SAP2000 v27.1.0 Release Notes

Notice Date: 18-March-2026

This document lists changes made to SAP2000 since v27.0.0, released 31-January-2026. Items marked with an asterisk (*) in the first column are more significant.

Design – Concrete Frame

Enhancements Implemented

*	Ticket	Description
*	11704	An enhancement has been made to include the Canadian CSA A23.3-2024 concrete frame design code.

Design – Steel Frame

Enhancements Implemented

*	Ticket	Description
*	11846	An enhancement has been made to add the KDS 14 31 00 : 2022 steel frame design.

External Import and Export

Enhancements Implemented

*	Ticket	Description
	11984	An enhancement was implemented in the DXF export to include contour lines and arrows for shell force and stress results display.

Installation and Licensing

Enhancements Implemented

*	Ticket	Description
*	11925	The version number has been changed to v27.1.0 for a new intermediate release.

Loading

Enhancements Implemented

*	Ticket	Description
*	11516	An enhancement has been implemented to add automated wind loading according to AS/NZS 1170.2:2021.

Structural Model

Enhancements Implemented

*	Ticket	Description
*	11676	An enhancement has been implemented to add the Faria Concrete Damage Plasticity model, a 3D coupled concrete material (Define menu > Material Properties) for modelling nonlinear concrete material behavior in solid elements. This material model is a three-dimensional damage-plasticity material model which can be used to model the triaxial behavior of concrete in tension or compression in Solid elements. The model inherently models the increase of concrete compressive strength with confining compressive stress. A new technical note 'Faria Concrete Damage Plasticity Material Model' has been added (Help menu > Documentation).

User Interface

Enhancements Implemented

*	Ticket	Description
	11162	An enhancement has been made to the user interface to sort lists in alphanumerical order within the user interface. Previously these lists were presented in the order they were defined. The first phase of this work was released in v27.0.0 under Ticket 9424. The present enhancement adds sorting to other lists and drop-downs within the user interface.

Analysis
Incidents Resolved

*	Ticket	Description
	11937	An incident was resolved where models with area elements with layered shell sections containing nonlinear hinge layers could lead to errors in analysis model creation phase and/or prevent the analysis from being run.
*	12003	An incident was resolved where frequency dependent link properties (Define menu > Section Properties > Frequency Dep. Link Props) were not being considered properly in the analysis. Only the U1 degree of freedom (DOF) was being considered and all other DOFs were ignored. The properties used in the U1 direction were taken as those from the last DOF with non-zero properties, where the order of the DOFs was as shown in the 'Show Properties for this Degree of Freedom' dropdown on the 'Frequency Dependent Link Property Data' form. This resulted in frequency dependent link properties with non-zero properties for DOFs other than U1 not being considered properly in analysis and the U1 DOF properties not being as defined if another DOF had non-zero properties defined. This issue only affected v27.0.0.

Design – Aluminum Frame
Incidents Resolved

*	Ticket	Description
	11820	An incident has been resolved for aluminum frame design in which the Aluminum Alloy Designation defined in the Material Property Data form was not recognized by the program and the design could not be performed. Now if the Aluminum Alloy Designation is not recognized, the program will assume a default value for the design parameters that are related to the Aluminum Alloy Designation.

Design – Steel Frame
Incidents Resolved

*	Ticket	Description
	11969	An incident has been resolved for the EN 1993-1-1:2022 steel frame design in which the 'P-Delta Done' was unnecessarily included on the design report. In the new EN 1993-1-1:2022, the Analysis Method has been introduced, and the 'P-Delta Done' option has become redundant, is no longer available in the design preferences, and has now been removed from the design report.
	11971	An incident has been resolved for the EN 1993-1-1:2022 steel frame design in which the demand shear forces were not shown correctly in the design report and tabular data. The design results were not affected.
	11986	An incident has been resolved for the EN 1993-1-1:2022 steel frame design in which classification of the web for combined axial and bending about the ZZ-axis was overly conservative. In addition, details of the classification for pipe sections were not shown properly in the design report but the design results of the pipe section were not affected.

Documentation
Incidents Resolved

*	Ticket	Description
	11909	An incident was resolved to correct an equation in the ACI 318-19 concrete frame design manual, where a phi factor was included in the equation for P0 from clause 22.4.2.1. This was a documentation issue only and did not affect the design results.

Drafting and Editing
Incidents Resolved

*	Ticket	Description
	11965	An incident was resolved in which drafting by using snap to grid lines was not working correctly in DirectX graphics mode.

External Import and Export

Incidents Resolved

*	Ticket	Description
	11936	An incident was resolved where the export to SAFE .F2K file could encounter an error for certain models. When this occurred the SAFE text file was not generated. This issue only affected v27.0.0.
	12009	An incident was resolved where importing a STAAD model file which contained a large number (> 2000) of member releases in a single command was failing with an out of bounds error.

Graphics

Incidents Resolved

*	Ticket	Description
	11856	An incident was resolved to correct the scaling of distributed load display on frame objects.

Results Display and Output

Incidents Resolved

*	Ticket	Description
	11908	An incident was resolved where loading text was out of scale for printing when in DirectX graphics mode.
*	11968	An incident was resolved where deleting results of one or more load cases, directly (via 'Set Load Cases to Run' form) or indirectly (by modifying them after they were run), inadvertently deleted results for the rest of the load cases.
	11972	An incident was resolved to display solid object surface loading by using scaling independent of display units.

Structural Model

Incidents Resolved

*	Ticket	Description
	11970	An incident was resolved where the default material properties (taken based on the region selected on the New Model form) did not use the requested units when creating a new model with default units (set on the New Model form) that were different than the current display units.
*	11973	An incident was resolved where the analysis failed to start for models with user defined hinge properties and line objects with hinge assignments that were modeled as separate link elements (as specified in the Analysis Model for Nonlinear Hinges form).

User Interface

Incidents Resolved

*	Ticket	Description
	11940	An incident was resolved where a load combination being defined using another load combination as one of its contained loads did not retain the load-combination load when the form was closed with the OK button. This user-interface issue was introduced in v27.0.0. Defining or editing load combinations via the interactive database tables was not affected.
*	11952	An incident was resolved where the program would terminate unexpectedly when the Vehicle Data form was closed and had a leading load and/or trailing load. This was a user-interface issue that only affected v27.0.0. Vehicles could be defined/modified using the interactive database.
	11958	An incident was resolved to reinstate the color picker on the Group Definition form. This was inadvertently removed in v27.0.0. This was only a user interface issue and did not affect results.
	11959	An incident was resolved where trying to open a model while displaying animation for another model caused an error condition. No results were lost.