

Readme for Advanced Road Design for Civil 3D

V15.01

This readme contains important information regarding the installation and use of Advanced Road Design Imperial versions as described above.

This version of Advanced Road Design is available for multiple Civil 3D releases: Civil 3D 2011 to Civil 3D 2015.

Installation Instructions

You do not need to uninstall any previous versions of Advanced Road Design Imperial. This installation will install over the top of any previous ARD installation.

New Features

Roads

- R- in the Alignment Description is no longer a requirement when creating a road object. If the *Create/Edit Road* command is used, then the software will assume a road object is being created. If the *Create String/Profile* command is used, then the software will default to creating a string object.
- When running *Auto Road Creation*, the user specifies which Alignments are going to be created as road objects.
- A new *Switch Road* command exists to turn strings into road objects and visa versa.
- The load speed of the *Design Data Form* has improved.
- A new command named *Intelligent Sections* has been developed and can be used instead of *Multi Section Batters*. This command is used for decision based batter control. It is planned to extend development of *Intelligent Sections* to be incorporated into the Template Editor to manage section creation within the template as well as for the batters/daylights
- Introduction of a section routine allowing for sections to be shown at any angle to multiple strings and string sections, using a line for the section control. This is currently in Beta stage and can be accessed using the command ARDUV7INDEXROAD.
- Design model output to a *Civil3D Corridor* has been improved. This allows designers to than export their design to programs such as 3ds Max for visualisation.
- Winrar is now an option for the backup for project files
- New 'Compliance Checking' report for driveways. This command will output the clearance check report for all driveways. If a clash is detected, than a symbol will be shown on the driveway in the drawing.
- The Vertical Grading Editor now includes a grid editor. The grid editor allows designers to view all VIP's in a table and quickly override information such as elevation, grade, or VC length. This interacts directly with the VGE window edits.
- New functionality in the VGE Grid Editor enables multiple IP's to have their chainage adjusted (+ or -) by a user defined amount.

Pipes

- Added functionality to add pipe networks for stormwater, sewer and other underground services

Resolved Issues

Roads

- *Model Builder Edits* - The start chainage value will no longer revert to zero when specifying an end chainage. This issue would occur when specifying a chainage region for a model edit.
- Duplicate 3d polylines generated when a Civil 3D Surface was created has been resolved.
- If plotting sections from a model when *Always Create Civil3D Surface* is ticked on, the software will now produce an ARD model for purpose of plotting.
- Stopped Layer Isolate from flagging alignment co-ordinate change
- Red X on Roads *Vertical Grading Editor* now acts as a 'Save and Exit' instead of prompting to cancel
- Issue with *Copy Codes* addressed – there was an issue with an AutoCAD routine to find chainage/offset for an alignment
- Prevent data corruption when *Layer Isolate* is used. This was causing the software to move string data to the deleted folder because isolated alignments are not visible to the software.
- Multi Object Setout was not listing user defined setout spacings for them to be applied to strings.
- split datum plotting for road profiles was not allowing datums to be set for different pages properly. Also, the split datum level was not reported on the profile plot.

Changed/Enhanced Features

- The ARD Settings form will load much quicker than in previous versions.
- The Design Data form will load much quicker than in previous versions
- Clicking the X icon on the Vertical Grading Editor forms (both for Roads and Pipes) will result in a SAVE and EXIT. Previously a message would display for the user to choose whether to exit.

Known Issues

- The Cul-de-sac form is slow to open on 64bit machines, for first opening in a session
- The Active Network Settings form is slow to open on 64bit machines, for first opening in a session
- The update button that detects when alignment lengths have changed (Civil 3D version only) only displays upon first edit – after applying the update from the form, it will not display again in that session when any alignment used by ARD is edited
- In Advanced Road Design for BricsCAD, ensure MTFLAGS (for multi-threading), is turned OFF. Some users have experienced the software crashing when this system variable is turned on.
- When assigning Sewer Manhole symbols, it is possible to automatically assign the symbol from one Pit Type to the next selected Pit Type, if that second Pit Type did not already have a symbol actively defined. Once the symbol is set by the user, it does not get edited when toggling between Pit Types.
- If curved pipes are given a negative radius they will not update display on road long and cross sections, even if they are subsequently deleted. First, change the radius value on curved pipes to a positive value, then edit/delete as appropriate.

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Installation Instructions

Install as a standalone and enable evaluation. If you have a license activation key you can elect to activate the software. License activation is requested when a command is run in ARD.

New Features

Changed/Enhanced Features

Roads

Vertical Grading Editor > Volume Optimizer

The Optimize Volumes button on the Vertical Grading Editor now supports optimisation over a selected chainage range. You can now 'keep' parts of your design and only move a chainage range of IP's to achieve a final net volume result.

Section Sheet Production

Section Sheet Production has been totally revamped in line with plan production drafting requirements in the United States of America.

It is recommended that you review the Youtube video covering this new functionality:

<http://www.youtube.com/watch?v=JLnE5h2pjBs>

Profile Sheet Production

Profile Sheet Production has been totally revamped in line with plan production drafting requirements in the United States of America.

It is recommended that you review the Youtube video covering this new functionality:

<http://www.youtube.com/watch?v=asEy00XHoyo>

Resolved Issues

Roads/All

- If users ticked on the option in the ARD Drawing Settings to 'Only Load Data when an ARD Command is Run', then no data would load even if a command was run. This is fixed.
- The Edit IP form would fall behind the Vertical Grading editor window in certain circumstances, preventing editing of the form. This has been resolved.
- An issue with knuckles not re-establishing correct connection to road code elevations after the Reset button was pressed on the Vertical Grading Editor window has been fixed.
- An issue with Copy Codes has been resolved – if Copy Codes was applied beyond extents of the string being referenced, and error could occur.
- An issue with circular references in Copy Codes has been resolved.
- A bug in the Civil 3D API has been overcome – with certain geometry configurations ARD is given incorrect chainage information.

- User defined spacings in Multi Object Setout would result in an error message – this has been fixed and plotting works in these conditions