

Version 19.0

Build	Module	Description	ID
06.02.20	Calculation	In order to correctly represent the load-bearing behavior (no biaxial bending and no torsion moment) of cut-open hollow sections in girder-grid systems or in bridge construction, not only the deviation moment but also the shear center distance is being ignored.	13770
06.02.20	NAZWEI	The fatigue analysis due to shear force for the concrete compressive strut is now carried out for the concrete compressive strut with or without reinforcement, depending on whether shear force reinforcement is required or not.	13702
06.02.20	Design control	Zwax is no longer used in the design control, the design of beams is solely carried out with NaZwei.	13889
06.02.20	Evaluation	The main normal forces are issued correctly again in the evaluation of the stress resultants of single load cases.	14127
06.02.20	Evaluation	Not only the edge length of the cross-section, but also the edge axis distance, is being considered in the determination of the reinforcement. The display in the evaluation has been adjusted to this.	14116
06.02.20	Evaluation	The process bar is now closed when the load transfer is finished.	14063
06.02.20	Evaluation	For a result with a continuous constant value (e.g. Bedding Pz with a constantly loaded and constantly bedded slab), the iso-areas are displayed in one color throughout.	13887
06.02.20	Evaluation	In the fatigue analysis of the concrete compressive strut due to shear force, the utilization is always saved in the database and offered as result for the analysis "Utilization of the strut bearing capacity" under "Folded plate -> SLS" in the TRIMAS evaluation.	13697
06.02.20	General	Objects displayed with the color white (beyond the RGB values 245/245/245) get the color black when plotting on paper.	14115
06.02.20	Input	*.dwg / *.dxf files, which only contain CAD points, are being correctly interpreted.	13977
06.02.20	Input	The dimensions at the point support are no longer being displayed after the support has been deleted.	13900
06.02.20	Input	Changing the subsystem assignment of surface loads via "Surface loads -> modify -> Subsystem" works again.	13729
06.02.20	NAZWEI	The edge axis distance of beams in the direction of the linear reinforcement, e.g. for rectangular cross-sections, has been corrected.	13885
15.08.19	General	Program maintenance and support	13698
22.07.19	Input	The accidental display of the material for recesses is no longer made.	13477
22.07.19	Evaluation	The design moments "MEd.x/y max" and "MEd.x/y min" are no longer displayed interchanged when querying the design results for the SLS.	13544
22.07.19	Evaluation	In the evaluation of the prestressing steel stresses in the cracked cross-section are now all plausible stresses and utilizations offered to be displayed.	13485
22.07.19	Input	The *.dxf / *.dwg interface imports 3D data properly again.	13577
22.07.19	Input	The temperature surface loads are issued correctly again in the input protocol.	13565
22.05.19	Evaluation	The direction of the wall resultant is being displayed correctly again.	13504
16.05.19	Deformations in the cracked state	Deformation calculation in condition II The deformations were previously calculated with the <i>quasi-permanent</i> combination of actions and the effective stiffnesses from the rare combination of actions for a deformation calculation in the cracked state, whereby the pre-damage of the concrete was considered. Now, the selection between <i>quasi-permanent</i> , <i>frequent</i> and <i>rare</i> is possible. The calculation of the effective stiffnesses under the rare combination of actions persists.	9814
16.05.19	Design	The material "Träger BauBuche GL75 " replaces the hitherto material "Träger BauBuche GL70" according to ETA-14/0354 of 11.07.2018.	13020

Build	Module	Description	ID
16.05.19	Design control	The increase factor <i>delta.Phi.fat</i> for reinforcing steel in the transition areas for the area design can be specified in the analysis control.	12955
16.05.19	Evaluation	The concrete compressive stresses within the quasi-permanent combination of actions can be calculated separately from the prestressed structural member. The required settings can be made in the design control for the SLS.	13166
16.05.19	Evaluation	The query of stress resultants of the superposition results has been optimized for very large numbers.	13157
16.05.19	Generation	No FE loads were generated, if no identifier for the reference basis (global, local, projected) was assigned to surface loads. The default value is now the <i>global</i> reference axis. This is pointed out with a warning message.	13320
16.05.19	Generation	For quadratic element approaches, the edge center nodes on circular recesses or fixed lines are also generated in the interior of the area for grid-meshed surfaces.	13001
16.05.19	Input	When trying to delete objects, which are still referenced by other objects, the error message now includes further information about the name or the number of the corresponding object.	13347
16.05.19	Input	The error message, if line loads could not completely be generated, has been extended with the point numbers of the line.	12795
16.05.19	Design	In the calculation of the long-term deformations (Deflections in condition II) with edge beams (Downstand beam with one-sided acting slab) possible terminations due to singularities in the calculation have been fixed.	13387
16.05.19	Design	In the uniaxial bending design for beams in the ULS with a large distance of the longitudinal reinforcement to the edge, the error message could occur, that the admissible utilization of the cross-section has been exceeded, although the design was carried out without any mistakes in the SLS.	12937
16.05.19	Design control	Was a calculation of the long-term deformations (Deflections in condition II) terminated and afterwards the consideration of individual structural members disabled, then the reduction of the stiffnesses for these members were not reset in a subsequent calculation.	13386
16.05.19	Design control	The superpositions for the SLS analyses are only generated with an existing license for these analyses.	13335
16.05.19	Design control	When modifying the requirement class in the graphic system input, the standard settings for the SLS analyses are adjusted accordingly. No more adjustments of the SLS settings are made when modifying the requirement class in the analysis control.	13287
16.05.19	Design control	The action effect for the crack width analysis is now preset to " <i>Load action</i> " for the general building construction and to " <i>Load and restraint action</i> " for bridge construction.	13235
16.05.19	Design control	For user-defined earthquake loads with a superposition <i>Accidental earthquake</i> , now also design results are being achieved when the design was carried out in the analysis control.	12894
16.05.19	Evaluation	The wall resultant at a local line support is now displayed correctly in the local direction.	12851
16.05.19	Input	The FE loads for the influence areas <i>qxz</i> and <i>qyz</i> are generated in the appropriate direction.	13395
16.05.19	Input	Only recesses in visible subsystems can be selected when copying and shifting recesses.	13232
16.05.19	Input	Only areas in visible subsystems can be loaded when copying surface loads.	13187
16.05.19	Input	For very long tendons (> 200m - e.g. reference geometries) the number of geometry calculation points has been doubled, since inaccuracies arose due to a too rough partition.	12902
16.05.19	Input	When referring to a reference tendon, the heights of the user-defined support distances were no longer correctly determined in the cable plan.	12893
16.05.19	Input	The functionality of the displacement modes <i>With lines</i> and <i>Without lines</i> was interchanged when moving beams and areas.	12862

Release Notes

TRIMAS®



Build	Module	Description	ID
16.05.19	Input	Moving points of a circle within the circle plane is possible, even if the points are not at the $z = 0$ height level.	12581
16.05.19	Interface	The transformation of all coordinates is carried out with the existing transformation matrix when exporting *.dxf data in the 3D mode. Thereby the orientation of the z-coordinate for the import into other CAD systems can be influenced.	12647

Version 18.0

Build	Module	Description	ID
25.07.19	Input	The *.dxf / *.dwg interface imports 3D data properly again.	13659
13.05.19	Input	In the course of an improvement in the generation of the tendon geometry in version 18.0 Build 18042019 an error crept in, which confounded the tendon geometry of already existing tendons in individual cases.	13481
18.04.19	Design control	If a folded structure is to be designed as shear wall in a system, then a superposition of the shear wall forces is automatically carried out.	13220
18.04.19	Evaluation	The increased shear force reinforcement from the fatigue analysis can be displayed again under the design load case "maximum As-values" in the evaluation of the shear reinforcement for area elements.	13319
18.04.19	Generation	In systems with multiple construction states it could happen that point loads onto a beam were not generated as FE loads in the first construction state, if a slab is active at the same position in the second construction state.	13394
18.04.19	Generation	Is a beam being entered on a part of a continuous edge of an area, then the boundary line of the area is now divided so that the meshing of the structural members matches.	13345
18.04.19	Input	For models with construction states it could happen, that the calculation terminated with the error message "Element is without cross-section values", if the concerning elements were not active in all construction states (depending on the active construction state when ending the system input).	13427
27.11.18	Design	In the calculation of the edge stress for the design decision of the cracking safety (initial crack and terminated cracking) only My and Nx, but not the corresponding Mz, were applied for biaxial loading.	13131
27.11.18	Design	The combination min/max Mz has not been considered in the biaxial bending design of circular and annular cross-sections, even if it is more unfavorable.	13130
04.10.18	Calculation	In the case of boundary joints with spring constants at simultaneously elastically supported nodes the support forces are determined correctly now, so that no disequilibrium occurs in the calculation.	12945
04.10.18	Design	A message concerning a negative gross area of the total cross-section is no longer issued in the design of upstand beams.	12887
04.10.18	Design	The design moments at the downstand beam are no longer significantly smaller than in Version 17.0. The error when integrating the slab moments no longer occurs.	12852
04.10.18	Design control	Is a transformation matrix set in the design control for the display of the reinforcement results in the CAD output, then it is also applied for the selected members.	12864
04.10.18	Evaluation	The name of the reinforcement direction was changed from x_as/y_as to as1/as2.	12944
04.10.18	Evaluation	Points parallel to the beam axis are no longer generated during the integration of the internal slab forces.	12875
04.10.18	Generation	Intermediate nodes, respectively support nodes are generated again at circular fixed lines, respectively, supported lines.	12948
04.10.18	Input	Integration problems when areas with iso-parametric and grid integration coincide have been solved.	12977
09.08.18	Evaluation	The sums of the exterior loads are displayed with the unit (kN or kNm) in the text frame.	12748
09.08.18	Calculation	An error message about missing material, respectively, cross-section values was issued when loading systems with several construction states, although the elements in the relevant construction state were not active.	12712
09.08.18	Design	The required web reinforcement is established from the appropriate edges (6-7 and 8-9) in the biaxial design of T-beams.	12735
09.08.18	Design control	The biaxial reinforced concrete design provides results again, even if neither concrete compressive stresses, respectively, tensile steel stresses nor a minimum reinforcement were selected for the SLS.	12730

Build	Module	Description	ID
09.08.18	Evaluation	The transfer of the required reinforcement to ZEICON again uses the former initiates x/y for the reinforcement directions.	12850
09.08.18	Evaluation	The punching analysis can be started without an existing Toolbox license again.	12718
09.08.18	Input	The program no longer terminates, if the order of the prestressing is to be generated via "Prestressing > Prestressing procedure > Default".	12747
09.08.18	Input	For surfaces, the requirement class in <i>lateral direction</i> could not be specified in the system input. In the analysis control, however, this was possible correctly.	12714
09.08.18	Input	The program terminated in the list output of the element attributes and topologies for <i>selected beams or areas</i> .	12707
09.08.18	NAZWEI	For biaxial bending only the user-defined minimum reinforcement ratios in the bottom reinforcement layer are recorded in the NAZWEI control file (line: BEWL) and no longer the required reinforcement from a previously carried out bearing capacity analysis.	12739
12.06.18	Design	The biaxial bending design is carried out for all 6 possible combinations. Analyses in the SLS and FLS are not carried out at the same time.	9209
12.06.18	Design	The original beam design with an integration of the slab stress resultants is used again for the design of upstand and downstand beams in the ultimate limit state.	12635
12.06.18	Evaluation	When displaying the calculation and design results of beams, the unit in the text frame was wrongly issued as per meter.	12634
12.06.18	Input	After TRIMAS was opened directly from ZEICON, the subsystems arising from ZEICON layers are allocated with different default colors again.	12645
12.06.18	Input	The termination when displaying "curved" elements has been resolved.	12613
12.06.18	Input	If a beam consists of multiple lines in different subsystems, the visibility of the local beam system was adjusted.	12447
12.06.18	Input	Concrete in condition II for spatial truss calculations The as-value per m was not displayed relative to the length of the hoops when specifying a linear reinforcement in a circular cross-section. However, the amount of reinforcement was calculated correctly.	12234
12.06.18	Input	The load case attribute "Earth pressure from live load" was superpositioned with the finishing load instead of the live loads.	12225
07.05.18	Calculation	The stabilizing factor in the DSG approach for the lateral shear behavior has been reduced to 10 % for quadratic elements. Improved results of the deformations can hereby be realized, especially for curved structures and wide elements. However, there is also a small influence for plane structures, so that also support reactions are influenced by the slightly modified deformation behavior and the adjusted distribution of the lateral shear stresses.	7187
07.05.18	Design	The no longer valid name "Vwd" for the design value of the bearable shear force limited by the bearing capacity of the shear force reinforcement has been replaced with the current names "VRd,s" (DIN EN 1992-1-1), respectively, "VRd,sy" (DIN 1045-1).	11954
07.05.18	Design	Design of haunched areas Due to many varying design cross-sections the program terminated.	10734
07.05.18	Design control	The reinforced concrete design in the permanent / transient situation and in the accidental situation can now be carried out in one calculation run. Both design situations are being considered when generating the maximum reinforcement state.	11478
07.05.18	Design control	The setting Calculation in the cracked state can be checked and set for beams in the analysis control.	7989
07.05.18	Evaluation	The analysis of the concrete compressive stresses for shell structures is carried out for $\sigma_{gc} < 0.60 \cdot f_{ck}$ or $\sigma_{gc} < 0.45 \cdot f_{ck}$ depending on the design situation. The utilizations are displayed separately for each direction x / y and per side <i>top / bottom</i> in the evaluation. Additionally, the most unfavorable value (maximum utilization) can be displayed.	12155

Build	Module	Description	ID
07.05.18	Evaluation	The visibility of the element areas can also be selected for the original load cases in the evaluation of stress resultants of areas.	11935
07.05.18	Evaluation	When switching to the beam or shear design in the evaluation of the beam results, the visibility of the polylines was enabled every time.	11681
07.05.18	Evaluation	The output list can be generated in the evaluation via <i>File -> List output</i> (just like the printer button in the toolbar).	10991
07.05.18	General	The visibility settings of the subsystems can optionally be maintained when switching the construction state. Alternatively are all subsystems of the construction state made visible when switching the construction state.	10989
07.05.18	Input	For load macros , the wheel loads defined via point loads can be automatically generated as distributed load with a load distribution up to the neutral axis of the slab. The dimension of the <i>contact area</i> is defined at the load macro, the <i>spreading depth</i> as distance of the top edge of the deck up to the neutral axis of the bearing deck slab is specified at the positioned load macro. The load distribution is assumed with an angle of 45°.	12213
07.05.18	Input	There is now a message after successfully copying load macros in new load cases.	12212
07.05.18	Input	The element mesh is updated right after opening the project in the input.	12031
07.05.18	Input	When deleting a user-defined load macro, the associated *.plm files in the project are also deleted.	11778
07.05.18	Input	The default for losses from creep, shrinkage and relaxation for prestressed slabs are $KS,t1 = 0.10$ and $KS,tn = 0.15$.	11700
07.05.18	Input	The specified text offset is now also used for the display of line numbers and the bedding text of beams.	11631
07.05.18	Input	In the shear design of a prestressed girder the specified value of cv,l was not transferred to NaZwei.	11485
07.05.18	Interface	The interface to import CAD files has been renewed and extended for *.dwg files. With this, plane as well as spatial structures can be imported in both formats at the state of AutoCAD 2018.	11317
07.05.18	Interface	The output of the lines and points as well as the formatting are preallocated for 2D-DXF, when exporting a structure via the <i>DXF interface</i> .	7380
07.05.18	Prestressing	When generating a beam, a polyline is automatically generated with the same name than the beam.	5093
07.05.18	Analyses	In order to calculate the deflections in the cracked state effective stiffnesses are being determined, which result from the moment effects and the curvatures due to creep and shrinkage. The proportion from shrinkage has been corrected.	12510
07.05.18	Calculation	If a load case was calculated materially non-linear and was linear again in later calculations, then the addition <i>Condition II calculation</i> is no longer displayed in the text frame of the result evaluation.	12239
07.05.18	Calculation	The shell modelling for curved structures has been revised fundamentally. Especially the calculation of the normal force distribution for bending and membrane stress conditions has been corrected.	9847
07.05.18	Design	The design of circular and circular ring cross-sections is automatically carried out biaxial and is also documented like that.	12309
07.05.18	Design control	Fatigue analysis for bending at the beam The damage equivalent coefficients ϕ_{fat} have to be specified by the user. The pre-allocation in the input fields is 1,2 (surfaces with little roughness) for all materials.	11849
07.05.18	Evaluation	Only the numerical values of the active load case are still displayed in the graphic of the bedding resultant.	12454
07.05.18	Evaluation	The display of the elastic bedding of finite elements is also possible in the evaluation again.	12051

Build	Module	Description	ID
07.05.18	Evaluation	The corresponding max. / min. support forces are issued in the evaluation of superpositioned support forces in the text frame. In the case, that uplifting support forces exist, the correct value for min.Fsz is now determined.	11805
07.05.18	General	Are there more than 150 plots in a project, the program terminated when displaying the plots.	11587
07.05.18	Input	A load macro, which was not generated along a curved beam axis, but eccentrically along a polyline, is now aligned with the local beam system in the graphic display. So far, a wrong position for the load macro could be displayed in the representation relative to the local system of the polyline and a varying alignment of the local line system.	12418
07.05.18	Input	Is a system displayed with the element layout <i>section</i> in the default view <i>plan view (XY plane, F5)</i> , then the cross-section is no longer rotated 90° for vertical beams (columns).	12233
07.05.18	Input	In contrast to road and pedestrian bridges, temperature and wind do not exclude each other in the basic combination gr11 for railway bridges.	12050
07.05.18	Input	Deleting a subsystem deletes the therein contained data again.	11884
07.05.18	Input	Is the visibility of the current subsystem disabled, then this is pointed out when leaving the dialog for the selection of the current subsystem. The visibility of the current subsystem is only enabled on demand.	11772
07.05.18	Input	The point and line supports of the original line are also copied when copying lines in the "Also copy supports" mode.	11691
07.05.18	Input	The assignment of subsystems for elements has been enabled in the FE level.	11361
07.05.18	Output document	The specific parameters of a road bridge are now only issued, when the use as road bridge has been selected.	12455

Version 17.0

Build	Module	Description	ID
01.02.18	General	Adjustments to the current program version.	12321
17.11.17	Design	The increased stirrup reinforcement from the fatigue analysis for shear force (calculated with NAZWEI) is now displayed in the graph of Asw in the evaluation of the shear design results.	10892
17.11.17	Design control	The result values "Design shear force VEd", "bearable shear force VRd,ct and VRd,max" as well as the shear reinforcement part can be displayed again in the evaluation of the shear design results of the recalculation for bending and shear.	11623
17.11.17	Evaluation	In the list output of the design results of the folded plate design the header is now "Folded plate design according to DIN ..." In the case of a 3D system, also the height level of the element center (z) is issued besides x and y.	11879
17.11.17	Evaluation	There were areas in the display of the deformations as isolines, which were not assigned to a color. The deformations of the supported nodes (usually 0.0) are now considered in the generation of the area boundaries.	5018
17.11.17	Input	The center of a radial reinforcement is saved properly again and is thus available after re-opening the project.	12062
17.11.17	Input	Sometimes a part of the full circle was deleted when dividing the full circle (centered, by factor or by absolute value).	11771
19.10.17	Design control	Is the deformation calculation activated for a structural member, but the bending design is disabled, the cross-section reduction factor is not calculated for this structural member.	11804
19.10.17	NAZWEI	The limitation of the input lines, which could cause problems in the design of large slabs, has been increased to 300000.	11366
19.10.17	Design	For a biaxial shear force design, no uniaxial design for Vy was carried out for individual analysis sections without a shear force Vz.	11683
19.10.17	Design	As-values from the bending design For spatial structures the statically required reinforcement is now issued instead of the envelope of specified, minimum and required reinforcement.	11407
19.10.17	Design	Minimum reinforcement of the initial cracking When using the DIN for structural reinforced concrete members the restraint stress resultants can be applied, if these are smaller than the crack stress resultants.	11395
19.10.17	Evaluation	The evaluation of the decompression via "Edit -> Shell -> Decompression", respectively, the corresponding icon in the toolbar is possible again.	11703
19.10.17	Input	The program terminated when generating a load macro from a load case, if the load macro had more than 20 lines.	11582
19.10.17	Input	The entered load factor for load macros onto beams and for eccentric beam loads is now considered correctly.	11442
05.05.17	Design	The shell design provides feasible results again.	11352
02.05.17	Design	Bending design for mainly tension The design strategy for "mainly tension" has been improved, so that the results are significantly more efficient.	11253
02.05.17	Evaluation	Additionally, the area, respectively, the length of the element zone are displayed in the output and labeling of the bedding resultant.	10976
02.05.17	Design	The design for a large number of elements and a large number of reinforcement edges was limited due to a database error.	11267
02.05.17	Design	The uniaxial bending design of beams provides design results again.	11197
02.05.17	Design	The reinforcement values are now displayed correctly in the design of compact T-beams with NAZWEI.	10771
02.05.17	Evaluation	The correct reinforcement values are displayed again for the shell design.	11321

Build	Module	Description	ID
02.05.17	Evaluation	The range of the selected node groups is resumed again for the list output of support forces.	11318
02.05.17	Evaluation	The punching analysis can be started from TRIMAS again.	11206
02.05.17	Generation	The calculation core checks for the correct construction material in the element before the calculation.	11305
02.05.17	Input	The cross-section types 'Downstand beam' and 'Upstand beam' are no longer offered for beam structures (Filter: 2D/3D frame or girder grid).	11332
02.05.17	Input	The visibility of the subsystems remains unchanged, if the construction state selection is closed with "Cancel" or if the current construction state was not modified.	10990
02.05.17	Input	In the load cases to be deleted the loads are now removed at first, so that possibly remaining lines can be deleted by the user.	10735
02.05.17	Interface	The lines are marked as spatial poly line when exporting a structure as 3D-DXF and thus are no longer projected in the xy-plane when importing into a CAD program.	11310
02.05.17	Superposition	In the superposition template "Earthquake response spectrum", the modal stress resultants were only superimposed with a positive sign since V15.0 Build 05112015.	11171
14.03.17	Concrete in cracked state for the analysis of spatial frames	The creep and shrinkage is now considered as pre-strains (up to now as <i>pre-deformations</i>) in the calculation process with the consideration of the long-term behavior . These pre-strains result from the calculation of the long-term load and are included in the design load cases. Applying <i>imperfections</i> from eigenmodes or deformation load cases can thus be made <i>in addition</i> .	10934
14.03.17	Concrete in cracked state for the analysis of spatial frames	The results for the load case of the creep inducing long-term loads do not only contain the parts for the creep deformations, but also the total deformations including creep and shrinkage.	8558
14.03.17	Design	Fatigue analysis of the longitudinal reinforcement With the additional input value dbr/dsl the reduction of the fatigue strength for bend longitudinal reinforcement at frame corners can be determined separately from the reduction factor of the stirrup reinforcement.	10093
14.03.17	Design control	In the reinforced concrete design with the design control, the dialog with warnings from the calculation or superposition can optionally be displayed not until the design is finished.	10262
14.03.17	Design control	Is membrane selected as design method of an area, then the settings for SLS, FLS, recalculation and the robustness reinforcement as well as the shear force design in the ULS are deactivated.	9853
14.03.17	Evaluation	The load positions are recorded with a higher accuracy in the load transfer . In systems with large coordinate specifications and inclined supports, this sometimes caused single loads outside of the structure for the load import.	10639
14.03.17	Evaluation	A user-defined basic reinforcement is now saved with the project and can thus be used with other structural members also.	10318
14.03.17	Evaluation	It is now possible to differentiate between line support and point support in the display of the support reactions at the node. The default setting is now "Support force distribution" and "Support forces - point support".	10203
14.03.17	Evaluation	The selection fields for element groups and load cases have been revised in the list output for a better readability.	9936
14.03.17	Evaluation	Now, the stress resultants of the selected single as well as result load cases can be issued for particular beams and accordingly areas in the result list.	6122
14.03.17	Input	In the output of the material parameter in the TRIMAS list (protocol), now also the prestressing steel materials from the definition of the prestressing are available.	10646
14.03.17	Input	The display area for the dimensions, the static values, the choice boxes and for the cross-section display has been enlarged in the cross-section dialogs.	10314
14.03.17	Input	When generating as well as when saving it is checked, whether a member with missing or inadmissible material input exists.	10248

Build	Module	Description	ID
14.03.17	Input	The output of the design parameter in the TRIMAS list (protocol) has been completely revised for the analyses in the ULS, SLS, FLS and the recalculation guideline and is now available for beams and slabs.	10118
14.03.17	Input	The former cross-section type <i>T-beam</i> is replaced by the new cross-section types <i>downstand beam</i> and <i>upstand beam</i> . In the design are generally the stress resultants with the slab stress resultants integrated over the effective slab width being considered. A "Design as compression member" is not possible for these cross-sections.	2829
14.03.17	Deformations in the cracked state	For beams, which are selected in the SLS for the calculation of the deformations in the cracked state, the design setting is removed when changing the material from concrete to steel or timber.	9857
14.03.17	Design control	The ductility of the reinforcing steel with the appropriate factor for the stabilizing effect is transferred correctly to the design.	10338
14.03.17	Evaluation	In the biaxial shear design the decisive minimum reinforcement can become greater than in the combination with the maximum design shear force depending on the size of the shear force components V_y and V_z . Prospective, the maximum of the design value is thus calculated separately from the maximum reinforcement, whereupon the values cannot be appropriate in the case of minimum reinforcement.	10614
14.03.17	Evaluation	Loads cannot be issued in the list output of the result evaluation. These can only be journalized in the input.	10201
14.03.17	Input	Not all affected area elements were found when generating with quadratic element approaches in the case of area loads with very small dimensions.	11005
14.03.17	Input	For the height notations in the cable drawing, the cross-section edge to be automatically dimensioned was not set for tendons, which refer to reference tendons.	10913
14.03.17	Input	When editing an <i>edge moment in local directions</i> at the FE element, the load values were assigned incorrectly to the input fields.	10310
14.03.17	Input	The display of line loads with edge moments was faulty, if also force values existed besides the moments.	10309