

SAFE[®] 2014 (v14.0.0) Release Notes

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This file lists all changes made to SAFE since the previous version. **Most changes do not affect most users.** Incidents marked with an asterisk (*) in the first column of the tables below are more significant and are included in the ReadMe file.

Changes from v12.3.2 (Released 2012-01-12)

Modeling

Enhancements Implemented

*	Incident	Description
	58436	The default auto-merge tolerance has been changed to 2.5 mm for models created in SI units. The user can change the auto merge tolerance using the Options > Auto Merge Tolerance command.

Beam and Slab Design

Enhancements Implemented

*	Incident	Description
	27327	An enhancement was made to explicitly add a design station to a strip at the end of a beam even if no column, wall, restraint or spring support is present at that location. This now better captures the stress concentrations and discontinuities at these locations.
*	40653	Reinforced and Prestressed concrete design have been added for the ACI 318-11 code.
*	40654	Reinforced and Prestressed concrete design have been added for the Italian NTC 2008 code.
*	40655	Reinforced and Prestressed concrete design has been added for the Turkish TS 500-2000 and TS 3233-1979 codes.
*	53002	Reinforced and Prestressed concrete design have been added for the Hong Kong CP 2013 code.
*	55035	The specified concrete strength as used for Chinese materials and design codes has been changed for SAFE 2014 to refer to the characteristic strength, whereas in SAFE v12 the concrete strength referred to the grade. The built-in Chinese concrete materials have been changed accordingly, and so have the slab and beam design checks. For example, the Chinese material C30 previously specified the strength as 30 N/mm ² , but now specifies the strength as 20.1 N/mm ² . Models created in SAFE v12 and prior versions that are opened in SAFE 2014 will have the concrete strength of ALL concrete materials converted from grade to characteristic strength if the design preference in the older model specifies the Chinese code. This should have no effect on the results between versions for Chinese design. Users should review the concrete materials carefully when first opening a model from an older version in SAFE 2014 if the design was set to use the Chinese code.

Detailing

Enhancements Implemented

*	Incident	Description
	29019 31493	An enhancement was implemented to save and recover the detailing bar curtailment rules.

External Import/Export Enhancements Implemented

* Incident	Description
28183 33391	Design-strip widths can now be imported from DXF/DWG files. The strip widths must be drawn separately for each strip segment as faces or four-sided polylines. Note that segment widths are measured perpendicular to the segments.
* 48699	The import and export of AutoCAD 2013 and 2014 *.DWG files is now supported. Previously versions up to 2012 were supported. Importing and Exporting *.DWG files in SAFE will start-up an AutoCAD process, requiring AutoCAD to be installed on the same machine as SAFE.
* 61841	Import from and export to Revit Structure 2014 is now supported using CSiXRevit 2014. Features include: (1) Revit Structure grid lines, materials, sections, walls, slabs, ramps, openings, columns or braces, beams, load cases, point loads, line loads, area loads and load combos are imported in SAFE with the following limitations: Since SAFE does not have the concept of story levels, only one-story structures may be imported. Steel members are not imported. Only concrete section types supported in SAFE are imported. Arc beams and arc slab edges are imported, but arc grid lines are not imported. (2) SAFE grid lines, materials, sections, walls, slabs, ramps, openings, columns or braces, beams, load cases, point loads, line loads, and area loads are exported to Revit Structure. (3) Incremental import and export is supported, with different workflows: (a) A model can be started in Revit Structure, imported into SAFE, and later updated with Revit changes or exported back to Revit. (b) Alternatively, a model can be started in SAFE and exported to Revit Structure to create a Revit project which can be later updated. (c) When a SAFE model is updated with Revit changes, a log file lists the nature of the changes. This log file is named after the SAFE model with the extension ".EXRLog". (4) When the model is initially imported from Revit or initially exported to Revit, the user can specify a vertical offset and shift the entire structure up or down. This same vertical offset is used all in subsequent import and export operations on the model. (5) The currently released version of CSiXRevit 2014 does not explicitly list SAFE as an export option. However, exporting the model to SAP2000 or ETABS will produce an .EXR file that can be imported into SAFE.

Documentation Enhancements Implemented

* Incident	Description
63082	Verification Examples have been added for the newly implemented ACI 318-11, Hong Kong CoP-2013, Italian NTC 2008 and Turkish TS 500-2000 design codes.

Installation & License Enhancements Implemented

* Incident	Description
40750	Licensing has been upgraded to provide support for virtual servers and to allow more flexibility for using commuter licenses.

Miscellaneous Enhancements Implemented

* Incident	Description
40742	The version number has been changed to v14.0.0 for a new major release. SAFE v14 will be known as "SAFE 2014".

User Interface and Display Incidents Resolved

* Incident	Description
27068 27675 29390 32084 51949	An incident was resolved in which a runtime error would occur if more than 4 slab rebar objects were present and the fifth or greater item was selected in the Model Explorer tree.
27673	An incident was resolved in which using the 'Show Loads' command would generate a runtime error for certain models. This was a rare problem. No results were affected.
28463	An incident was resolved in which the scrollbar was disabled on the load patterns form when the model was locked, preventing review of all load patterns. The same issue was corrected for other similar forms. No results were affected.
44793	An incident was resolved in which the weight property modifier for line and area objects was not being shown on the right-click object information form. The values reported in the tables were also incorrect and the text file import was not correctly importing the weight modifier. The analysis was correctly considering the property modifiers.
44795	An incident was resolved in which changes made to the order of load combinations in the Load Combinations form were not being saved. This did not affect results. This has been changed so that load combinations are now listed in alphabetical order.
46819	An incident was resolved in which the Model Explorer did not show all defined load patterns for certain models. This was only a user interface issue and did not affect analysis results.
55899	An incident was resolved where an error was sometimes generated when SAFE tried to save temporary files in a location, such as C:\Windows, to which the user did not have access rights. Now all temporary files are saved in the user's profile folder.
60776 61533	An incident was resolved where using the "Reset All" button in the Point, Line or Area Object Information (right-click) form and then performing further editing in the form would sometimes cause the software to terminate abnormally. No saved results were affected.

Graphics Incidents Resolved

* Incident	Description
54337 57465 59821 62827	An incident was resolved where shell uniform loads would not display correctly due to tolerance issues when merging overlapping areas. This was a display issue only and did not affect results.
34059	An incident was resolved in which selecting a strip object in the Model Explorer tree for certain models would result in the blinking indicator in the model window to be incorrect. This was a display issue only.
46237	An incident was resolved where, in some cases, multi-segmented design strips with significant kinks and variations in widths would not display the widths correctly. The problem was limited to display only, results were not affected.

Drafting Incidents Resolved

* Incident	Description
28326	An incident was resolved in which the software would become unresponsive when using the reshape tool on certain models with complex geometry.
28972	An incident was resolved in which using the reshape tool would generate unexpected geometry for certain models containing curved edges.
35295 47493	An incident was resolved in which using the Split Area Edges command could result in the area being deleted.

* Incident	Description
46419	An incident was resolved for the drawing of columns above the slab in which restraints at the top of the column were assigned when drawing the column in a plan view but not when drawing in a 3-D view. Drawing in either view now consistently adds RX and RY restraints to the top of the column.
61608	An error was corrected where the cross-sectional area of quick-drawn circular area drawn around a point may be reported incorrectly in the right-click form.

Loading Incidents Resolved

* Incident	Description
* 26837	An incident was resolved where files translated from V8 were not creating multiple materials when the only difference between the materials was due to self-weight. Specifically, a specified weight density of zero could become non-zero, resulting in possibly over-accounting of self-weight. Results agreed with the model as translated.
* 42049	An incident has been resolved where loads applied to null areas were sometimes not properly transferred to the slab when the automatic slab meshing option "Use Localized Meshing" was selected. This could occur when the edges of the null area did not fall along mesh lines. This error did not affect area objects having slab properties assigned.
45175	An incident was resolved where, in certain rare cases, a load case created from an auto live-load load pattern had its result type set to Envelope instead of Range. When this occurred, the results were consistent with the definition of the load case but may have been smaller than expected.
* 47486	An incident was resolved where loads applied to Load Pattern of type "Auto Pattern Live" would also, in some rare cases, get added to the loads applied in the last Load Pattern. Loads should not be applied to Load Pattern of type "Auto Pattern Live" as these Load Patterns automatically take load from other Load Patterns of type "Live" and "Reducible Live". Loads applied in Load Patterns of type "Auto Pattern Live" are now deleted. See also Incident 47514 on the same subject.
47514	An incident has been resolved where users were able to specify loads in Load Patterns of type "Auto Pattern Live". These Load Patterns automatically take load from other Load Patterns of type "Live" and "Reducible Live". Loads applied in Load Patterns of type "Auto Pattern Live" are now deleted. See also Incident 47486 on the same subject.

Analysis Incidents Resolved

* Incident	Description
31795	An incident was resolved where re-opening a model with EFM frames included would unlock an already run model thus deleting the results. This error affected v12.2.0 to v12.3.2.
35991	An incident has been resolved where a nonlinear cracked analysis case starting from another nonlinear cracked analysis case would only run one iteration without checking for convergence of the cracking analysis. No other type of load case was affected by this error.
43135 47143	An incident was resolved where, in some rare cases involving nonuniform loading on beams, an error would be reported for those load cases. When this occurred, no results were available.
45121	An incident was resolved where, in some rare cases, specifying that walls do not take out-of-plane moments resulted in the solution becoming ill-conditioned. This was obvious from the wall displaced shapes. A small out-of-plane stiffness in the wall is now retained so the wall meshing does not cause ill-conditioning.
53344	An incident was resolved where there use of modal damping interpolated by period in a response-spectrum load case was actually using interpolation by frequency between the specified values. Such load cases could only be exported from SAP2000 or ETABS 2013. This means that the damping values were correct at the specified period values, but the interpolation between the specified values was proportional to $f = 1/T$, rather than to T . Here T is period and f is cyclic frequency. The effect of this error upon the results was generally insignificant.

Slab/Beam Design Incidents Resolved

*	Incident	Description
	33004 52837	An incident has been resolved in which a design section in a strip would include a very thin slice of the drop panel or other thickened slab causing the section to be considered as a T-section for design with a very thin web. This resulted in the section being declared unable to take the shear. Now, in such cases, the very thin slice of thickened slab is ignored and the section designed as a rectangular section. See Incident 38111 for a related issue.
	36442 39299	An incident was resolved in which the design was not enforcing minimum reinforcement at the top of columns for post-tensioned two-way slabs as specified in ACI 318-08 section 18.3.9.3.
	38111	An incident was resolved where the display of required strip rebar above the amount provided by drawn rebar objects would sometimes seem erroneous. This was happening where the design strip included small portions of drop panels causing the strip section to be treated as a T-section and the drawn bottom rebar was placed too high to be effective. Now, in such cases, such small portions of the drop panel are ignored and the strip is considered to be of uniform thickness. See Incidents 33004 and 52837 for a related issue.
	38975	An incident was resolved for post-tensioned beam and slab design using the "Eurocode 2-2004" code in which the allowable concrete tensile stress was being calculated as fractions of $(f_{ck})^{1/2}$ instead of fractions of $(f_{ck})^{2/3}$ as indicated. For all practical concrete strengths, the allowable stress was over conservative by a factor of approximately two. The specification of the allowable-stress values on the Design preferences form are now presented as fractions of f_{ck} , f_{ctm} , $f_{ck}(t)$, and $f_{ctm}(t)$. Previously they were presented as fractions of $(f_{ck})^{2/3}$, f_{pk} , and f'_c . As an additional enhancement, the Design Preference form has been updated (for all codes) to provide a choice of using program-calculated or the user-specified allowable values for the P/T Stress Check. Previously the values were always user-specified.
	41030	The default values for α_{cc} and α_{ct} used for the Norwegian National Annex for Eurocode 2-2004 have been changed from 1.0 to 0.85. Design results were correct for the value actually chosen. Only the default value has been changed.
	41687	An incident was resolved for the CSA A23.3-04 code where shear design was not performed for slabs greater than 250mm. When this condition occurred, the design results were blank in the columns "VCombo", "VForce" and "VArea" of the table "Concrete Slab Design 01 - Flexural and Shear Data".
	62486	An incident was resolved for prestressed-slab design according to several codes where the internal iteration performed to calculate the design reinforcement sometimes failed to converge when the prestressing force was high and the design needed compression rebar. When this occurred, SAFE could produce incorrect values for reinforcement or could terminate abnormally while displaying the design-strip results. When erroneous results were produced, the error was usually small. The affected codes were AS 3600-01, AS 3600-09, BS 8110-97, Chinese 2002, Hong Kong CP 2004, Eurocode 2-2004, IS 456-2000, NZS 3101-06, and Singapore CP 65-99. Users should rerun the design for models using the affected codes that have high prestressing force that requires compression rebar. Reinforcement results for Verification Example "Eurocode 2-04 PT-SL-001" have changed due to this incident, being previously overestimated by about 6% to 8%, depending upon the national annex used.
	46276	An incident was resolved in which the design was not enforcing minimum reinforcement at the top of columns for post-tensioned two-way slabs as specified in ACI 318-08 section 18.3.9.3.
	49123	An incident was resolved in which the right-click design details would not always correctly refresh when changing the selected combination and then changing it back to 'Overall Envelope'. If the form was closed while displaying a specific combination, the next time the form opened it did not always show the 'Overall Envelope' results. This issue only affected the right-click design details.
	52837	An incident has been resolved in which a design section in a strip would include a very thin slice of the drop panel or other thickened slab causing the section to be considered as a T-section for design with a very thin web. This resulted in the section being declared unable to take the shear. Now, in such cases, the very thin slice of thickened slab is ignored and the section designed as a rectangular section. See Incident 38111 for a related issue.

* Incident	Description
61755	An incident was resolved where the slab design display of the additional rebar required above that which was explicitly drawn by the user could be incorrect in the portions where the slab had a vertical offset. The error was in the calculation of the vertical location of the drawn rebar with respect to the slab when the slab was specified with a vertical offset since this affects the cover and thus the effective depth. The error only affected the design display, not any of the database tables or other output.
63037	An incident was resolved for the Eurocode 2-2004 code using the national annexes for Norway and Denmark where the exponent of the term "k" in the equation for V_{min} of §6.2.2(1) should have been $k^{(3/2)}$ instead of $k^{(2/3)}$. Both the design algorithm and the documentation have been updated accordingly.

Punching Shear Design Incidents Resolved

* Incident	Description
26382 27033 27117	An incident was resolved for stud-rail design for the CSA A23.3-04 code where a "punching shear exceeds code limits" error message was generated for models where the slab thickness was less than 300mm. The stud-rail design is now permitted for slabs with a minimum thickness of 150mm.
27096	An incident was resolved in which punching shear checks were not performed for a P/T slab when using the Singapore CP 65-1999 design code.
31711	An incident was resolved where some columns were incorrectly excluded from punching shear checks for BS 8110-97, CP65-99 and Hong Kong COP 2004 codes. This usually happened when the columns would normally be checked as edge or corner columns, but were some distance away from the edge.
32815 40430 40450 45230 46072 56481	An incident was resolved where punching shear checks were not performed for some support points when it should have been performed.
* 41696	An incident was resolved for the punching shear check of prestressed slabs using the "ACI 318-08" code where the shear capacity of the prestressed slab section was computed using ACI 318-08 clause 11.11.2.1 without the qualifying condition in clause 11.11.2.2a. This may have resulted in overestimating the shear capacity for corner and edge columns where any discontinuous edge was closer than 4 times the slab thickness.
42055	An incident was resolved in which the punching-shear critical depth was not being saved when modified via the Point Object Information (right-click) form. All other punching-shear parameters would be saved. It was possible to change the parameter using the Design > Punching Check Overwrite command.
42442	An incident was resolved for the Singapore CP 65-99 code where the punching-shear capacity of a prestressed slab was sometimes reported as being unrealistically small (1E-06 MPa). This could happen for cases where the prestressing force was very high and the flexural design failed.
47556	An incident was resolved where some columns were incorrectly excluded from punching shear checks for the CSA A23.3-04 code. This usually happened when the columns would normally be checked as interior columns but were also close to an edge.
* 51728	An incident was resolved for the punching shear check using the "ACI 318-08" code where the shear stud extent was computed based on $v_c = 3 \cdot \phi \cdot \lambda \cdot \sqrt{f_c}$ per ACI 318-08 clause 11.11.5.1 instead of $v_c = 2 \cdot \phi \cdot \lambda \cdot \sqrt{f_c}$ per ACI 318-08 clause 11.11.5.4. The extent of the stud rails reinforcement may have been underestimated.
57208	An incident was resolved for prestress slab punching shear checks where ACI 318-08 Equation 11-34 was not enforced when $Sqr(f_c)$ was greater than 70 psi. This always produced a conservative design. Now ACI 318-08 Equation 11-34 is enforced for PT slabs when the PT stress is greater than 125 psi by limiting the $Sqr(f_c)$ to 70 psi for computing the punching shear capacity.

Results Display and Output

Incidents Resolved

*	Incident	Description
	22240 33616	An incident was resolved where report generation would sometimes create a corrupted file that could not be opened in Word. The problem was rare and related to the conversion of pictures for incorporation into the *.RTF file.
	25833	An incident was resolved in which opening objects were shown in the margin of the Print Graphics output. This was a printing issue only and did not affect results.
	27021 34624	An incident was resolved where the Print Graphics command for beam design results did not work if the slab design used element-based design. This was a printing issue only and did not affect results.
	27750	An incident was resolved in which very large reports to .RTF files could not be generated due to memory limitations, which have now been increased. In addition, very large files .RTF will not be opened automatically after creation by SAFE, but may be opened manually by the user.
	28179	An incident was resolved where an exception (runtime error) was generated for a certain models when trying to display slab-design results. This was a rare case that could occur with models created in older versions of SAFE (prior to v12.2.0) and that had a design-strip layer set to "Other".
	31898	An incident was resolved in which the right-click design details for strips was not always splitting the diagrams at the correct span locations. This was a reporting issue only and did not affect results.
	34111	An incident was resolved in which a runtime error would sometimes occur for certain models when displaying soil pressure results. This was a display issue only and did not affect results.
	36562	An incident was resolved in which an exception (runtime error) would occur for certain models having nonuniform loads on beams when displaying soil pressure results.
	39546	An incident was resolved in which area surface-load values sometimes exhibited slight roundoff error in generated reports due to unit conversion. Correct values were shown in the graphical user interface and in the displayed tables. This was a reporting issue only and did not affect the results.
	43187	An incident was resolved where numerical values in the printed output may have shown round-off error due to formatting the values to the specified number of decimal digits before converting for the specified display units. Instead, the values should have first been converted to the display units, then formatted to the specified number of decimal digits. The effect on the printed output was small. Values shown using the command Display > Show Tables, and results printed or exported from this display were properly converted and formatted and therefore did not have this problem.
	43901	An incident was resolved where the printed soil-pressure plots were using the internal database units rather than the specified display units.
	48337	An incident was resolved in which soil pressure values were not shown when the mouse was moved over the display. This typically only occurred after previously displaying the reactions. This was a display issue only and did not affect results.
	53237	An incident was resolved in which, for certain rare cases, an exception (runtime error) was generated when displacement contours were being drawn automatically at the end of running the analysis. Results were not affected.
	57618	An incident was resolved where the soil-pressure contour range (i.e., maximum and minimum values used for scaling) were set correctly after zoom-in or zoom-out operations were performed. This was just a display issue and results were not affected.
	61513	An incident was resolved in which the advanced report writer did not always generate reports in landscape layout when the page settings were set to landscape.

Detailing

Incidents Resolved

*	Incident	Description
	18265	An incident was resolved in the detailer in which the slab geometry was not correctly generated for certain models.
	22062 46177	An incident was resolved in which SAFE would sometimes terminate when editing beam reinforcement in the detailer.

*	Incident	Description
	26303	An incident was resolved in which the editing of detailer preferences when the detailing units were different from model database units could cause unexpected detailing output.
	28582	An incident was resolved in which running the detailer for large complex models could sometimes cause the software to stop responding.
	31562	An incident was resolved in the detailer in which reinforcement was placed inside some openings in certain models.
	31869	An incident was resolved in which an error message was sometimes generated when running the detailer. This was typically related to not enough memory and therefore depended on the machine and how much memory was available at the time of running the detailer. This has been improved, but memory limitations are still possible for larger models on certain machines.
	33045	An incident was resolved where the detailing was unable to generate the Tendon Layout Plan and some individual tendon views for specific models. This did not affect analysis or design results.
	33286 37893	An incident was resolved in which the detailer 'Above Typical' option for slabs/mats did not work correctly when the model was created in metric units.
	35626 36016	An incident was resolved in the detailer in which changes in depth and width of a continuous beam were not being properly accounted for in the beam detailing output, resulting in a continuous beam of a constant depth or width.
	35657	An incident was resolved in which the detailing output was not symmetrical for a certain model with a symmetrical footing with symmetrical strip design output. This did not affect analysis or design results.
	35736	An incident was resolved in which the detailer would generate various error messages for certain models with user-specified rebar sets indicating that it was unable to properly interpret the user-specified values.
	36756	An incident was resolved in which the detailer was generating extra reinforcement beyond that required by design, for certain models containing mats. This has been improved to generate detailed reinforcement closer to the design required.
	39750	An incident was resolved in which the detailer was not generating reinforcement for some waffle slab models.
	40963 43125 51805 53232	An incident was resolved in which the detailer was not generating top reinforcement for certain areas of some models with flat reinforcement profiles.
	42036	An incident was resolved in which SAFE would terminate when trying to view the detailer tendon profile elevations for tendons that were located in mat-type slabs.
	42895	An incident was resolved in which the detailer would generate an error message when trying to display the reinforcement profile views for certain models.
	45377	An incident is resolved in which the detailer was unable to generate drawing sheets for certain models in which design strips are not defined.
	48505	An incident was resolved in which section cut marks in the detailer were not being exported to AutoCAD.
	49644	An incident was resolved in which the detailing results did not update based on changes made to the bar lap lengths at supports as specified in the slab curtailment rules.
	50662	An incident was resolved in which the detailer was generating larger quantities of reinforcement than required by design. This typically only affected specific areas of certain models.
	51714	An incident was resolved in which an error was sometimes generated when running detailing for an area object with a mat property assigned. This only happened for certain specific models.
	52708	An incident was resolved in the detailer where exporting a view to *.DXF after changing the view scaling would not export the view with the updated scale settings.

Data Files

Incidents Resolved

*	Incident	Description
	26497	An incident was resolved in which importing certain SAFE v8 *.f2k text files resulted in the design strips not generating any forces during analysis.
	26794	An incident was resolved in which point spring assignments were sometimes not correctly read in from a SAFE v8 model. Analysis results agreed with the model as read in from v8. This did not affect model files from SAFE v12.
	27224	An incident was resolved in which exporting a model to the *.f2k text file and then importing it back in would lose the auto-widen flag on the design strips, and thus could result in different strip widths.
*	27784	An incident was resolved where in rare cases an error was generated when trying to open a *.fdb model file or import the *.f2k model text file, and the model could not be opened.
	32185	An incident was resolved in which a runtime error was sometimes generated when trying to open model files where certain specific graphical operations were performed on walls just before saving the model. When this occurred the model could be imported from the corresponding text file. No results were affected.
	32707	An incident was resolved in which wall supports were lost when opening a version 12.2.0 model in a later version (up to v12.3.2).
	35624	An incident was resolved where the thick-plate parameter for slab and mat properties was not being saved when exporting models to SAFE text files (.F2K or .SSF). As a result, models imported from SAFE text files were always using the default "Thick Plate" option. Now this parameter is being exported. However, SAFE text files exported from prior versions (v12.0.0 to 12.3.2) will still not contain this information and should be checked when imported into versions v14.0.0 and later.
	54421	An incident was resolved where the import of files that had Notes fields exceeding 255 characters would fail. Now any files with Notes fields exceeding 255 characters will have those fields truncated to 255 characters during import.

Database Tables

Incidents Resolved

*	Incident	Description
	29840	An incident was resolved in which an error was generated for certain, specific models when trying to display database tables for strips or create a report that includes strip-related tables. No results were affected.
	49754	An incident was resolved in which exporting table data to Excel could cause a runtime error when the regional settings used a comma as the decimal separator. Results were unaffected.

External Import/Export

Incidents Resolved

*	Incident	Description
*	49195	An incident was resolved in which importing certain *.f2k text files generated by ETABS or SAP2000 would result in some material properties have zero unit weight values. The error was related to a units and tolerance issue. It usually occurred when weight was exported in kN/mm ³ units and the same material was applied to both walls and slabs in ETABS or SAP2000.
	59405	An incident was resolved in which the import of certain *.DWG files would fail. The workaround was to import the equivalent *.DXF file.

Documentation

Incidents Resolved

*	Incident	Description
	46359	The Verification Manual has been updated as follows: (1) A documentation error has been corrected in the punching-shear design examples for the CSA A23.3-04, IS 456-00, and NZS 3101-

*	Incident	Description
		06 codes where the Gamma_V factor was incorrectly computed using the column dimensions (c1 and c2) instead of the dimensions of the punching perimeter (b1 and b2). This was a documentation error only and the design results were not affected. (2) A documentation error has been corrected for the beam and slab design examples for the AS 3600-09 code to account for a change made to the software for version 12.3.2 (Incident 35218) that updated Equation 8.1.3(2) according to Amendment No. 1 of the Australian code AS 36000-2009. This was a documentation error only and the design results were not affected for this release.
	63153	Analysis verification Example 17 has been corrected to show the actual crack width computed by SAFE. This was a documentation error only; no results have changed.