

CLIENT CASE STUDY:

# AUTOMATING THE MINING PROCESS THROUGH AUTOCAD INTEGRATION

Predrag Vukolic has worked on mine planning for mine consultants, mining companies and mine contractors. Currently he is working as a cost engineer in Procon Mining and Tunnelling, one of the leading mine contractors in North America.

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**Predrag Vukolic,**  
Procon Mining and Tunneling

## INEFFICIENCIES IN MINE PLANNING AND DESIGN

Underground mine design automation and optimization is a complex task. Generating 3D models for proper analysis of different mining functions can take months, affecting all aspects of mine site operation. Traditional AutoCAD drawing methods often do not suffice when it comes to the complexities of mine design which can lead to inaccuracies. Mining shapes, such as drifts and stopes are typically manually drawn by engineers, based on the block model and cut-off grade which requires a tremendous amount of time. Sharing this data can become particularly time consuming as engineers wait for the most up-to-date version of a particular drawing.

*“The main problems I noticed in mine planning were the lack of functional tools to create the drawings and standardize them, information sharing between mine departments and time needed to prepare the drawings.”*

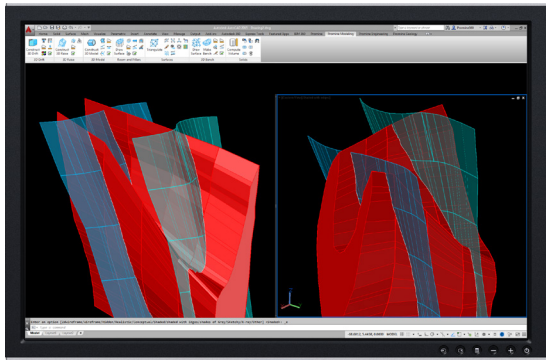
“Those 3 things were improved the most with Promine, along with the drawing presentation. Promine stores drawing information in such a way that when you open a drawing it pools the latest information from all departments and you know that the information you see is up to date. If Promine is used properly you can avoid having multiple versions of the same drawing.” explains Predrag.

# AUTOCAD INTEGRATED SOLUTIONS

Promine enables engineering department staff like Predrag the ability to provide accurate and timely services in the process of mine planning, geological and exploration tasks.

As a modular application, clients can select Promine functionalities that are the most suitable for their business requirements and can configure their solution accordingly. This ensures users aren't paying for functionality that they do not require.

Promine ensures users can rely on having the most current information within their drawings and that drawings from other mining software will be easily importable.



*“It is fairly easy to learn how to use Promine, it can be implemented quickly with minimum amount of training if users have a decent experience with AutoCAD. It’s quite intuitive with excellent drafting tools that tell you they were designed by the people who knew very well what they want to achieve and how to help mining personnel. It is much more intuitive than some of the other mining software.”*

*“Promine should be at the top of the list of tools in any active mine or design office. It’s a huge benefit both for the operations and for the management or project control. Feedback I’ve received from other engineers about Promine (either working with them or training them) is very good and it looks to me that the more complex the mine is the more they find Promine tools useful.”*

## THE PROMINE ADVANTAGE

Since working with Promine, Predrag Vukolic has relied on it to assist in the provision of leading exploration and mining consulting services to operations throughout North America. Using Promine, Vukolic is able to interpret, display and analyze clients' geological and survey data and create mine plans with high accuracy.

“A mine drawing is a snapshot of your work; it transfers the technical information and also tells about the person (or company) presenting it. Having an excellent set of mine planning tools, standardized layouts, title blocks, sections views, various scales available for quick use makes a big difference. Promine's structure provides very flexible way of organizing mine data into levels, mine areas and work places. Once it is set up properly it is very easy to prepare production

drawings such as stope plans, lateral and raise development, service lines or just load the information to do the mine planning analysis. Promine cuts drawing preparation time significantly, making design changes and re-printing drawings quick and simple. The data is easily accessible and having all users linked (planning, geology, survey) is a huge advantage, you don't have to search for the information from other departments, you just load their information into drawing. Another thing that is very useful is that you can set up user rights so you can protect the information and track changes.”

Predrag continues “Promine showed me its power when I was transferring historical information like hand-made drawings, geology sketches, old survey data etc into accurate mine models organized into areas,

levels, type of development etc. I can't imagine doing that without Promine... it would still be possible but would take significantly more time, personnel and resources. Once you have a model built with Promine, organized the way you want it you can do your mine planning much more efficiently.”

