



CADS SMART PORTAL 3D RELEASE NOTES



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Release Notes

Thank you for upgrading to the latest version of CADS SMART Portal 3D.
These release notes summarise the enhancements and corrections made.

Version 3.43 (Build 438): April 2018

Corrections made:

1. Application crashed when right clicking on base design objects. This has now been fixed.
2. Application crashed on clicking graphical results when no load combinations were present. This has now been fixed.
3. Application crashed when trying to auto design restraints. This has now been fixed.
4. Slow boot-up problem is now fixed.

Version 3.42 (Build 422): November 2017

Enhancements:

1. Cloud licensing is now supported.
2. Branding and icons have been updated.

Version 3.41 (Build 393): June 2017

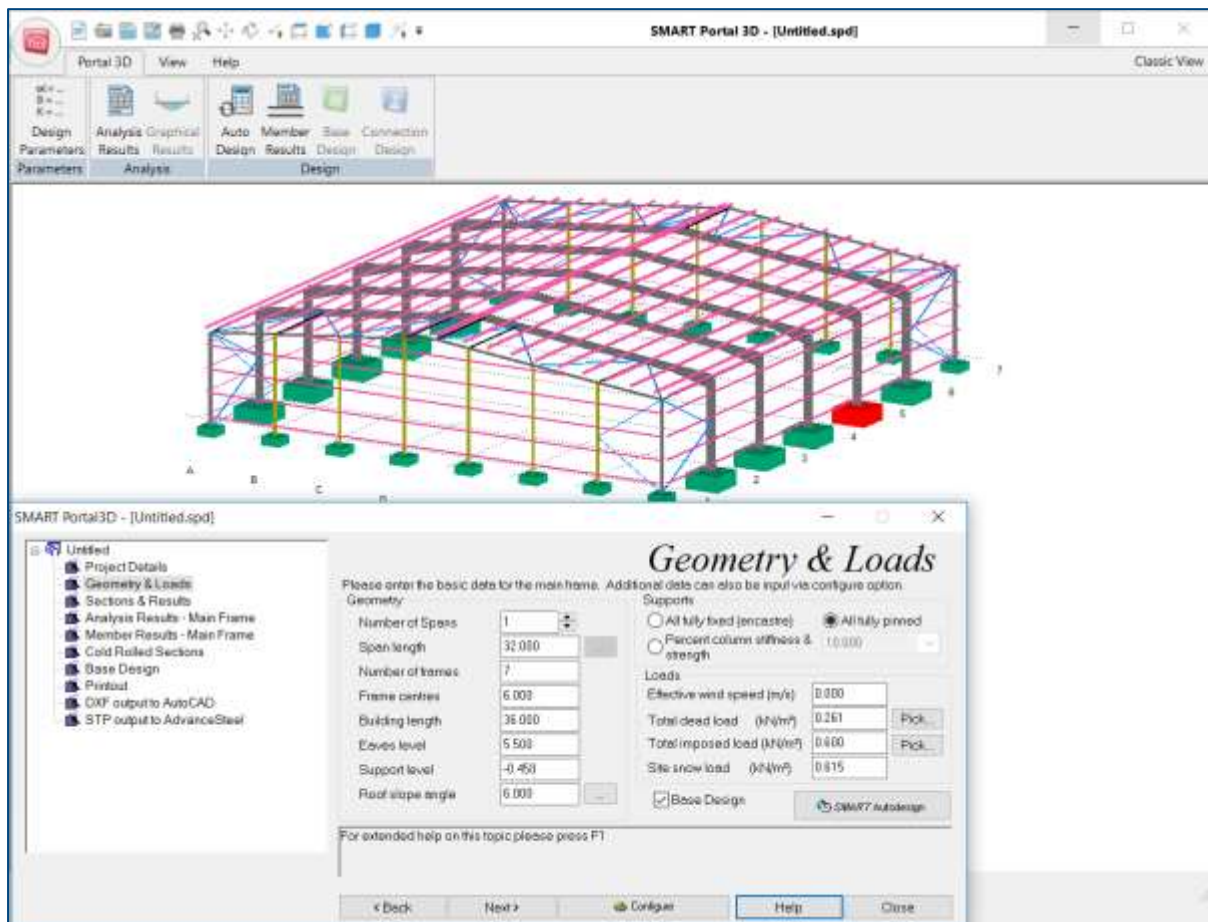
Corrections made:

1. In the last version, when using the ribbon interface, when exporting a joint to CADS SWMC a spurious message appeared. This has now been corrected.

Version 3.40 (Build 386): November 2016

Enhancements:

1. SMART Portal 3D now features a modern task-oriented easy-access ribbon interface of familiar tools and commands with brand new icons and tool tips. The classic menus and toolbars are still optionally available for those who prefer to continue using them.
2. SMART Portal 3D continues to integrate with the full release version of CADs VelVenti, the wind pressure calculation software replacing BREVe.



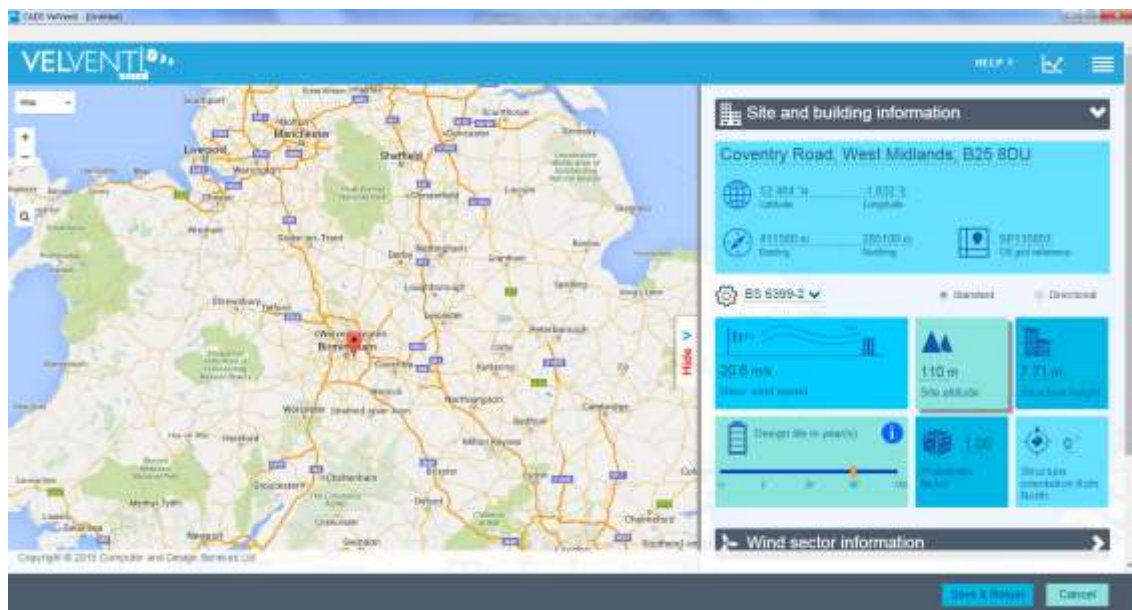
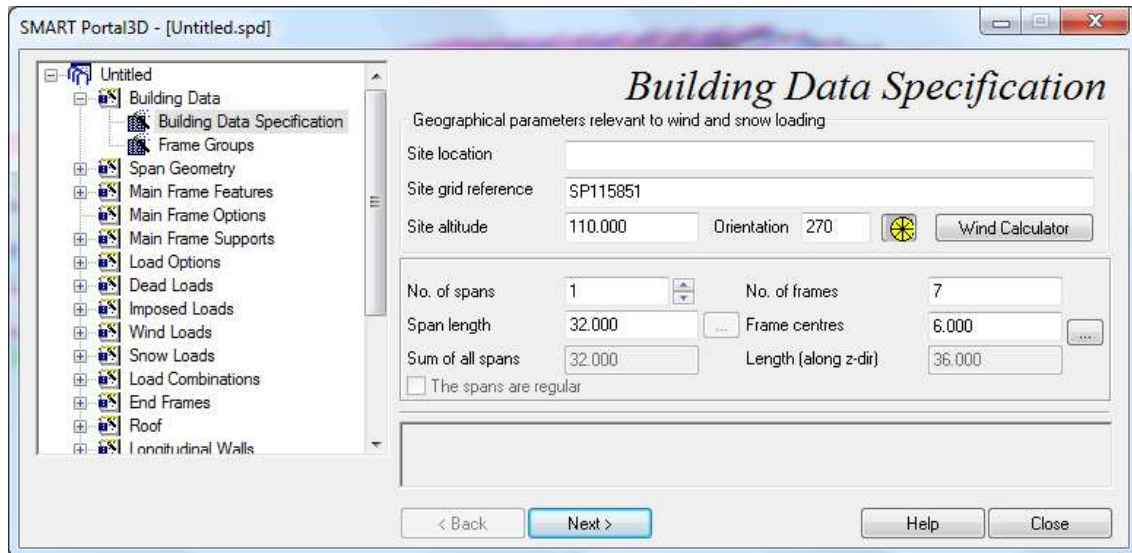
Corrections made:

When notional horizontal forces (NHF) are selected for analysis previously no loads were generated in the base joint. This is now corrected by applying equal and opposite forces at the base as imperfection effects are internal to the frame and should not load the base.

Version 3.30 (Build 361): December 2015

Enhancements:

1. SMART Portal 3D is now integrated to work with **CADS VelVenti** the new wind pressure calculation software replacing BREVe.



2. The printed diagram of portal geometry and sections now includes a note explaining the symbol denoting lateral restraints/stays.
3. The input range for basic external pressure coefficients under wind parameters has been extended to support open sided buildings.
4. CADS SMART Portal 3D now compatible with Microsoft Windows 10.

Corrections made:

1. An error in which the calculation results were not cleared if the load combinations were set to 'ignore' has been fixed.
2. User defined partial safety factors were not taken into account in some circumstances. This has now been fixed.
3. A crash which occurred on opening some files due to the presence of orphan joints is now fixed.
4. The 'CP3ChVpt2' wind option is no longer supported.
5. Some combination sub-types were displayed as 'error' on export to A3D MAX. This is now fixed.
6. An issue with the distorted dimension line and text in the portal geometry and sections printout for a portal frame with an eaves cantilever with downward slope has been fixed.
7. The SLS base reactions were incorrectly reported in the printout only. This is now fixed.
8. An issue where the edited load combination settings were not saved with the job is now fixed.

Version 3.21 (Build 323): November 2014

Corrections made:

1. An error has been fixed whereby, in certain circumstances, purlins ranged to include an eaves overhang on one side of a building were repeated on the other side, even though no eaves overhang was present.
2. The calculation of wind suctions on purlins and sheeting rails has been refined to more accurately reflect the extent of local suction zones. This results in the selection of more economical sections.
3. An error has been fixed whereby in certain circumstances export of joints to CADS SW Moment Connections produced an incorrect configuration or no connection.
4. An error has been fixed whereby changing sections caused edited wind load coefficients to revert to the default values.
5. An issue relating to the project data folder being lost when exporting to A3D MAX has now been fixed.

Version 3.20 (Build 297): May 2014

Corrections made:

1. In certain sequences, changed load values entered directly in the input fields rather than taken from the library were not updated in all spans for the calculation. This is fixed now.
2. In certain sequences base design load combinations did not retain the input floor loads for SLS combinations. This is fixed now.
3. For a customer job, there was an issue initialising the design frame group whereby the distance from near end was incorrect internally leading to increased wind loading. This is fixed now.

4. For jobs calculated in a previous release a warning is now displayed on opening, providing an opportunity to force a recalculation to clear any incorrect data as noted above being stored.
5. The calculation of wind load on purlins and rails has been improved by considering the dynamic augmentation factor (1 + Cr) as 1.0 rather than the value adopted for the main frames and bracing.
6. The dead load on roof cladding and purlins is now calculated based on the sloped area rather than the projected area on plan.

Version 3.19 (Build 279): December 2013

Corrections made:

1. The version number has been incremented due to changes in supporting software. There are no functional changes.

Version 3.18 (Build 277): June 2012

Corrections made:

1. Openings added to the right elevation were not being shown in the DXF output. This is fixed now.
2. The sheeting rails shown in DXF output were different from those in the SP3D output. This is fixed now.
3. The printouts showed only local capacity and not lateral buckling results. This is fixed now.
4. In certain circumstances, creating a "Double Span Duo Pitch" frame using the template with default values and running "Smart auto design" in quick mode did not give a 'passed' solution. This is now fixed.

Version 3.17 (Build 245): June 2011

Corrections made:

1. In certain circumstances, print generated an error message "Encountered improper argument". This defect has been fixed now.

Version 3.16 (Build 242): September 2010

Corrections made:

1. Using different support fixities for SLS deflection load combinations was not working as intended in some circumstance. This issue is now resolved.

2. When parapet posts were selected for multi span portals with constant eaves height, the program used to create additional internal parapet posts when the default height was edited. Now corrected.
3. When calculating the weight of sections, the door head trimmers where not identified as an item in the approximate bill of quantities. This defect is corrected and the program now outputs the correct BOQ with separate items included for door trimmer beams.
4. In certain operating sequences, the program used to reset the value of the dead load of roof cladding on slope to zero. This is now corrected.
5. CADS SMART Portal 3D is made compatible with Microsoft Windows 7.

Version 3.15 (Build 230): November 2009

Corrections made:

1. The restraints 'Metal cladding fixed direct to column' and 'Full height masonry restraint' was not considered in the design of end posts. This has been corrected.
2. The side wall details were not displayed properly in the print / preview diagram. This has been corrected.

Version 3.14 (Build 227): April 2009

Enhancements:

1. In the End frame posts dialog, the minimum spacing has been reduced to 0.5m.
2. In the Design criteria dialog, the minimum deflection ratio limit has been modified from 100 to 50 as requested by certain users for special applications.
3. Combination options for RC pad base designer in the Load combinations and categories dialog has been modified by merging wind uplift and wind down to wind and replacing Normal with Non-wind. The up and down loading condition is now detected by the base designer program.

Corrections made:

1. In the Wind Coefficients dialog the variable "(Ve)" has been added after "Effective wind speed" and "(qs)" after "Dynamic pressure".
2. If the haunch length was changed, the analysis and subsequent results were not getting updated. This has been corrected.
3. The drawing in printout showed haunches when haunches were not selected. This has been corrected.
4. Design for wind load deflections has been corrected to serve as an autodesign control not an analysis results filter.

5. In certain circumstances the secondary member check for end posts could report 'passed' when the numerical results indicated that the member had failed. This has been corrected.
6. A crash occurred when exporting a main frame to A3dmax with base design selected at the same time as end posts and doors. This has been corrected.

Version 3.13 (Build 218) July 2008

Corrections made:

1. When a base was exported to SWMC with the 'Fire collapse loads' option selected in the 'Load Type Options' page, the fire collapse load combination was not getting exported. This has been corrected.

Version 3.12 (Build 216): June 2008

Enhancements:

1. The slenderness correction factor (n_t) formula in Annex G.4.3 of BS 5950-1:2000 Amendment 1 (2007) is modified in accordance with Corrigendum 2 (2008).

Corrections made:

1. Sheeting rails with stays were not displayed correctly in the print / preview diagram for the case of rails inside the columns. This has been corrected.
2. When a door was specified in the last longitudinal bay the door bases were not designed or checked. Due to this when these bases were included in the print data crash occurred in print / preview. This has been fixed.
3. When there was no end posts specified in the end frames if one or more internal longitudinal bracings were removed crash occurred while doing secondary member check. This has been corrected.

Version 3.11 (Build 215): April 2008

Corrections made:

1. Changing the construction type of bases from Reinforced Concrete to Mass Concrete by setting the top and bottom bar to 'Not required' in the Bar Arrangements page was not properly recognised by the application and caused many error messages. This has been corrected.
2. After completing autodesign, any change in the dimension of the base would result in change in the number of bars. The change in the number of rebar was not retained by the application which resulted erroneous results. This has been corrected.

3. Earlier versions of SMART Portal3D permitted base design without a licence of standalone RC Base Designer. This option was not available in the recent version. This has now been reinstated.

Version 3.10 (Build 212): December 2007

Enhancements:

1. CADS SMART Portal 3D is made compatible with Microsoft Windows Vista.
2. The CADS SMART Portal Launcher has been replaced with the new CADS System – Analysis, Modelling and Design Launcher bringing all CADS structural analysis and design products together.
3. The new (2006) range of steel sections from Corus (Advance sections, Celsius 355, Jumbo 355 and Hybox 355 sections) are now included in the Steel section library.
4. 'Base Design' option is introduced in 'Support Options' dialog. This option enables the user to activate or deactivate base design in a particular job. By default the option will be un-ticked or deactivated.
5. New input fields 'headroom' and 'support level' are introduced for each door. This will enable the user to specify clear opening (height) of the door from datum to underside of soffit beam. The headroom dimension will be from under side of soffit beam to underside of header beam. The selected section for vertical post is assumed for soffit beam also. Also the support level of door posts can now be different from the main column support level which is usually deeper.
6. The following new input options have been introduced in the Purlins & Rails page.
 - a. Purlins & Rails page is divided into Restraints and Spacing pages. While the actual spacing is defined in the spacing page, the following new options are introduced in the restraints page.
 - b. Options to specify different conditions for left and right walls (earlier commonly called 'side walls') & near and far walls (earlier commonly called 'end walls').
 - c. Roof: The existing 'Continuous decking restraint' option is renamed as 'Roof decking fixed direct to rafters'.
 - d. Walls: New restraint types are introduced replacing the 'Continuous cladding restraint' viz. 'Metal cladding fixed direct to column', 'Full height masonry restraint' and 'No intermediate restraints'.
 - e. A new spacing option 'Equal spacing' with rounding increment input is introduced for both purlins and rails. This option will divide the range length into the minimum number of equal intervals which do not exceed the maximum and are rounded to the rounding increment except for the closing dimension.
 - f. For left and right walls a range option 'Underside haunch' is introduced which ensures a restraint within $\pm D_c/2$ of the underside of haunch where D_c is depth of column section.
 - g. An option to specify wall restraints either inside or outside the column is introduced
 - h. A new input field to specify the projection of sheeting cantilever below the bottom rail is introduced.
7. Cold formed eaves beam selection and design is introduced. End bay and intermediate bays eaves beam sections can be selected through 'Purlins, rails, eaves beams > Design' page. If the default section is not sufficient using 'Pick' button an optimum section can be selected. Eaves beam sections offered by Metsec and Kingspan manufacturers are available in the current version.

8. Design criteria for Bases has been upgraded to support CADS RC PadBase Designer as per the latest Design and Detailing codes viz. BS 8110-1:1997 Amendment 3 and BS 8666:2005 respectively.
9. The steel member checking module currently assumes lateral restraints to both flanges of the columns at the underside of the haunch where a plastic hinge commonly occurs. BS 5950 permits the relaxation that a hinge location may be considered restrained if there is a restraint within a distance $D_c/2$ from the hinge position, where D_c is the depth of the section at the hinge. The program is now made to check the left and right column restraints individually and display the following warning message, if required:-

“LEFT WALL: An additional rail with stays or equivalent lateral restraint is required between 6057 and 5524 as assumed in the column member stability calculations.” [typical wording and dimensions illustrated]
10. Export to AdvanceSteel through ‘Output Options > Stp Out’ is improved. An interface dialog to input offsets to shift the system line of various model roles like columns, gable posts, bracings, etc in AdvanceSteel is introduced. This improves the Portal model exported to AdvanceSteel and requires less time to detail the structure.

Corrections made:

1. In the printout of Near end Frame geometry and section – sketch spurious bases were drawn at the corners (extreme left and right). This has been fixed.
2. When the soil parameters for some bases were modified the output still showed one set of parameters for ‘All’. This has been fixed.
3. When cold formed (CF) hollow sections were chosen this was not indicated in the output. This has been corrected.
4. Opening ‘Purlins and rails > Design (formerly Critical loading) and closing without any data change unnecessarily invalidated the analysis results. This has been corrected.
5. The general layout diagram always showed dimensions for Far end gable alone. This was misleading when the Near end gable had different post setting out. Now it is fixed and the general layout shows dimensions of both Far and Near end gables.
6. Base design results were not available in the printout unless secondary member check was performed. This has been fixed.
7. In Quick mode occasionally there was an inconsistency in reporting the status of member design in ‘Section & Results’ page and ‘Member Results – Main Frame’ page after doing SMART Autodesign. Similarly in Advanced mode after displaying ‘Auto design restraints successfully completed’ the ‘Member Results’ page displayed ‘Error’ result. This was because SMART Auto design could not handle plastic hinge within the member length. This has been fixed and the results are consistent with SMART Auto design/ Auto design restraints.
8. When the member check results have ‘Error’ the status still showed ‘Passed’. This has been fixed by introducing a new status type ‘Error’.
9. The occasional appearance of the spurious error message "Error in CalcAtPosn-seePras-I-E" during member check is suppressed.
10. Analysis, member check and base design results were lost in certain circumstances when a job was saved and reopened. This has been corrected.

11. The grid lines shown on the printed sketch plan were different to those used in the program and displayed on main view. This has been corrected.
12. Changing roof bracing pattern unnecessarily invalidated analysis results. This has been fixed.
13. 'Increase column/rafter section and try again' option is removed from the list of options displayed by the program when Auto design restraints fails to produce a result.
14. Exporting all hollow sections to SWMD through Member check > Details failed and displayed error message "Fatal error- Invalid section type for non-prismatic member - please report immediately". This has been fixed.
15. Number of pages in the printout was unnecessarily wasted because each table was allowed to start in a fresh page. This has been fixed now by allowing the tables to start at the end of previous table.
16. The result status of Near and Far end frames in Advanced Mode Frame Design Groups dialog were wrongly displayed as Failed whereas the same were Passed in Quick Mode. This refresh error has been fixed now.

Post-installation notes

Once you have installed CADS SMART Portal 3D, it must still be authorised before it can be used. The procedure is the same for stand-alone and network installations. For network installations, you should ensure you have the necessary permissions to write to and create directories on your server drive before starting.

To start CADS SMART Portal 3D, select the 'CADS System - Analysis, Modelling & Design' icon from the Desktop or 'CADS' program group (Start->Programs) and then click on the 'SMART Portal 3D' button from the 'Portal' tab. If the program is not authorised the licence manager will be invoked automatically, through which the licence can be requested.

At any time, a licence can be requested by pressing the "Licensing Wizard..." button and the application can be licensed by pressing the "Enter/Import Licence Codes..." button of the CADS Licence Manager.

For details refer to the CADS Licence Manager help.

If you have any questions about this procedure, please contact our Technical Support Department who will be happy to help.

Technical support and Authorisation codes:

Telephone: +44 (0)1202 603733

Email (Support): support@cadsworld.co.uk

Other useful addresses are:

Email (Sales): sales@cadsworld.co.uk

Website: <http://www.cadsworld.co.uk>

Fax.: +44 (0)1202 658549



Version history

Version information prior to those versions listed within this document can be found in the file 'readme.txt' within the application folder.