



# Fast growing GeoDeal uses Topocad for quality checks

The pace is high at the engineering company GeoDeal. To achieve a good quality in data input from the field, Topocad is used. It has become a daily routine at the company.

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There is a high pace in the young company GeoDeal in Stockholm. In October 2018, the company turn three years old and have expanded in record time. In these three years, the company has hired 13 employees and will soon be 14. The rapid economic growth is one of the explanations.

- We are a result of the construction boom, says Frederick Håkansson, CEO. We have adapted to the high work pace that exists, we have learned to work fast with retained quality.

GeoDeal performs assignments within surveying for customers in the construction industry. This is, for

example, stake out, volume calculations and machine control. Surveys are also being carried out for design and various types of controls.

In addition to traditional technology with total station and GPS, GeoDeal also works with laser scanning and delivers models in 2D and 3D. Most customers are in the private sector.

At the company, Topocad is used throughout the construction process, from design to stake out and control, and often the software becomes a carrier of information. Survey data from field surveying is imported into Topocad, processed and new data is exported to the instrument to mark

positions for different purposes.

## Study of survey data ensures quality

However, the software is not just a gateway for incoming and outgoing data. Topocad is also a tool for maintaining quality in surveying. An important task in the daily life of the company, where a new project follows another in a rapid pace.

- I study raw files daily from our surveys. From our Trimble instrument, jxl format data is exported as I enter Topocad into a survey data file. Then I can examine exactly what has been done in chronological order

and study the survey, all angles and lengths surveyed, the prism constant used and other valuable details.

If errors occur during field work, Frederick can detect them easily before data is passed on.

- You may have used the wrong prism constant when you have done your station establishment and you may have used the wrong prism height in the survey. Often, we use a two-meter prism bar and if the technician has used a different height, I evaluate why and the employee can motivate his or her choice. All of this I capture during the study.

In most cases, there are reasonable motivations for changing the conditions.

- There may be objects in the way of the survey that will change the prism.

Frederick gives an example of a working technician's workday.

- We perform on behalf of the Swedish construction company NCC several control surveys, for example

we survey daily if a retaining wall moves. It must not move more than five millimeters, if it does we have to report it. Once the retained wall moved more than the tolerance and I had to react to it. To check if this was true, I studied our technician's survey file and it appeared that the wrong prism constant had been used in the establishment. The fact that a survey error can occur between thousands of surveys is nothing strange.

If an error had occurred, Frederick eliminated it immediately.

- In Topocad, I can change the prism constant and make a recalculation so that the value is correct. If the deviation is still too big, then it's justified that I'm making an alarm.

## Feeling safe with stored survey data

Studying data this way has become a daily routine at the company.

- We always export our raw files and save in the project folder that

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Frederick Håkansson, CEO at GeoDeal

everyone accesses.

There is also another side of the study.

- All raw files are saved in chronological order. This means that we can explain to the customer how we worked, which prisms were used and why we chose that angle or height. Even though it is hardly ever happening, it is a safety that we can open the files in Topocad and verify our workflow and the values we have studied.

Another advantage that Frederick has of the software is the format management.

- It is unusually how many file formats Topocad can read. We have many softwares to work with the information we have received. I can sometimes get files in a format that I have never seen. But in Topocad, the files are usually easy to open.

It is of course important in the cooperation with customers and suppliers so that information flows easily in the projects in the fast growing company.