fix of the heat load in case of imperfections
- Fix of the update issue of the rebar editors dialogue concrete cover editbox
- Fix of csPI's Structural_plate object. Concrete plates could not be created
- Fix of csPI's Copy_Selected command. Number of copies could not been defined with variables
- Fix of the rebar editor dialogue. Rebar could be placed outside of the length of the member
- Fix of the crash of the auto-code check of csPI in case of the new modeling functions
- Fix of csPI's modeling functions, which requires selections. If the selection was made by Select by id, the commands could not be performed
- Fix of the crash when creating a documentation with second order results of mixed steel-reinforced concrete structures
- Fix of the new battened section. Members in column position could give wrong analysis results
- Fix of the occasional crash when running global check in AISC standard
- Fix in the sensitivity results in frame corner regions
- Fix in the calculation of bearing resistance in case of angle section bracing joint
- Fix in the documentation of column bases. Reinforcement data were documented
- Fix in the influence graph function. Vz influence graph was not calculated in some cases
- Fix in the auto-load function in case of influence graphs
- Fix of the dominant values dialogue. Checkboxes of the columns could not be selected

Version 11 SP 3

26-02-2018 build 268

Bug fixes:

- Fix of the seismic result documentation. Applied response spectrum was documented twice
- Fix of the documentation. Default language of the documentation was English, regardless of the choice made before the creation
- Fix in the Global checks utilization table. In case of tension bars, utilizations were collected incorrectly
- Fix of the crash of the documentation generation, in case of SLS earthquake combinations
- Fix in the seismic analysis. Missing the regeneration of the earthquake load combinations after the change of seismic effect could lead to crashes during the analysis
- Fix in the member check function in case of composite members. If the analysis contained SLS results for composite beams, it could lead to crashes during the selection at member checks

Version 11 SP 2

26-01-2018 build 262

Bug fixes:

- Fix of the decompositor. Dominant check selection was not properly handled in certain cases

25-01-2018 build 261

Bug fixes:

- Fix of the crash occured when CHS section was loaded into the model

24-01-2018 build 260

Bug fixes:

- Fix in the link of Tekla 2017i. Export and import functions could lead to crashes
- Fix in the Export to Tekla function. Section parameters were filled incorrectly in the case of welded box section
- Fix in the joint placement function. IDEA Connection joints with CHS sections could not placed back on the ConSteel model in some cases
- Fix in the Voronoi cell distribution of the manually defined and placed surface wind loads
- Fix in the vertical design force of the foundation check. Safety factor was taken into account twice
- Fix in the projected surface load distribution on plates
- Fix of the “Unknown error” message of the splice plate component connection type
- Fix in the load handling of column splice joints

Version 11 SP 1 Update 2

17-11-2017 build 243

Bug fixes:

- Fix in the mirror process in case of arches, “clockwise” parameter was not handled properly
- Fix in the placement of tapered members in case of hot rolled sections
- Fix on the haunch dialogue when jumping from cell to cell with the Tab button
- Fix in the Tekla Update function. “Model update finished” message did not appear.
- Fix in the standard RHS macro section. Badly defined parameters could lead to crash
- Fix of the error message of haunches, in case if hs < he
- Fix in the haunch placement in case of monosymmetric I sections. Insertion point of haunch was not correct
- Fix in the “Select these combinations for analysis” function on the design tab. By performing the function it automatically turned off all of the SLS combinations on the analysis tab

- Fix in the Tekla Export. The following macro sections were not exported correctly: Maltese, Hat, T and WQ section, Concrete rectangular and circular section
- Fix on the Tekla update dialogue. Name and material headers now can not be modified
- Fix in the one page documentation
- Fix in the post process in case of superposition method
- Fix of the issue when mirroring hot rolled haunches. Mirrored objects created with welded haunch type

Developments:
- New macro section type: Cold formed omega, and cold formed sloped omega section

Version 11 SP 1 Update 1

25-09-2027 build 234

Bug fixes:
- Fix of the custom colour palettes in case of contour surface result view of bar members
- Fix of the default material for newly loaded cross sections
- Fix of the auto pop-up mechanism of analysis report dialog, in case of pure MRSA calculation
- Fix of the documentation of response spectrum graphs in case of low period of vibration
- Fix of the crash of csPI. Creation of cold formed Z section with the MACRO command of csPI led to a crash
- Fix of the standard section library. Sections were missing from the HEM library
- Fix of the graphical issue of the texts of Mass groups & Mass cases dialogue
- Fix of the header of the tables of analysis parameters dialogue. Some headers were modifiable and could lead to error
- Fix in the placement of IDEA Connection joints on the structural model. Joints could not be placed back on the model in some cases
- Fix of the maladjusted geometric parameters of joints exported with U section to IDEA Connection
- Fix of the Save as function in the case of those models, which have included IDEA Connection joints. IDEA JOINT folder was not created next to the saved ConSteel model
- Longitudinal shear check of composite beams could lead to graphical problems on the design tab
- Fix of the section administrator's table. "Beff" was displayed instead of "b" parameter in the case of composite sections
- Fix in the calculation of "beff" parameter of composite beams. Design parameters were not taken into consideration beside the length of the beam
- Fix of the crash of member checks of composite beams, in case if there were buckling analysis results in the model

Developments:
- Support of IDEA StatiCa 8.1 for Joint export
- Support of Tekla 2017i for Model expor, import and update

Version 11 SP 1

21-07-2027 build 224

Bug fixes:
- Fix in csJoint's load conversion, in case of Beam-to-beam joints if one of the beams is rotated with 180 degrees
- Fix in the placement of tapered members, in case if the "Place the centroid of the smaller section" is

selected
- Fix in the creation of user standards based on Austrian annex
- Fix of the shift of the coordinate system when performing a Tekla update
- Fix in the exportation of plate geometry to IFC
- Fix of the “bar members” in object property panel. In case of a selected member with macro section, the section change button (…) brought up the standard section library instead of the macro modification dialogue
- Fix in csPI’s colour schemes. Set command was coloured as a command in the comments of csPI editor too
- Fix in csPI’s Loadgroup object. More wind, snow, accidental and accidental snow loadgroup could be created, now it is handled with an error message
- Fix of the occasional crashes of csPI scripts with LoadGroup objects included
- Fix of the visibility of the undocked csPI panel. View menu’s-cspi editor function now minimizes the size of the undocked panel
- Fix of csPI’s error messages. If an error message popped up, codes still could still ran in the background by pressing the run button again
- Fix in csPI’s Create structural_member command. If there was no section defined for the command to use, the program has crashed.
- Fix in csPI’s Create structural_member command. Zero length members could be defined, which now is impossible and handled with an error message
- Fix in csPI’s Create structural_member command. Structural members now has default release settings as continuous (ReleaseID_A, ReleaseID_B), it is not necessary to define them every time
- Fix of the crash when running a csPI script if the panel is in minimized status
- Fix of a freshing issue in csPI. The model content tree could become empty after a script was ran
- Fix in the creation of csPI’s surface objects. Surfaces with points out of plane will not be created incorrectly, it is handled with an error message
- Fix of the crash of csPI, if a structural plate is created with missing parameters
- Fix in point masses. User defined colours could not be applied on point masses
- Translation of default names of massgroups
- Fix of the crash of Frame corner wizard function, in case if it is applied on a member with a low number of FE division
- Fix of the crash of IFC import function in case of some IPN and UPN sections
- Fix of the crash when macro sections from the following list are re-imported after an IFC export from ConSteel: Maltese, half maltese, sloped welded I, welded C macro section
- Fix of the creation of “st Rolled U” section
- Fix in the following macro section’s input parameters: Welded U, Cold formed and hot rolled CHS and Cold formed C section
- Fix in the handling of composite beams
- Fix in the graphical engine in case of cold formed and hot rolled RHS sections

Developments:
- Improved Load_Section command of csPI. Check out wiki.consteelsoftware.com for more details
- csPI object parameters (like “Continuous”) are now language independent. English and the current language of model attributes are allowed to use in csPI codes
- String of texts can be stored and used in variables
- Full seismic documentation
- Residual mass calculation in case of seismic MRSA analysis with CQC summation
- Option to set the considered directions of masses for dynamic and seismic MRSA analysis
- Interstorey drift check as a new serviceability check
- Tekla 2017 is now supported for Tekla export/import and update function
- New Swedsteel sections in the standard library: SWS C and SWS Z sections
- New tapered FE type for tapered structural members

Version 11

14-06-2017 build 212

Bug fixes:

- Fix of the occasional crash of CQC seismic calculation. If accidental torsion was applied and not every load combination was calculated, it could lead to crash
- Fix of the CQC summation result view in case if additional torsional effect was applied
- Fix in the storey handling. The program could crash if CQC calculation, accidental torsional effect and second order stiffness was used for seismic analysis
- Fix in the load handling in csJoint. If load import from model was enabled, in some cases it could jumped back on the default "user defined loads" setting if the save button was pressed
- Fix in the display of the seismic directions. 1 and 2 directions are used instead of X and Y
- Fix in IFC export of plates with arches and holes
- Fixes of the graphical elements of the Tekla update dialogue
- Fix of the flashing graphical bug during the analysis
- Fix in the plastic analysis. Buckling analysis could not be applied if plastic analysis was set
- Uniformization of the names of different seismic parameters
- Standard macro sections are now impacted to the plated members
- Fix of the handling of negative combination factors in the case of "selected modes, linear summation" seismic calculation method
- Fix in the calculation of shear center for shear field function

Developments:

- Minor improvement in the handling of tension bars. If the iteration process does not find a stable configuration, a spring with a (E*A/L)/50 kN/mm stiffness will be placed on the start point of the compressed tension bars
- Graphical improvements of the Shearfield dialogue
-

08-05-2017 build 201

Bug fixes:

- Blank analysis report dialog in case of free vibration calculation, and undefined response spectrum
- Select button of Shear field dialog is highlighted with orange color by default
- Fix of the scale factor on IFC import/export dialog, in case if negative value is given
- Snow load group couldn't be created in certain cases
- Optimization of the sizes of the headings on the load combinations and mass combinations dialog
- Fix of the crash of the dominant values dialog in the case if reaction results were selected
- Fix of the csJoint module. Loads from EQ combinations were not re-imported to csJoint, if "include connection stiffness" option was applied in the analysis
- Fix of the csJoint module. Crash could occur in certain cases of column base joint placement
- Fix in the handling of tension bars during the iteration process of the analysis
- Fix of the wrong SLS loadcombination conversion when opening old models in the new version
- Fix in the documentation module. Crash could occur in the documentation module, if there were more loadcases of different persistent loadgroups which were converted to mass cases
- Fix of the crash when "Include connection stiffness" was applied on EQ SLS load combinations
- Fix of the changed tw, tf parameters of the Standard macro – Rolled I or H section shape
- Fix in the calculation of reactions of supports in case of free vibration, occurred when rerunning the analysis multiple times
- Fix in the calculation of the reactions of supports in case if the "Application of eigenshapes" global imperfection was applied along with the consideration of torsional effect

-

Version 10 SP1

31-01-2017

Bug fixes:
- Visualization of weld utilization in case of KN and TY overlapped truss joints
- Fix in the calculation of the pitch of holes in case of bolted circular flange plate connections
- Fix in the applied yield stress of 4th class cross sections, with plates under compression. In some cases, lower yield stress was used

12-01-2017

Bug fixes:
- Compatibility issue fixes in case of those configurations which are equipped with Intel Xeon processor and Windows 10 Pro operating system

19-12-2016

Bug fixes:

- Fix in the conversion of Vy shear force analysis results for foundation checks
- Fix of the bolt row distance when using Tekla export with BeamSplice (macro 14)
- Fix of the changes of eccentricities when modifying the section of a tapered member multiple times
- DPI handling of Windows is turned off in the exe files for the fix of dialog visualizations
- Fix in the coloring of sensitivity scale if of model portions applied
- Fix of the error message of moment end plate connection of beam-to-beam joints in case of overhanging plate
- Fix in the handling of AISC → EN change during modeling
- Fix in the detection of network dongle connected to own computer
- Fix in the member check function – Deleting of outdated results could lead to crashes
- Fixes in the creation of load transfer surfaces, small speed up improvements
- Fix of column base support conversion – No conversion in case of pinned and rigid joints
- Buckling analysis results will not get hatched graphics
- Fix in the creation and placement of snow surfaces
- Fix in the select by property function when selecting bar members with release conditions set only for one end of the member as criteria
- Fix of the importation of forces of eccentrically placed supports for column base joints and foundation checks
- Fix of the error message of the Member check, if the checked member was part of a frame corner object

Development
- Support of model export to Tekla 2016_i
- Implementation of Croatian NA
- Implementation of Croatian language
- Speed up of the export of DXF files

04-10-2016

Bug fixes:

- Fixes in earthquake deformations
- Minimalization of memory allocation of results file bigger than 2GB
- Fix in the generation of finite element mesh of tapered members when another member connecting near to the tapered members start/end point
- Fix in the support settlement function: settlements bigger than 1mm are now considered
- Fixes in the sorting of analysis result table
- Fix of the crash when importing ANF files
- Fix in the user values of result view in case of surface stresses
- Fix in the graphical display of round shaped composite and concrete sections
- Fix in the change of connection type – actual section is updated properly in the dropdown menu
- Fix in the perpendicular directional crane load
- Fix in the creation of automatic snapshot for the documentation of moment end plate connection with bolted tension splice connection
-Fix in the setting of gap in case of beam splice joint
-Fix in the create joint by model function in case of beam to beam joint with rotated welded I section
-Fix of the calculation of bearing resistance in case of moment end plate beam to column, and moment end plate base column connection
- Fix in the create joint by model in case of K-T truss joint
-Fix of the documentation of welds of moment end plate connection with bolted tension splice connection

Development
- DXF export of steel reinforcement of concrete slabs
- Integration of IDEA Connection
- Support of model export to Tekla 2016
- General 3D tool for the placement of joints
- T section is available in the “Convert to plates” function
- New available sections in the section bank: IPE 750x134, IPE 750x220, L100x50x6
- Speed-up of model database handling

Version 10

27-05-2016

Bug fixes

-Improved rotation, mirroring functions
- Adaptive finite element meshing, in case of tapered members
- Handling of huge result files
- Improved documentation for moment end-plate connection with bolted tension splice
- Improved result view in case of shear stub
- Improved calculation of shear stub on column base
- Improved contour surface visualization
- Improved joint loading in case of column base
- Fixes in Tekla export in case of column base and gusset plate connections
- Fixed influence graph dialog
- Fixes in Dlubal import

Development
- Tekla import/export is now also compatible with Tekla Structures 2016
- Updated language files

27-04-2016

Bug fixes

- Upgraded language files
- Tekla import-export function improvements; Tekla Export: bolted endplate connection without haunch, and curved members handling. Tekla import: creating macro section, improved section conversion
- Improved linear snap function for circled members
- Improved loads distribution on load transfer surface in case of full circled members

15-04-2016

Bug fixes:

- Fixes in languages
- Fixed the crashes of standard checks in certain situations
- Fixed the crashes of section generation in certain situations
- Graphical bugfix of column splice connection
- Discrete color palette bugfix
- Graphical bug fix of result view of reactions

- Minor fixes in platic hinge analysis
- Fixes in Dlubal xlsx import
- Fixed line support placement on
- bugfix of bolt layout in case of pinned column base

Improvements:
- System improvements

07-04-2016

Bug fixes:

- Fixed reinforcement design results' visualization
- Improved result pallet
- Fixes in the finite element meshes of the hunched members
- Improved handling of the structural grids
- Fixed analysis setting dialog
- Improved wind wall checking
- Improved diaphragm element
- Minor fixes of csJoint

Version 9.0

24-09-2015 version 9.0.007

Development:

- System improvements

Bug fixes:

- csJoint: Calculation fixes of shear and bearing resistance in case of fin-plate connections
- csJoint: Fixes in detailed results documentation
- Greek language text display fixes
- Fixes in the wind surfaces of split flat roofs
- Snow- and wind parameters dialog fixes

04-08-2015 version 9.0.006

Development:

- New cross-section macro type: welded C section
- New section catalogues: British

Bug fixes:

- csJoint: Improved shear resistance calculation of the notched beam ends
- Improved wind load generation
- Improved accidental load combination generation
- Improved user response spectrum definition

23-06-2015 version 9.0.005

Development:

- New cross-section macro type: welded I or H section with sloping flange
- New type of select by property option: bar members can be selected by design parameters
- Updated language files

Bug fixes:

- Hot fix of the Standard dialog
- Improved picture rotation in the Documentation module
- Improved Design dialog
- Improved snow load generation in case of duopitch roof with negative pitch angle
- Improved clash check in case of beam-to-beam joint
- Improved Greek earthquake map
- Improved cross-section macro in case of maltase cross-section
- Improved documentation of beam-to-column gusset plate connection

21-05-2015 version 9.0.004

Development:

- Updated language files

Bug fixes:

- Hot fix of the default model objects language

19-05-2015 version 9.0.003

Development:

- Language of default model scripts has been improved
- Updated language files

Bug fixes:

- Improved influence graph loading in case of user defined crane load
- Pad foundation design – improved check of the settlement's limit
- Shear stub application has been improved
- Improved diaphragm creation
- Internal pressure dialog saves correctly the settings
- Improved crane load dialog in case of standard and user defined
- Improved wind load generation. In case of compound flat roof, the generation not was sufficient
- Default language of the model has been improved

22-04-2015 version 9.0.002

Development:

- Pad foundation design acc. EuroCode
- New type of beam-to-column moment end-plate connection with bolted tension splice
- New interpretation of the eccentricities of the composite beams: in case of composite beams the y direction eccentricity is measured from the centreline of the steel cross-section. The z direction eccentricity is measured from the top of the steel cross-section
- New type of load group in case of EuroCode: Crane
- In case of EuroCode, on the Automatic generation of load combination dialog, it can be selected which load combinations should be taken into account in the load combination generation
- In case of EuroCode, on the Automatic generation of load combination dialog, it can be selected which deflection limits (wmax or w3) should be taken into account in the serviceability load combination generation
- Check of the necessary memory before the run of the analysis
- Greek wind and earthquake maps are available
- Updated language files

Bug fixes:

- In case of seismic analysis the number of the dynamic eigenshape cannot be 0
- In case of opening of the Design dialog, the last used model portion is selected
- Line load wind and snow dialogs save and hand over the frame distance parameter to each other
- Object properties window save correctly the opened object type
- Improved handling of the model portions in case of buckling sensitivity analysis
- Improved visualization of the reaction force results in the user defined result table
- Characteristic snow load (sk) can be edited manually in case of the missing of the NA based function
- Improved scale of the graphical visualization of the deformation results
- Improved handling of the seismic load cases and load combinations on the Analysis parameters dialog
- Improved calculation of the reaction forces in case of second order analysis and directly connected tension bar
- Improved recognition of frame corner wizard in case of copy
- Improved recognition of members in case of influence line drawing
- Improved placement of the line load
- Improved check of the unloading of the plastic hinge
- Improved copy past function in case of editable tables

- Improved frame corner wizard in case of tapered members
- Improved documentation in case of point-point link elements
- Shortening of the title of the section documentation and smaller font size in the heading
- Improved member documentation. Shown design NA not was sufficient in every case
- Improved documentation. Used logo not was appeared on every page
- In case of manual placement of crane and train load, the load is assigned to the selected load case
- Improved consideration of the eccentricity of the moving load
- Improved load combination generation, and a new warning in those cases when none of the load case can be main in combinations
- Speed up load combination dialog operation
- Improved results visualization in case of prestressed bolts
- Improved searching of the local extreme values in case of influence graph loading
- Improved loading of the crane load dialog

30-03-2015 version 9.0.001

Development:

- Significant speed up of statical document generation.
- Speed up Delete the selected graphical objects.
- Speed up UnDo operations.
- Updated language files

Bug fixes:

- The wheel distance grid of crane load dialog accepts decimal comma.
- The crane load placement caused crash in case of right hand trolley position on single influence line.
- Snow parameter dialog, correction of Sk parameter dimension on the graph.
- Different colors of generated wind and snow load cases.
- Pop-up warning if the selected beam is already included in the influence line.
- Sorting correction of the sensitivity table on the Design tab. Correction of model portion handling on this figure.
- The second-order calculation could give different results if the model contained tension bars and buckling investigation was switched on to the combination, but not first-order calculation, compared with the case when only the second order analysis was turned on.
- Improve distribution of reaction forces among supports with small spring constants placed on the same point.
- Infinite reaction force may have occurred if linear support against rotating and point support were placed on the same finite element.
- Infinite reaction force may have occurred when a link element connected to a continuously braced member.
- Improve radius of curvature of partially encased composite section.
- Documentation - In the table of steel beams the title of the first column was too large in German language.
- Documentation – On the pages of design results of beams the applied EN NA was wrong.
- Documentation – The documentation of the following object types was wrong in case of partial model documentation: Load Transfer Surface, Diaphragm, Edge Support, Plate Support, Node-To-Node Connection Element, Edge-To-Edge Connection Element, Distributed Member Force.
- Documentation – Crash appeared in case of inserting more than one table at a time.
- When updating statical documentation, Undo, Redo and Delete operations, as well as chapters Drag & Drop transferring the contents tree is not blinking.
- Crash appeared in case of showing the Resistance surface of a composite column section.
- On the Design panel the Steel design options were not available when there were composite columns in the model together with steel beams.
- Bracing joints – the 3D graphics of the joint was wrong if a CHS profile had been replaced to RHS; the visualization of the width of the RHS profile was not correct on the bolt position graphics if the profile was rotated with 90 degrees.
- On the panel of creating truss joints the Create… button is not available until the applicable sections are selected properly.
- In case of multiplanar truss joints CHS profiles are available for the chord beam.

Version 8.0

03-12-2014 version 8.0.009

Development:

- Tekla export is now also compatible with 32 bit Tekla Structures version 20.1
- New cross-section macro type: cold formed C profile with edge folded back
- Updated language files

Bug fixes:

- Improved handling of Tension force and Change in length for tension bars
- More accurate visualization of dynamic eigenvalues
- Improved entitlement and handling of initial bow imperfection of beams
- Improved placement of edge-to-edge link element
- Checking of parameters of welded hat cross-section
- Improved handling of Finplate and Gussetplate connections in Tekla export function
- Improved handling of pins in second order, buckling and dynamic calculations
- Bugfix for program crash, when an empty model portion was selected for standard design
- Improved documentation of gusettplate
- Setting the amplitude of buckling shape by Eurocode formulas is no more available in case of AISC design standard
- The state of tension-bars was not reset to default in case of iteration error
- The selection of beams is kept after placing line load
- In a rare situation some cross-section properties are stored in the database could be wrong, when the cross-section was modified and at the same time it was opened in the csSection module.
- Improved handling of ComboBoxes on the EN annex tables
- Zone I and J were transposed in case of line wind load for duopitch roofs

29-10-2014 version 8.0.008

Development:

- Member conversion to plates function now works for UAP and UPE cross-sections

Bug fixes:

- It is not possible to place haunch on curved members
- Line load info button led to program crash
- Member conversion to plates function created an inaccurate model in case of symmetric C and macro Z sections
- Earthquake analysis could led to program freeze when only 2nd order analysis was turned on and 1st order is not
- Save and restore of Window position is fixed for currently connected monitors
- New snow and wind load group combination factors are set by the selected NA
- During the analysis the member end releases were identified as they were in the section main axes and not in the member local axes
- Several small fixes in the documentation module: window layout correction, drag and drop content move has been fixed, new documentation opens in full page view, previous window size and position are restored, fit view to page width and height icons are repositioned to other icons above the contents
- Undo and Redo function could led to program freeze in the documentation
- When the content of documentation was deleted then it could led to program freeze in some cases
- Loading the documentation template could led to program crash
- Insert heading function worked incorrectly in the documentation when the title of an appendix was selected
- Joint placement led to program crash in some cases
- It could led to program crash when a load transfer surface was moved which has no load on it
- Reduced shear resistance is calculated for notched beam in case of fin plate and shear end plate connections
- Beam to column connection could not be placed only to the top of the column

19-09-2014 version 8.0.007

Bug fixes:

- Joint place function was not correct in some cases
- When members were converted to plates then the link of the point load on member end was incorrect
- When converting tapered member to plates then the eccentricity and the link of the point load could be incorrect
- In case of wind line load generation to wall when 'SideWall' was selected the position of the frame could not be changed
- Drawing a local line support was incorrect in some cases
- Connection design OpenGL graphics has been fixed
- Switching to beam to beam connection could led to program crash

10-09-2014 version 8.0.006

Bug fixes:

- Dialog window position save and recover bug fixed
- When Windows did not contain English language then ConSteel worked incorrectly
- Cross-section name conversion worked incorrectly when the conversion file was Unicode coded
- Cpe dialog window did not updated in case of line wind load
- Exceptional load combination generation was corrected
- Load combination generation window was corrected. Image of the load combination formulas have been fixed
- Member design wizard display bugs were fixed. Bad settings could cause program crash.
- Composite beam rebar layout is corrected
- Composite beam design is fixed: longitudinal shear, moment resistance
- In case of KN joint round bars could be selected
- Truss connection calculation minor bug fix
- The eccentricities were wrong in case of identification of beam to column connection
- When main girder and secondary girder were the same size the placement of the beam to beam connection was incorrect
- Select by properties function could led to program crash if placed connections were selected

21-07-2014 version 8.0.005

Development:

- Bimoment is considered in the conservative interaction resistance calculation
- Italian language is now available
- Updated language files
- The amplitude of the applied eigenshape as global imperfection can be determined by using standard based method
- γ_{M0} or γ_{M1} can be used for cross section design depending on the design setting

Bug fixes:

- Minor bugs in cross section documentation have been fixed
- A bug has been fixed in the documentation of dominant member end internal forces table
- A bug has been fixed in the documentation of accuracy of earthquake analysis table
- Proper buckling curve (a0) is selected for S460 grade hot rolled I and square hollow sections
- The calculation of k_w is fixed in member design
- Point move function has been corrected for those cases when a plate with hole is edited
- Distribution of projected line load on curved member has been fixed
- Several minor bugs has been fixed related to generation of line wind and snow load
- A bug has been fixed in stability design when hollow section is calculated with the reduction factor set to minimum of (χ, χ_{LT})
- Truss joint identification is corrected
- Block tearing resistance calculation bug has been fixed in case of beam splice plate connection

17-04-2014 version 8.0.004

Development:

- EN Bulgarian National Annex is now available
- Updated language files

Bug fixes:

- Point-point connection element worked incorrectly in rare cases
- Resistance surface of composite column cross-sections was incorrect in those cases when a 7.0 or older model was opened and the composite cross-section was created
- User NA Cpe values were wrong in rare cases if flat roof, monopitch or duopitch roof was selected

21-03-2014 version 8.0.003

Development:
- Tension bars which are compressed are now marked in the analysis normal force result view
- Tekla export is now also compatible with 32 bit Tekla Structures version 19, 19.1 and 20
- Updated language files

Bug fixes:

- When the relative origin was replaced the coordinates on the status bar was not updated
- If surface temperature load was applied then the internal forces have not been deleted when the next load combination buckling analysis was performed
- Some parameters could be set to zero and led to program error when defining the cross-section of a composite beam with steel sheeting
- In the earthquake analysis the second order analysis used the deformation results of the previous load combination if the first order analysis was not turned on
- When the computer was turn on from standby mode while ConSteel was running the automatic save could cause program crash in rare cases
- When drawing a beam as the properties was copied from another beam, the eccentricity and imperfection was not copied
- Bracing joint identification bug has been fixed
- A bug has been fixed related to the design of composite beams with cantilever parts
- When two simple end plate connections were connected to the web of a column, changing the bolt positions could lead to errors
- Steel members were also displayed when composite member design results were selected

12-02-2014 version 8.0.002

Development:
- Snapshots and tables can be moved with 'drag and drop' in the documentation
- New joint manager window
- When creating a new joint without a main model it is now possible to select the cross section of the members
- Joint editor and calculator window is now automatically reorganized when resized
- Copy of the rigid body

Bug fixes:
- The design result table could cause program crash in rare cases
- Line wind load generation bug has been fixed
- On the line load dialog window the button for load positioning was not displayed
- Fit view animation is improved
- Removing a tab from the toolbar cause program crash in rare cases (Section modul)
- The bug in the simplified analysis of load combinations has been fixed
- Diagnostics bug of compound steel cross-sections has been fixed
- The analysis result table could cause program crash in rare cases
- Analysis settings dialog window in some cases worked incorrectly
- Opening a csm~ or csj~ file in the Open window led to program crash
- Joint symbols were not disappeared when the layer was turned off

- Joint model creation and joint identification bugs have been fixed
- Joint calculation bugs have been fixed in case of welded beam to column and gusset plate beam to column joints

16-01-2014 version 8.0.001

Development:
- Arc import and export from DXF file

Bug fixes:
- Composite beam shear stud layout calculation bug is fixed
- Sometimes the automatic number of finite elements in case of composite beams was not appropriate
- Design result view of composite beams in certain cases showed incorrect values
- When a composite beam was deleted from the list in member design the result was not removed from design result view
- Composite beam documentation bug is fixed
- The steel cross-section which is used in composite sections could be removed from the model and this led to program crash
- Load group combination factors could not be changed
- Drawing an arc on sloping planes is now possible
- Info button on wall and plate dialog window didn't work correctly
- Analysis table had caused program crash in very rare cases
- Plate finite element mesh bug is fixed
- Member to plate conversion could fail in case of compound sections. Point load conversion bug is fixed
- Deleting an user defined NA could led to program crash
- Wind load generator could cause program crash in rare cases
- Right click menu in the design result view table was not working correctly
- Initial bow imperfection is now displayed in graphics
- If a storey view was turned on and an object was selected, plus a parameter was modified then the object became unselected
- Minimal diameter is 2 mm for circular bars
- For gusset plate connections the middle beam joint type can be selected
- For gusset plate connections the middle end plate joint graphical problems has been fixed
- In case of beam to beam perpendicular connection gusset plate connection type can be selected

Version 7.0

26-07-2013 version 7.0.006

Development:

- New EN NA: German, Polish
- Moving and copying load transfer surfaces is possible with translation, rotation, mirroring
- Visualization settings of the analysis results are stored separately by type
- Update of language files. New languages: Chinese, Bulgarian
- The analysis gives a warning when there are no relevant buckling results, because all the calculated eigen values exceeds the limit specified on the Analysis parameters panel
- Folder containing the model can be opened by double clicking on the path at the ConSteel Start panel
- ConSteel start and model loading became faster

Bug fixes:

- Clicking the Apply button of the Select by property panel the selection was performed on the graphics only, but on the property bar it wasn't
- A new section was created when a macro L section was modified
- Documentation of beams, plates, and load transfer surface is corrected
- The finite element module didn't condense the a beam division when the plate edge and the beam axis coincided exactly
- The separation of the torsional force into Tsv and Tw components has been improved in the Section module
- Move a common point of two two-dimensional figure was not always possible
- Modification, parameters verification, application of h parameter has been improved for WQ macro shapes
- Fixed rarely occurring crash for computers with Intel Xeon processors
- The Standard panel saved the user defined terrain category erroneously
- Bug fix for AISC standard applied for cold formed sections (calculation + error message)
- Unification of font size of text on graphics
- Visualization of elastic supports was wrong on result figures
- Crash appeared for macro section "st I + plate" when the width of the flange of I section was equal to the width of the plate
- The macro section "st I + 2plate" was crated erroneously if the two plates were not equal
- Removing the result marks was not possible in some situations
- Placing result marks for section result figures was not possible for all points
- Edge to edge link element can be placed for beams and plate edges only
- Crash appeared during documenting earth quake effect if the twisting action has been set, but there were no levels created in the model
- Calculation of stresses and utilization are corrected for Beam-to-column gusset plate connections
- Error messages are corrected for Beam-to-column joints
- Showing the results of utilization of welds has been corrected for simple plate connections

18-03-2013 version 7.0.005

Development:
- Model editor panels opening at the top-left corner of the graphic window
- The model file will be opened for reading only if it is already opened in another ConSteel
- The method of automatic correction of small modeling inaccuracies has been improved
- The table of design results can be sorted according to the name of the load combinations
- The upper limit of buckling eigen values appears with 1 digit on the analysis panel
- ConSteel start became faster

Bug fixes:
- Placing fire effects by window selection led to program crash
- The names of the storeys could appear erroneously on the earth-quake effect panel
- The “Adjust selected line elements to limit lines” function didn’t work in case of less than 1mm difference
- New objects are placed to the layer of their origin in case of copy, cut etc.
- Stress figure of reinforced concrete and composite cross-sections led to program crash

04-03-2013 version 7.0.004

Bug fixes:
- Graphic of arc shaped beams has been improved
- Snap points along the beam occasionally didn’t work for long arc shaped beams
- Handling of load and support eccentricities has been corrected in the finite element generator module
- LTB curve of compound sections built from hot rolled shapes has been changed to “D”
- Handling of 7. degree of freedom of connection elements has been fixed in the analysis module
- Position of labels of arc length and angle quotas has been corrected
- Opening a stress figure could lead to crash in case of composite sections with CHS covering
- Calculation of web area has been corrected for beam splice plate connections in the Joint module
- Process display has been improved

18-02-2013 version 7.0.003

Development:
- New section catalogues: American, Russian
- Plates are visualized translucently on design result graphics

Bug fixes:
- Straight lines can be adjusted to arc limit line
- Straight lines can be trimmed by arc limit line one after another
- It was not possible to set the design standard during model import from external file format
- For mixed models with beams and plates in case of sensitivity analysis empty lines could appear in the analysis result tables
- Buckling verification was unavailable for round bars in the Member checks module

- During the distribution of surface wind loads the simplified method was working only if the beams are continuous along the whole length of the surface
- The visualization problem of earth quake load factors has been fixed on the load combination panel
- Transformation of loads given with invalid placement parameters could lead to program crash
- Now wind surfaces are not removed if the load transfer surface is being moved to another layer
- The visibility of the wind surface symbol depends on the visibility of the load transfer surface
- The rotate with copy function could lead to a wrong result in case of arc shaped structural elements, or plates containing arcs
- In case of complex structural models the results couldn't be checked by mouse for some points
- The modify function could lead to a crash in case of modifying a welded box section to a welded hollow section
- Member check tab is hidden in case of AISC standard
- Connection element are considered in model portions and automatic storeys
- Removing of structural object could cause wrong behaviour in the automatic storey handler
- The content of storeys are updated automatically during opening the model
- Mirror function for local line loads without members led to wrong orientation of the loads
- In the Joint User Configuration window it was not possible to type 'm' letter
- Fixed dimension for beam splice shear resistance calculation
- Fixing mistakes in different languages

09-01-2013 version 7.0.002

Development:

- In the Select by property function in case of text like parameter '*' character can be used in the beginning or/and in the end of the search expression
- In the object tree the objects are appearing in name order when a sub branch is expanded

Bug fixes:

- New error messages and fixed result view for 3D truss joint
- Hot rolled I shapes can be loaded for the chord beam of KNYT truss joints
- Wrong results appeared on the utilization figure of the structural model for beam splice plate connections
- The analysis didn't calculate buckling for plates if the "Whole model" was selected as the current buckling portion
- Fixed minimum width of panels docked to the right side
- Snap function of % is also depending on which end of the beam is approached with the mouse
- Dialog panels, which were opened earlier, are closed only if the design standard is being changed
- In case of downloading a new software version the correct page of www.consteelsoftware.com is being opened

Version 6.1

12-07-2012 version 6.1.005

Development:
- It became easier to create user-defined earthquake response spectrum
- Maltese composite macro cross-section has been modified
- ConSteel looks for the software key in All Users\Application Data\ConSteel folder if it cannot be found in Documents\ConSteel folder.

Bug fixes:
- For hollow section composite joints square hollow sections from standard database could not be selected
- When modifying composite cross section sometimes wrong steel profile was selected
- In the global checks settings window $\alpha_{ult.k}$ setting was available in some special cases even when it was unnecessary
- Column height modification has been corrected when exporting to Tekla Structures 17 and 18
- If user-defined earthquake response spectrum was created by importing a file it could cause program error when the spectrum in horizontal X,Y directions was identical
- In Member design documentation γ_{M1} was always 1.0 regardless of the National Annex setting but the calculation was performed using the right value.

28-06-2012 version 6.1.004

Development:
- Creating joints by structural model has been improved in case of Beam-To-Beam, and truss KN, YT joints
- RHS and SHS macro section is able to handle the radius of the corners
- Standard cross-sections can be applied in Composite sections
- Composite macro section prepared using RHS or SHS section can take into consideration the radius of the steel section

Bug fixes:
- Revision of cross-section classification for I, T, RHS, SHS, UAP sections, modification of the EPS section models
- Better default plate thickness calculation for gusset-plate connections
- New warning message: the Z coordinate of the lowest point of the load transfer surface, cannot be smaller than zero in case of wind surface
- Updating design results of models were created using ConSteel 6.0 became better
- Cross-hatching of static-moment diagram in Section module could be wrong
- Better handling of eccentric loads and supports in the special Member check analysis

13-06-2012 version 6.1.003

Development:
- ConSteel is compatible with Tekla Structures version 18
- Placing point loads and supports onto plates became easier

Bug fixes:
- In case of automatic calculation of initial bow imperfection for composite sections from CHS section the reinforcement ratio was not taken into consideration
- Buckling calculation has been repaired for such monosymmetric sections where the main inertial axes are rotated
- Fixed rarely occurring crash during copy with rotation and mirror functions
- Fixed rarely occurring crash in documentation of varying temperature loads
- Fixed rarely occurring crash in analysis process-display system
- Crash occurred when the software couldn't prepare the automatic backup file in its own installation folder because of special settings of Windows system
- Direction of line loads placed in the User Coordinate System could be wrong in the finite element model
- Joint module could get into an endless loop when many similar SHS or RHS section was loaded
- Crash could occur in csJoint software if a previously prepared model was opened from file manager software (Not by starting csJoint first, and then loading the model.)
- Reloading a backup file in csJoint software could lead to error if the backup file was created for a new model before the first saving

30-05-2012 version 6.1.002

Development:
- Software protection with network licensing

Bug fixes:
- Automatic filtering of Analysis and Design result tables according to actual submodel view
- Bugfix of modification of macro section "Partially encased I section in concrete"
- Model export to Tekla Structures version 14.1 and 15
- Better handling of visibility of fictive finite elements modelling eccentric loads and supports
- Installation of software protection driver

17-05-2012 version 6.1.001

Development:
- New macro types are available: Buckling Restrained Bracing – Star Seismic POWERCAT, welded T section, WQ section, cold formed angle profile, 2 C sections back to back
- Loads and supports can be easily positioned to different section points
- Wind load generation for multi-span flat roofs
- Automatic level management
- Handling model portions are more user-friendly and new modification options has been added

- Earthquake analysis has been completely revised. Accidental torsional effects can be considered according to EN-1998-1-2005 4.3.2.
- Animation for dynamic eigenshapes
- New EuroCode National Annexes are available: Austrian and Swedish
- Spanish EAE and SE-AE standard are available
- EC8 earthquake design factors and parameters can be set in NA manager
- Ground acceleration map for Austria and Turkey
- ConSteel is compatible with Tekla Structures version 17

Bug fixes:

- Wind generator used in some cases wrong sign Cpe factors for interpolation (+0,0; -0,0)
- Load distribution bug has been fixed for those cases when there was a hole in the load transfer surface
- Analysis of thermal load effect were some cases wrong when there was a members with a sliding end release
- The summarization of height coordinates was wrong for global horizontal deflection check.
- Calculation of concrete plate surface area were wrong in the model information window
- Revision of Polish and German language user interface and documentation
- Bug fix for exportation of eccentric tapered members to Tekla Structures
- Web shear area and web weld length calculation bug has been fixed for simple shear end plate connections.
- Overlapped hollow section joint calculation has been fixed
- Brace failure resistance calculation was incorrect for T type CHS hollow section joints

Version 6.0

18-10-2011 version 6.0.004

Development:
- New EN NA, using the recommended values of the standard.
- Vetted Polish and German language version.
- The L input field can be used for more functions when a point is being defined with coordinates.
- The coordinate input fields can be used for all steps of Move and Copy functions.
- Hungarian ground acceleration map, according to the valid national annex.

Bug fixes:
- Rarely appearing bugs are fixed in connection with Compound sections.
- Automatic generation of wind loads was not always successful in case of huge surfaces.
- Creating circular plate was not possible because of a faulty verification.
- The automatic e-mail generation with the default mail client didn't work on Windows7 64bit version, in case of software key request.

30-09-2011 version 6.0.003

Development:
- Snapping to point supports, point loads and end points of line distributed loads is available.

Bug fixes:
- The program imported both the first order and the second order results of the analysis into the joint module. The corrected method imports the second order results only provided there are second order results for a load combination.
- Web height of I beam was used as the length of the weld for calculation of simple plate connections, instead of the length of the endplate.
- The 2D bolt figure was erroneous if the joint was prepared by using the wizard for eccentric beams.
- In case of beam-to-column and beam splice joints it could happen that the software couldn't find the dominant load case if the automatic weld optimization was switched on.
- Fixes of minor improprieties in translations.

20-09-2011 version 6.0.002

Development:
- EN Portugal NA, EN Singapore NA.
- Automatic weld size optimization for bolted moment end-plate connections of beam-to-column beam-to-beam, and beam splice joints.
- Improved automatic geometry update function for joints.
- Copy loads without copying structural elements.

- Turkish translation.

Bug fixes:

- Revised EN NA handling panel.
- Generating load combinations according to the selected EN NA.
- Bug fixes in connection with memory handling in the Analysis module.
- Bug fixes in the Documentation module: contents won't be deleted together with the front page, when the front page should be deleted only, in member design documents sometimes the figures could overlap each other.
- Bug fixes in the Member check module.

Version 5.0

16-02-2011 version 5.0.010

Development:

- The user interface and documentation of ConSteel and CsJoint are available also in Spanish, Slovak and Czech language.
- The shell finite element mesh visualization can be turned off by clicking on the Two dimensional figure icon  .
- The memory usage decreased by 10-30 %.
- The load cases appear in the order of the input in the analysis result selection and also in the documentation.

Bug fixes:

- Opening the 'Accuracy of the earthquake calculation' dialog window led to program freeze when the results were previously deleted and there were no new results.
- The range of colors in the graphics result view of the deformation showed not only the real model points but also the end points of the fictive elements used for eccentric loads and supports.
- The accuracy of the Saint Venant torsional moment calculation has been increased for circular hollow sections and for those sections which has zero warping constant.
- Calculation of the truss Y and T connection sometimes led to program freeze.
- Uncommon program freeze has been fixed in the visualization of the results.
- The window selection of plates has been fixed. The plate was selected even when only one side of the plate was inside the selection window.
- In the documentation the safety and combination factor of the meteorological load cases were missing.
- In the documentation the properties of the tapered hidden bars were visible.
- The load transfer surface created the line loads incorrectly when there were minor geometry differences in the model.
- The coordinate axes of the line to line link elements were displayed for hidden elements when the hidden elements were translucently displayed.

23-11-2010 version 5.0.009

Development:

- In the CsJoint module adding a new bolt became easier when designing a bolted end plate connection.
- The default beam to column connection has been improved.

Bug fixes:

- Tension bars were not handled correctly in some cases during earthquake calculation.
- The finite element generator created a wrong finite element for those arc segments which were vertical.
- In the documentation module deleting a column from a table caused a program freeze.
- In the documentation module deleting the last item of the documentation caused a program freeze.
- In the documentation module if undo function was used right after the creation of a new documentation the program freezed.
- The number in the documentation name was not increased.
- Load transfer surface distributed load to those members which were not under the surface if the model was inaccurate.
- Documentation tables of analysis did not contain those members which had no name. It could have happened when imported models were used.
- In CsJoint module bolt position problems now displayed better in case of bolted end plate connections.
- Zero value could be added for initial sway and that leaded to errors. The minimum value is H/100.
- Minor graphic problems were fixed in the member design diagrams.

28-10-2010 version 5.0.008

Development:

- The procedure of cross-section name conversion became faster and more comfortable during model import.
- ConSteel saves the type of the cross-section loaded last. This cross-section will be selected next time when the panel is opened.
- The Joint details dialog panel became resizable.
- Drawing straight lines and beams became easier. By pressing and holding the Ctrl button drawing line segments and continuous lines can be switched.
- The user interface and documentation of ConSteel and CsJoint now available also in Polish language.
- Tekla Structrures 16.1 is now supported in the model export.

Bug fixes:

- Beam-to-beam joint with moment connection did not load the saved material for the end plate.
- The hollow section KN joint was freezing when there was too little gap or overlap.
- There was an unnecessary point defined when copying members with support or point load at the end.
- The capacity table did not display the results in „Extreme values by members” view.
- When bending a straight member the point supports did not move.
- When moving points and lines the point loads and point supports did not move.

15-07-2010 version 5.0.007

Development:

- Switching to Fit view can be reached by pressing the Ctrl+0 keys.
- The documentation manager window appears in the csJoint program from starting the second documentation.
- The visibility settings panels are appearing centre aligned, this way it is easier to select the appropriate icons.
- The swaying and non swaying buckling modes are separated to y and z direction in case of Method 2.

Bug fixes:

- The support of Aero interface of Windows Vista and Windows 7 became much better. E.g. the tooltips of the toolbar icons appearing well, the 3D windows of the joint dialogs are showing the graphics of the joint immediately after the appearance of the panel, without clicking into the 3D window.
- Some irregularly appearing program crashes has been fixed.
- Smaller graphical problem has been fixed in the analysis result view of the Member design tab.
- The first drawn graphical object appeared with solid mode in case of hidden line view.
- In some cases the selection of some type of objects couldn't be done, after starting the program.
- The stiffness values of elastic line support were not taken into consideration as value per metre, when it was converted to discrete point supports in the finite element model.

29-06-2010 version 5.0.006

Development:

- The method of distributing surface load using load transfer surface became adjustable. The load can be distributed to uniform line loads, and different types of structural points can be selected for taking into consideration in the distribution method.
- The process display has been improved.
- In the documentation module the picture has been inserted last becomes selected in the content tree, so far the next picture to be inserted is placed bellow this.

Bug fixes:

- Some irregularly appearing program crashes has been fixed.
- The program calculated reaction forces by mistake in such points where a point support was placed to that end point of a Link element where the release was defined.
- The analysis module crashed if connection was placed to the end of a tension bar, and stiffness of the joint was taken into consideration in the calculation.
- Changes of cross-section parameters were not applied correctly in all cases in the joint module, and in the csJoint program.
- Minor graphical problems has been fixed on the result views (e.g. the visibility of the eccentricity lines).
- The mouse cursor disappeared in some positions while running the program under Windows Vista and Windows 7.

08-06-2010 version 5.0.005

Development:

- The joint designer module of ConSteel can be run as a standalone application. After the installation of ConSteel it can be launched by clicking on the csJoint icon.
- Progress bar can be seen during slow database and graphical processes.
- Material grades can be set in a table.

Speed-up:

- Model load is faster.
- Deleting elements in big models is twice as fast as in earlier versions.
- Undo delete is 20-30% faster.
- Zooming is faster.

Bug fixes:

- Serious bug has been fixed in the section properties calculation. For symmetric macro sections if I_Z inertia moment in the section edit system was greater than I_Y inertia moment then the main axis sloping (alpha) was 0 degree instead of 90 degree in the GSS section model. Previously created models can be fixed by changing one section parameter (for example grade) and accept the changes then change back the parameter to the original.
- In compound macro sections when I shape reinforced by I or H shape at flange was used the two sections was reversed in the GSS section model. The previously defined sections can be fixed by using the method described above.
- A memory leak bug has been fixed in the analysis module.
- The Line loads were incorrect when the member was divided.
- Point load which was placed in the local coordinate system of a member was handled as global load in the finite element model.
- Important data has been added to serviceability limit state documentation.

28-05-2010 version 5.0.004

Development:

- Enhanced rotating function. ConSteel analyses the possible speed of the rotating and if it is too slow, the view is automatically changed to wireframe.
- Enhanced BOCAD export using SC1 file. Handling of the section types is easier.
- The previously used Eurocode NA is automatically selected when creating a new model.

Speed-up:

- Graphical process is faster during loading a model and during deleting elements from a model.
- The analysis table shows the user selected result values as a default. Therefore changing the analysis result view is faster.

Bug fixes:

- Distributing surface loads to members worked incorrectly in some rare cases. This bug has been fixed.
- Eccentric loads were not taken into account in buckling analysis. The eigenvalue results were the same as for non-eccentric loads.
- Truss and beam splice joints could only be placed to members, which were parallel to XZ plan.
- Program freeze error was fixed in member design module. Bugs were also fixed in the displaying the results.

- Ordinal number of the load combinations have been fixed in documentation. Language problem has been also fixed in member design documentation and member number has been added. In the earthquake documentation the ground type parameters were not displayed when special ground type was defined.
- In snapshot images the sizes of coordinate axes were incorrect in some cases.

28-04-2010 version 5.0.002

Development:

- Circular hollow section and rectangular hollow section macros can create cold formed and hot rolled sections.
- If the section catalogue is loaded from the property bar the current section is automatically selected.

Speed-up:

- Exporting to Tekla Structures 16 is quicker.

Bug fixes:

- Coordinate axes are displayed in the documentation snapshots.
- Cursor point is not displayed in the documentation snapshots.
- Deleting more result labels at the same time can be undone by one click.
- There is no option for 'mirrored position' on the member dialog. Creating member in a mirrored position can be done by inverting the member direction.
- The ordering was wrong in the result sheet when the title of the column does not fit in the cell.
- The tooltips was not displayed on the icons of the load transfer surface.

Version 4.0

16-12-2009 version 4.0.522

Development:

- In the property sheet the various kinds of selected items can be removed from the selection by clicking on a new icon.
- Dialog windows handling supports, releases and sections can be opened right from the property sheet.
- Adding coordinates manually became easier. Small mouse movements are not deleting the typed coordinates.
- It is possible to add the earthquake load and earthquake analysis results to the documentation.
- Adjusting line to limit line and cut line by cutting line function now also works for more than one line.
- In the Dominant analysis result dialog there is a new button with which now possible to separate dominant result rows which were previously merged to one row.
- Release defining dialog can be opened right from the Link element window.
- Limit value can be set for the diagnostic on the Options dialog. This limit value controls the checking distance among objects.

Speed-up:

- Deleting the design results became faster therefore starting the analysis is also quicker.

Bug fixes:

- A bug related to temperature load on tension bars has been fixed.
- Bugs related to pretension and change in length has been fixed.
- Displaying eccentricity for members built up from one finite element has been fixed.
- The results were the same for triangular finite element nodes in the analysis result sheet. This bug has been fixed.
- The analysis result graphics problems has been fixed.

26-10-2009 version 4.0.521

Development:

- There is a new 'Apply' button on the Select by property dialog window. Using this function will apply the selection but the window won't be closed.
- The Section module could be opened from the bottom sheet in the Standard resistance tab when 'Extreme values by members' view is turned on.

Bug fixes:

- Generating finite element view could lead to program freeze.
- Analysis result sheets might cause program freeze.
- Undo/Redo list is deleted every time when finite element model is generated or analysis started, because the differences between the edited structural model and finite element model could lead to errors.

16-10-2009 version 4.0.520

Development:

- The OpenGL graphical engine has been enhanced. Model view rotating became faster and it is possible to show hidden parts translucently.
- Point support reaction sheet can be generated in the documentation for load cases and for load combinations also.
- The dominant internal forces, deformations and reactions sheets now sorted not only by alphabetic order but also by the number in the names.
- In the Standard resistance tab at the bottom sheet it is possible to show the dominant capacity for bars.
- Load cases and load groups can be moved by using the drag and drop technique. This order is applied by ConSteel in sheets and list also.
- Diagnostics has been enhanced. More geometric problems and possible errors are shown. These often appear when importing model from another program or from drawings. The typical problems are the followings: parts are very close but not reaching each other; columns are not perfectly vertical.
- The limit of the eigenvalue calculation has been increased to 30000 finite element points. This is 2 times higher than the original limit.
- When copying or rotating objects and the number of copies is set to one, then after the first copy is done ConSteel does not cancel copying but more copies can be placed until Escape button is pressed or dialog is closed.
- Program does not allow loading the same section with the same material again. The same sections with different materials are distinguished by a * mark in their names. Macro section names are automatically marked with an increasing number.
- Color settings can be changed in the Options.
- Program stores if grid visibility is turned off in a model.
- While generating documentation there is a feedback about the progress.

Speed-up:

- Generating documentation has become faster.
- Renumbering the objects has become faster.
- Handling of the new type dongle has become faster.

Bug fixes:

- Program used to start numbering the objects from 1 at every restart. Now it's starts from the highest object number.
- The sheet of the link elements in the documentation was wrong.
- Analysis results are more precise for bars with small bow imperfection or with small initial sway.

- Cold formed tubular section and square section figures were not shown while modifying them neither in the documentation.
- „Select all" function now selects only the visible objects.
- Dimensioning was also possible for invisible lines.
- Placing joints was also possible for invisible bars.
- "Adjust selected line elements to the limit lines" function was worked incorrectly when the direction was shown opposite to the limit line.
- "Stretch selected lines" function now moves not only the selected objects but also the linked loads and supports.
- Program bug has been fixed in Joint module which could lead to program freeze under Windows Vista operating system.

26-08-2009 version 4.0.519

Development:
- ConSteel user interface and documentation now available also in German language.
- When creating tables it is possible to overwrite an existing table. If a table is modified and it was previously inserted into the documentation then it will be automatically updated.
- ConSteel saves the last used layer when closing the model and sets it when the model is opened.
- 'Adjust selected line elements to limit line' function now works for circle arcs.
- ConSteel switches on the full screen antialias if the video card of the computer is capable of it.
- Point support can be connected to the structural model by using a link element.

Speed-up:
- Model loading is faster in case of those models that contain design results.

Bug fixes:
- The normal force and shear force figures on beams have been corrected in case of line distributed forces.
- Problems around temperature load placed on eccentric beam elements are fixed.
- Sign mismatch is fixed in the analysis results of triangle elements.
- Arc can be drawn in arbitrary plane by defining the center, start point and angle.
- Error message when applying the function "Chamfer of two selected line elements" to parallel or evasive elements.
- Fixed bug in the function "Curve selected line element" (sometimes it created the complementary arc).
- Appropriate colours on the deformed geometry in direction X,Y or Z.

04-06-2009 version 4.0.518

Development:
- ConSteel user interface and documentation now available also in Romanian language.
- 'Adjust selected lines function' now works for more selected lines at once and it is also possible to select a surface as a limit of the extension.
- 'Cutting line elements function' can be used when surface element is selected as a limit.

- When ConSteel starts the colour quality of Windows is checked and if the setting is not 32bit (best, true colour) then at request the control panel will be opened and this setting can be changed.
- Diagnostics show if two joints are placed at the same end of the bar.
- Angle dimension representation became better.

Bug fixes:
- Arc copy with rotating and mirroring works correctly in every plane.
- Copying 2D Figures and plates with rotating and mirroring works correctly in every plane when there are round edges or holes and the local system rotates the right way.
- 'Curving selected line function' works correctly also in sloping planes.
- Placing angle dimension works correctly also in sloping planes.
- Welds and cutting appearance has been fixed in the documentation of double plate flange connection placed on gusset plate.

25-05-2009 version 4.0.517

Development:
- The documentation tab has been moved next to the Layer tab in order to make access to documentation related functions much easier.
- New hot key has been added: Alt+P - create snapshot.
- When creating snapshots it is possible to overwrite an existing snapshot. If a snapshot is modified and it was previously inserted into the documentation then it will be automatically updated.
- Surface element's local coordinate system direction can be modified for more elements at once using the functions on the 'Plate' window.
- In the documentation the section names appear in alphabetical order in the following sheets: model information, member sections, and dominant forces for members.
- Point support reactions are shown with the names of the support in the documentation sheets. ConSteel collapses the same rows in the sheet.
- 'Renumbering selected object' function works not only for bars and surface elements but also for all kind of loads, supports and placed joints.
- Line load values and bar parameter labels became more readable.

Speed-up:
- Deleting sheets from the documentation became faster.
- Modifying parameters is faster in case the modification affects other items.

Bug fixes:
- In some cases if a joint was placed in the model ConSteel set pinned connection when connection stiffness could not be calculated (for example rigid connection with ground beam, truss KN, YT joints). With these joints ConSteel does not make any modification but leaves the original stiffness.
- If a section's warping constant (I_ω) was zero then the buckling eigenvalues was calculated sometimes as zero and the second order analysis was instable.
- In the analysis results sheet dominant values were sometimes not in correct order and when selecting a row the arrow was not shown in the right place.
- Link element worked incorrectly in case the connection was not in the end of the bar. (Position of the connection was not set to 0 or 1.)
- Using the 'select by property' function it was possible to delete section points which caused error.

- It was possible to delete sections which were not used in the model but in the Joint module. Deleting these sections led to program freeze.
- 'Place section plane' function can be only used if there is a surface element in the model. Previously this function was available when there were only bars in the model.
- When copying surface elements ConSteel keeps the local coordinate settings.
- When Esc button was pressed while checking the analysis results then no result values were shown.
- When creating documentation from a moment end plate beam to beam connection no picture was shown about the end plate.
- Selecting dominant values didn't function properly for 'Tension bar' items.
- For curved bars in the Section module no distance from the starting point of the bar was shown in the design sheets.

10-04-2009 version 4.0.516

Development:

- A new capability of the global resistance verification is that you can select which buckling eigenvalue should be used for the generalised stability calculation. (In the earlier versions it was always the first eigenvalue.)
  You can make this choice on the Analysis tab at buckling figure visualization by clicking the right mouse button. From the menu that appears you can select the "Select eigenvalue for design" option. On the lower part of the Design panel which can be run by clicking on the Global resistance icon on the Standard resistance tab there is an option to use either the first eigenvalue or the selected eigenvalue for the calculation of stability resistance.
- There is a new default point support type called „w" to fix the seventh degree of freedom. It's worth to use this support for example if a frame corner is stiffened by plates (beam to column joint) so the warping of a beam has no effect on the other beam.
- On the earth quake effects panel you can set the ratio of the vertical and the horizontal acceleration (a_{vg}/a_g) separately for spectrum type 1 and 2.
- There is a new connection type in the joint module. Within the beam to column joint you can find the Gusset plate joint, which can contain up to three brace connections.
- The table bellow the used capacity figure of the Standard resistance tab can be saved for using in the documentation module or it can be saved into Excel file (.csv)
- The diagnostics module shows the wrong object in pairs in the case of some special problems like "There is overlap between bars!".
- The joint placements can be selected by using the select by property panel.
- The visualization of the support names shows both the name and the type of the support.
- The results of the line support are grouped in the documentation.
- The memory management has been optimized. The software uses less memory.

Speed-up:

- Modification of the structural parameters is about two times faster.
- Switching on-of the visibility of layers is greatly faster.
- Modification of the documentations is faster than before (e.g. removing a chapter).

Bug fixes:

- Welds appear on the haunch on the 3D figure of haunched connections.
- Geometrical verification of the weld on haunch is corrected.
- Copy of the eccentricity in the z direction was not correct in the case of eccentric supports.

- Copies of a distributed load keep the position settings of the original load in case the load is on the whole length of the beam (A-0, B-0).
- Copies of beams get the Bow imperfection, Element type and Element group parameters of the original beam.
- If a point support is connected to a beam, then the copies of this support will be also connected to the new beams when it is copied with the beam.
- Copies of plates get the Finite element size parameter of the original plate.
- Snap function works for the end points of arcs.
- The Renumber load combinations function takes into consideration the Limit state type of the combinations while generating the new names.
- New layers appear in the objects tree. The names of the layers are refreshed in the object tree if changed. The names of layers appear in word order in the list.
- Eccentricity of columns pointing from up to down was not calculated correctly in the analysis module.