

# magazine



**How Chaos desktop ELU helps manage metadata, file management and synchronization**

Image: ELU/Sweco



# Hi!

Now, winter seems to have finally released its grip here in the capital, spring is here and sending some much-needed heat. Hope all is well with you and let's really hope that there's peace in Europe once the magazine dims down in the mailboxes. The 2020s have clearly had a messy start, which has repeatedly clarified a phenomenon.

When Covid-19 struck, it was not possible to get hold of alcohol, masks or headache tablets. With the outbreak of war in Ukraine, liquor kitchens, canned food and radios with cranks sold out in no time. This makes me think. We have certainly adapted our lives to a "just-in-time" society, where everything you could possibly want is no further away than the push of a button on the phone, with same-day delivery (at least in the larger cities). This is of course extremely convenient and practical when it works, which it usually does. It also helps many companies not to build inventories that quickly become obsolete and unsaleable. The only question is whether this affects our mentality to be constantly reactive?

Man has been able to survive in the most inhospitable places as we are inventive, adaptable and have an ability to plan into the future, stock up on food for the winter and ration. Technology and prosperity have made everyday life quite frictionless. Spontaneity is more fun than planning. Studies have shown that the human ability to remember facts has

been affected by the simplicity of googling the smallest thing. It becomes more important to remember how to find the answer, instead of the answer itself. Could our lifestyle in the same way have affected our ability for long-term planning, or preparedness? I do not know, but it is certain that many things are too complex and have too long lead times for us to be able to treat ourselves to the luxury of "just-in-time". For example, it is not possible to wake up one morning and say - "oh now many cars run on electricity, we would need a little more electricity" ...

Software development requires long-term planning. For over a year, we have required, developed and tested our new license management. It has been an exciting project that will provide several direct benefits for our users, while we secure for the future and future versions. Topocad is first out with the new license management, followed by Chaos desktop and Congeria. This type of development, together with other things that take place "under the hood", may not be quite as fun to present, compared to new modules and functions, but it is important so that we do not become reactive. Now we have in itself also had time for a lot of other developments, which you will see when you flip through the magazine. Wish you a pleasant reading with our packed number.

Joakim Svantesson, Area manager,  
Surveying & Mapping at Adtollo



For quick news - like us on facebook.com/adtollo or follow our groups Topocad user group and Chaos desktop user group on LinkedIn.

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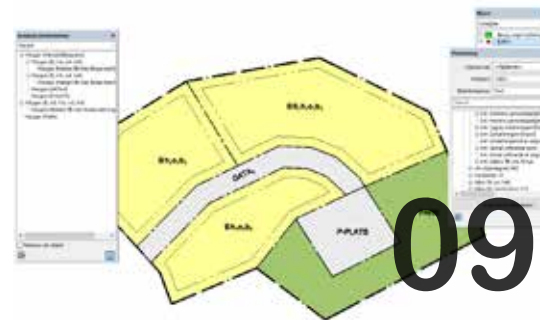
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Foto: Ulf Winblad



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# Topocad 22 is here!

It has been long awaited, Topocad 22. So even though it has taken a little longer than usual, it is now here, steaming fresh as a freshly baked bread. Topocad 22.0 contains lots of improvements and news in a wide area. The full news list is available as usual in Topocad version 22.0 or at [adtollo.se/en/download/version-news](http://adtollo.se/en/download/version-news). Below comes a pick.

One of the biggest news is Topocad's new license management. There is a separate section for it, so read on page 8 for more information.

The second big news for the year we find in community planning with Topocad's completely updated module for drawing detailed plans. This one also deserves more space. Read more on page 9.



General news includes the ability to import / export keychain. This is a very good feature for taking the keychain to a new computer, for example. Another is the ability to right-click on a command button and then add it to its own menu. It makes it much faster and smoother

to add your favorite commands.

We have a lot of news in warehouse management, such as the ability to specify transparency in warehouses and on external references and to freeze warehouses in external references. It is also possible to specify that the layer should be current when creating a new one.

Another good thing that facilitates the work is updates in the offset command where you can now both control the start and end point and create buffers. The track line command now also has the option of offset. Dimensioning style and dimensioning objects can be given text style and with the help of the shortcut CTRL + <the filter can also be turned on.

We continue to introduce news in the explanation editor. This includes

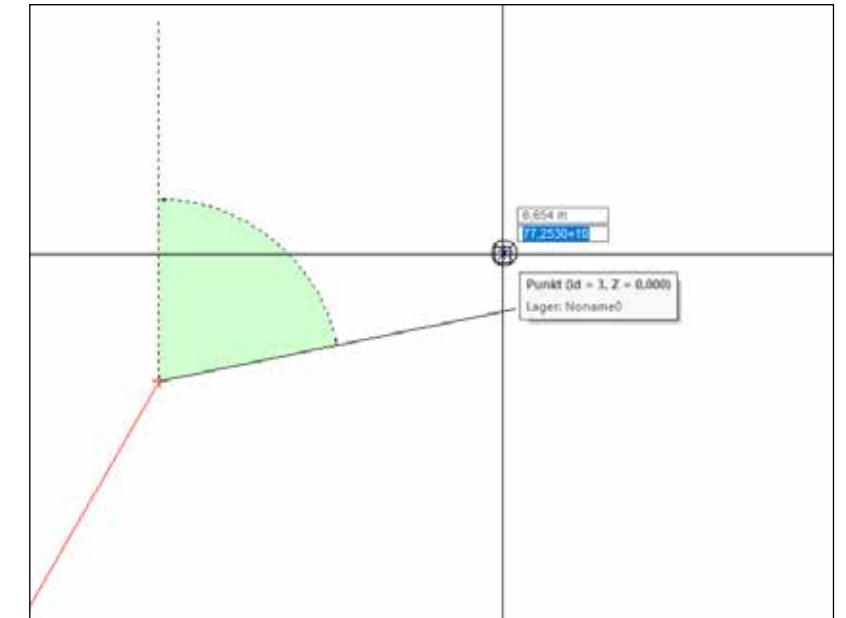
the ability to retrieve descriptions from attributes in the coordinate and area list, to put automatic symbol color in the explanation editor's symbol list, to delete a line in the explanation editor by selecting it in the drawing and pressing delete. Also that changes made in the explanation editor in more cases are shown directly in the drawing without the need to press the blue check mark. In addition, a new column has been added for description in the declaration's area list and the possibility to select source sheets in the declaration editor. The source sheet is the sheet used for automatic selection of symbols, line types and the like.

When it comes to printing, you can now in the system settings choose the resolution for printing without GDI.

Furthermore, sorting is improved in the synchronize command so that

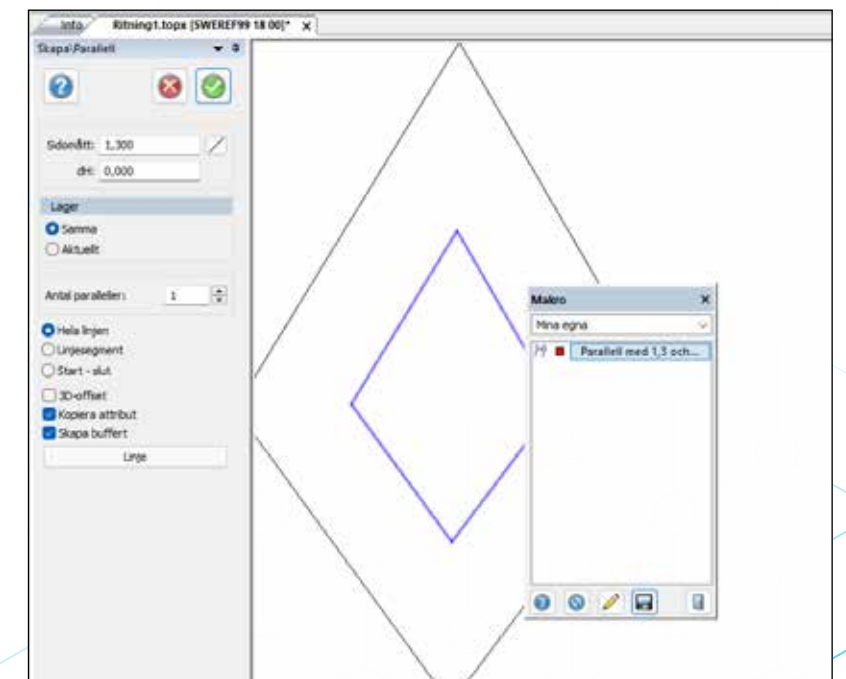
## Lock and edit the current length and angle in the input windows

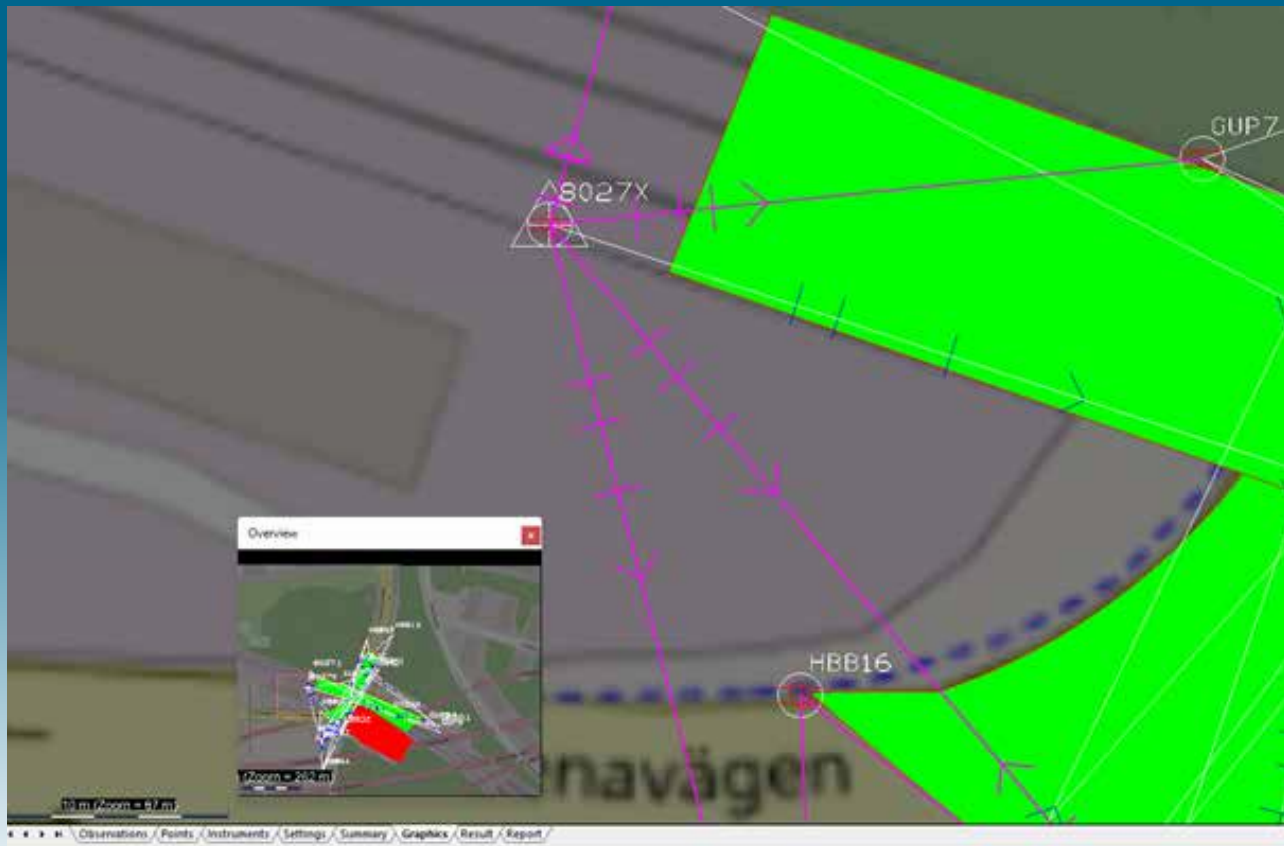
It is now possible to lock the current length and or angle in the input windows at the cursor with the ALT key. This makes it possible, for example, in the line command to target a point, lock the angle and add 100 gon to create a perpendicular vector. It is also possible to visualize the current angle when drawing a line as a protractor. Controlled from within the snap settings.



## Create macros from an active command

Macros have been updated and it is now possible to create macros from an active command. This means, among other things, that it is possible to create macros from the commands create boundary polygon, polygon, point, line, text, offset, buffer, building symbol, solid and move, specify attributes, swipe (solid), fill area, insert symbol and merge surfaces.





## Mark several observations at a time

In Net Adjustment, we continue to improve with the ability to mark several observations at a time in the graphic, only calculate selected observations and to save known points.

changes end up at the top and visibility has also increased as synchronized buildings are minimized in the tree. Other improvements are interfaces in the inventory command and in the update property connection command where updated objects are now



selected.

All of you who work with BAL will probably be happy that it is now possible to run replace geometry directly in the synchronize command and that it is now possible to see other address points for the current address range

in the edit command.

Topocad 22.0 has also improved support for GNSS tilt tilt measurements from Leica HexagonXML (xml) and Trimble's JOBFile (jxl). Counting known stations with several backward objects has also been improved and now works by default.

When it comes to import and export, we have new support for UCS and grouped objects when importing / exporting to AutoCAD (dwg / dxf). We have also corrected that some dwg & dxf files were marked with a student watermark.

In the quick template for the trench,

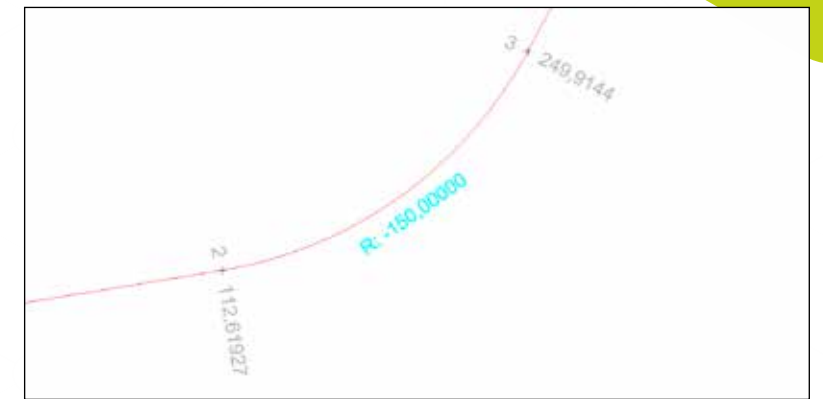
it is now possible to add a margin between the pipe and the outer slope. All quick templates also save recently used parameters, both locally in each file, and globally for new files. Section objects with 2D symbols can now be used to cut areas if the symbol contains a closed contour.

Another novelty is that section objects are included when section drawings are inserted into the drawing. Now also selected columns in report settings are automatically selected in the report view. Speaking of reports, a new report follows with 1 value per section (Volume / Area).

The new report is Standard, the former is called Advanced.

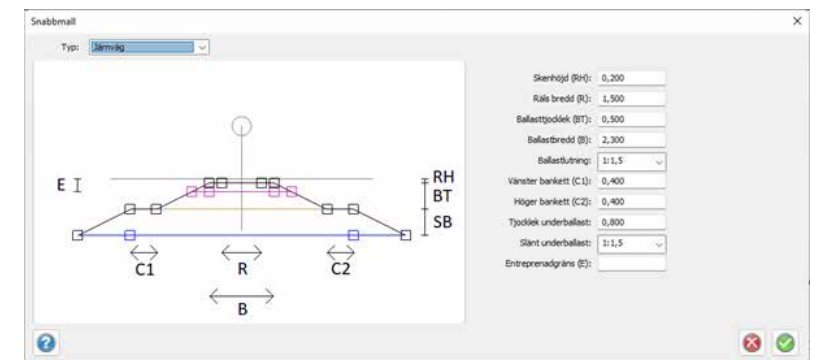
## Extended display in road line

It is now possible to display section, point time and radius on road lines. This is possible on the preview of road line and geometry line. It is also found when you look at road lines and geometries in the drawing and allows you to quickly orient yourself along your geometry lines for review of your data.



## New fast template for railway

The section template has a new quick template for railway with ballast warehouse and also comes with several new reports.



## Support for sloping sections

In calculated sections, Topocad now has support for sloping sections. This means that the section template is tilted so that it is perpendicular to the profile in each calculated section.

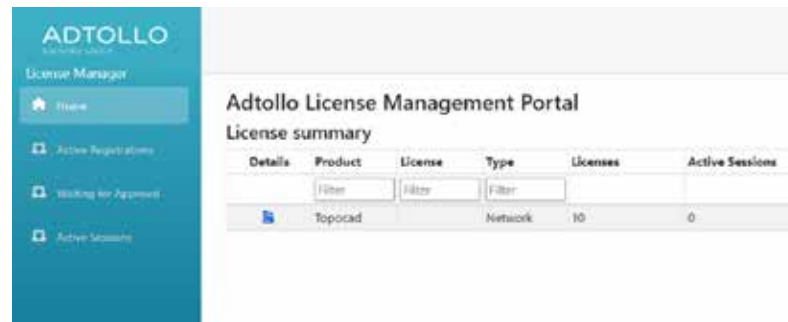


The entire news list is available at [adtollo.se](http://adtollo.se) or in the news button in Topocad.  
Download the latest version at [adtollo.se/download](http://adtollo.se/download)



# Topocad's new license management

With the release of Topocad 22, we are moving to a new license management. This of course also applies to those who run TopoDirekt. This has been on the wish list for several years and in 2021 we finally got it. During the last six months, the solution has been tested in production at several of our users. Many thanks to you!



The new license portal accessed by license contacts with network licenses.

“The new license manager works great. Now we do not have to run as admin via License browser. The registration is handled seamlessly via the internet, everything is simply much smoother”

Jonas Andersson & Linda Hjort,  
Topocad users, Digitizeit

## Background

Why we implement this change depends on several things. First of all, it has been a bit too cumbersome for our users. Administrative rights have been required to manage the licenses on the computer, which far from everyone has had. Many have requested network licenses, but have not been able to obtain their own network server. Own network servers have also contributed to problems when users had to work from home, outside their own network, which became especially clear during the pandemic. Re-registrations have also been required for everything possible, such as using new modules or integer versions. We have also felt limited in the possibilities and sometimes had to tie the knot on ourselves with special solutions to get what we wanted to do. In other words, it was time for an update!

## Clear target image

- Early in the project, we set a goal for what we wanted to achieve. This

included that the new solution would simplify, improve and secure the future.

- License administration should be simple for the user who should not have to possess great IT knowledge
- You should not need a local license server or license client
- The new solution will add value for the user and be future-proof

## The result

It feels fun to be able to bow to all goals now that the new license management has been launched. Let's look at the actual benefits you as a user get:

### For everyone:

- Register once. No need for re-registration when there is a new integer version. Just download and drive. The same applies to the addition of new modules. Restart Topocad and the new module will work immediately
- Smoother registration without a license client with requirements
- administrator rights on the computer

- Basically the same flow for single and network licenses.
- Easy to upgrade
- Run Topocad wherever you are

### For network licenses:

- No own license server and thus no need for an IT expert who will fix with it
- The license contact can administer the licenses themselves via a web-based portal
- Floating licenses. Now you can avoid having several different licenses to choose from when starting Topocad. For example, you can have two Topocad BAS packages and a Network Equalization Module floating between them. Then it's just a matter of getting started and those who first have the need for Net Equalization pinch it. However, does not apply to municipal licenses or TopoDirect licenses
- It is still possible to pre-load MSI packages and postpone

# New module for detailed development plans

We are proud to present Topocad's new module for detailed plans! The module meets the requirements for digital delivery to Lantmäteriet and is adapted to the National Board of Housing, Building and Planning's regulations. We have invested in user-friendliness: the workflow is flexible, there is a great deal of freedom of interpretation and the opportunity to create your own way of working.

Topocad Detailed plan provides a good overview of which regulations have been applied to which surfaces and lines, and it is possible to combine the workflow with macros to further simplify and speed up the work process.

In Topocad's Detailed Plan, it is possible to speed up the work by marking several areas and then extract the provision from the National Board of Housing, Building and Planning's catalog to one of these to apply to all marked areas.

There are clever features for the letter of destination. For example, if several provisions are placed on the same geometry, their letters are automatically grouped together.

The letter of intent are symbols and can be moved and rotated to fit the space optimally.

Used regulations are displayed in a separate box and it is possible to display these in different ways, for example by geometry. You can easily change how the regulations are displayed by changing the list. A check box activates object focus, a handy feature that provides a good overview; when something in the list is highlighted, it is also shown in the drawing.

It is possible to extract regulations from the regulations used and apply them to other objects. In this way, it is possible to quickly reuse all or parts of one's already planned surfaces and

apply them to others.

A text style is created

automatically for detailed plans called Plan Regulations. In the Text Style Editor, you can set its properties, which then apply to all text in the detailed plan.

The Upload command is used to upload the detailed plan digitally to Lantmäteriet. Here you can also include any extra resources.

The Download command allows you to download detailed plans from Lantmäteriet. Sort by municipality and then choose which detailed plan to pick up.



## Topocad Detail Development plan:

- » Works with TopoDirekt
- » Retrieves the latest regulations from the National Board of Housing, Building and Planning at the touch of a button
- » Digital delivery of the detailed plans to Lantmäteriet
- » Developed with the user in focus
- » "Drag & Drop"
- » Flexible way of working with the opportunity to find your own workflow
- » Opportunity for own interpretation space
- » Clearly what regulations have been laid down in which areas
- » Combine with macros to simplify and speed up



- » Great opportunities to adapt the look to your liking such as colors, line types etc.



# What's new in TopoDirekt?

TopoDirekt 22 is coming soon! Prior to the release, at the time of writing, we are bringing together the parts we worked on during the year.



Fredrik Söderberg, Sokigo and Emma Giertz, Adtollo tell about the news in TopoDirekt.

## News that has been released during the year

Unlike many other systems, we at TopoDirekt have chosen to release ongoing news during the year.

In addition to all the fantastic news that has come in Topocad, here you can take part in a selection of news that has been released since the launch of TopoDirekt 21:

- Possibility to open any map in black and white
- Dynamic loading of ECW files
- Possibility to text new objects directly without having to store the object before
- Select searched items for
- map reading
- ISM Client does not require any external drivers
- Support for entering a rectangle on a map in the open dialog
- Support for automatic link recognition in attribute fields
- Support for dynamic links in attribute fields, such as opening a report on a property from FB

## Upcoming news in TopoDirekt 22

So, what can we look forward to? In TopoDirekt 22 comes a large number of new functions through Topocad 22 which you can read about here in the magazine. In addition to these, we can present here some of our news that comes in connection with the release of TopoDirekt 22:

### > New maps

Together with the user association, we have developed new maps for TopoDirekt.

### > Database changes to see all levels of the object

We have also made some database changes that we are testing at the time of writing so that they work as we intended. This includes being able to see all levels of the object. An example is if an object is coded as a roadway, then we will also see

the attributes road area and transport line for the objects.

### > New in the plan mosaic

What is also new is that the plan mosaic database has been updated and now Lantmäteriet's exchange format for the national platform GeoJSON is supported.

There is also a software to download these to the database called DPloader. You will therefore not from version 22 download these via the Topocad client as before. Of course, DPloader also supports the xml format (SIS format).

What is going on at the time of writing is that we test all the components so that you can get the best possible version of TopoDirekt 22.

Visit [topodirekt.se](http://topodirekt.se) for current news!

# Security and a chance to make an impact in TopoDirekt's user association

We have met Torbjörn Rost, chairman of TopoDirekt's user association! Here he talks about his commitment and the benefits of being part of the user association.

Hi Torbjörn, how are you?

- Good, thanks for asking! A little tired in the body when I just completed NattVasan45.

Tell us about your background in the map industry

- I have a master's degree from 1990 and have since worked as a meter, with photogrammetry, GIS and remote sensing. I am passionate about the whole area with geographical data at the center and the benefits it can create for others, but especially Kris-GIS and the humanitarian area. Has worked a lot against UNHCR and mapping of refugee camps and natural disasters. I have moved in everything from the private sector, to municipal and state in various rounds.

Tell us about your role as chairman of the user association!

- My role is to drive the user association's activities forward together with other board members and all members. The association is young, it was formed in 2020, just before the pandemic broke out. The origin is the user association for Topobase which has existed for a long time (since 1994 or 2005, depending on how you count) and in this way we have a positive heritage with the user days and a good association tradition. Several of the board members were already present at that time. At the turn of the year, the association had 44 municipalities as members.

What is the purpose of the association?

- The short answer is to safeguard the members' interests. The association is important for driving the development of TopoDirekt in the direction that our members want. To be able to jointly influence Sokigo and Adtollo to develop TopoDirekt to become the tool we need in our business. One of the most important tasks we have is to arrange the user days for TopoDirekt. There we share tips and tricks and get information from the system manufacturers. The board works with working groups in certain specific areas, one on the board holds the group together and other members participate according to interest. I would like more interested people to sign up.

How often do you meet?

- The board meets once a month at Teams. We have not met live so far, but it can become a reality now with released restrictions. That we look forward to!

What does the association have implemented?

- We have conducted two rounds of user days 2021 and 2022 at Teams with good attendance. 100-150 people participated without any problems. We have also started a number of working groups where we, together with Fredrik Söderberg, product manager for TopoDirekt, have been able to influence the development of TopoDirekt. We have recently started new groups for BAL, 3D, HMK carto-

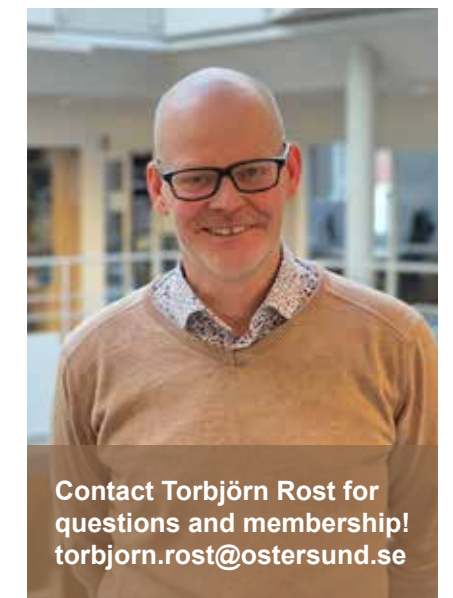
graphy and Tools & Development.

What do you want to say to everyone who is not yet a member of the association?

- Become a member and be involved and influence so that TopoDirekt becomes the tool we want and need! Being a member is a good way to expand your network of contacts and exchange experiences with colleagues in other municipalities. In addition, our gatherings, physical or digital, are usually pleasant.

Do you have anything else you want to add?

- I hope that more members find our Team Group! The link is on the front page when you start TopoDirekt. You can contact me or ask a colleague to write in the group if you do not have access to the group.



Contact Torbjörn Rost for questions and membership!  
[torbjorn.rost@ostersund.se](mailto:torbjorn.rost@ostersund.se)



# Peter Dimberg models the VA system of the future

Text: Sandra Mickelsson

Sälen, Sweden, is currently experiencing a high rate of development where many new hotels and holiday homes are being built. This means that everyone must have water & sewer, and then it is important to keep track of whether there is sufficient capacity. Water & Waste in Malung Sälen AB (Vamas) is a municipally owned company in Malung-Sälen municipality that works with just recycling and water and sewerage services. Peter Dimberg is a modeling engineer at Vamas \* and one of those who works to ensure that everyone has access to fully functioning water and sewer system.

\* Since the report was written, Peter Dimberg has had time to move on to a new job and is now at DHI as a project manager for digital services.

**“In Autocad it could take hours to get something good, in Topocad you can get the same result in half an hour. The flow has really been simplified, and Topocad is structured in a self-explanatory way”**

Peter Dimberg, modeling engineer, VAMAS



Although no two days are the same for Peter Dimberg, his main tasks are to optimize and dimension the pipeline network. Trying to investigate and understand what the water and sewer system of the future should look like is very much about estimating how large the load will be in the future. In some areas, you need to take into account an increased load, while it is not good to oversize either.

- In the mountains, the variation is great during the year, with a very high pressure during the winter and then calm down considerably during the summer. It is therefore necessary to design a system that works under both high and low load and that it is adapted for future conditions, says Peter.

## A new map system - which was not just a peephole

When working with the VA network, a map system and functions are needed to, among other things, analyze runoff against the topography. After a few years with Autocad / Civil 3D, Vamas was interested in reviewing the range on the market and what has happened in the development. Although they were generally satisfied with their program at the time, they wanted to see if there was a system with more functions that could help them in their daily work, and which was compatible with other external systems they use.

- Historically, the map system has mainly functioned as a peephole where you can only look at the wires in the ground. We wanted to find a system

where you take the step further, from just having a database with information, to something that also simplifies everyday life - today and in the future, Peter explains.

## Vamas became test pilots for Flex VA

The new map system became a combination of Topocad, database, SM (Cartesia Spatial Map) \* and FME (Feature Manipulation Engine) \* and where also the completely new function Flex VA was integrated.

- Topocad Flex will be an important piece of the puzzle in our new map system that builds the various components together. Right now, we mainly use it to add and update our management network with associated objects in the database. When everything is finished and the database has been updated, we will, among other things, design and update the VA network via Topocad Flex down to the database, says Peter.

Vamas became one of the first companies to launch Flex VA, which is a function that allows you to connect Topocad to your database. The changes you make take place directly in the database and you can communicate directly with, for example, Topocad or CSM, and integrate models in a flexible and simple way.

## “Topocad is structured in a self-explanatory way”

The introduction of Vama’s new map system is still ongoing and it is being expanded as in continuous dialogue

with the team behind Flex VA. But already now Peter can see how easy it is to use and how much faster it is possible to design in Topocad.

- In Autocad it could take hours to get something good, in Topocad you can get the same result in half an hour. The flow has really been simplified, and Topocad is built in a self-explanatory way. If you want to draw, make changes, ground profiles or breaks, it is easy to find under the menus. It takes a few keystrokes to get what you want, and you do not have to be as familiar with the program as you have to be in Autocad to do the same thing, says Peter.

## Simplified and clearer work process

In addition to the fact that the design goes faster, Peter sees a number of other advantages. Among other things, he mentions that because Flex VA is connected to the database, all designers can access each other’s design work and gain a greater understanding of the whole. Vamas also becomes less dependent on people. If a designer falls ill, others access the same data material and can easily make the modifications required to proceed. In addition, the pricing and agreement with almost unlimited Topocad licenses was quite lucrative.

- The flow from design to storage is also faster before it is visible in the sharp map system. In principle, only the projected objects need to be marked and change status from projected to current to be visible in the map. It also becomes clearer which works have been projected and their status within the municipality. The whole will be



more tangible, according to Peter.

Peter Dimberg also highlights the integration with the FME as very grateful as it solves any dead ends that may arise in the daily work with models and processing of data.

- With integration with the FME, there are in principle no restrictions with what you can do with Topocad for a water and sewer system regarding dimensioning, optimization, renewal, historical analyzes, but above all preparatory work to build a robust VA system that not only works today, but also in the future, Peter concludes.

## This is Flex VA

Topocad Flex is the module that makes it possible to manage the water supply and sewerage network. For example, you can easily create and modify pipes and wells and track water flows in the pipes.

The Flex concept is flexible and open in a completely new way. This makes it more user-friendly compared to other similar systems and you can create and edit water and sewer objects with fewer steps. You save directly to the database as much of the functionality is performed there.

Thanks to the composite functions, it is easy to divide and join wires, and you can point out and start tracking or draw a surface with just a few keystrokes to see what is inside the surface.

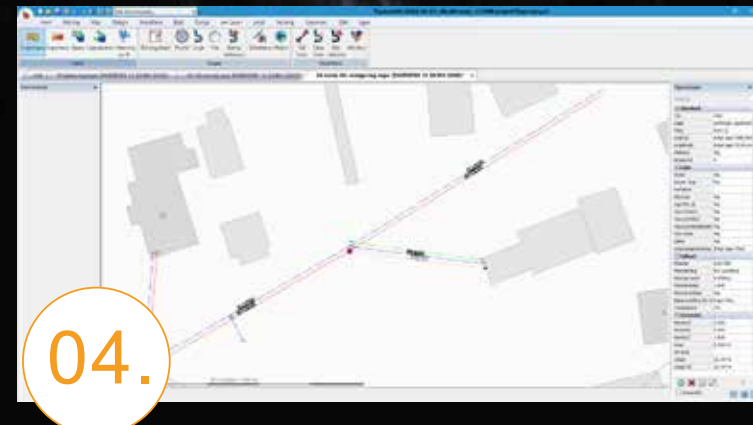
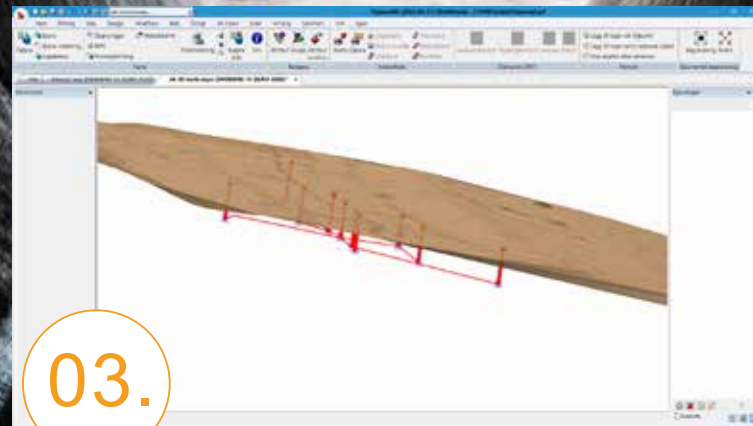
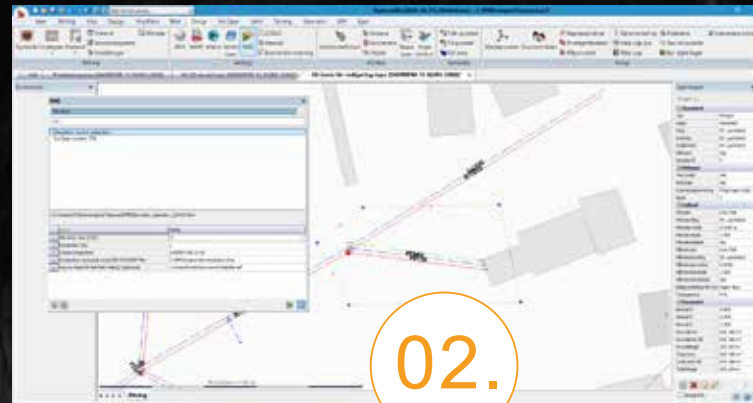
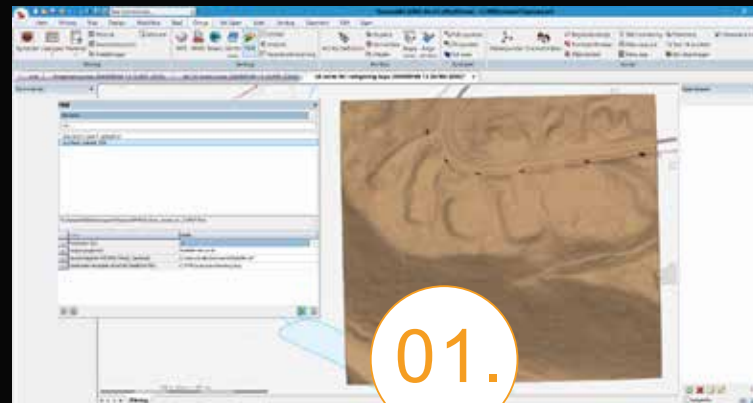
## Captions

1) 3D surface created in Topocad with FME by specifying the desired area.

2) Example of an area for obtaining highlights in Topocad with FME from the survey data's elevation data.

3) 3D view of pipes and wells and how they lie underground. The pipes / wells are retrieved directly from the database and extra extra work is not required more than storing data correctly.

4) Example of what the water and sewer network can look like in Topocad. All data is retrieved / stored directly from the database via ISM.



# Topocad is perfect for Lilla Edets municipality visions for the future

Text: Sandra Mickelsson

Survey engineer Motaz Hanna is a true Topocad enthusiast. After many years of working in GIS platforms, he found a new favorite when he tested Topocad. Here you get a direct insight into how Motaz uses Topocad to get good results in their projects at Lilla Edet municipality.

After just over 45 minutes drive from Gothenburg, you will reach the municipality of Lilla Edet, which is expanding in both Bohuslän and Västergötland. This is where the measurement engineer Motaz Hanna works, who after the surveying program and courses in GIS developed a real fascination for GIS platforms. The opportunity to work in Topocad came when the job at Lilla Edet municipality appeared.

- Lilla Edet municipality had not really had any measurement activities in the house for a long time, but instead hired subconsultants \*. Topocad was available as a license, but no one knew the program well and there was no solution for how to use it when I started, says Motaz Hanna.

## Learned Topocad from the ground up on his own

Just like for anyone starting a new job, it took a while to get used to the new systems. The fact that no one knew Topocad except an employee, who would soon retire, did not stop Motaz. He decided to learn Topocad on his own.

\* Lilla Edet municipality had measurement activities for a couple of years until the autumn of 1981, when they moved to Lantmäteriet. So from 1981 the measurement business was discontinued.



Motaz Hanna, mätningssingenjör på Lilla Edets municipality



“I have not seen any program that can easily edit as well and smoothly as Topocad. With the 3D function, I can turn the whole model and make sure that everything is correct, from a roadside to a staircase. I can even edit in 3D view!”

Motaz Hanna, surveying engineer, Lilla Edet municipality



- I could have taken a course to learn the program, but I'm a nerd so I started to look at it myself. It actually didn't even take long before I felt how much joy it gave me, it really was a wow feeling!

Motaz thus developed a way of working that worked for him, and today has a complete solution for processing data. When a new colleague starts, it is easy for him to get started with the program as Motaz set up everything from code lists to his own symbols.

### A simplified workflow

Lilla Edet municipality has understood that it is important with data information and collection and there are great visions for the future. There is a great deal of commitment and, for example, investments have been made in a new drone, which has facilitated Motaz's work process. He works in Topocad all day and interprets, among other things, new construction maps, older detailed plans, or makes location checks before a construction is to be cast to ensure that it complies with the building permit.

- I have found a way of working where I go from DJI Terra, the program I use to process my collected data from drone flights, on to Topocad, and then from point clouds to geometries and points / lines with altitude information in DWG. What I do in Topocad I then pass on, for example in the form of

new construction maps and design documentation. The simplified workflow between DJI Terra and Topocad thereby also the assignment and it ensures quality, says Motaz.

### A clear language for all surveying engineers

Motaz believes that Topocad suits measurement engineers so well because it is niche for measurement, processing and modeling. It saves time. So much time that Motaz can complete 2-3 new construction maps a week, depending on how much other job he has.

Features such as creating digital models, ground profiles and elevation curves are also very useful for him and he specifically highlights the value of computing capacity. But best of all is the 3D feature.

- I have not seen any program that can easily edit as well and smoothly as Topocad. With the 3D function, I can turn the whole model and make sure that everything is correct, from a roadside to a staircase. I can even edit in 3D view! Then I can not only detect errors but correct them directly, which you can not do in the same way in other programs. In other GIS programs, I needed additional programs to get the whole picture, but with Topocad I do not need anything else but have all the functions I need, says Motaz.

### The vision of a seamless database in 3D

The municipality of Lilla Edet's ambitions are high and the investment in new technology extends beyond technology purchases. Motaz says that their ambition is to create a seamless database that contains 3D information of absolute top quality, and there Topocad is a key player in the project.

- I get incredibly good data with the drone. I can see poles, streams, roads, yes, everything in 3D with incredible accuracy. My vision for the future is to work entirely in 3D. DWG as a format is also a language that everyone can use and it does not get so heavy when you send it over to others, says Motaz.

### Even a primary map in 3D

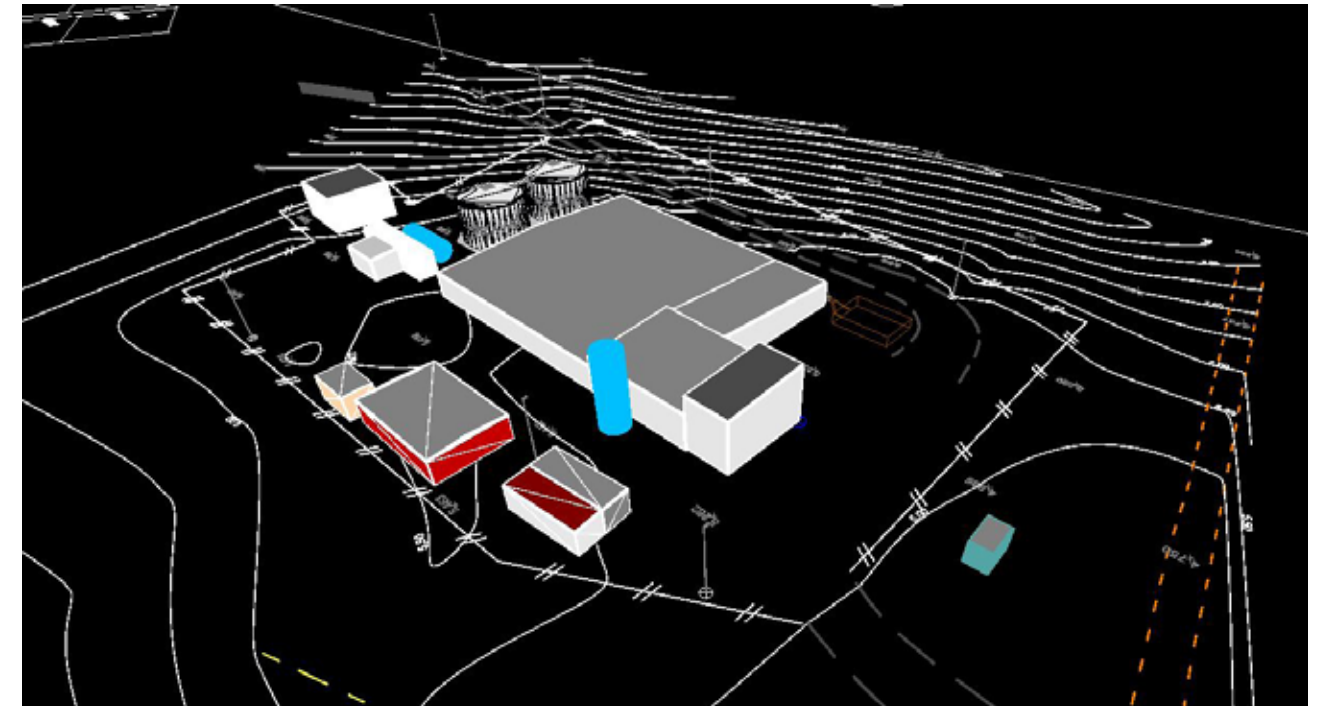
The municipality also aims to have the entire primary map in 3D, where roads, buildings, ditches and everything else should have height information. Since Topocad offers the 3D option, Motaz is convinced that the result will be very good.

- I feel that I have succeeded very well with Topocad. It really simplifies my everyday life as a measurement engineer, and after showing my colleagues what we can do in Topocad, everyone is on the track!

## Project in focus:

# Lilla Edet's treatment plant

Lilla Edet's treatment plant would be rebuilt to increase capacity for future plans. Motaz Hanna was then asked to decide if there was a risk of flooding as the treatment plant was close to the river.



To help Motaz, he had solid models and standard CAD models, which were then exported to the customer in DWG format.

Like other regular missions, Motaz began with a drone flight. In Topocad, he planned air support and looked over the area. After the drone flight, he processed his collected data from the flight in DJI Terra, exported and transferred to Topocad. A simple way of working, because he set up everything there according to the municipality's code list. After processing and creating the model in Topocad, he then exported this to a customer in DWG format.





The news in version 10.1 and 10.2 of

# CHAOS DESKTOP

In December, Chaos desktop 10.1 was released, which was one of the largest sub-versions we have ever released given the number of major news and improvements. In February, 10.2 came with an upgraded connection ProjectWise. Read more about the news here!

## 1 Chaos desktop gets direct connection to ProjectWise

In the new Chaos desktop 10.2, we have upgraded the connection to ProjectWise. From previously delivering and downloading files in ProjectWise using Excel, we now go all the way and connect directly to ProjectWise. Chaos desktop now logs in to any data source.

We can also upload and download files, folder structures and document collections. We configure metadata, document types and so-called environments, so that they match in both systems. Folders in Chaos desktop document collections can create folders in ProjectWise. In other words, the folder structure of the Chaos desktop project does not have to match the folder structure of ProjectWise. It is still possible to bulk deliver files to a structure.

## 3 Wildcards in the search phrase

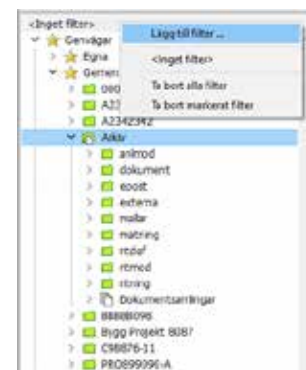
A new feature that allows you to use wild cards (so-called wild cards) in the search phrase.

Asterisk (\*) replaces zero, one or more optional characters. Example search phrase: 895 \*

Question mark (?) Replaces an optional character. Example search phrase: 895A001? .Dwg

## 2 Filters for project windows

You can use filters to select which projects or folders you want to see in the project window. Create a new filter using the Add Filter menu. You can switch to display without filter by selecting <No filter>. You can delete filters on the selected folder. It is also possible to delete all filters.



All news in Chaos desktop is on [adtollo.se](http://adtollo.se). Here you can also download the version.

## 4 Included in

The Included function shows which drawing definitions a drawing model is included in. You can see which documents the document is included in directly in the document window under the Node Included function. The function goes through the documents and creates files with file extension "irx" current document. Then, Included in below the document is displayed in the Chaos desktop.

Namn	Senast ändrad	Dokumenttyp	Storlek	Delområde (väg)
P464001.dwg	2017-02-17 16:10:19	Rtningmodell	284...	VÄG
inbgi				
000A0008.dwg	2017-02-24 14:05:07	Rtningdefinition	392...	TEST
000A0007.dwg	2017-02-24 14:05:07	Rtningdefinition	392...	TEST
000A0006.dwg	2017-02-24 14:05:07	Rtningdefinition	392...	TEST
000A0005.dwg	2017-02-24 14:05:07	Rtningdefinition	392...	TEST
000A0004.dwg	2017-02-24 14:05:07	Rtningdefinition	392...	TEST
000A0003.dwg	2017-02-24 14:05:07	Rtningdefinition	392...	TEST
000A0002.dwg	2017-02-24 14:05:07	Rtningdefinition	392...	TEST
000A0001.dwg	2017-02-24 14:05:07	Rtningdefinition	392...	TEST
P4640002.dwg	2017-02-17 15:33:38	Rtningmodell	273...	VÄG
P4640003.dwg	2017-02-17 15:33:38	Rtningmodell	273...	VÄG

# MARI ANSWERS QUESTIONS



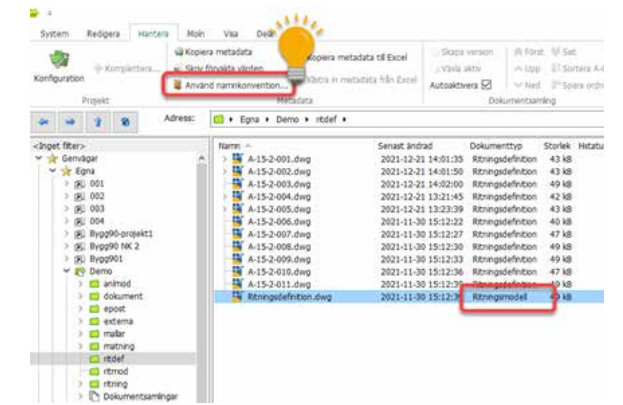
## Why is it not possible to change the document type?

- My drawing definition files get the wrong document type (for example Model or Other) and when I try to change the document type under Properties it does not work. Why can't I change the document type?

Mari answers:

- This is probably due to the fact that there is a naming convention active in the project, which governs what the drawing definitions should be called. If the files do not follow the naming convention for drawing definitions, then they can not get the correct document type.

1. Turn off or supplement the naming convention (if you are sure your files are named correctly)
2. Rename the files to fit the naming convention using the Use naming convention function.



Change document type and file name according to naming convention. Go to the Manage menu and click Use Name Convention.

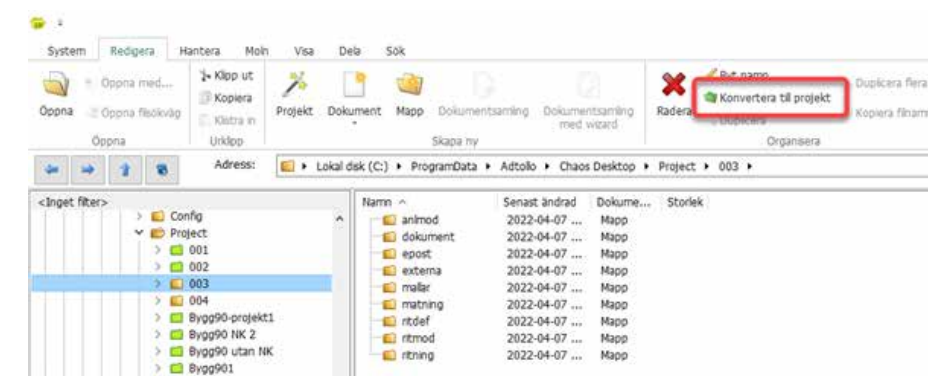
## How do I change project configuration in Chaos desktop?

Mari answers:

- The project configuration is saved in a file called ChaosDesktop.xml. The file is hidden in Chaos's desktop and can only be viewed in Windows Explorer. If you want to delete the project configuration and replace it with another, you can delete Chaos-Desktop.xml in Windows Explorer. Then the project folder will no longer be green and all configuration you have made will disappear. After that, you can

add a new ChaosDesktop.xml that you copied from another project.

You can also use the Convert to project feature in Chaos desktop. Select the project folder, right-click and select Convert To Project. Then you can choose from the project templates you have and based on that a new ChaosDesktop.xml is created.



With Convert to Project, you can turn a regular folder into a project folder.



Take part of

# CHAOS DESKTOPS COURSE OFFERINGS!



Welcome to our courses where you can learn more about Chaos desktop. Here you get a short overview to get into the system quickly. The courses give you knowledge on how to work efficiently in Chaos desktop and give you tips on popular features.

We also usually show some of the news that is included in the latest version of Chaos desktop. In the courses, you have the chance to ask your questions to the course teacher and ball questions with other participants. In our basic and admin course, you get a compendium of exercises that you can use after the course to rehearse.

## Online course!

Taking a distance course is a time- and cost-saving way to gain new knowledge or stay up to date. You avoid travel times and costs for travel and accommodation.

## Company-adapted training

If you have requests for courses other than those that are scheduled, please feel free to contact us.

We also offer company-adapted training. The course content is then adapted to your company's wishes. Because Chaos' desktop affects work methods that vary from company to company, a tailored course can often be more effective.

## BASIC COURSE

- » Web course
- » 2 h
- » 1 600 SEK

Here you will learn how to use the time-saving features of Chaos desktop. We go through batch plotting, viewer, email and drawing lists. You will also receive a thorough review of the system's structure.

The goal is for you to be able to use a pre-configured Chaos desktop and be able to work efficiently in the system.

## ADMIN COURSE

- » Web course
- » 2 h
- » 1 600 SEK

Here you will learn how to manage Chaos desktop, upload projects, upload batch commands and link drawing stamps to projects. We create project and document templates. We are also reviewing the naming convention for file names.

The goal is for you to gain knowledge to be able to configure projects and for templates for different purposes in Chaos desktop.

[Visit chaosdesktop.se](https://chaosdesktop.se)  
for current course dates!

User story

## How Chaos desktop ELU helps manage metadata, file management and synchronization

Text: Sandra Mickelsson

ELU is involved in solid construction projects such as Nya Slussen in Stockholm and Södertälje Sluss och Kanal where document management can be a real challenge. It was precisely the need for a smart file management system that led to the collaboration with Adtollo and Chaos desktop.



Image: ELU/Sweco





**“We were looking for a system to manage metadata and found it in Chaos desktop. It facilitated downloads and uploads from SharePoint the solution with us, as well as for other consultants within the New Slussen project”**

Gabriel Kvarzell, Marine Engineer, ELU

Image: Ulf Winblad

**E**LU (the initials in the surnames of the founders Håkan Ehnström, Einar Lundén and Mats Uppenberg form the company name) is one of Sweden’s leading designers in construction, civil engineering, geotechnics and water construction with over 50 years of experience. Marine engineer Gabriel Kvarzell works in the marine department with water-based structures in both the design and investigation stages, such as quays, locks, harbors and fishing roads. He has worked at ELU since 2010 when he started in the geotechnical department. He worked there until the marine department was started in 2020.

### The need for a better way to handle metadata

In the early 2000s, ELU began working on the large Slussen project in Stockholm with the Development Office as the client. The project required regular deliveries and notifications of files and models to a SharePoint solution with metadata-set files. That was when ELU discovered Chaos desktop.

- We were looking for a system to handle metadata and found it in Chaos desktop. With the help of this, downloads and uploads from the SharePoint solution were facilitated with us, as well as for other consultants within the New Slussen project, says Gabriel.

### The Södertälje Lock and Canal project

The biggest project Gabriel is working on right now is the modernization of Södertälje lock and canal. Following previous initiatives to start the project, it was not until the beginning of 2021 that the planning for ELU started in earnest, with the Swedish Transport Administration as the client. ELU has the coordinating role as general consultant and is responsible for the design towards the Swedish Transport Administration. Gabriel is the overall data coordinator for the consulting group and coordinates the design between side consultants such as architects and road designers, sub-consultants and deliveries to the Swedish Transport Administration.

- When we started the design, we reviewed the coordination of the project and presented a structure and working

method for us in the consulting group. How would notifications be made? How would files be shared, and how often? The Swedish Transport Administration wants it to proceed quickly, but we have also been given space to work freely with the design and decide a lot ourselves, Gabriel explains.

### Metadata, file management and synchronization in Chaos desktop

In the Södertälje Sluss och Kanal project, Chaos desktop became an important piece of the puzzle when the Swedish Transport Administration set requirements for metadata management. Since Gabriel had used Chaos desktop in the New Slussen project, he knew how it worked and could recommend it, and it became one of the programs the consultants used in the project.

- In Södertälje Sluss och Kanal, I use Chaos desktop for metadata setting of files to be delivered to the Swedish Transport Administration within the consulting group. It is easy to get an overall view of what documents are in the project and pro-

duce new document numbers using Chaos desktop, Gabriel explains.

### Intends to integrate the new way of working into more projects

Gabriel would like to continue working with the new way of working to get a better overview in other projects as well. It is mainly in the larger projects that it is needed.

- In the future, I would like to try to use Chaos desktop more often in larger projects. Partly where it is difficult to interpret the file name, partly to keep track of the documents. In the Södertälje Sluss and Kanal project, I also realized that there were many functions I did not use. The more I sit in the program and talk to Tommy on Adtollo - the more I understand and that we could use the program for so much more, says Gabriel.

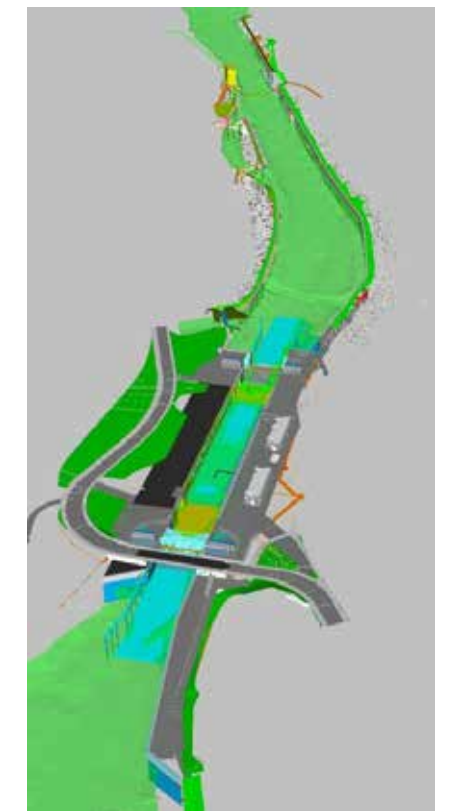
### Valuable personal contact with Adtollo

Overall, Gabriel Kvarzell believes that Chaos desktop has been effective from several aspects. Because they

have been able to set fixed values directly in the naming process, they have minimized the manual work. In the New Slussen project, Gabriel’s colleagues have saved time thanks to the smooth synchronization. In addition to being able to easily upload and download, they have been able to see which files have been changed and add various auto functions.

In the Södertälje Sluss och Kanal project, the work with file management and metadata setting in particular has become simpler by being able to quickly see the various parameters. For example, if ten people have worked with drawings, Gabriel has been able to see if everyone has filled in the required parameters. Without Chaos’ desktop, the process would have been more laborious and time consuming. Gabriel also highlights the personal contact with Tommy at Adtollo as valuable.

- For ELU, it has been important to get support regarding Chaos desktop when needed as deliveries are often time-critical. In this project, ELU has received the help we wanted to be able to use the tool effectively in the way we and the Swedish Transport Administration needed, says Gabriel.



The image shows the coordination model in the project. Image: ELU



# Adtollo Inside story

Welcome inside the doors of our office and meet Anders Nystrand, Topocad developer since 2006. Here, he tells about a normal day at work, how the company has changed over time and about the new office on Hudiksvallsgatan.



Name: Anders Nystrand  
Works as: System developer Topocad, Measure & map  
Employed by Adtollo since: 2006  
Background: Previously worked with programming within CAD/CAM  
Book Tip: Project Hail Mary by Andy Weir

**A**nders is the one who walks to work every day, in all weathers, in all seasons. When we recently moved to a new office, his route has changed. From Kungsholmen he now crosses St Eriksbron, up St Eriksgatan and up to the office on Hudiksvallsgatan. An invigorating walk of about 20 minutes.

## Tell us, what does a normal day at work look like?

- I spend most of the day developing new functions for Topocad. Sometimes I discuss with my colleagues how the functions should be designed.  
Anders says that it is important to include as many perspectives as possible so that the program is designed in a way that is smooth for users. Otherwise, there is a risk that you as a programmer stare blindly at the fact that the calculations will be correct and forget about the user-friendliness.  
From time to time he also has to step in and help the support when they encounter difficult cases.

## What attracted you to apply for Adtollo?

At that time, the company was called Chaos systems, and it was a name that aroused Anders' curiosity.  
- I believe in a balance between creative chaos and order. Far too many organizations rely on rules and processes in the belief that it will automatically lead to success.

When he also saw that the company was developing a CAD system, he became even more interested. Partly because he has worked with the development of similar systems before, partly because he likes computationally intensive programs.

## How would you describe the atmosphere at Adtollo?

Anders describes the atmosphere as open and unpretentious.  
- We are a small company and everyone talks to everyone. Decisions can therefore often be made directly without bureaucratic detours. It's easy to thrive here and that's probably why I stayed so many years.

## What is the best thing about the job?

- That you get to work with stimulating tasks on a daily basis. Okay, almost every day, Anders says with a smile.

## What do you think of the new office?

Anders likes the location in Vasastan with many good restaurants nearby. He also points out that it is nice to sit with the group colleagues at Addnode Group.

## What are you working on right now?

Anders is now working on adding a setting for print quality that makes it easy to print with high quality for printers, and with lower quality for pdf if you want to reduce the file size.  
- In addition, I refine a bit on some of our new quick templates in the section template document.  
The features are included in Topocad 22.

## Do you have any tips for those who want to work with programming in our industry?

-If you can program, you really only have to apply for the jobs that are advertised. If you have experience from the industry, it is of course a big plus.

## What do you prefer to spend your time on when you are not working?

When Anders is free, he likes to consume different forms of culture. Among other things, he is part of a book circle.  
- Most of all, I like to watch music live, which I hope to be able to do more of in the future if now only the pandemic stays away.



# Tips & tricks in Topocad

01.

## Lock the current length or angle

You can now lock the current length / angle in the input windows at the cursor with the ALT key. This makes it possible to create a line segment by first measuring out, for example, a length, locking it and then drawing it in any direction.

02.

## Right-click to add to your own menu

Now you can right-click on a command button to add it to your own menu. A function that simplifies the creation of your own menu.

03.

## Create macros from active command

Improved handling of macros with the ability to create macros from active command. We have built the function to simplify the creation of macros.

04.

## Importer eller exporter nyckelring

Gör det enklare att dela med sig av sina inloggnings. Funktionen återfinns i systeminställningens meny "Avancerat".

05.

## Filter equally

Select objects in the drawing. Turn on the filter to select similar. Set which properties to filter from Selection settings, such as layer or point code. New shortcut to activate the function is Ctrl + <.

# New employees at Adtollo

Åsa Karlsson,  
Administrator



Jenny Sundbergh,  
specialist Municipality  
& Support Measure &  
Map



Åsa started at Adtollo in January this year. If you call Adtollo's switchboard, it will probably be Åsa you can talk to. She is the one who administers our info email and our courses, both in Document Management and Measure & Map. Åsa also works with licensing issues and certain financial issues.

She has previously worked as a receptionist in an architect's office.

In her spare time, Åsa enjoys creating, such as painting and decorating. Cooking, forest walks and riding are other things she likes to do.

Since February this year, Jenny has been training and taking care of support matters here at Adtollo. She also works with product development and tests new versions of Topocad.

For the past three years she has worked as a project manager and before that she worked at a municipality as a GIS engineer. Jenny has ten years of experience in training, support and product development.

- Exactly what I think is the most fun and what I now get to do on Adtollo! says Jenny.

In her spare time, Jenny grows in her greenhouse and turns beautiful bowls.

# Sudoku

Solve Adtollo's two Sudokun and send them by June 1, 2022 to:

Adtollo, Hudiksvallsgatan 4B, 113 30 Stockholm together with your name & address. It is also possible to take photos of your sudokun with your smartphone and send a picture and your name & address to 070-911 15 07.

Do you manage to solve both? Submit your answer and you will be rewarded with a roller coaster!

Applies to the first 25 correct answers.



		9			6			
5	8						4	
		2	7		8			1
	5			6	3	1		9
		1				4		
7		3	4	9			5	
9			1		4	2		
	1						3	4
			5			8		

			8	4	3		9	
	8						4	
		7		2			1	8
9	7		2				3	4
	5	6			4		1	8
9	5		7			2		
		2						6
6			5	8	2			



# Current courses and webinars

## Course schedule Topocad web courses

Topocad Volume calculation section, 4,950	25 April
Topocad Introduction, 950: -	27 April
Topocad Admin, 2,950	May 2
Topocad Terrain. & Vol. ber. 4 950: -	3 maj
Topocad Plan, SEK 4,950	5 May
Topocad Bladmall, SEK 2,950	11 May
Topocad Introduction, SEK 950	24 May
Topocad VA design, SEK 2,950	June 2
Topocad Volume calculation section, 4,950	June 8
Topocad CAD Grund, SEK 4,950	21 June
Topocad CAD Continuation, SEK 4,950	22 June
Topocad Introduction, SEK 950	28 June

## Course schedule Chaos desktop web courses

Chaos desktop Admin, 1 600:-	29 april
Chaos desktop Basic, 1 600:-	13 maj
Chaos desktop Admin, 1 600:-	19 maj
Chaos desktop Basic, 1 600:-	9 juni
Chaos desktop Admin, 1 600:-	17 juni

## Webinars Topocad "Fredagsfrallan"

New way to create macros	April 29
Topocad's new module for detailed plans	6 May
General import	13 May
Solid in Topocad	June 3rd
How to handle cases in BAL	17 June
The news in Topocad 22.1	19 aug
Work with new fast template for railway	26 Aug.
Simple CAD functions part 2	2 sept
How to make a drawing stamp in Topocad	9 sept
Leicaimport and Topocad	23 sept
Work with interactive graphics	30 sept
Tip - how to work with addresses in BAL	7 Oct.
The benefits of the Edit as text function	14 Oct.
Draw the line tool in Topocad	21 Oct.
Leaflet Templates & Layouts	28 Oct.

*You can find more Friday rolls at [adtollo.se/kurser/fredagsfrallan](http://adtollo.se/kurser/fredagsfrallan)  
Subject to possible updates.  
Visit [adtollo.se](http://adtollo.se) for current dates!*



## Meet Adtollo on Mätkart!

We are exhibiting at Mätkart on 18-20 May in Halmstad, feel free to meet us there!  
Do not miss Jakob Samani's lecture  
Latest news in measurement data management  
Thursday, May 19 at 12: 30-13: 30.

*See you in Halmstad!*