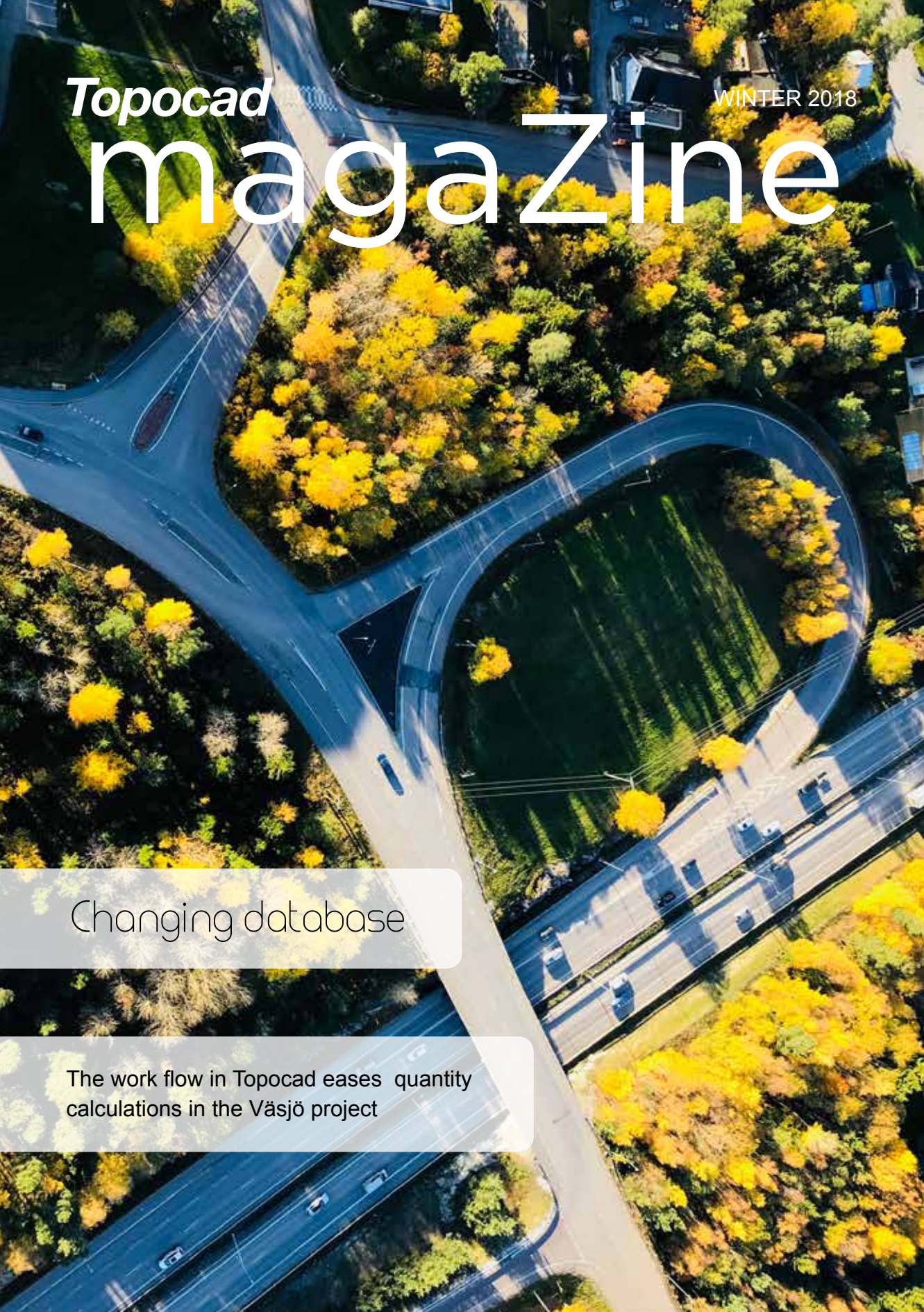
Topocad magaZine

WINTER 2018



Changing database

The work flow in Topocad eases quantity calculations in the Väsjö project

Nice

A couple of months ago, I heard about block chain for the first time. It was a direct question: “-how are you working with the block chain section?” and I tried to not show that I didn´t have a clue of what he was talking about. I took a short note and googled it later. You can briefly say that a block chain is a distributed data base which also have historical information.

New concepts as block chain can be difficult to assimilate. What do I use a block chain for? It´s not something you will bring back home. Maybe you have already used the service from a block chain without knowing. Probably.

We are talking about new concepts in Topocad but not as unfamiliar as block chain. I´m referring to solids, BIM and LOD, Level of Details. These may also be difficult to assimilate. “Well, it´s probably useful but it doesn´t concern me” is not an attitude you can use anymore, since these concepts will be over us in a short time. In Topocad 17 we have a number of commands and functions for solids and BIM, and there will be even more in version 18. I like this because the things you draw will look like real things, things you can bring home.

Adtollo AB has been bought by Addnode Group! The deal was closed in September, and Adtollo is now a part of the same group as, among others, Sokigo and Symetri, which is two companies we have been working close together with for a long time, and it feels good that we now can work even closer. It will be a great cooperation!

My try to keep my poker face at the block chain-question did not work at all, by the way. I was totally surprised. As a manager of a software company I try to be updated and put the future in my reality to make it available to other. Block chain – I´m not quite sure. But AI (artificial intelligence), VR (virtual reality) and especially AR (augmented reality) are concepts that definitely are interesting and I won`t be surprised by the questions.

Topocad Live is coming up, and we kick-start 2018 with two fantastic days out at Sigtunahöjden. There we will talk strange words and throw out acronyms on the right and left. But above all we will tell and show how we place these words in a reality that you can understand. And bring home. In addition, the theme of Topocad Live 2018 is the opposite to kick-start, kick-start is simply out. Topocad Live 2018 is going to be so much more – nice.

Until we see each other I wish you a great winter, and you are very welcome to join us at Topocad Live in January!

Best Regards,

Tomas Sandström

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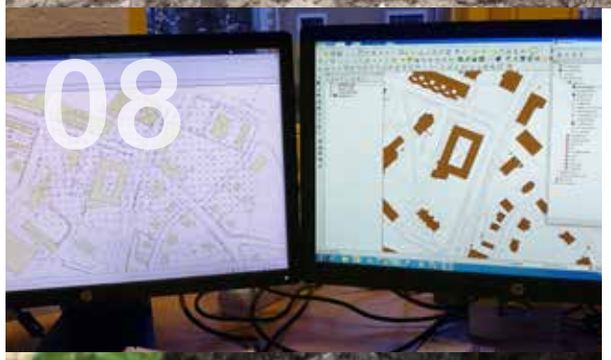


02 Leader What´s a block chain? Tomas speaks about concepts in Topocad and in the branch in general. Addnode has bought Adtollo – and soon it´s time for Topocad Live!

04 Topocad 17.2 One of the news in this version is a new command to create cross sections and profile from object in drawing.

06 Topocad eases quantity calculations Jonny Lundberg at Geodesi i Ö-vik AB tells us how he, by using Topocad, has a functioning work flow and how the volume calculations are presented.

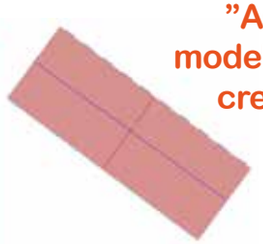
08 The journey towards a new data base The municipality of Oxelösund wanted to reduce the administration of GIS data. Therefore, they choose the open source data base PostgreSQL with the spatial add-on PostGIS and started the journey towards easier handling in a completely new environment.

10 Meet Elin at Adtollo When you call Adtollo you will most likely get to speak with Elin. Here she tells us about her work and what to think about when you´re calling to Adtollo.

12 Tips & Tricks Read our tips & trix about IFC models and civil plan regulations in Topocad.

Topocad 17.2

Topocad 17.2 was released in the middle of October and can now be downloaded at adtollo.se/en/download. So what´s new? We have for instance a new function to create sections anywhere in the drawing: as long as there are terrain models and/or solids, you can now make sections with optional spread and interval.
Here you can read about all the news in our latest version of Topocad.



”As soon as there are terrain models and/or solids, you can now create sections with optional spread and interval”

CAD

We have a number of news in the CAD, for instance it´s now possible to pre-set attribute values from symbol names. You can also choose that symbols should be hidden, which means that they´re only visible in the symbol library and when editing civil properties. There´s a new command to create cross sections and profile from objects in drawing. You can also draw areas in the section drawing command.
In the CAD we´ve also made some corrections. Printed raster images could earlier be blurred. Layer filter did not work in Point and Pile differences commands, and repeat latest command did not work with macros. This is now fixed.
We have also created a better functionality in the Slope hatching command. Other things we have fixed is the reading of polyline dimensions which could go wrong if the line was deleted. Affin transformation without scale was not working correct and raster from WMS did not work if WMS and drawing wasn´t using the same coordinate system. This is now working.

Volume

Regarding volume, we have now fixed thermic colours which was not working correctly in the Volume calculation command.

Calculated sectiones

We have a new function to create sections anywhere in the drawing: as soon as there are terrain models and/or solids, you can now create sections with optional spread and interval. Choose or draw a line and create the sections you want directly in the drawing. You can place these directly in the drawing or the drawing sheet.
Now you can also add your own defined areas in calculated sections without changing the template.
Calculated sections with section objects containing solids was not imported correctly to drawing, this is now fixed.

Civil Plan

There´s a new setting for explosion layers in the civil plan quality library which makes the exploded civil plan qualities end up in the specified layer. This setting makes it possible to save civil plans in data base.
We have also added the possibility to search by description when choosing civil plan quality.

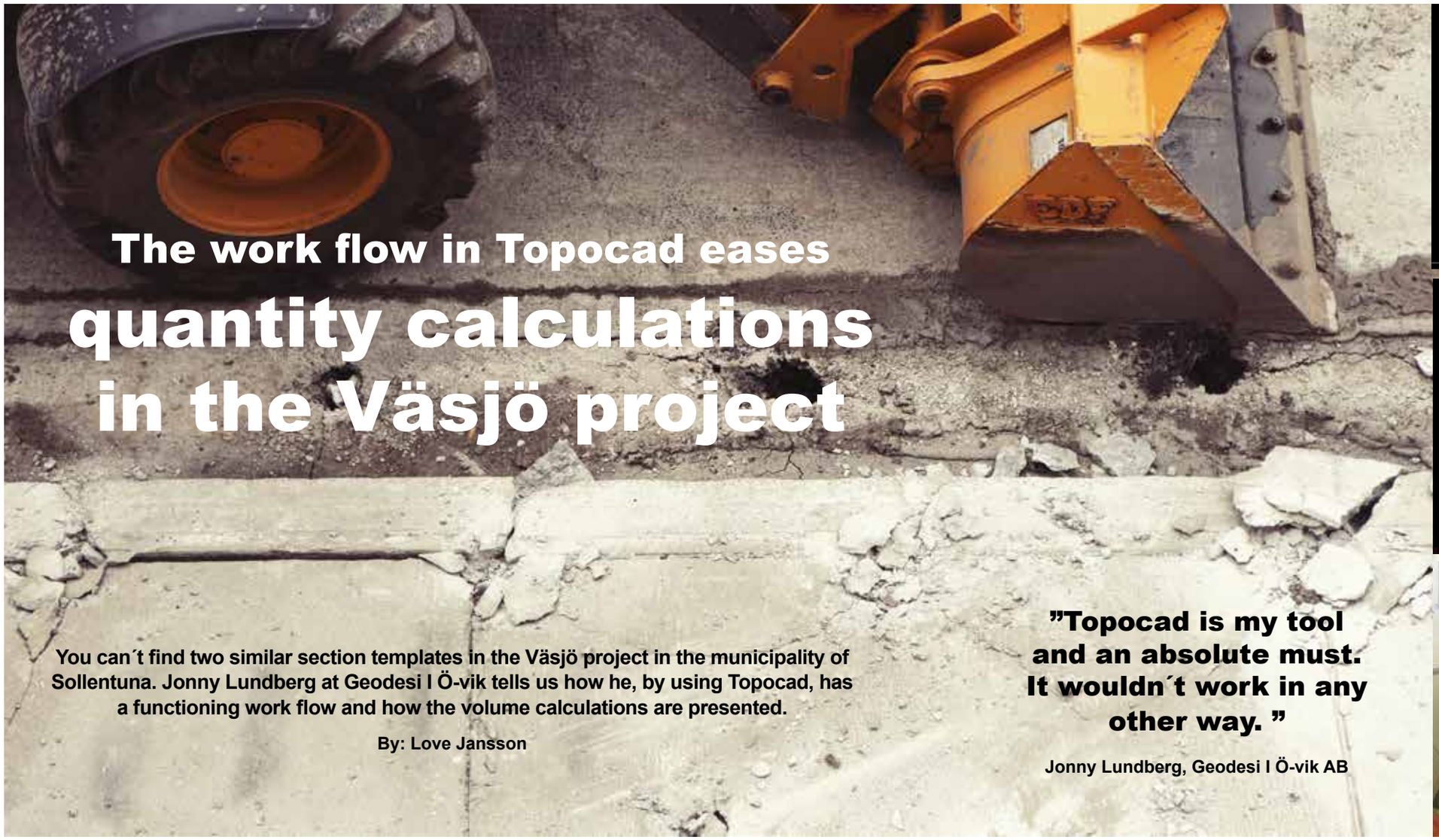
ISM

Username and password were not read for WMS and symbol rotation did not work correctly, this is now fixed.

Rail

Start kilometre could not be changed in Slew/Lift command, but is now fixed.

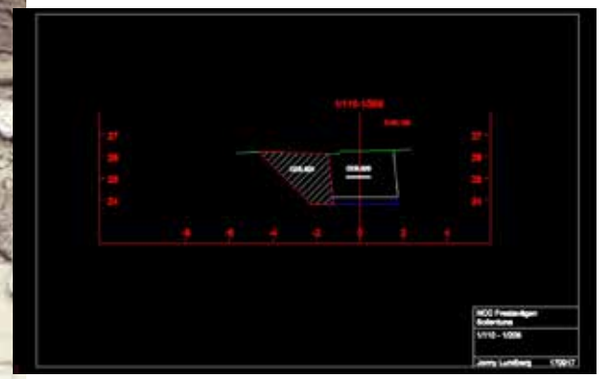
Download the latest version of Topocad at adtollo.se/en/download/



The work flow in Topocad eases quantity calculations in the Väsjö project

You can´t find two similar section templates in the Väsjö project in the municipality of Sollentuna. Jonny Lundberg at Geodesi I Ö-vik tells us how he, by using Topocad, has a functioning work flow and how the volume calculations are presented.

By: Love Jansson



”Topocad is my tool and an absolute must. It wouldn´t work in any other way. ”

Jonny Lundberg, Geodesi I Ö-vik AB

In the municipality Sollentuna, north of Stockholm, a brand new district is being built right now. 4000 residences in form of villas, terrace houses and apartment buildings is being built at the shore of Väsjön. Schools are also built, and everything is connected with infrastructure and roads. The first occupation will be in two years if everything works by the plan.

Specific sectiones

Projects in this size contains several parts. Jonny Lundberg from Geodesi I Ö-vik AB is working with one part of the project, Wide road stage two. To his help, he has Topocad, which has been following him for the last 20 years in the daily work at the company. Jonny has a solid experience of Topocad and he is one of the first users of the software.

It´s a widely-spread job he devotes his days to. The starting point is a terrain model in DWG format which he got from the client. To his help he also has a design basis. He imports the model into Topocad and starts to process and make calculations. Mainly it´s about roads and the sewer system, but also dimension support walls and gabions as well as to include wires for district heating. It´s quite complicated structures. Jonny gives us an insight of how complicated the sewer system is.

- The pipe system has between 250 and 600 dimensions and is placed at different levels and heights, says Jonny. They should have protection fillers and be filled up till the top of the manhole. The excavations get different widths and heights which is calculated.

The work in Topocad varies and he often works with complete specific section templates. The appearance and qualities of the road varies and are affected by its width, depth, how large the pipes are and the size of the trench.

- The section template is built up before every calculation and is then controlling the calculations to make the volume correct.

It´s a complex work for sure. The qualifications are changing constantly depending on which part of the project he´s in, in the work where you can´t find two similar section templates.

How to calculate

Jonny calculates several unique amounts every day. Here he briefly explains how the workflow in the road project is going on.

- I start with creating a section template which contains the projected parts, such as bearing layers and asphalt layers. To calculate the volume, I am placing the layers together with the civil plan, the profile line with the heights and the terrain model. These four are packed together into calculated sections. After that I calculate the volumes which I am getting in a rapport.

The work is thereafter continuing in an empty drawing in Topocad.

- There I pick up the file with the calculated sections. I choose which sections that should be included, and after that I can export the information to DWG-drawings or as a PDF.

The DWG-file is used by those who need to bring the information into their software, as a foundation to other calculations or to control that the surfaces are correct. The pdf suits to illustrate the volume calculation for those who doesn't work with CAD- or GIS software. In that way, the information gets presented in several ways and can continue to be useful in other contexts.

- My reports to the client are my own concept.

The information is not only used to calculate volumes. It can also be used as stake out data and together with a total station or a GPS be able to stake out the point for wires, manholes, road streaks and similar.

Not possible without a calculation system

There are different codes in the volume calculation in the construction document, and each code should have its calculation, volume compilation and drawings. All while the work with the volume calculations are going on, he needs to take the requirements and rules in consideration.

- Topocad is my tool and an absolute must. It wouldn´t work in any other way. How should I do without a calculation system?

Now and then, he calls Adtollo´s support number.

- You never get fully trained. I sometimes call to Tomas or Nicklas to get an idea of how to continue with a tricky problem.

And so Jonny continues with the next section template in a road chapter. When it´s done, it´s a new piece in the puzzle in the project which will give people a new life in a new district of Sollentuna.

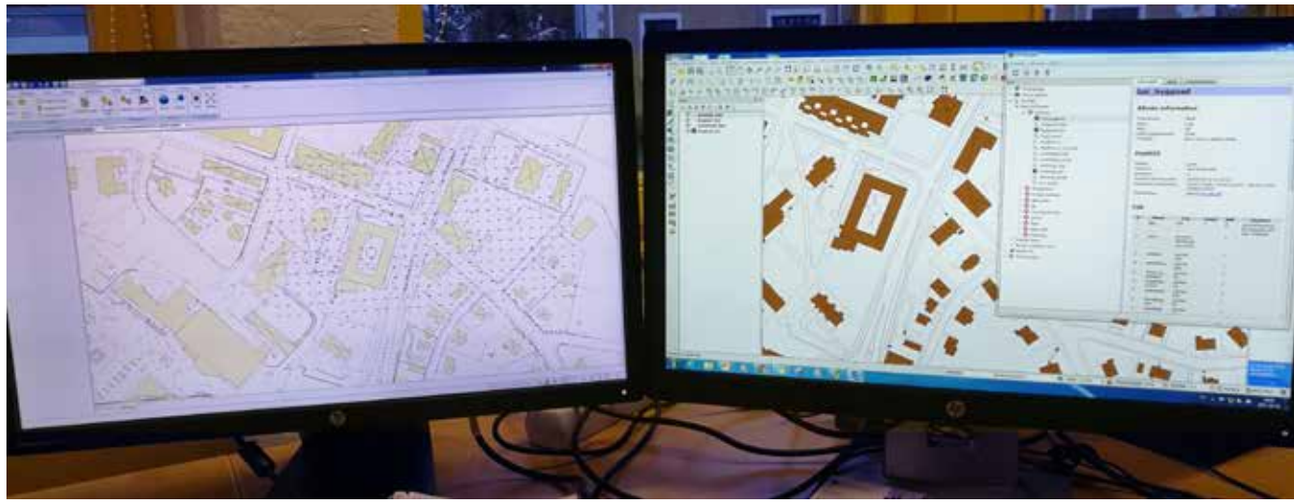
Open source PostGIS
- the strongest option when Oxelösund changed data base

The municipality of Oxelösund wanted to reduce the administration of GIS data. Therefore, they choose the open source data base PostgreSQL with the spatial add-on PostGIS and started the journey towards easier handling in a completely new environment.

By: Love Janson

''We sent the data base to them and they adjusted the layers to the styles in the HMK standard. Then we got started much faster''

Kent Börjesson, GIS engineer at the Environmental and Social housing Management, Oxelösund municipality



It´s been about a year since the GIS engineers in Oxelösund began to work with a new data base to collect and handle information. They had experience from Oracle-environment but now the engineers were looking for a more manageable alternative.

Above all we wanted a data base which didn´t require that much administrative job, tells Kent Börjesson who is GIS engineer at Oxelösund. We are two people and we can´t spend too much time since we are serving both the municipality and entrepreneurs with maps, make measurements and provide information.

GIS in an open source-environment

That is why Kent and his colleague Anders initiated an evaluation to find a suitable candidate. They had a clear specification with requirements. The new data base must work with Topocad, Land surveying´s BAL and QGIS. The choice fell on PostGIS, a data base in open source that they´ve had earlier experience from. PostGIS differs from Oracle at some points according to Kent. Oracle is command-controlled while PostGIS is visually oriented, which he means makes it easier. To change information is easier in PostGIS than in Oracle.

To learn PostGIS was not a big major problem for the engineers, no special knowledge was required. There are several online forums that discuss PostGIS online, the database function and how to best work with it. Among other things, the GIS functionality was said to be good in PostGIS. The forum became a great source of knowledge.

- There are many in the same situation and it´s good to exchange experiences. We´ve also had help from Adtollo who showed us that the data base worked together with Topocad BAL and QGIS. It was no problem.

One disadvantage is that PostGIS is lacking the support service that a software supplier has. The reason is that it´s open source. But in the big picture there was not much differences between the two data base options. It´s storage environments which has different work ways, Kent points out. QGIS has had an extended function which they use for visual administration of PostGIS.

Logical choises

But the work, to transfer the existing information to PostGIS, was not done in one turn.

One started with analysing the information and sorted out what was irrelevant, duplicates and obsolete information. The transfer from Oracle meant that a number of decisions had to be made to adjust the information to the PostGIS data base.

It was mainly about creating tables and fill them with content. There are two kinds of spatial data that you register, geographical position and geometric qualities. The layout of the tables was discussed in detail. They cannot be too many and they must have logical names, everything to make the administration as simple and efficient as possible. To help, one has used the guidelines in the Swedish geoprocess. Another source for inspiration was to study how other municipalities had solved the same thing. The chosen names are not drawn in stone. If a title is not hundred percent, it can easily be changed to something more appropriate. The database will develop when the engineers' work changes in everyday life and it's good,

says Kent.

The colour scheme is a separate chapter. There we have used Lantmäteriets HMK standards. There is a simple reason for that choice.

- We deliver a large number of maps to entrepreneurs, planners and building engineers for example. They get material from other municipalities too, and therefore it´s convenient if everything looks uniform.

Dialogue with Adtollo saved time

In this transition process from Oracle, Adtollo was a supporting partner. One important question was about when data in transferred from PostGIS to Topocad with help from the FDO-adapter.

- We wanted to know if there are any limitations in the FDO connection, and if it´s possible to read parts of tables and texts in the map. They answered that it is possible. We were also wondering if it you can store in PostGIS while we are working in BAL. But BAL makes no demands for storage, it is managed by the client. We thought that this was very good because then we are free to store as we had in mind.

Another area that Adtollo have helped out with is the style setting.

- We had help with setting styles, says Kent. We sent the data base to them and they adjusted the layers to the styles in the HMK standard. Then we got started much faster.

It didn´t take that much time for Kent and his colleague Anders to quality-proof data before the transition, the design of tables in PostGIS and everything else with the support from Adtollo. About a couple of months. After that, the GIS engineers have become productive with less administration for easier access service within and outside the municipality of Oxelösund.

If you have called us at Adtollo, it is most likely that you have spoken with Elin. She is our receptionist since two years back, and in this article she tells us about how she ended up at Adtollo, how a usual day at work looks like and she also gives tips on what to think about when you call Adtollo.

Adtollo Inside Story

- Meet Elin Andersson Receptionist at Adtollo

Elin Andersson
Works as: Receptionist
Born: 1995
Employed at Adtollo: December 2015
Education: Economy

Elin Andersson grew up in Sävsjö and moved to Stockholm in September 2015. Two months later she stepped in to the Adtollo office for the first time, as our newly hired receptionist.

- I knew nothing about the mapping and construction business. The job ad said that they were looking for a receptionist with some economic skills and I figured I suited me well, so I applied for the job.

Elin had been studying economics at the gymnasium, and she had worked in school and elderly care.

She had also had the time for a long journey to Asia and she remembers, with dreadful delight, how she got to climb down a high waterfall out in the jungle ”because we wanted to do something adventurous ” and how she managed to chase away a big flock of barking wild dogs in the middle of the night when her friend broke down.

- So I suppose I can be both coward and brave, it depends on the situation.

Now she enjoys working at Adtollo.

- We have such a nice, familiar atmosphere here at work. We are all hanging out with each other and we often go out for lunch together.

How does a usual day at Adtollo look like?

Elin tells us that she starts with a check round at the office to make sure it looks nice and clean. Then she checks the email. Elin is responsible for both the info – and order mail.

- It can be about invoices, things about the office such as deliveries, or easy support which I can take right away – if a customer for instance has questions about their license.

In which way do you get in contact with our customers?

- Mainly over phone. I answer most of our phone calls, and if it´s a support question that I can´t answer I will connect the call to the person who´s responsible for our support.

Elin explains that she sees it as her prime task to provide good service to those who contact us by phone or mail. I want our customers to feel that we really care and that we do everything to help them as quick and easy as possible. I speak with some customers often and one gets to know each other.

Elin tells that she last year participated in the Intergeo exhibition in Germany and that it was nice to meet many customers, both from Sweden and other countries. It was nice to get a face to the ones you only spoke to over phone, Elin thought.

- I also work with foreign licenses, mostly Russia, and it was fun to meet our dealers who participated at the exhibition. In the evenings we ate dinner together and it was interesting to hear the dealers tell about how Topocad is used in other countries.

Another task that Elin has is that she manages the administration around our course bookings.

What are you working with right now?

- During the fall I work much with the maintenance agreements before they are sent out to the customer. Another thing is our user meeting Topocad Live, held in January next year. We have recently sent out our invitations and I will take care of the notifications as soon as they start to drop in.

Do you have any tips for our customers that call Adtollo?

- Absolutely! First of all: don’t hesitate to call us! We can usually solve your problem directly, and sometimes the support team needs to dig a little deeper into the problem.

The support team and the developers are working close together which means that they can communicate easy without any unnecessary detours.

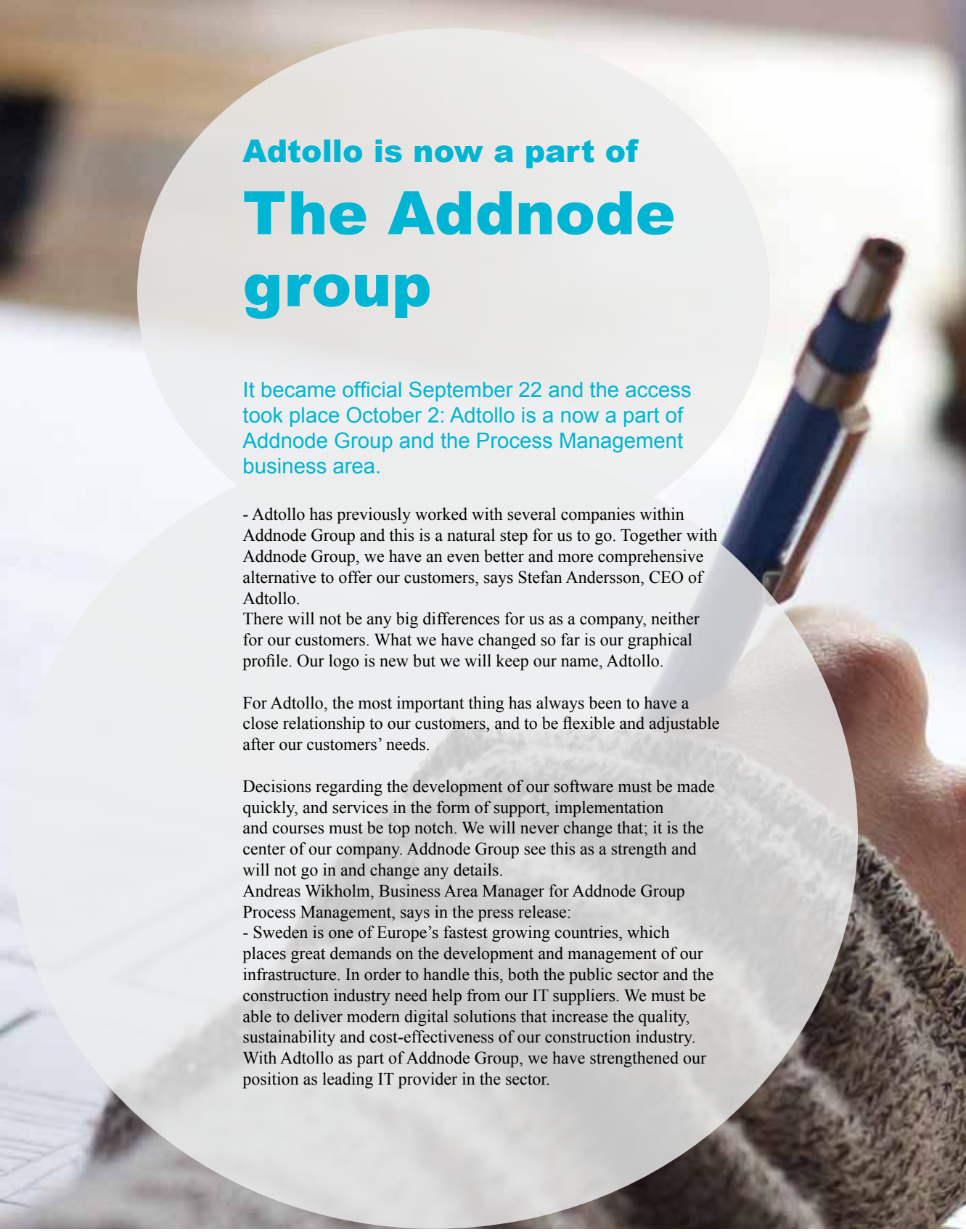
If you need help, just give us your license number and we can get started right away. You can find you license number in the right upper corner when you start Topocad.

- When you call, don´t forget to mention if it´s a question about your license. In that case I may help you directly. I have access to our customer record and I can see if the license for instance is registered on an old computer which is not used anymore.

What do you do when you´re not at work?

- Interior is something that I´m really passionate about. There I get to be creative and mix and match colours and shapes. In the fall I love to light the candles and just cuddle me down in the couch with a cup of tea. I also look forward to the winter downhill skiing, Elin finishes with a big smile.

”I want our customers to feel that we really care”



Adtollo is now a part of

The Addnode group

It became official September 22 and the access took place October 2: Adtollo is a now a part of Addnode Group and the Process Management business area.

- Adtollo has previously worked with several companies within Addnode Group and this is a natural step for us to go. Together with Addnode Group, we have an even better and more comprehensive alternative to offer our customers, says Stefan Andersson, CEO of Adtollo.
There will not be any big differences for us as a company, neither for our customers. What we have changed so far is our graphical profile. Our logo is new but we will keep our name, Adtollo.

For Adtollo, the most important thing has always been to have a close relationship to our customers, and to be flexible and adjustable after our customers' needs.

Decisions regarding the development of our software must be made quickly, and services in the form of support, implementation and courses must be top notch. We will never change that; it is the center of our company. Addnode Group see this as a strength and will not go in and change any details.
Andreas Wikholm, Business Area Manager for Addnode Group Process Management, says in the press release:
- Sweden is one of Europe's fastest growing countries, which places great demands on the development and management of our infrastructure. In order to handle this, both the public sector and the construction industry need help from our IT suppliers. We must be able to deliver modern digital solutions that increase the quality, sustainability and cost-effectiveness of our construction industry. With Adtollo as part of Addnode Group, we have strengthened our position as leading IT provider in the sector.