

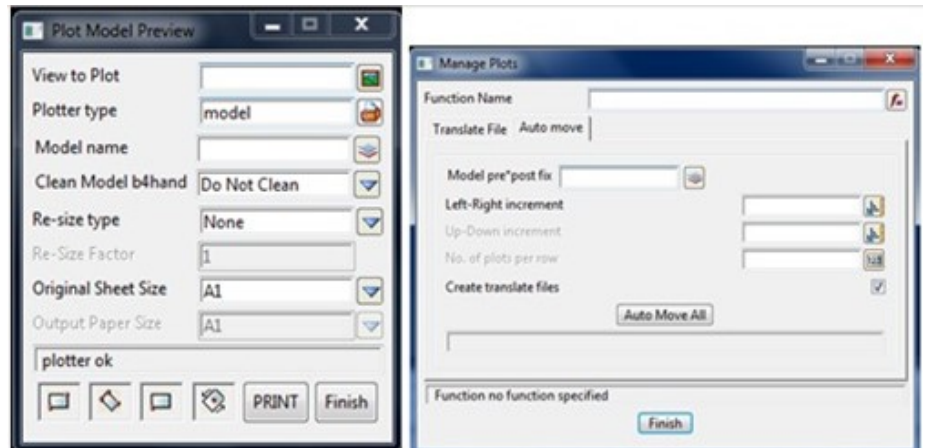
Eliot Sinclair and Partners Ltd

END USER: Samuel Cech
CLIENT: Eliot Sinclair and Partners Ltd

12d DIMENSIONS:

- Plotting
- Customisation

Plotting Tools



Project Summary

Eliot Sinclair has been using 12d Model for 100% drafting since 2004. The techniques described below were developed to make plan preparation accessible to even the most basic 12d Model software users within the firm. Customisation of the software can give users truly amazing results.

The Challenge

The team's main problem was how to simplify, standardise, speed up, and improve their drafting processes.

The Solution

Solution 1 - processes - they were using Plot Frames (in 12d Model) extensively, not only for main sheets but for all diagrams, inserting into other sheets and preserving title block information. All but a few plans were plotted to a model first. This policy was strictly enforced for several reasons: to have a backup copy of the plot data in a form that would be possible to modify in CAD (12d CAD tools, PMF, etc.) should they lose the 3D digital data, to see a preview of the data before sending it to a printer, to enable adding more information to the plot such as tables and paragraphs, and to enable plotting of reduced or enlarged plans.

Solution 2 - plot management macro - the vast majority of their jobs involved plans with multiple sheets, and the team was seeking the ability to quickly view all sheets or scroll through the entire plan set, so they created a macro that allows for the plot models to be organised into a grid, and enables users to check many plot previews at once. This proved particularly useful when plotting cross sections of rivers etc as users can visualise their plots easily.

[This macro has since been added to the 12d Model User Forum.]

Solution 3 - simplified plot view option - a simplified plot view panel was necessary as some users could not master the two available in 12d Model (Quick Plot and Quick Sheet Plot).

It was decided the best solution was to create one small panel with a maximum of eight input boxes (inbuilt options have up to 20 inputs), to focus specifically on what the user wanted at the time. This enabled individual users to pick a Plotter type and give the plot a name file/model, size/factor the area that's picked to be plotted. If they failed to pick an area that matched a sheet size, it was simple to modify the Original Sheet box to a standard sheet size. Zoom, size or factor of each plot could be performed via a simple process of choosing output paper size or typing in a size factor.

The Result

With the three solutions described, the team at Eliot Sinclair & Partners was able to standardise, simplify and speed up plotting from 12d Model.

For more information

To find out more about how you can create better designs faster with the 12d Model solution for civil engineering design, visit www.12d.com.



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Roads and Highways

12d Model's design option is the smarter solution for the design, modification and maintenance of Road and Highway projects.

Enjoy advanced 3D tools to design local and major roads, intersections, roundabouts, highways, interchanges and much more.



Ports and Dredging

12d Model is the solution for port infrastructure and dredging, easily managing the very large datasets and complex volume calculations often required by these projects.

A complete range of flexible and customisable volume calculation tools allow teams to extract and present the information quickly and easily.



Land Development

12d Model is the most versatile solution for the creation of sustainable land development projects, including residential, commercial and industrial developments, recreational areas, landfills, and agriculture projects.

Easily manage all aspects of your land development project from earthwork quantities, road design utilities and drainage design.



Airport Infrastructure

12d Model provides a solution for the design, construction and analysis of new airports, as well as the upgrade and maintenance of existing runways and airport infrastructure.

Easily manage large airport infrastructure projects and share data across multi-disciplinary teams.



Rail

12d Track has been specifically designed for the survey, design and construction of light, heavy and high speed rail projects.

Extensive railway tools in 12d Track allow the rail designer to quickly and easily design their projects. These options are built on the existing 3D modelling and design tools available in 12d Model.



Mining Infrastructure

12d Model's powerful set of exploration, site investigation, survey and analysis tools are crucial for the initial design, construction and ongoing operation of mining projects.

Comprehensive tools for the survey, design and construction of access roads, railways, earthworks and services allow for the coordinated design and management of mining infrastructure from within 12d Model.



Drainage, Sewer and Utilities

12d Model provides comprehensive tools for the design, analysis and optimisation of stormwater and sewer projects using rational, dynamic (hydrograph) and 2d drainage methods.

Powerful clash detection management allows for efficient 3D modelling of service networks such as gas, electricity, telecommunications and water prior to construction.



Surveying

12d Model is a complete surveying package providing the tools to manage all facets of surveyed data including LIDAR, topographical, as-built, conformance, traversing, geodetics, data mapping, labelling and much more.

The 12d Field option runs on a ruggedized tablet and gives the user access to full 12d Model functionality, allowing you to take the entire project into the field with the most comprehensive pick-up and set-out tools.



Oil and Gas

12d Model assists with the design, construction and mapping of oil and gas pipelines, original site exploration and the wide range of infrastructure required for oil and gas projects.

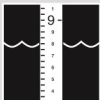
Accurate 3D modelling and the ability to share data between users allow teams to quickly and easily coordinate designs.



Construction

12d Model is the ultimate software for construction with powerful set-out options, direct interfaces to machine control and detailed conformance reporting and auditing.

Manage 3D data and control volumes, quantities and progress claims with 12d Model. Set-out your project and undertake conformance and as-built surveys live on-site using 12d Field.



Rivers, Dams and Hydrology

12d Model handles very large datasets and interfaces with a wide range of analysis packages, making it perfect for flood studies and the management of rivers and dams.

12d has partnered with industry leading analysis software, allowing users to apply 2D drainage analysis from within 12d Model.



Environmental

12d Model's ability to handle very large datasets combined with flexible and comprehensive 3D analysis and modeling tools make it perfect for a wide variety of environmental projects.

Existing workflows can adopt 12d Model easily as it allows users to directly interface with GIS systems and most software packages and file formats.

Why Choose 12d?

- Powerful data processing & intelligent functionality.
- Modular, easy to update & completely customisable.
- Seamless integration with major industry software and hardware.
- Used in over 55 countries worldwide.
- Friendly support & training from industry experts.

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