CIVIL DESIGNER Design Centre

The Design Centre platform module is the heart of Civil Designer. It combines the graphical CAD engine with an advanced DTM (digital terrain modelling) program that has all the required functionality to complete your design and produce your final drawings.

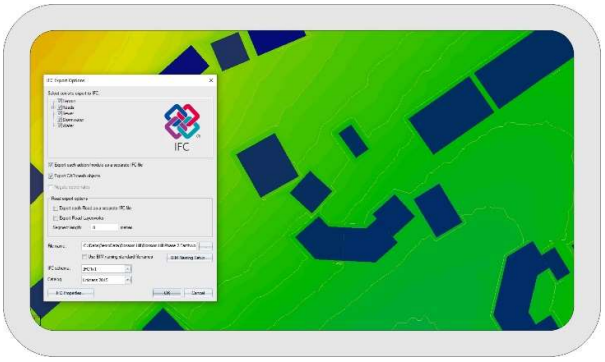
Industry Compatibility

As a founder member of the Open Design Alliance, we ensure an extremely high level of compatibility with DWG and DXF formats. We also support loading of Microstation DGN, Arcview SHP, Caddie CEX and Ultimate CAD UCX files.

IFC BIM

Our Industry Foundation Classes (IFC) support allows geometric and attribute information to be customised according to the requirements of the recipient, thereby improving efficiency in any BIM workflow.

Prior to export, you can set up custom IFC files, assign the appropriate northern or southern coordinate system, and specify the extents of the shared data.



Data can be allocated to one or more IFC files and can incorporate all or selected portions of the proposed infrastructure services associated with a project.

Use Multiple Aerial Photographs as Backdrops to your Design

Add multiple large images, such as orthophotos or cadastral backdrops, to view the spatial relationship of your design to other manmade or natural features.



Redraws are handled in no time and our software supports JPEG, TIFF, BMP and most geo-referenced images, including ER Mapper ECW and Lizardtech SID images.

Southern and Northern Hemisphere Co-ordinates

Projects are based on a specific hemisphere, map projection and datum / ellipsoid. Datums can be used when setting up a new project and are fully configurable. We further support both Northern and Southern hemisphere survey co-ordinates, ensuring your project is always correctly geo-referenced.

Embedded Drawings (Xrefs)

Link an external drawing (XRef) to the current drawing at a specific insertion point. The external drawing's

layers, line styles, text styles, dimension styles and blocks are merged into the current drawing.

The XRef Manager allows you to edit the list of linked drawings, which can be "loaded" and "unloaded" as necessary.

Super-fast Data Import

Civil Designer easily handles massive data sets, and rapidly triangulates large terrain models. There are very few design systems that can come close to matching Civil Designer's speed. In addition, our intelligent LIDAR import function extracts a useable DTM from millions of LIDAR points.

You can even convert CAD lines and text into DTM points and feature lines, which allows you to easily convert an existing drawing into a 3D model.

Unlimited DTM size with 255 Surfaces

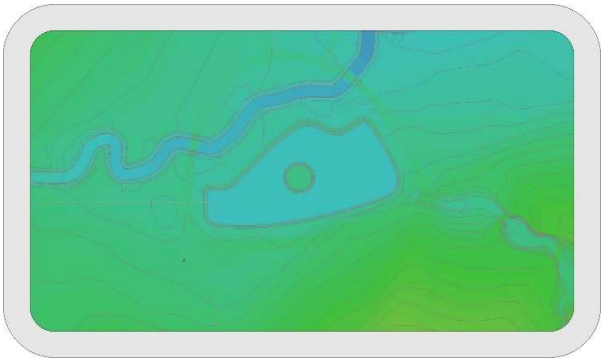
The 255 terrain model surfaces give you the tools to explore different design ideas, and analyse what-if scenarios to help improve project performance before projects are built.



Once you have finalised your design, you can easily merge the terrace with the underlying ground profile to create a final site model.

Intelligent Break-Line Generation & Fast Triangulation

Intelli-Line break line generation allows you to use cheap computer time to define the model features, instead of slow and painful manual break line definition.



Thereafter, you can fill in the rest of the site in a matter of seconds. Alternatively, use the lightning fast triangulation (6 million points in 1 minute) for more uniform sites.

Powerful DTM Editing Tools

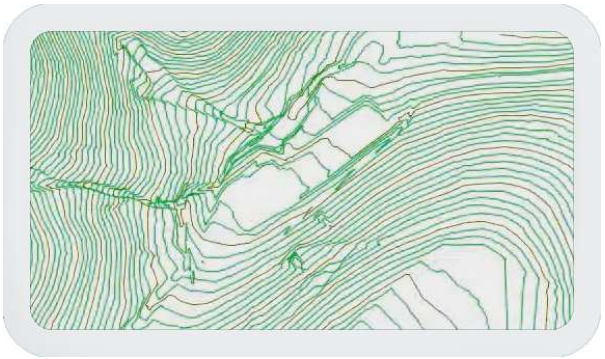
Create a digital terrain model from the raw co-ordinates, with full control over the break and feature lines on the site. If you want to remove the background clutter, simply filter the points display to show only certain points and break lines. When you use the interactive graphical functions to manipulate the data, the contours are updated as you change the break or feature lines.

For advanced DTM functions, such as bulk earthworks and dam volumes, add our Survey & Terrain module.

Generate Contours and Calculate Surfaces

Generate contours with user-defined intervals, highlighting and labels; and even display contours of multiple surfaces simultaneously.

You can also calculate the volume of a single surface, or the difference in volume between any two of your 255 surfaces.



These volumes can be reported in various formats with user-defined depth categories, topsoil stripping and compaction or bulking factors.

Multiple Views and Drawing Layouts

The drawing area can be split into multiple views, allowing you to see your project from different angles on one screen.

Layouts, or paper space viewports, can be used to create production drawings that are dynamically updated as the model changes.

Drawing Templates

Our powerful drawing templates (sheet files) allow you to define exactly what the final production drawings should look like, saving you hours of post-production CAD editing.

You can generate production drawings with detailed title blocks, north signs, grids, company logos, annotations, data lists, scale bars and more, so your plotting requires little, if any, CAD editing.

Furthermore, you no longer need to cut and paste your design into your title block. Our flexible sheet files allow the precise placement of all the design elements in your title block, with customisable settings.

Automated Key Plan Generation

If you have 100km of highway, or a town layout that requires multiple sheets, Civil Designer automatically lays out the sheets with a user-defined overlap and simultaneously generates a key plan to show you where a specific drawing fits into the whole design.

Dynamic Updating of Production Drawings

Production drawings are dynamically updated as you change your design. If you want to create archive copies, simply use the Publish function.

Comprehensive CAD Functionality for Final Drawing Production

All design options occur in the integrated industrial-strength production CAD; and all output is directed to a CAD window for preview and enhancement.



The CAD functionality also allows you to add annotations or details to the final drawing. Full TrueType font support and definable line widths allow you to create professional drawings without an expensive CAD system.

For more advanced CAD functions, including 3D drawing, you can add our CAD PRO module.

Did you know:

- We have a library of FAQ support videos for your reference: www.civildesigner.com/videos/
- You can book online Civil Designer training: www.civildesigner.com/training-centre/
- We provide introductory self-learning videos: www.civildesigner.com/training-centre/

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Excellence by Design