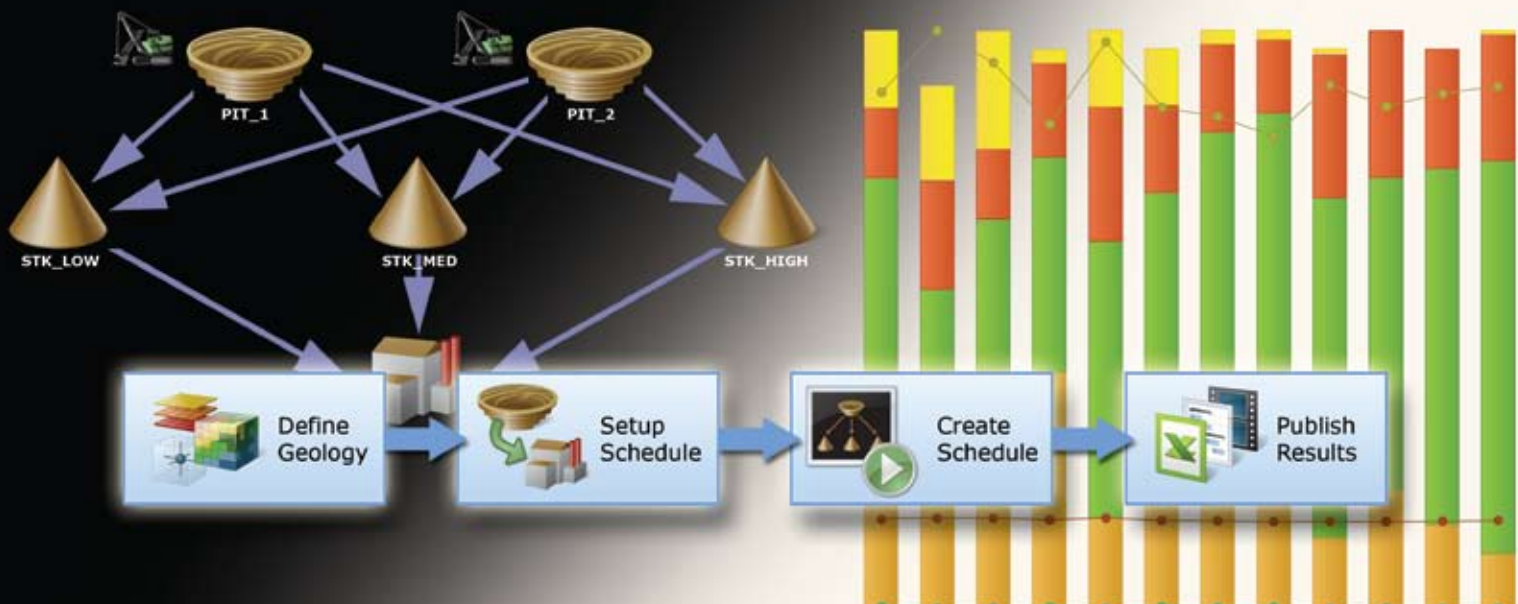


# GEMCOM MINESCHED™

Surface and Underground Scheduling



# A New Generation of Scheduling Software

Gemcom MineSched™ is employed by surface and underground mining operations of all types and sizes to produce long-term and short-term schedules, and to meet blending targets. MineSched can schedule from pre-created block, grid, and polygon models that originate from many different mine planning systems, including Gemcom Surpac™, Gemcom GEMSTM and Gemcom Minex™. Most importantly, MineSched creates schedules that improve productivity and profits beyond what could be achieved by manual scheduling.

## MineSched Benefits

- Easily create and compare scheduling scenarios in a fraction of the time.
- More closely meet your tonnage and grade requirements with quality and material ratio targets.
- Lower your cost of mining and processing by preparing easy-to-mine schedules.
- Ensure practical schedules by validating your schedule with 3D animations, built-in graphs, Microsoft® Project Gantt charts, and Microsoft® Excel® outputs.

## Surface Mine Scheduling

From copper to coal, open pit to strip mining, MineSched provides complete long-term and short-term schedules. Working from block or grid models, MineSched can schedule pit push backs and mining benches with ease.

- Schedule from block, polygonal and grid models with any number of materials and qualities.
- Control all aspects of the schedule or use MineSched's target-based scheduling algorithms.
- Incorporate mining directions, bench lags, face geometry, location limits and other mining constraints to ensure practical schedules.
- Schedule ancillary activities such as drilling, blasting, and back filling.
- Include material movement to stockpiles, processes, and spatially modeled waste dumps.
- Report truck haulage tonne kilometres at different haulage gradients.

## Underground Mine Scheduling

From heading advancement to stope production, MineSched generates practical underground development and production schedules.

- Ensure resource capacities are never exceeded with resource allocation and levelling.
- Schedule and perform reconciliation using actual underground progress dates.
- Change scheduling parameters at any point along a development heading.
- Use powerful constraint definitions on any group of headings.
- Allocate resources to headings based on user defined priorities and constraints.
- Schedule based on heading length, volume, tonnage or quantity of any product.
- Report on development tonnage and grades from block, polygonal and grid models.



With a unique four step workflow, you can create and compare schedules in a fraction of the time.



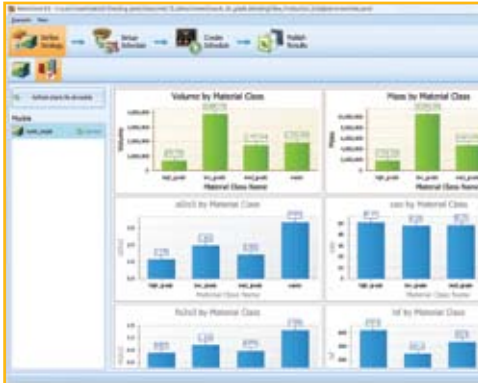
Graphically assign resources to your underground or surface mining scenario.



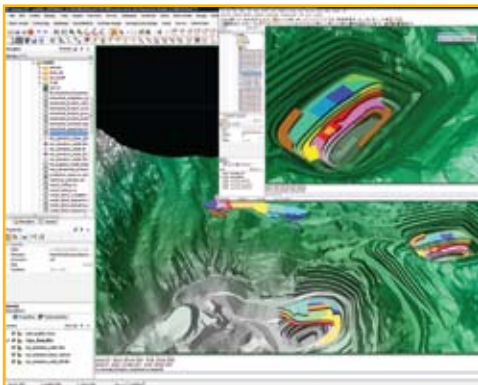
Create schedules with a single mouse click and immediately analyse and compare results.

“With Gemcom MineSched we are able to set realistic targets for the company and we know the life-of-mine at any point in time in just a few clicks. The software has also helped increase our efficiency, saving costs and reducing scheduling time, enabling us to spend more time using the end results it outputs. In addition, the software’s seamless workflows have reduced errors as there is no longer a need to manually input block model attributes.”

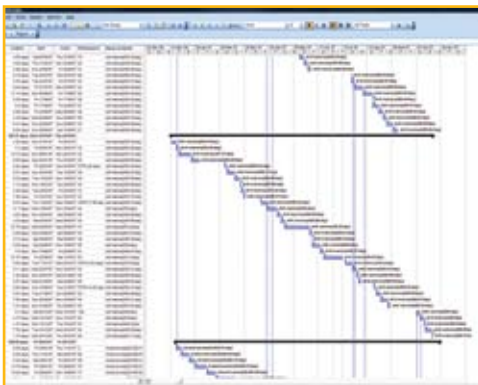
— Ruth Menz, Mining Engineer, Golden Star Resources Ltd., Bogoso/Prestea Gold Mine.



Validate your material class and attribute definitions with integrated charts.



Both long-term life-of-mine and short-term day-by-day schedules can be created.



Use Gantt charts to show a schedule’s critical paths, task availabilities, and dependencies.

## Production Blending

MineSched blends material from mines, stockpiles, processing plants, and waste dumps, producing schedules with complete reports and graphical results in just minutes. It also creates schedules that meet quality and material ratio targets with consideration for practical mining constraints and suitable mining methods.

## Visualisation and Publishing

### Visualise Mine Schedules with 2D and 3D Graphics

With MineSched’s 3D display capabilities, every detail of a schedule can be viewed in 3D, providing visual validation and communication of any sequence of activities. Using the software’s 2D features, engineering drawings can be plotted to scale to show exactly where mining takes place in each period.

- ⇨ Display tonnage and grade attributes.
- ⇨ View coloured period and production data.
- ⇨ Animate mining sequence as a movie or frame-by-frame.

### Microsoft Excel Reports and Charts

MineSched’s reporting functions provide a clear insight into a schedule’s period by period grade, tonnes, equipment requirements, and economics.

- ⇨ Format and share data with other applications.
- ⇨ Generate reports with production tonnage and grade data for each time period.
- ⇨ Produce polygon and bench reports.
- ⇨ Define a custom report format and use pre-created templates.

### Microsoft Project Gantt Charts

MineSched produces complete Microsoft Project Gantt charts and network diagrams with ease, allowing mining activities to be reviewed by sequence and time. These Gantt charts include essential elements such as organised activity groups and task dependency links.

## Tailor MineSched to Support the Unique Needs of Each Operation

Since no two mine site are exactly the same, MineSched’s simple setup and broad functionality allow you to tailor MineSched to meet your specific needs.

- ⇨ Create long-term or short-term plans that can schedule down to any level of detail.
- ⇨ Schedule against a limitless number of parameters such as mining locations, resource and activities.
- ⇨ Link external Microsoft® Excel® workbooks containing scheduling parameters to any MineSched scenario.
- ⇨ Compatible with multiple geological model sources such as comma separated value (CSV), as well Gemcom Surpac, Gemcom GEMS and Gemcom Minex.
- ⇨ Work in any number of time periods (years, months, days, or minutes).

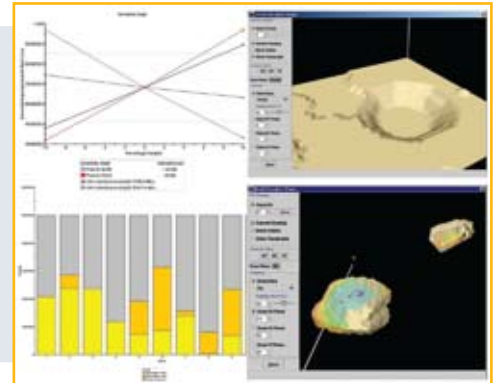
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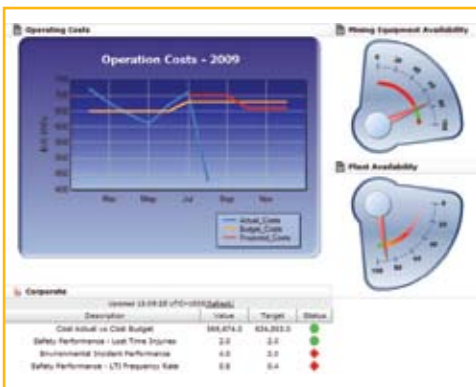
## Extend Your Capabilities with these Gemcom Systems

### Gemcom Whittle™: Economic Analysis and Optimisation

Whittle is the world's most popular and effective life-of-mine scheduling, optimisation and analysis system for open pit mines. Mine planners depend on the system to help them maximise NPV, balance schedules, and to optimise blends and stockpiles. With results that are trusted by the financial community, Whittle is also used in pre-feasibility and feasibility studies.



Gemcom Whittle: Economic optimisation.



Gemcom InSite: Operational performance.

### Gemcom InSite™: Operational Performance

Gemcom InSite manages the processes that drive operational performance through the mining value chain. Improving productivity, reducing production losses, and controlling costs, InSite increases profitability.

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

For more information email [minesched@gemcomsoftware.com](mailto:minesched@gemcomsoftware.com) or visit [www.gemcomsoftware.com/minesched](http://www.gemcomsoftware.com/minesched).

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When mining companies seek to increase mine productivity, they turn to Gemcom for technology and services. The Company is home to world-renowned mining solutions like GEMS, Surpac, Minex, Whittle, and InSite, and to industry thought-leaders who are pushing the boundaries of what's possible in mining.

