



CADS UK Design 2024.0
Analysis and Design Release notes



Microsoft
Partner

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CADS UK Design 2024

Thank you for upgrading to the latest CADS UK Design.

These release notes summarise the enhancements and corrections made across all software.

CADS UK Design 2024.0 can be installed on Windows 10 and Windows 11.

DVD Installer

General corrections:

1. Minor updates to the help and other support documents of all the products.

CADS Analyse 3D

Correction made:

1. In certain cases, design groups were not created for steel members when the design code was set to British Standard. This has been fixed.
2. The steel section library has been updated to display notations based on the selected design code.
3. In certain cases, effective lengths of cantilever members were calculated incorrectly for steel members designed/checked according to Eurocode 3. This has been corrected.
4. In certain cases, some steel members were incorrectly marked as failed in the Design and Check results dialog. This has now been fixed.
5. Exporting to CSV crashed the application when a joint load was present in the model. This has now been fixed.
6. The application would crash during analysis if duplicate members were present in the model. This has now been fixed.
7. Generation of EHF forces during analysis would cause the application to crash in certain cases. This has now been fixed.
8. Unnecessary warning messages were shown when TO/CO steel members were designed. This has now been fixed.

CADS A3D MAX

Corrections made:

1. In certain cases, design groups were not created for steel members when the design code was set to British Standard. This has been fixed.

2. The steel section library has been updated to display notations based on the selected design code.
3. In certain cases, effective lengths of cantilever members were calculated incorrectly for steel members designed/checked according to Eurocode 3. This has been corrected.
4. In certain cases, some steel members were incorrectly marked as failed in the Design and Check results dialog. This has now been fixed.
5. Exporting to CSV crashed the application when a joint load was present in the model. This has now been fixed.
6. The application would crash during analysis if duplicate members were present in the model. This has now been fixed.
7. Generation of EHF forces during analysis would cause the application to crash in certain cases. This has now been fixed.
8. Unnecessary warning messages were shown when TO/CO steel members were designed. This has now been fixed.

CADS Smart Portal 2D

Enhancements:

1. An option to directly input peak velocity pressure has been introduced for situations where values are not received from VelVenti.

Corrections made:

1. The steel section library has been updated to display notations based on the selected design code.
2. In certain cases, effective wind speed data was not read properly from VelVenti. This has now been fixed.

CADS SMART Portal 3D

Enhancements:

1. An option to directly input peak velocity pressure has been introduced for situations where values are not received from VelVenti.

Corrections made:

1. Unnecessary warning messages were shown during “SMART Autodesign” of sections in certain cases. This has now been fixed.
2. In certain cases, junk values were shown for torsional buckling utilisation of End frame door’s vertical post. This has now been fixed.

3. In certain cases, effective wind speed data was not read properly from VelVenti. This has now been fixed.

CADS Steelwork Moment Connections

Enhancements:

1. If the pad base attached to the joint was designed before exporting the joint from A3DMax / Portal 2D / Portal 3D to SWMC, SWMC now reads the designed pad base dimensions.
2. Worked examples have been added to the user manual.

Corrections made:

1. The steel section library has been updated to display notations based on the selected design code.
2. End plate resistances for the outer bolts were unsafe when the bolts were significantly outside the flange width. This has now been fixed.
3. Horizontal length of the haunch shown in SWMC differed from the value shown in A3DMAX/Portal for imported joints. This has now been fixed.
4. Column web shear resistance was calculated incorrectly when outstand shear stiffeners were present and bolt row(s) outside the stiffened zone. This has now been fixed.
5. In the calculation of shear resistance of baseplate to concrete interface according to RC section analogy the effective area of rebar/bolts was reported incorrectly. The actual calculation was correct. The report has now been fixed.

CADS SMART Engineer

Corrections made:

1. In "Timber Members - EN 1995-1:2004: Checks and Design: Columns - Axial forces and bending" the partial safety factors were incorrectly used in certain cases. This has now been corrected.
2. In "Timber Members - EN 1995-1:2004: Checks and Design: Columns - Axial forces and bending" the load duration type specified was not considered in the calculation in certain cases. This has now been fixed.
3. In "Wind loading to EC1", external pressure coefficient of wall was wrong for 90⁰ case. This has now been fixed.

CADS RC Column Designer

Corrections made:

1. Previously, for the calculation of required cover, the abrasion criterion was included within the input for the deviation criterion. This has now been corrected by separate inputs for deviation criterion and abrasion criterion.

CADS Wall Panel Designer Max

Corrections made:

1. Vertical load capacity check was disabled when the top supported edge is free for Eurocode design. This has now been fixed.
2. Vertical load capacity was calculated incorrectly when the top/bottom supported edge is free. This has now been fixed.
3. Normalised compressive strength of the masonry unit was calculated incorrectly when the unit height as built is set as laid flat for Eurocode design with Irish National Annex. This has now been fixed.

CADS Composite Beam Designer

Enhancements:

1. Structural roof decks manufactured by Tata Steel have been included in the profile sheet library.

CADS VelVenti

Correction made:

1. Some locations were wrongly classified as country instead of town. This has now been fixed.
2. In certain cases, directional factor was calculated incorrectly. This has now been fixed.