

# SAP2000<sup>®</sup> Version 17.1.0 Release Notes

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**Notice Date: 2014-08-28**

This file lists all changes made to SAP2000 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.

## **Changes from v17.0.0 (Released 2014-08-06)**

### **Graphics**

#### **Enhancements Implemented**

<b>*</b>	<b>Incident</b>	<b>Description</b>
*	69307	An enhancement was implemented, increasing the window refresh speed when using the Classical Plus (GDI+) graphics mode.

### **Analysis**

#### **Enhancements Implemented**

<b>*</b>	<b>Incident</b>	<b>Description</b>
*	65841 66696	The speed of analysis has been increased by internal changes that have no effect upon results.

### **Frame Design**

#### **Enhancements Implemented**

<b>*</b>	<b>Incident</b>	<b>Description</b>
*	55093	An enhancement has been made to steel frame design for the Indian IS 800:2007 code to implement the changes in Amendment Number 1.

### **Miscellaneous**

#### **Enhancements Implemented**

<b>*</b>	<b>Incident</b>	<b>Description</b>
	69215	The version number has been changed to v17.1.0 for a new minor release.

## Graphics

### Incidents Resolved

*	Incident	Description
	60123	An incident was resolved that addresses minor cosmetic issues in the graphical display. No results were affected by these issues: (1) The extruded view of "None" area objects in DirectX mode showed inconsistent shading depending on the orientation of the view. This was due to competition between the colors of the top and bottom faces, which were at the same location due to zero thickness. (2) The colors used to represent area objects were not consistent between Classical Plus (GDI+) and DirectX modes. Some inconsistency remains due to the inherent nature of DirectX graphics, but the two modes now more closely agree.
	69096	An incident was resolved where the graphical display of the model would sometimes appear to jump back to its original position when rotating or panning in GDI+ graphics mode. After this jump the view would display in the new position, so that the pan or rotate operation actually did perform correctly. Note that occasional jumps may still be seen on slower machines. This was a graphical issue only and no results were affected.

## Drafting

### Incidents Resolved

*	Incident	Description
*	69305	An incident was resolved in which the program would terminate when using the reshape command.

## Section Designer

### Incidents Resolved

*	Incident	Description
	69808 69826	An incident was resolved in which section designer sections could become corrupt after running steel frame, aluminum frame, or cold-formed frame design. This could cause the program to terminate when later editing the section designer sections. This did not affect analysis or design results.

## Loading

### Incidents Resolved

*	Incident	Description
*	69599	An Incident was resolved for NBCC 2010 auto seismic loading where the maximum base shear according to section 4.1.8.11(2)(c) was being enforced for Site Class F with $R_d > 1.5$ , for which case it is not applicable. Models with Site Class F with $R_d > 1.5$ should be re-run using the new version, since the previous results could be unconservative.

## Analysis

### Incidents Resolved

*	Incident	Description
	69187	An incident was resolved where linear buckling load cases could use the wrong stiffness when the stiffness to be used had been saved from a previous run. For this error to have occurred, the buckling load case needed to use the stiffness from a nonlinear load case, the last linear load case in the previous run needed to use the stiffness from the same nonlinear load case, and the linear buckling load needed to be in a subsequent run so that it used the saved stiffness matrix and the .LOG file showed the message "Previous stiffness is still available at the end of case: xxxx", where xxxx is the nonlinear load case in question. In addition, the analysis needed to be run out of process, or if it was run in process, the second run needed to be after opening the model again. This error was not common. No other type of linear load case was affected.
	69723	An incident was resolved where the analysis could fail to complete when running multiple load cases that used different mass sources in the same run. When this occurred, no results were not

*	Incident	Description
		available. Any results from successful runs were not affected. This error was not common.

## Data Files

### *Incidents Resolved*

*	Incident	Description
	68770	An incident was resolved where some text model files (.s2k, .\$2k) that contained double-quote characters (usually as an abbreviation for inches) would not import correctly when the quote did not occur at the end of the item. For example, PG6" would import correctly but PG6"X6" and PG6"" would not. Now all three examples will import as expected.

## External Import/Export

### *Incidents Resolved*

*	Incident	Description
	69135	An incident was resolved where STAAD frame section properties were imported without any material specification. When this occurred, no analysis results were available until the user explicitly assigned a material property to each frame section property. Only version 17.0.0 was affected.

## Documentation

### *Incidents Resolved*

*	Incident	Description
	59146	A documentation error has been corrected in the Automated Lateral Loads manual, Section 2.12 of 2009 IBC/ASCE 7-05 seismic loads. The term Risk Targeted MCE in section 2.12.2, page 2-48, second paragraph was indicating that the $S_s$ is the mapped Risk-Targeted MCER which should only be maximum considered earthquake (MCE). In ASCE-05 the seismic maps are only MCE.

## Installation and Licensing

### *Incidents Resolved*

*	Incident	Description
	69050	An incident was resolved that addressed two issues with licensing: (1) The LEVEL.TXT and LMHOST.INI files used to control licensing were not being found in the installation folder unless the shortcut to start the application was modified to include the installation folder in the "Start in" field. The LEVEL.TXT and LMHOST.INI files worked properly when placed in the user settings folder. (2) Network licenses were not being released when the software was closed until after the built-in timeout period, which could be as long as 5 minutes.