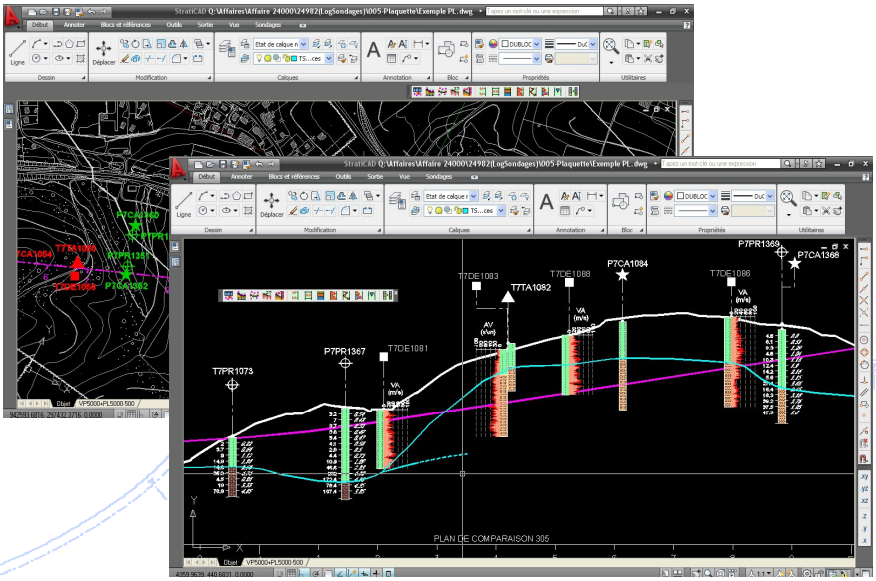


- Introduction
- Software compatibilites
- « Layout » tools
- « Log » tools
- Application examples
- Hardware requirements

Introduction

- TERRASOL felt the need for a specific CAD tool allowing semi-automatic processing of geotechnical data.
- The development of this CAD tool was initiated and managed by Terrasol draughtsmen, based on their day-to-day use.
- Straticad is thus very well suited for the drawing of geotechnical data in your CAD environment.
- It combines efficiency, simplicity and graphical quality. It enables to save a lot of time, even when processing a small number of boreholes.

Introduction

Straticad key features

- Full integration in your CAD environment (Autocad® or Autocad LT®).
- Importation of boreholes data from data sources in various formats.
- 2 stand-alone modules:
  - ✓ "Layout" tools
  - ✓ "Log" tools
- Advanced settings and customisation for the best graphical rendering.

Strong points for Straticad users

- Time saving compared to the use of Autocad® only.
- More flexibility for graphical settings compared to the use of other tools that are not directly compatible with Autocad®.

CAD software

- Straticad is compatible with Autocad® and Autocad LT® versions 2000 to 2012.
- Straticad is also compatible with Bricscad ®.

Data sources for boreholes data

- Straticad enables to import boreholes data from Microsoft Excel® files, Microsoft Access® databases, and Open Office® spreadsheets.
- The configuration of the links between the CAD software and the data source is performed directly in the drawing and saved with it (easy update of data).

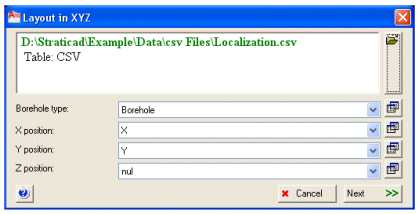
"Layout" module tools

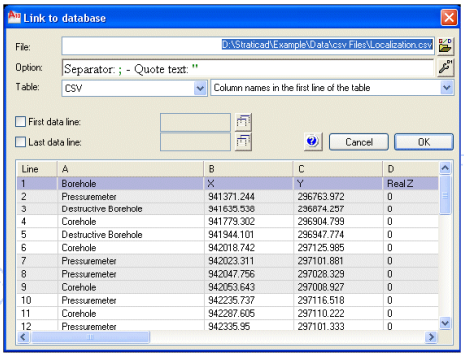
They allow to process imported boreholes data quickly and accurately :

- Layout of boreholes symbols on a top view and longitudinal profile
- Calculation and export of boreholes curvilinear abscissa along a project axis
- Calculation and export of boreholes altitudes along longitudinal profile
- Automatic layout of boreholes logs.

"Layout" tools

"Layout" module tools

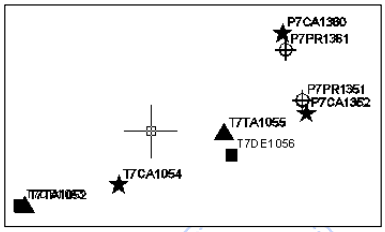




Data source importation
and settings

"Layout" tools

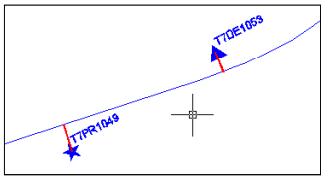
"Layout" module tools

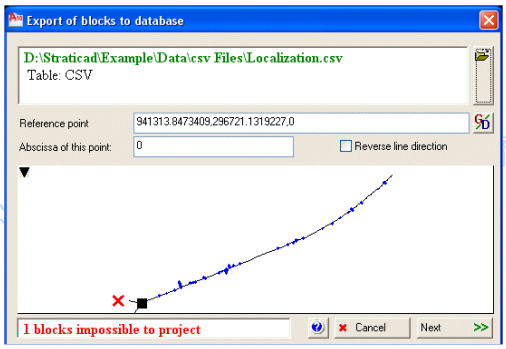


Layout rendering example.

You may use your own blocks.

"Layout" module tools





Example of calculation and export of curvilinear abscissa (projection along the project axis).

Data are made available in your data source.

"Log" module tools

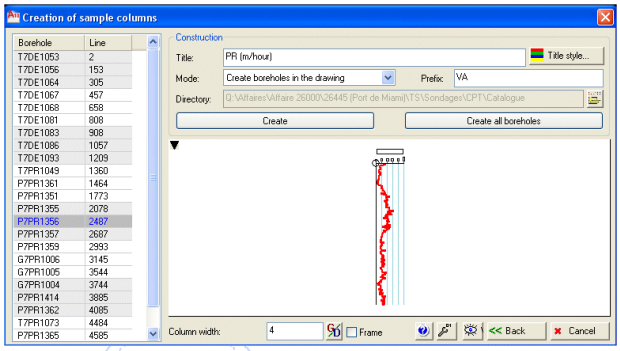
Again based on boreholes data imported for a data source, the "Log" tools allow for the creation of customisable borehole logs ("columns"). Various commands are available for an optimised graphical rendering:

- Colums with levels and texts
- Columns with hatching patterns
- Columns with curves
- Columns combining texts and curves, or hatching patterns and curves
- Columns with symbols

Name	Depth	EM	PI
SC1	1	2.5	0.2
	2	4	0.5
	3	15	0.89
	4	12.5	1.25
	5		
SC2	1	2.3	0.2
	2	3	0.5
	3	3.5	0.89
	4	8	1.25
	5		
BH108	2.5	10	3.02
	3	100	2.79
	6	80	4.25
	7.5	60	4.35
	13.5	0	4.35
	15	50	4.35
	16.5	30	4.34
	20	0	4.36
	21		
SPR011	2	51.5	4.35
	3	236.3	4.36
	4	288	4.35

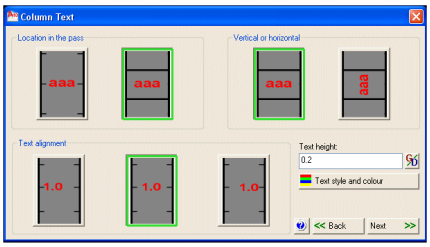
Example of a Microsoft Excel® datasource

Overview of settings for a curve column



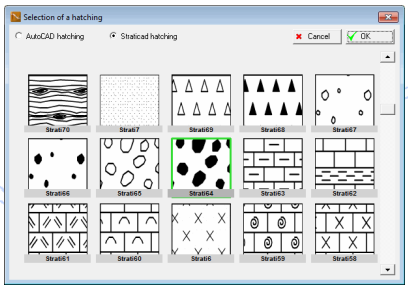
Once the settings are ready, Straticad generates a single block for (part of or) all the boreholes on the data source.

It is possible to save the blocks in the drawing where they were generated, or to make them available as separate files.



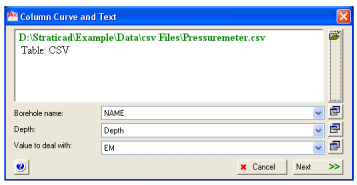
Settings for a text column

Available hatching patterns (you may add your own patterns to the library)



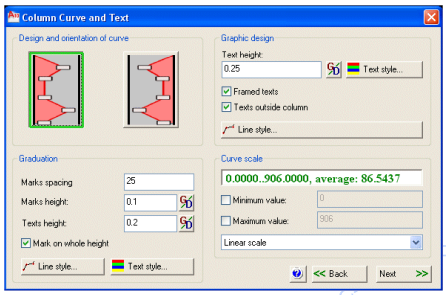
Graphical settings

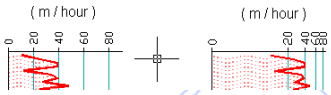
"Log" tools



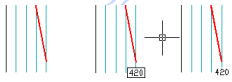
Selection of the data source

Graphical settings





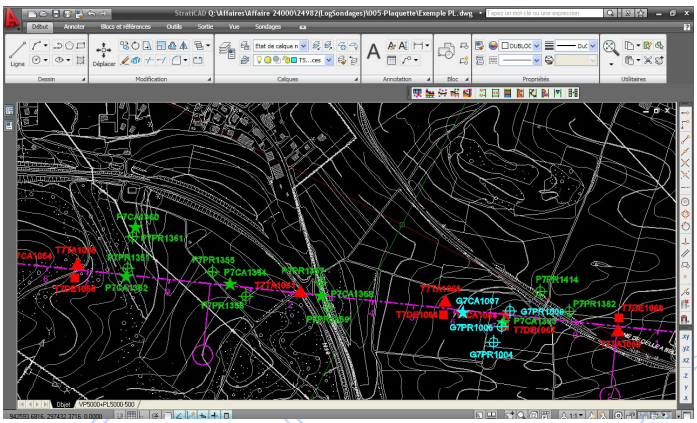
Linear/logarithmic scale



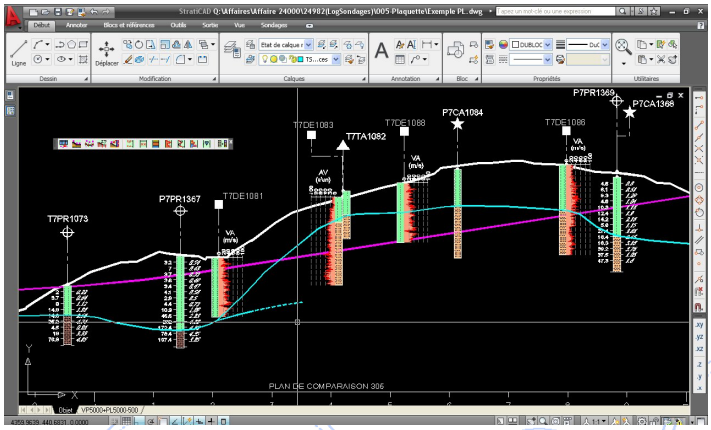
Marks styles

Graduation styles for the horizontal axis

Application examples



Use layers, scales and directions settings directly within Straticad

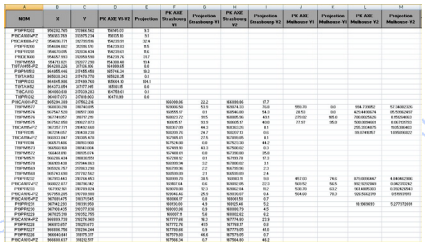


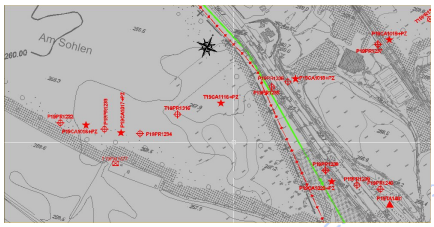
Boreholes logs and symbols insertion along a longitudinal profile

Geotechnical soil-testing campaign for LGV Rhin-Rhône (High-Speed Railway project)

In the frame of this project, Straticad was used to retrieve and display boreholes positions.

- Their X and Y coordinates
- Their curvilinear abscissa along the project axes
- Their projection distances with respect to these axes





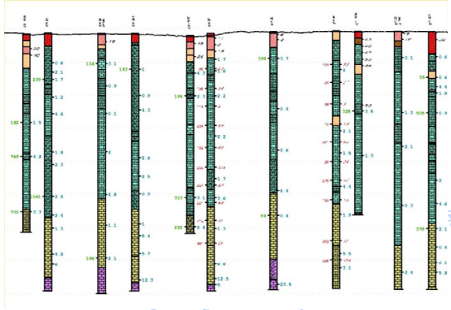
These data could be processed and retrieved within a few minutes (instead of several hours when using Autocad® without Straticad).

Geotechnical profiles for Qatar Bahraïn Causeway project

A lage amount of data to be displayed on the profiles for a total number of 190 boreholes.

Each borehole log should include following information:

- Stratigraphy and lithology
- Values from pressuremeter tests
- SPT values
- EUCS values



Processing time (for all boreholes) was a half-day with Straticad (instead of 7 days with Autocad® without Straticad - estimation).

PC-compatible computer with:

- Microsoft Windows® XP / 2000 / 2003 / Vista / 7
- Autocad LT® versions 2000 à 2012
  ou Autocad® versions 2000 à 2012
- Excel® version 2003 ou 2010
  ou Access® version 2003 ou 2010
  ou Open Office® version 3.1
- 1 USB port for the key

Thank you for your attention

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