ETABS v22.7.0 Release Notes

Notice Date: 11-July-2025

This document lists changes made to ETABS since v22.6.0, released 19-May-2025. Items marked with an asterisk (*) in the first column are more significant.

Database Tables

Enhancements Implemented

*	Ticket	Description
	11451	An enhancement was made to boost up the Microsoft Access Database file import.

External Import and Export

Enhancements Implemented

*	Ticket	Description
	11456	The ETABS Frame Section Mapping form now features a drop-down pull-down selection menu for the materials, as well as the current one for the ETABS sections. Also, the explanations under Remarks have been clarified when a given Revit section profile is assigned to elements with various materials in the Revit project.

Installation and Licensing

Enhancements Implemented

*	Ticket	Description
	11436	The version number has been changed to 22.7.0 for a new minor release.

Loading

Enhancements Implemented

*	Ticket	Description
	8558	An enhancement has been made that addresses drifts in the velocity and displacement time histories, obtained from time history analyses, when a time history matched to a response spectrum was used for the time history analyses. Base line correction has been applied to the matched time histories as part of the matching process to prevent the drifts.

Analysis

Incidents Resolved

*	Ticket	Description
*	11475	An issue was resolved where the "Change Sections", "Change Section & Age", "Change Modifiers", and "Change Releases" operations in Staged Construction load cases did not apply the intended effect when applied to groups besides group All. This issue only affected ETABS v22.6.0.
*	11487	An incident was resolved where Point, Line or Area springs that used a link property could fail to converge in nonlinear static, staged-construction, and direct-integration time-history load cases when the geometric nonlinearity was set to Large Displacements and P-Delta. This issue affected ETABS v22.4.0 to v22.6.0.

API

Incidents Resolved

*	Ticket	Description
	11492	An incident has been resolved for the API functions PropFrame.GetNameList and PropFrame.GetPropFileNameList in which they do not return correctly when PropType is not input.

Design – Composite Beam

Incidents Resolved

*	Ticket	Description
	11478	An incident affecting composite beam design per the AISC 360-16 and 360-22 codes was resolved. Composite beam design results were not available for beams with a singly symmetrical I-section and a zero unbraced length along the minor and major beam axes when the Consider Axial Forces option was selected. Instead a stress demand/capacity ratio value of -1 was displayed in the screen graphics, and the bending related strength checks were missing from the Interactive Composite Beam Design form and from the output. This incident affected all versions of ETABS capable of considering axial forces when designing composite beams. A workaround was to assign small values for the unbraced lengths in the Composite Beam Overwrites form.
	11486	An incident has been resolved for the Chinese composite column design in which the Dual System SMF was not correctly accounted for during the design. Previously, the upper limit of 2.0 was not enforced for the columns having SMF greater than 2.0. Additionally, SMF was not used to amplify the design moments and shear. Now, the upper limit having the value of the Dual System Max SMF in the General Structural Preferences is imposed on the Dual System SMF of the composite column members. And the overwritten value of the Dual System SMF will have the priority and be applied properly on the design moments and shear.
	11521	An incident has been resolved for the composite column design "AISC 360-22," "Eurocode 4-2004," and "IS 11384:2022" in which the program reports failure of the design when the moment strength with the minimum amount of reinforcement is insufficient without updating the design with the next increment of reinforcement. Now, the program will increase the amount of reinforcement until the strength is sufficient or up to the maximum limit allowed by the design code.
	11526	An incident affecting composite beam design per the Eurocode was resolved. For beams subject to a negative bending moment, the design value of the negative bending moment was incorrectly reported in the interactive composite beam design form and in the detailed output. This was a reporting problem only. The designs, including their governing demand/capacity ratios, were correct. This incident affected ETABS v22.5.0 and v22.6.0 only.

*	Ticket	Description
	11528	An incident affecting composite beam design per all available design codes was resolved. When designing beams with an auto-select section, significant negative bending, and a long unbraced length, ETABS occasionally selected the heaviest section in the auto-select list instead of the most economical one. Designing the beam interactively let the user choose from the full range of available section, When this happened, the error was obvious and the selected design was conservative. This issue affected ETABS v22.5.0 and v22.6.0.

Design – Concrete Frame

Incidents Resolved

*	Ticket	Description
	11481	An incident has been resolved in the concrete frame design codes, where the graphical color coding did not align with the PMM ratio value for a member when a warning was issued for that member. This was a display issue only. The actual design information in the design details and the database tables was correct.

Design – Shear Wall

Incidents Resolved

*	Ticket	Description
	11464	An incident has been resolved for all shear wall designs in which "Identify all failures" option does not work as expected when there is no spandrel in the model. This is not an issue if there is spandrel in the model.
*	11501	An incident was resolved in shearwall pier design where the length and thickness calculated for shear design would be incorrect for certain cases. The error was obvious. The issue happened when the pier was divided into two or more area objects over the height of the story. The issue was not present when the division over the story was due to internal meshing. The issue was restricted to ETABS v22.6.0 only.

Design – Steel Frame

Incidents Resolved

*	Ticket	Description
	11459	An incident affecting steel design per all codes was resolved. Camber is now applied as a variable distance along the length of the member being designed, computed on the basis of the camber inducing a uniform curvature, instead of being applied as a constant distance, consistent with the member being shifted. All versions of ETABS were affected. Results were affected only when the specified amount of camber for a member exceeded its deflection limit.
*	11496	Two incidents related to steel design per the EN 1993-1-1:2005/A1:2014 code were resolved. 1.) The display colors of steel frame design ratios did not reflect the buckling related demand/capacity ratios for steel frames subjected to an interaction of axial compression and bending. 2.) The detailed calculations accessed from Steel Design and Review form or included in the reports did not include these ratio nor their derivation. The Steel Design and Review form itself, the Design Summary and Design Envelope sections of the reports, and the database tables showed the results correctly. This incident affected ETABS v22.6.0 only.
	11508	An incident has been resolved for the CSA S16:2024 steel frame design in which (1) the effective section area was incorrectly always set to equal to unity. As a result, the compression axial capacity was overestimated for the design of Class 4 slender sections. In addition, (2) calculation of moment strength for Class 4 wide-flange sections has now been correctly checked for slenderness of the top or bottom flange appropriately depending on positive or negative bending. Previously, the program always checked for the top flange. Also, (3) the moment strength was not correctly determined for the section with the web meeting the requirements of Class 3 but the flange slenderness exceeding the limit for Class 3. And lastly, (4) a warning message is generated in the design report for the design of section having both flange and web exceeding Class 3 limit.

*	Ticket	Description
	11535	An incident has been resolved in the steel frame design code "Chinese 2018" in which the program was checking the stability equation GB50017 8.2.1-4, even when the Direct Analysis method was used. When N exceeded 1.25*Ney, the program reported an error message stating that "1.24 N / Ney > 1.0: Column is unstable (GB50017 8.2.1-4)". This check does not apply to the Direct Analysis Method. The program no longer checks this equation when the Analysis Method is the Direct Analysis Method. The program was conservative.

Detailing

Incidents Resolved

*	Ticket	Description
	11440	An incident was resolved where "Error in running Wall Stack Detailing" message was given for some models where shear wall was using using ACI 318-19 code and delta_ns was greater than 1.4 for one or more piers.

External Import and Export

Incidents Resolved

*	Ticket	Description
	11438	An incident was resolved where the ETABS .e2k text file (File menu>Export>ETABS .e2k Text File) would not save the properties of the "Damper - Sumitomo Rubber GR4" type link.

Loading

Incidents Resolved

*	Ticket	Description
	11520	An incident has been resolved where the usage class was not being set correctly for Italian NTC 2008 and Italian NTC 2018 auto-seismic load patterns when the pattern was opened for editing at any time after defining it.

Results Display and Output

Incidents Resolved

*	Ticket	Description
	11471	An incident has been resolved for all concrete frame designs in which "Identify All Failures" option does not show any information. It would show the failure as expected after the right-click is done on the members.

Section Designer

Incidents Resolved

*	Ticket	Description
	11463	An incident was resolved where section designer properties were not correct for some cases when shapes have common edge(s).

Structural Model

Incidents Resolved

*	Ticket	Description
	11446	An incident was resolved where models created in ETABS v22.0.0 or earlier versions of the program that have user-defined P-M2-M3 Fiber Hinges may have incorrect fiber stress-strain behaviors after opening and running the models in ETABS v22.1.0-22.6.0. This issue only occurred for user-defined P-M2-M3 Fiber Hinges and only affected models that do not have Fiber Hinges using the "Default From Frame Section" Fiber Definition Option.

ETABS v22.6.0 Release Notes

Notice Date: 14-May-2025

This document lists changes made to ETABS since v22.5.1, released 25-February-2025. Items marked with an asterisk (*) in the first column are more significant.

Analysis

Enhancements Implemented

*	Ticket	Description
*	10337	An enhancement has been made to add section properties for composite shear walls. Frame properties as well as shell properties are available. For analysis, equivalent properties are used.

Database Tables

Enhancements Implemented

*	Ticket	Description
	1247	An enhancement has been implemented to add a new database table to report the joint displacements for joints that are internally created from auto-meshing of frame and/or shell objects. The new table, named Joint Displacements (Including Internal Mesh Joints), is available under the category ANALYSIS RESULTS > Joint Output. The displacements are reported for all internally created joints in the model if the Selection Only option is not selected. If the Selection Only option is activated, then the displacements are reported only for those internal joints that are associated with the selected frame and/or shell objects.

Design – Composite Beam

Enhancements Implemented

*	Ticket	Description
	9408	Two enhancements related to composite beam design were implemented. An additional criteria, "running on a level surface", was added to the evaluation of floor beams vibrations per AISC Design Guide 11, with a new verification example illustrating the related calculations. New parameters, specifying driving force and body weight, were added to the composite beam preferences and individual beam overwrites, also with a new parameter specifying the panel width, added to the individual beam overwrites.
*	10777	An enhancement has been made to include Indian IS 11384:2022 composite column design.
	11054	An enhancement to composite beam design was implemented. ETABS can now design composite beams with steel tube sections per all available composite beam design codes.
	11055	An enhancement to composite beam design was implemented. It is now possible to specify the provision of a tee that will be welded to the bottom flange of the base section in the composite beam design overwrites.

Design – Concrete Frame

Enhancements Implemented

*	Ticket	Description
*	10957	An enhancement has been made to include the Canadian CSA A23.3-2024 concrete frame design code.

*	Ticket	Description
	10983	An enhancement has been made to update the determination of circular ties and spiral types of reinforcement in circular column sections. Now, the transverse reinforcement for circular reinforcement configuration can be either ties or spiral depending on the users' selection in the frame section property reinforcement data form, and used appropriately in the design. In addition, the design for minimum transverse reinforcement for circular columns of the CSA 23.3-19 and CSA 23.3-14 is enhanced to be in compliance with sections 10.9.4, 11.2.8.2, and 21.2.8.3. The CSA 23.3-19 and CSA 23.3-14 design manuals are also updated accordingly. This enhancement was released in v22.5.0 but was not included in the release notice.

Design – Shear Wall

Enhancements Implemented

*	Ticket	Description
	9941	An enhancement was added for IS 456:2000 shear wall design where user can now specify "Ordinary Wall" in the pier or/and spandrel overwrites. Designating any pier/spandrel as "Ordinary Wall" will not impose IS:13920 seismic code. Previously all piers and spandrels were designed as "Special Wall."
*	10185	Composite shear wall design using the SpeedCore system is now available in ETABS, following the provisions of AISC 360-22 Specifications. The design checks include axial tension and compression strength, shear strength, flexure and biaxial flexure strength, along with other detailing requirements. For seismic load combinations, the design adheres to AISC Seismic Provisions Section H8, incorporating amplified overturning moment calculations to ensure coupling beam yielding. Composite shear walls are defined using a new composite wall section property combined with pier and spandrel labeling, allowing for the design of complex cores with non-planar wall configurations, including C, L, and I shapes.
	10752	An enhancement was made for ACI 318-19 shear wall design code to add the design axial force in the spandrel design report and in the Table for spandrel design summary.
	11400	An enhancement has been made to the concrete spandrel flexure design for the “ACI 318-19” code, in which the program now offers an option of whether to ignore beneficial axial load, Pu for spandrel design in the shear wall design preferences. This is similar to what was already available for concrete beam design.

Design – Steel Frame

Enhancements Implemented

*	Ticket	Description
	10700	The connection design summary table has been enhanced with visual indicators for failed and passed conditions. The status and DCR cells are now color-coded, green for passed and red for failed. Additionally, the controlling combination row is highlighted in bold for better visibility.
	10718	An enhancement was made to add slip resistance design checks for beam-to-beam and beam-to-column connections in accordance with AISC Specifications (2010, 2016, and 2022) when slip-critical bolts are specified.
*	11295	An enhancement was made to add Interactive steel frame design (similar to the one available for composite beams). It is currently available for AISC 360-22, AISC 360-16, CSA S16-19, CSA S16-24, and Eurocode 2.

External Import and Export

Enhancements Implemented

*	Ticket	Description
	11217	An enhancement has been made to export GPU 3D data to DXF from Printing form in DirectX graphics. Export DXF button will be visible in DirectX mode which will export current 3D GPU data to DXF.
	11244	An enhancement was made to fill Perform3D Compound property weight modifier from ETABS frame and wall sections.

Installation and Licensing

Enhancements Implemented

*	Ticket	Description
*	11242	The version number has been changed to 22.6.0 for a minor release.

Miscellaneous

Enhancements Implemented

*	Ticket	Description
	11327	A change was made to use either the default text editor on the machine or Notepad (if available) when a text file was asked to be reviewed from inside the program. Earlier an old Windows call was being used which has now been deprecated.

Results Display and Output

Enhancements Implemented

*	Ticket	Description
	1684	An enhancement was added to report steel beam deflection ratios in the steel details table.
	10740	An enhancement was added to display the joint reaction contours, showing reactions with corresponding legend color. The user can select the range to control the legend colors with respect to the reaction magnitude. No legend will be displayed if all reactions are the same. Double legends will be shown for moment and force reactions.
	11127	The shell stress and strain output for ribbed and waffle type slabs that experience plate bending has been improved.
	11272	An enhancement has been implemented to report diaphragm mass in x, y directions and the diaphragm mass moment of inertia about the global Z axis in the diaphragm center of mass displacement table.
	11296	An enhancement has been made to show the axial compression ratio in Display Design Info for Eurocode 2-2004, Italian NTC 2008, IS 456:2000, TS 500-2000, and TS 500-2000(R2018) concrete frame designs.
	11426	An enhancement has been implemented to give an option to users to save the multi-step animation bitmap files after movie creation. All intermediate animation frames are saved in BMP format in a subfolder named BMPFiles in the folder where the model is saved. Note that the checkbox named "Create BMP File" must be checked on the animation specifications form for the BMP file to be generated and saved.

Analysis

Incidents Resolved

*	Ticket	Description
	11392	An incident was resolved to show the correct frame orientation in extruded non-cubic deformed frame display.

API

Incidents Resolved

*	Ticket	Description
	11268	An incident was resolved wherein the "Spacing" argument of the cSapModel.PropFrame.SDShape.GetReinfLine API method was not retrieved with the correct units.
	11318	An incident has been resolved for the API function SetOverwrite for the AISC 360-22, Eurocode 4-2004, CSA S16-19, and CSA S16-24 composite column designs. Previously, the SetOverwrite did not properly set the value for all overwrite items.
	11343	An incident has been resolved for the API functions PropFrame.GetNameList, PropFrame.Count, and PropFrame.GetPropFileNameList in which the outputs were previously returned incorrectly.

Data Files

Incidents Resolved

*	Ticket	Description
	11335	An incident has been resolved that fixes the label UKB1016XX305X272 in BSSHAPES2006 database where the "X" was duplicated. The label was changed to UKB1016X305X272 in the file BSShapes2006.XML. Any old model that uses the above section will automatically be updated to use the revised section label when the model is opened or imported in the version of the program with the fix.

Database Tables

Incidents Resolved

*	Ticket	Description
	11422	An incident has been resolved where interactively editing any parameter in the area insertion point assignment table would delete the coordinate system and the joint offset values for the area objects in the table.

Design – Shear Wall

Incidents Resolved

*	Ticket	Description
	11340	An incident was resolved for ACI 318-19 shear wall design code, where Phi (Shear or Torsion) and Phi (Shear seismic) were reverted to default values when these numbers were explicitly changed by users.
	11399	An incident has been resolved in the concrete spandrel flexure design for the “ACI 318-19” code, in which the enveloping mechanism was inadequate. The implementation of this code considers the design axial force Pu in addition to the design moment Mu for flexural design. The program also designs the spandrel for the design moment Mu with zero axial force (Pu=0) and takes envelopes to make the implementation conservative.

Design – Steel Frame
Incidents Resolved

*	Ticket	Description
	11293	An incident has been resolved in the AISC 360-16 steel frame design code in which the program was not correctly calculating the flexural capacity of single-angle sections for the lateral torsional buckling mode. The program calculated the flexural capacity for the lateral torsional buckling mode, considering all section properties about the major principal axis. However, Mp was calculated using S for the geometric axis instead of the major principal axis, which affected the calculation of Mn. Eventually, the program calculated Mn conservatively to a relatively small value.
	11405	An incident affecting the design of castellated and cellular beams per EN 1993-1-13:2024 Eurocode 3 - Design of steel structures - Part 1-13: Beams with large web openings –was resolved. The colors indicating demand/capacity ratios when viewing design results were incorrect. This was a display issue only: no failing castellated or cellular section was ever selected from auto-select lists, and the correct demand/capacity ratios were listed in the interactive design form and in all available design reports. This issue affected all versions of ETABS capable of designing castellated and cellular beams per the Eurocode. A related enhancement was implemented. Design reports now include a table listing the properties, shear capacities, and bending capacities of the top and bottom tees at the hole at which the highest demand/capacity ratio occurs, as well as, for beams designed as composite, the contribution of the slab to the beam shear and Vierendeel bending capacities.

Detailing
Incidents Resolved

*	Ticket	Description
	11300	An incident was resolved to export view caption in Detailing Drawing Manager DXF drawings.

Documentation
Incidents Resolved

*	Ticket	Description
	11359	An incident has been resolved in the steel frame design code “AISC 360-22” documentation, in which the load combination factor for snow-load (SL) has been updated to 0.10 instead of 0.15 for ASD on pages 25—27. This case was a documentation-only issue. The program was correct, and so there is no change in design.

External Import and Export
Incidents Resolved

*	Ticket	Description
	11352	An incident was resolved where import of DXF Architecture layer was not working for some cases.
	11383	An incident was resolved where concrete material properties with the "ACI 209R-92" time dependent type would be changed to the "AS3600-2009" type when the model data is exported (File menu > Export > ETABS .e2k Text File) and then re-imported as a .e2k text file (File menu > Import > ETABS .e2k Text File).

Miscellaneous
Incidents Resolved

*	Ticket	Description
	11113	An incident was resolved where model with "Auto Construction Sequence Case" in ETABS v9 model was not correctly converted into latest versions of ETABS and displayed "Error in creating analysis model" error message when analysis was executed.

Results Display and Output

Incidents Resolved

*	Ticket	Description
	3201	An incident was resolved where in very rare cases the display for slab FEM based design results would not work if "rebar averaging at peaks" option was requested.
	11262	An incident was resolved where frame diagram contour display was not showing the correct colors.
	11279	An incident was resolved where Pier and Spandrel force results including wall objects with wall hinges may be incorrectly reported in levels of ETABS which do not include the ability to analyze wall hinges (e.g. Nonlinear level). This is a reporting issue that only affected the response of the wall object and did not affect other analysis results.
	11286	An incident was resolved where AtTrnTotal was incorrect in Table - Concrete Beam Design Summary - IS 456-2000. The reported AtTrnTotal was always higher than what is needed in design. This was an issue in the table only. Beam Design detail showed the correct rebar.
*	11298	An incident was resolved where Staged Construction load cases with both Instantaneous Load and Time Dependent Items in the same stage may report incorrect base reaction and joint reaction results. This was a reporting error for the reactions and did not affect other analysis results. The issue affected ETABS v22.2.0 - v22.5.1.
	11307	An incident was resolved where nonlinear energy by group results viewed through Plot Functions (Display menu>Plot Functions, Nonlinear Energy by Group function type) and the database tables (Display menu>Show Tables, "Element Nonlinear Energy by Group" table) showed excessively larger or illegal numbers. This was a reporting issue for element energy results and only affected ETABS v22.5.0 - v22.5.1.
	11378	An incident was resolved where CMU wall design results were not available on screen. This affected v22.5.0 only.
	11395	An incident was resolved where ETABS was not able to show the design report on some machines when a network printer was not set.

Structural Model

Incidents Resolved

*	Ticket	Description
	8338	An incident was resolved where unexpected instability message was given because the option "Lump mass at story level" was sometimes lumping them to nodes that were not connected to any structural member.
	10076	An incident was resolved where performing sequential stage construction analysis and removing slab in one of the stages was generating instability warning message due to internal points associated with area object removed in previous stage were not removed.
	11414	An incident was resolved where in rare cases the local axes for 3D wall piers was not calculated parallel to the longest leg. The local axes shown in the display and used for reporting design and analysis results were all consistent. The issue was drawing order dependent and when either the walls were broken over height in the same story or had multiple parallel legs not inline.
	11420	An incident was resolved where editing seismic/wind loads using interactive database editing would create an error condition when the analysis was run. This was a very special case when the editing was done in the same session in which an analysis was run earlier and a multistep seismic/wind load was present.

User Interface

Incidents Resolved

*	Ticket	Description
	11358	An incident was resolved where an error message was unexpectedly displayed when assigning the 'None' panel zone property to a joint in order to remove an existing assignment. This was a user interface error only and did not affect results.