CADS UK Design 2024.1

Analysis and Design Release notes

CADS

AUTODESK
Authorised Developer

Microsoft
Partner

Contents

CADS UK Design 2024.1

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 2024.1 can be installed on Windows 10 and Windows 11.

CADS Analyse 3D

Enhancements:

1. An option has been introduced to display the design group reference names as the member line labels during DXF export;
2. Supports subjected to both compression and tension now display the maximum tension and compression values when the envelop option is selected.

Correction made:

1. The automatic self weight calculations for CUB, CUC and CSJ sections were incorrect. This has now been fixed;
2. Zooming text was not working properly in the section editor, materials and 'loads and moments' dialogs. This has now been fixed;
3. In certain cases, warning messages were not shown when exporting unsupported connection types to SWMC. This has now been fixed;
4. When calculating lateral deflection limits according to the Eurocode for steel members, the span length was calculated incorrectly between lateral restraints. This has now been corrected to calculate the span length between supports;
5. For steel members removed in the TO/CO analysis, member checks were still being performed. This has now been fixed;
6. Eurocode steel member checks were not performed when duplicate combination reference names were present. This has now been fixed;
7. The positions of member fixity labels were incorrect for shorter members. This has now been fixed;
8. In certain cases, support reaction labels were displayed incorrectly when the envelop option was selected. This has now been fixed;
9. Load combinations were not imported correctly when importing from a CSV file. This has now been fixed;
10. When user-defined steel material was used for hollow steel sections, the buckling curve for axial buckling calculations was incorrect for Eurocode design. This has now been fixed;
11. In some cases when exporting an Apex connection with slope to SWMC, the slope of the member was incorrect. This has now been fixed.

CADS A3D MAX

Enhancements:

1. An option has been introduced to display the design group reference names as the member line labels during DXF export;
2. Supports subjected to both compression and tension now display the maximum tension and compression values when the envelop option is selected.

Corrections made:

1. The automatic self weight calculations for CUB, CUC and CSJ sections were incorrect. This has now been fixed;
2. Zooming text was not working properly in the section editor, materials and 'loads and moments' dialogs. This has now been fixed;
3. In certain cases, warning messages were not shown when exporting unsupported connection types to SWMC. This has now been fixed;
4. In some cases it was not possible to create load panels connecting 4 nodes. This has now been fixed.
5. When calculating lateral deflection limits according to the Eurocode for steel members, the span length was calculated incorrectly between lateral restraints. This has now been corrected to calculate the span length between supports;
6. For steel members removed in the TO/CO analysis, member checks were still being performed. This has now been fixed;
7. Eurocode steel member checks were not performed when duplicate combination reference names were present. This has now been fixed;
8. The positions of member fixity labels were incorrect for shorter members. This has now been fixed;
9. In certain cases, support reaction labels were displayed incorrectly when the envelop option was selected. This has now been fixed;
10. The plane of the roof overhang was reset in certain cases. This has now been fixed;
11. The application crashed during analysis when triangular load panels with one way load distributions were present. This has now been fixed;
12. Load combinations were not imported correctly when importing from a CSV file. This has now been fixed;
13. In certain cases, auto generated EHF loads were increasing every time the analysis was performed. This has now been fixed.
14. When user-defined steel material was used for hollow steel sections, the buckling curve for axial buckling calculations was incorrect for Eurocode design. This has now been fixed;
15. In some cases when exporting an Apex connection with slope to SWMC, the slope of the member was incorrect. This has now been fixed.

CADS Smart Portal 2D

Corrections made:

1. In certain cases, the application crashed when attempting to generate the graphic results for moments. This has now been fixed.

CADS SMART Portal 3D

Corrections made:

1. In certain cases the smart auto design of sections was not working when the 'Eaves ties required' option was enabled. This has now been fixed;
2. In certain cases, reactions for supports under the door posts were not calculated. This has now been fixed;
3. In certain cases, the application crashed when attempting to generate the graphic results for moments. This has now been fixed.

CADS Steelwork Member Designer

Corrections made:

1. In certain cases, the analysis results for secondary members in SMART Portal were not imported properly. This has now been fixed.

CADS Steelwork Moment Connections

Corrections made:

1. In certain cases, the 2D view of the connections was not displayed in the working area. This has now been fixed;
2. There were empty spaces under the compression resistance report in certain cases. This has now been removed;
3. In certain cases when clicking on the bolts in the 2D view in the working area it didn't open the bolts input dialog. This has now been fixed;
4. In certain cases when importing an apex connection with slope from A3D MAX, the slope of the member was incorrect. This has now been fixed;
5. The bearing strength of the base plate to concrete and the anchor plate to concrete were not updated automatically when the concrete strength was changed. This has now been fixed;

6. In certain cases, the 'weld strength insufficient' warning was shown incorrectly. This has now been fixed;
7. In certain cases the bearing enhancement factor (alpha) was calculated incorrectly. This has now been fixed.

CADS SMART Engineer

Corrections made:

1. In 'Concrete industrial ground floor to TR34', the input range values for 'residual flexural strength' field has been updated**;**
2. In 'Timber Members - EN 1995-1:2004: Design: Timber joists and lintels', the vibration check was ignored during section design. This has now been fixed.

CADS RC Column Designer

Enhancements:

1. CADS RC Column Designer has been upgraded to support the latest Detailing code BS 8666:2020.

CADS RC Beam Designer

Enhancements:

1. CADS RC Beam Designer has been upgraded to support the latest Detailing code BS 8666:2020.

Corrections made:

1. In certain cases, the minimum area of reinforcement was calculated incorrectly for BS 8110 – Amendment 3. This has now been fixed.

CADS RC Pad Base Designer

Enhancements:

1. CADS RC Pad base Designer has been upgraded to support the latest Detailing code BS 8666:2020.

Corrections made:

1. CADS RC Pad Base Designer produced incorrect results when the eccentricity of the linear bearing pressure exceeded the ‘length/4’ and ‘width/4’ value of the base. This has been fixed to provide a warning in such cases, and the calculation is now stopped as it falls outside the scope of RCPBD;
2. The anchorage length was incorrectly calculated in certain cases. This has now been fixed.

CADS RC Pile Cap Designer

Enhancements:

1. CADS RC Pile Cap Designer has been upgraded to support the latest Detailing code BS 8666:2020.

CADS VelVenti

Enhancements:

1. An option has been added to modify the characteristic ground snow load for EN 1991-1-4 with the UK national annex design code when site the altitude is below 100m;
2. An option to override the date in the report has been added.

Correction made:

1. In certain cases, directional factor was calculated incorrectly. This has now been fixed.