

Gemcom Surpac: automation of geology and mine planning tasks for underground and surface mining

Gemcom talks to *Mining Journal* about how the Canadian-based company's software has revolutionised mining tasks

GEMCOM Software International Inc is the largest global provider of mining productivity solutions and has clients in more than 90 countries. Mining companies use our software to evaluate mineral deposits, develop mine plans and schedules, and manage operational performance to control costs and drive productivity. With clients looking to maximise operational and staff productivity, in 2008 we trained over 3,000 users in 64 countries.

What makes Gemcom's products unique is our focus on enabling our clients to not only accomplish key mining tasks such as mine planning and scheduling, but also to help them mine more efficiently and lower mining costs. With clients continuously being asked to do more with existing staff and resources, especially in today's economy, our software has been designed for ease of use and automation of tasks. One of our clients, Rheinkalk GmbH, has increased productivity significantly by automating more than 200 tasks with our Gemcom Surpac software. "Surpac's automation capabilities save tremendous time and effort and give our users and departments access to geological and deposit data in standard file formats," says Markus Oehmen, a Rheinkalk GmbH geologist.

Other clients, such as US-based Brush Resources Inc, have found that our Gemcom Minex software for coal and stratified deposits helps them minimise their staffing requirements. "Minex pays for itself by minimising our staffing requirements," says John Wagner, manager of Brush Resources' Topaz mine. "Without Minex, we would need more engineering and field control personnel."

GEMS HELPS CONSOLIDATE DATA

Data management is another critical area that we address with our solutions. Industry regulations are becoming more stringent, requiring that data used in production reports come from sources that can be validated. Rather than having multiple versions of data residing on various laptop

and desktop computers, consolidating the data in a central database presents one version for all to use.

Mining companies are also consolidating and are seeking to drive additional efficiencies from their properties. To achieve this they are seeking to use more of their operational data to find areas for improvement in production processes, starting right at geology and all the way through the mining and follow-on production processes. IAMGOLD Corp uses our Gemcom GEMS software with Microsoft SQL Server to enable its staff to collaborate. IAMGOLD senior mine geologist Eric Ramsey says GEMS is the single most critical tool onsite. "It is our main data repository for the entire Rosebel mining project," he says.

NO MORE NEED FOR MANUAL TASKS

Prior to the development of exploration and mine planning software, geological modelling and mine design tasks were done manually. Today, Gemcom software in areas such as production scheduling is replacing manual processes driven by spreadsheets.

Our Gemcom Whittle software has helped companies improve economics by running hundreds of different 'what-if' scenarios based on different physical mining constraints and economic factors – something that was not possible previously.

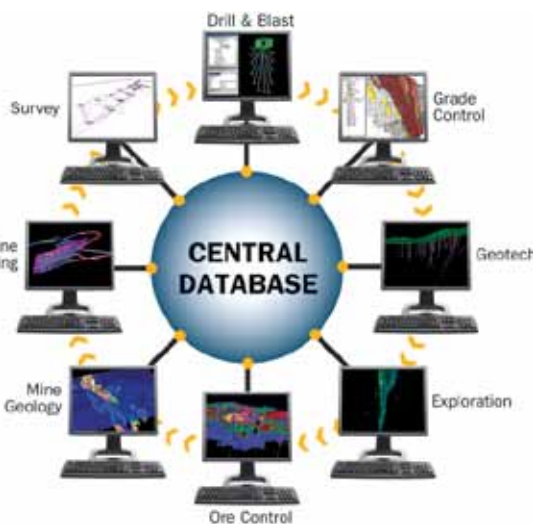
Canada's Teck Resources Ltd uses Whittle to calculate the size of pits for resource estimates, determine mineable pit outlines and develop strategic mine production schedules. Bruce Butcher, director of mine engineering, says: "Whittle is an essential component in the mine engineers' tool kit to provide fast, accurate results. If we did not have Whittle we could not determine the value of a resource in a timely manner".

MANAGING COSTS AND EFFICIENCIES

In the industry today there is a critical need to control costs and drive increased efficiencies at mining operations. Our Gemcom InSite solution focuses on operational performance management to address these concerns. InSite manages the processes that drive operational performance through the mining value chain. By improving productivity, reducing production losses and controlling costs, InSite helps to increase profitability.

InSite consolidates and validates information from operational systems in near real time, enabling you to make timely decisions in response to changing conditions.

Very deep, powerful analytics are at the heart of what InSite provides because just having data does not make it valuable. It's how the relationships between the data can be drawn that makes it powerful. What sets InSite apart is that it has been designed for mining, incorporating an architecture that is able to accurately mirror how mining businesses function.



An illustration of how Gemcom GEMS software creates data-driven decision making which encourages collaboration across teams including geology, planning and scheduling