

RPMGLOBAL

OPEN CUT COAL SOLUTION

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RPMGlobal (RPM) redefines mine planning and scheduling. It is the new benchmark and the only solution purpose built for the mining industry. There is no other solution that can match the 45+ years RPM have focused on to deliver the industry standard today.

Underpinning RPM's Open Cut Coal Solution (OCCS) is a powerful scheduling engine that does all the heavy lifting without compromising sophistication and capabilities. From an individual site through to multi-site and global operations, the parametric approach adopted by OCCS means Engineers can amplify their decision-making process. This embedded intelligence, together with our intuitive user interface, increases mine productivity and provides rapid ROI with a solution that is scalable, intuitive and fast to learn.

OCCS is the only Enterprise Planning solution that complies with industry standards and aligns to ISA-95 delivering true collaboration across the mining value chain.

## Benefits

### Parametric Scheduling

100% script-free, OCCS is built on the principle of Parametric Scheduling which prevents invalid mining sequences. The automated rules make it practical to do rigorous, long term schedules without spending months building the rules, but there is plenty of detail for budget and short term schedules. Consequently Engineers can quickly test many planning models and assumptions and refine the ones that will deliver to the corporate objectives.

### Mining Rules

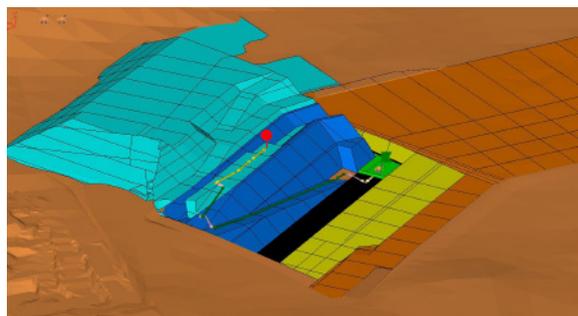
Another unique aspect of the coal solution is that it is specifically built for coal strip mines. It is possible to build accurate 3D stratigraphic block models of in-situ reserves from validated structures and grids. The rules based coal seam aggregation converts in-situ model into working sections, considering losses, dilution, previous underground mining and other seam modifications.

### Integrated and Dynamic Haulage

One of the biggest challenges with Open Cut Coal mines is the ever changing haulage routes in strip mines. With OCCS, users can now plan haulage during the course of scheduling with confidence as it cleverly considers the various haul routes at each stage of the schedule and then provides the optimal route to move product from source to destination.

### Product Optimiser

Running simultaneously as the schedule progresses, Product Optimiser removes the need for pre-schedule or post-schedule blending strategies. Coal blending is also quite unique with the use of coal wash plants. There is specific inbuilt features with the coal solution which allows users to set either quality targets through varying wash densities or setting fixed wash density to achieve the desired product. The Product Optimiser helps planners understand the mines blending strategy using linear programming on what coal is available and blending to the most suitable product based on set targets and objectives whilst honouring blend restrictions.



### **Intuitive, Practical Scheduling Rules with a Process Driven UI.**

With a process driven workflow that's 100% script free, Solutions are fast to implement and even faster to learn. The mining rules, targets and objectives used to control the schedule have been tailored for specific commodities and mining methodology, ensuring optimal schedules that are both practical and feasible.

The sequential steps that form the scheduling process eliminates the need for complicated scripting and costly consultants. Rather than complex menus and options hidden within deeply nested dialogues, the repeatable process provides every option exactly when and where required. Whether they last used the solution yesterday or six months ago, planners will be up and scheduling in no time.

### **Fastest Scheduling Engine**

Solutions automated reserving not only rapidly builds scheduling reserves from geology and design but it supports massive models whilst still building scheduling databases automatically.

It doesn't matter if there is one mine or many mines, and if each mine has several pits, a shaft or a combination, the robust data modelling that underpins every solution ensures detailed practical schedules can be generated efficiently and rapidly. With one planning solution, you can be confident a robust, consistent approach to planning is adopted across all sites.

### **Big Data**

Regardless of where data is sourced, Solutions read it in its native format without the need for translations and manual manipulation. The parametric, process-driven approach adopted by our solutions make it easy to re-align production schedules when key underlying data changes. Whether it's an updated geological model, a new pit design or a revised dumping permit, it's easy to incorporate the new data into the schedule.

### **Multi-scenario analysis**

With their intuitive, process-driven user interface, highly automated mining rules and extremely rapid scheduling speed, Engineers can focus on delivering value knowing the solution has the mining logic covered. You are no longer forced to accept the best option the planner can produce manually in the limited time available. Our scheduling solutions give Engineers the opportunity to explore alternative 'what if' scenarios and truly understand how best to drive the mines production in changing market conditions.

### **Dynamic Scheduling**

Solutions allow both manual interactive and automatic scheduling techniques in the same schedule, giving Engineers the flexibility to work in detail, when required, and let the speed and power of auto-scheduler take over the more tedious tasks. And whether the users schedules manually, automatically, or with a combination of both techniques, advanced destination scheduling automatically manages the movement of waste to dumps and the Product Optimiser finds the best way to process the ore and manage any stockpiles.

### **Integrated Product Optimiser**

Always meet product targets and qualities. Automatically find the best way to process, blend and stockpile mined materials to maximise the value of one or more products. Unlike other mine planning solutions, XPAC Solutions is the only scheduling solution of its kind that can compare and optimise such complex options, ensuring the optimal mining decisions are realised, enabling users to identify the most cost-effective scheduling and extraction sequence.

### **Only Fully Integrated Scheduling Processes**

Solutions manages the entire scheduling process within one application. It has destination scheduler and haulage modelling integrated as part of the process. It is possible now to simultaneously schedule mining and dumping as part of the schedule. It also means detailed haulage modelling of every movement in the mine is captured providing a true reflection of what is happening onsite. Combined with RPM's equipment library, users can now compare schedulers with a range of different haulage configurations, which is all underpinned by RPM's simulation technology which is relied upon by most of the major OEM's.

### **True Enterprise Mining Solution**

Solutions capability to digest data from any software application across the mining value chain, together with RPM's Enterprise Planning Framework (EPF), makes it the only Enterprise-enabled software application in mining. It seamlessly can integrate with financial systems, ERP's and Fleet Management Systems to deliver one truth.



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**Open Cut Coal Solution**

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**Underground Coal Solution**

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**Steeply Dipping Coal Solution**

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**Open Pit Metals Solution**

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**Underground Metals Solution**

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**Open Pit Diamond Solution**

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**Oil Sands Solution**

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**Quarry Solution**

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**Stratigraphic Metals Solution**

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**Open Cut Phosphate Solution**

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**Underground Diamond Solution**

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## About RPMGlobal

RPMGlobal is the global leader in the digital transformation of mining. We provide data with context, transforming mining operations. Our Enterprise approach, built on open industry standards, delivers the leading digital platform that connects the systems and information and seamlessly, amplifying decision-making across the mining value chain.

RPMGlobal integrates the planning and scheduling, with maintenance and execution, with simulation and costings, on RPM's Enterprise Planning Framework, the mining industry's only digital platform that delivers insight and control across these core processes.

RPM's Advisory Team advise the global mining industry on their most critical issues and opportunities, from exploration to mine closure. Their deep domain expertise, combined with their culture of innovation, and global footprint, ensures our mining customers continue to lead.

RPM are the global leader in Enterprise mining software, Advisory services and Professional development who operate offices in 23 locations across 13 countries and have worked in over 118 countries.

For more information visit [rpmglobal.com](https://rpmglobal.com) or email [info@rpmglobal.com](mailto:info@rpmglobal.com).