

# CADS PILED WALL SUITE RELEASE NOTES







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## **Release Notes**

Thank you for upgrading to the latest version of the CADS Piled Wall Suite.

These release notes summarise the enhancements and the corrections that have been made.

### Version 6.08 (Build 2017): November 2020

### **Corrections made:**

1. In some cases, soil Ciria classes were incorrectly displayed in the soils properties grid. This has now been corrected.

### Version 6.07 (Build 2016): October 2020

### **Corrections made:**

- 1. Updated the timber grades from old SC grades to current C/D grades;
- 2. Revised the timber lagging design to reflect BS5975:2019;
- 3. Added printing of concrete lagging input data;
- 4. Added printing graphics for finite active slopes and passive berms;
- 5. Removed printing of initial active slope angle when it is zero;
- 6. Fixed screen diagrams for stages with passive slopes;
- 7. Changed some variable types in the cofferdam module to deal with extreme stress ranges caused by large prop loads (1000 kN/m+);
- 8. Fixed calculation of frame member properties for single and twin UB options that had become reversed in an earlier version;
- 9. Changed default frame to the top prop rather than the most heavily loaded frame because changing the selection each time the cofferdam tab was selected was confusing and not intuitive;
- 10. Fixed the behaviour of the current frame selection changing if either a wall analysis or printing was performed.

### Version 6.05 (Build 2012): September 2019

#### **Corrections made:**

1. Fixed screen update bug in print preview after large preview;



- 2. Fixed error in deflection calculations for certain data sets;
- 3. Custom sections have been re-introduced based on user requests;
- 4. User Interface updated for greater ease of use;
- 5. New sections are not compatible with old (v5) files.

### Version 6.03 (Build 2010): April 2019

#### **Corrections made:**

- 1. Fixed an issue with wall stiffness errors that affected the deflection results;
- 2. Fixed an issue with change in pile toe level, where the passive ground level is below the originally set pile toe level.

### Version 6.01 (Build 2006): March 2019

#### **Enhancements:**

- 1. Eurocode 2 compliant design of concrete walls;
- 2. Eurocode 3 compliant design of steel walls;
- 3. Eurocode 7 analysis in the slip circle module;
- 4. Revised tab interface with a simpler layout consistent with other CADS software;
- 5. Finite slopes on the active side of the wall;
- 6. Berms on the passive side of the wall;
- 7. Libraries of steel sections hard coded into the software which makes transferring data files between different installations more robust;
- 8. Printing system improved with greater control of output.



### **CADS Piled Wall Suite Release Notes**

GADS PWS (example 1 - eff stress - da1c1.pws) File Help							-		×
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<ul> <li>Eurocode 7 ULS - Design Approach 1 - Combination 1</li> <li>Eurocode 7 ULS - Design Approach 1 - Combination 2</li> <li>Eurocode 7 SLS - For deflection calculation</li> <li>Custom parameters (Based on last code selected)</li> <li>Wall deflections are not calculated for any analysis where load factors or soil strength factors above unity are specified. This is because deflections should be taken from a serviceability (unfactored) analysis rather than a ULS analysis.</li> </ul>	Factors on embedment (applies to mai FOS on embedment Additional embedment factor on canti wall as part of calculation method	1.00		'an(Phi) Irained cohe Indrained co	esion	1.00 1.00 1.00	anchors)—		

### Version 5.34 (Build 257): June 2016

#### **Corrections made:**

- 1. A crash with 'bottom cantilever condition' and negative net stability factor has been corrected;
- 2. An error in the tie wall anchor where active side base fill is below the anchor bottom level has been corrected;
- 3. The default passive resistance options for 'bottom cantilever condition' have been changed;
- 4. Factor of Safety results for 'bottom cantilever condition' are no longer reported.

### Version 5.31(Build 253): March 2015

#### **Corrections made:**

- 1. The pressure diagram for data with a change in the pile level has been corrected;
- 2. Minor fixes have been made to the cofferdam plan and wall section drawings;
- 3. An error importing data created with version 5.26 which caused the data read to be aborted has been fixed;



- 4. The number of construction stages selected for analysis by default has been increased to include all changes to excavations and ground slopes. Users can still select or deselect any construction stage for analysis at their own discretion;
- 5. Some small errors in the cross-section drawing form have been corrected;
- 6. The Copy Drawing function now works with the latest version of Microsoft Word;
- 7. A program crash caused by a zero disturbing moment has been fixed.

### Version 5.28 (Build 249): February 2013

#### **Corrections made:**

- 1. The program crashed if a passive slope was input greater than the angle of internal friction of the soil when the EC7 option was selected. An error message now appears so that the input may be changed;
- 2. The program changed the cofferdam frame number without intervention during data entry.

### Version 5.26(Build 246): August 2012

#### **Enhancements:**

1. The steel sections library has been redesigned to allow retrieval of sections based on name rather than position in the tables which improves operation with old and shared job files.

#### **Corrections made:**

- 1. A program crash was fixed which occurred when the active slope equalled the active phi value with EC7 soil coefficients.
- 2. A problem was fixed relating to the application of pre-bore in king piles.
- 3. A problem was fixed relating to setting prop deflection data for multi-prop walls.
- 4. CADS Piled Wall Suite can now be used on monitors with a screen resolution that exceeds 2560 × 1440 pixels if required.
- 5. Selecting the largest SSP section as an anchor pile no longer crashes.
- 6. A crash caused by deleting water pressure points has been fixed.
- 7. A crash caused by printing graphs with all zero values has been fixed.
- 8. In the Options → Deflection settings → Walings screen, the maximum input 'l' value has been increased from 100,000 to 2,000,000 cm4 to accommodate the largest available twin sections.



### Version 5.19(Build 229): January 2012

#### **Enhancements:**

- 1. CADS Piled Wall Suite now implements support for Eurocode 7;
- 2. The user interface has been completely redesigned in a more logical tabbed format;
- 3. The sheet pile section library has been expanded and brought up to date with obsolete section tables clearly marked;
- 4. A new optional module has been provided for the analysis and design of anchorages for tied walls.

### Version 4.24 (Build 133): July 2010

#### **Enhancements:**

1. The software licensing system has been updated to be consistent with the CADS Design and Detailing 2010 software CD.

### Version 4.20 (Build 123): January 2007

#### **Corrections made:**

- 1. A bug has been fixed that sometimes caused a crash when re-analysing;
- 2. The printing option in the Cofferdam module now stores the correct user settings.

### Version 4.17 (Build 122): May 2006

#### **Enhancements:**

- 1. Ciria C517 pressure distribution for multi propped walls is now supported;
- 2. Low propped wall analysis with reversed soil pressures is now supported;
- 3. User-defined water pressure profiles to model pumping and sub artesian conditions are now supported;
- 4. An option for increasing cohesion with depth within soil strata has been provided;
- 5. Expanded soil library includes more parameters;
- 6. Arcelor sections have been added to the library;
- 7. The CADS Online feature has been introduced to let you know the latest product information. The frequency of display is configurable.



#### **Corrections made:**

- 1. Fixed a bug for prop at the toe level of a pile;
- 2. Fixed a bug for the deflection of a pile at the stage of prop insertion;
- 3. Fixed a bug that crashed slip circles with zero passive width;
- 4. Fixed a bug in the file association in Windows Explorer;
- 5. Horizontal and moment loads combined with no excavation gave unpredictable results now fixed;
- 6. Fixed a problem when changing the yield stress of sheet pile selections; changes are no longer overwritten.
- 7. Error in loading sections above row 17 in table fixed.

### **Program overview**

CADS Piled Wall Suite consists of a series of dynamically linked software modules for analysis and design of embedded walls in concrete or steel.

Wall analysis - performs the stability analysis of embedded, propped and cantilever walls to determine pile length, factor of safety, moments and shears for section design.

Wall design - provides rapid structural design for steel sheet piles, steel king piles with timber lagging, as well as reinforced concrete bored pile and diaphragm wall sections.

Cofferdam analysis / design - extends the process further to the design of cofferdam frames in structural steel to BS449 with output of drawings as well as design information.

Slip circle analysis - accurately evaluates the overall stability of the wall and adjacent ground.

### **Post-installation notes**

Once you have installed CADS Piled Wall Suite, it must 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 Piled Wall Suite, select the 'Ground Engineering' icon from the Desktop or 'CADS' program group (Start->Programs) and then click on 'Piled Wall Suite' button. If the program is not authorised the licence manager will be invoked automatically, through which a 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 please 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): <u>support@cads.co.uk</u> Other useful addresses are: Email (Sales): <u>sales@cads.co.uk</u> Website: <u>http://www.cads.co.uk</u>

