



# CADS UK DESIGN 2021

## ANALYSIS AND DESIGN RELEASE NOTES



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# CADS UK Design 2021

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 2021 can be installed on Windows 8.1 and Windows 10.

## Installer

### General enhancements:

1. CADS UK Design now comes with a new software installer and updater. This can be used to install new products and also check for any available updates.
2. An option to “Check for Updates” has been included in all of the products.
3. The cloud licensing module has been updated in all the supported products to prevent downtime if the licence server is not responding.

## CADS Analyse 3D

### Enhancements:

1. An option to sort the items in the explorer window has been added at the bottom of the window.
2. The Section library has been updated to include the latest sections available in the SCI Blue Book and ArcelorMittal Europe Orange Book. The UK sections are designated UK21.

### Corrections made:

1. Preset views were not being displayed correctly in some cases. This has now been fixed.
2. Effective length was calculated wrongly in some cases for steel columns using Eurocode. This has now been fixed.
3. When creating/editing a restraint template for steel members designed using Eurocode, the member length shown in the UI was misleading as a default length of 5000 mm was always shown. Member length will not be shown any more when creating a restraint template.
4. In some cases the combination names were cropped in the report. This has now been fixed.
5. In certain cases the summary and detailed results utilisations were mismatched for steel members designed using BS code. This has now been fixed.
6. An application crash occurred when trying to print the steel design detailed results when any combination name had an extra space at the end. This has now been fixed
7. The member deflection labels for the graphical results have been corrected to show the local axis direction.
8. In certain cases the maximum effects of members were incorrectly presented in the printed report. This has now been fixed.

## CADS A3D MAX

### Enhancements:

1. An option has been introduced to generate automatic panels on the external envelope of the building.
2. An option to sort the items in the explorer window has been added at the bottom of the window.
3. In order to improve results, an improvement to the tension only/compression only analysis option has been made which allows the user to define pairs of bracings which cannot operate simultaneously.
4. The Section library has been updated to include the latest sections available in the SCI Blue Book and ArcelorMittal Europe Orange Book. The UK sections are designated UK21.

### Corrections made:

1. Preset views were not being displayed correctly in some cases. This has now been fixed.
2. Effective length was calculated wrongly in some cases for steel columns using Eurocode. This has now been fixed.
3. When creating/editing a restraint template for steel members designed using Eurocode, the member length shown in the UI was misleading as a default length of 5000 mm was always shown. Member length will not be shown any more when creating a restraint template.
4. In some cases the combination names were cropped in the report. This has now been fixed.
5. In certain cases the summary and detailed results utilisations were mismatched for steel members designed using BS code. This has now been fixed.
6. The panel editor table was corrupted in certain cases. This has now been fixed.
7. An application crash occurred when trying to print the steel design detailed results when any combination name had an extra space at the end. This has now been fixed
8. The member deflection labels for the graphical results have been corrected to show the local axis direction.
9. In certain cases the maximum effects of members were incorrectly presented in the printed report. This has now been fixed.

## CADS Smart Portal 2D

### Corrections made:

1. The application crashed when ties and hangers were present and set to tension only. This has now been fixed.
2. The application crashed on member check when the design code is set to British Standard and if the job name had a space at the end of the filename. This has now been fixed.
3. The load combination shown in the SLS Brace reactions report table was wrong. This has now been fixed.
4. The fire collapse load was not calculated when the design code was set as Eurocode. This has now been fixed.

## CADS SMART Portal 3D

### Enhancements:

1. Updated the cold formed section library according to the latest manufacturer tables.

### Corrections made:

1. Loads were not exported to A3DMAX when the Future extension required options were chosen. This has now been fixed.

## CADS Steelwork Moment Connections

### Corrections made:

1. Some of the user inputs were reset to default values when some other inputs were changed. This has now been fixed.
2. In some cases when a job was opened using File-> Open, the web shear resistance was calculated incorrectly. This has now been fixed.

## CADS SMART Engineer

### Enhancements:

1. Maximum value for the inputs of percentage increase in rainfall and D(minutes) value has been increased to 40% and 2880 minutes respectively in the Soakaway design template.

### Corrections made:

1. Application crash when resizing the toolbar column. This has now been fixed.
2. An incorrect section depth/diameter was used in the calculation for custom sections. This has now been fixed.
3. In the Floor joists template, a vibration check was performed even when the option was switched off. This has now been fixed.
4. Moment resistance of steel was calculated incorrectly in certain cases in the Reinforced masonry retaining wall template. This has now been fixed.
5. Shear capacity check at the actual curtailment point of starter bars was not clear in the Reinforced masonry retaining wall template. This has now been corrected.

## CADS RC Pad Base Designer

### Corrections made:

1. It was not possible to set the ultimate limit state under load combination factors in the National Determined Parameter dialog. This has now been fixed.
2. There were some mismatches between the Summary and Detailed results in certain cases. This has now been fixed.
3. Bearing pressure due to the partial floor load was calculated incorrectly when there was an eccentricity in the column. This has now been fixed.
4. In certain cases the application crashed when the "Apply/Close" button was clicked in the "Wall/Partial Floor Load" tab. This has now been fixed.
5. The area of required reinforcement was not updated in Check mode for certain cases. This has now been fixed.
6. In certain cases, the application crashed when designing a mass concrete base according to Eurocode. This has now been fixed.

## CADS RC Pile Cap Designer

### Corrections made:

1. The enhancement factor was reported incorrectly in the report in some cases. This has now been fixed.

## CADS RC Beam Designer

### Corrections made:

1. In certain cases when exporting a beam from A3DMax into RCBD the supports were not correct. This has now been fixed.
2. In certain cases the secondary zone info was not calculated correctly when the curtailment option is set as "Specified". This has now been fixed.
3. In certain cases when exporting the secondary beam from A3DMax into RCBD the supports were created at wrong locations. This has now been fixed.

## CADS RC Column Designer

### Corrections made:

1. The user defined cover value was reported incorrectly in the detailed output when the column was designed using Eurocode. This has now been fixed.
2. The column cross-section was not limited as per clause 5.3(7) of Eurocode. This has now been implemented.

## CADS RC Slab Designer

### Corrections made:

1. The shear link area was reported incorrect in some cases. This has now been fixed.

## CADS Wall Panel Designer Max

### Corrections made:

1. Equivalent uniform area load for the applied line loads on panels were calculated conservatively in certain cases. This has now been corrected.
2. The minimum value for Unit height as tested has been changed from 50 mm to 40 mm.
3. The Limits for the “Height from bottom” input in the Line load tab has been changed from (0 – panel height) to (10 – (panel height-10)).

## CADS VelVenti

### Correction made:

1. Some of the locations near the coastline were not identified correctly. This has now been fixed.
2. A location map was not available in the PDF report. This has now been fixed.