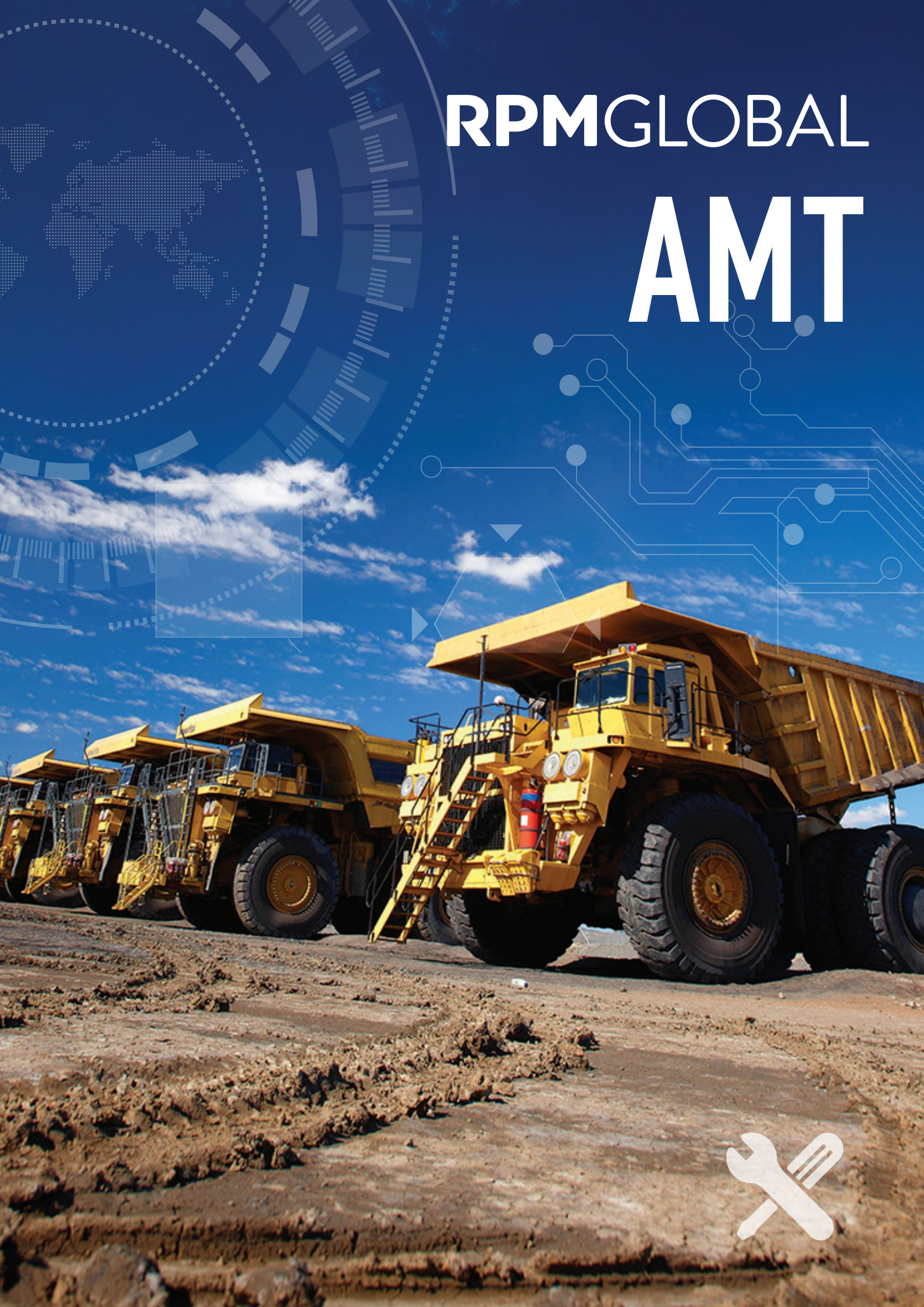
RPMGLOBAL

AMT



Today's mining industry demands better strategies and tools to overcome maintenance challenges. Managing mining assets effectively is critical for long-term success. AMT is the only in-shift maintenance solution that dynamically links to lifecycle costing and strategy to provide an accurate lifecycle position and optimal maintenance strategies using Dynamic Life Cycle Costing (DLCC) – the heart of AMT. DLCC constantly updates using actual events and real-time condition data to generate the full forward life-cycle view of an asset.

"By 2025, data used to improve equipment maintenance may result in 5-10% reduction in maintenance costs."

**McKinsey & Company (2015). The Internet of Things: Mapping the Value Beyond the Hype*

Benefits

Fundamentally better maintenance outcomes
Using DLCC – the heart of AMT – users can identify appropriate condition or meter-based triggers to create maintenance events based on live data from every corner of your maintenance operation to enable intervention before assets fail. This approach also delivers cost savings to you, as maintenance activities are only performed when warranted.

Proactively organise and take control of asset expenses
DLCC facilitates a true proactive decision making approach. Real-time maintenance reporting is delivered by the configurable dashboard in AMT, displaying key metrics relevant to specific users. There are over 200+ standards reports available, from daily role-specific KPI reports through to complex statutory and compliance requirements. All reports come straight out-of-the-box.

Better, faster and more accurate asset insights connecting conditions in the field to the office for a holistic lifecycle position
AMT mobility increases efficiency and visibility across all aspects of asset management by connecting the field to the office, delivering faster decision making, improved processes, and lower costs. The mobile app streamlines maintenance and reporting processes, while ensuring field staff capture data and execute work accurately. Generate and compare costs for different scenarios and make quick decisions about asset management spend, performance and availability based on accurate information and real-time insights.

Know your cost drivers
Harness the power of DLCC to generate immediate, up to date, accurate data to optimise maintenance scheduling and increase success in achieving overall maintenance strategies at the lowest cost.

"Using AMT, we were able to reduce capital equipment purchases by 5% or more within one year."

Tier One Coal Miner

Get the most out of your ERP
AMT works as a seamless extension to any ERP delivering the right set of maintenance plans and optimisation of strategies using historical, productivity, utilisation and condition-based information. Having a dynamic engine as an extension to your ERP ensures forecasts are sensitive to changes in many variables, including application, utilisation and component change-outs. For a mining organisation, this ensures the lowest cost life-cycle strategy, maintenance, workflow efficiency, and a high level of maintenance quality and maturity as a direct result of smarter asset management decisions. Leveraging ERP master data and workflow processes in AMT results in greater equipment productivity, lower operating costs and overall optimisation of your assets through the following functionality:

- Live link between asset and strategy;
- Budgeting and forecasting with multiple projections per asset;
- Processing live data to dynamically calculate the optimal economic life of an asset;
- Component management, particularly for high-value and high-risk parts;
- Risk assessment for the lifecycle strategy of each asset;
- Detailed KPI reporting, analytics and dashboards;
- Strategy modelling and "what if" scenario analysis; and
- Downtime capture and analysis.

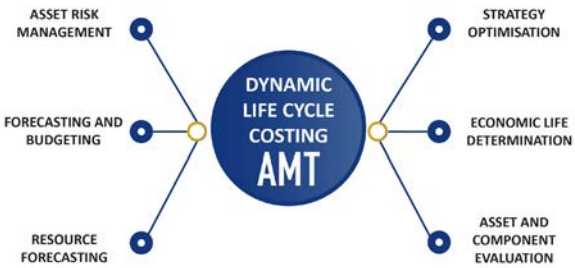
Maintenance costs are not consistent. Understanding where an asset is in its life cycle is paramount to getting the most out of your equipment.

Features

AMT's DLCC facilitates a live budget which gives users constant, accurate financial insights.

Dynamic life cycle costing (DLCC)
DLCC is the heart of AMT – a powerful, live calculating engine which provides users with a real-time forecast of all maintenance events for equipment to the end of its useful life. The power of DLCC is that it calculates not just costs but utilisation, productivity and resource requirements (labour, components, parts and consumables) and dynamically sends data through to every aspect of your maintenance operation for precision in maintenance output. This functionality enables asset managers to easily identify potential issues and take action early, saving money and avoiding costly down time. DLCC also allows asset managers to understand the implication of their decisions now on the operating impact for the remainder of the assets life.

DLCC also facilitates collaboration between maintenance and planning systems through a link to the mine plan – a powerful collaboration which ensures maintenance costs are not simply a linear relationship year-on-year.



Proactive economic life optimisation
Maintenance represents one of the largest cost groups for any mining organisation. These costs are not consistent year on year and understanding where an asset is in its life cycle is important as this has a large impact on its cost. AMT's Proactive Economic Life Optimisation solution forecasts the aggregated value in components for each price of equipment to get a life cycle view on:

- Future cost analysis
- Cost per Unit of Measure (i.e. SMU)
- Cost per Tonne
- Discounted Cash Flows
- Discounted Cost Per Tonne
- Residual Value in Component
- Benchmarking against other equipment

AMT processes information to identify the optimal equipment replacement points based on the users strategy for higher productivity, lower capital expenditure and lower maintenance costs.

AMT drives down the cost of managing over 50% of the world's large mining equipment.

Proactive component management
AMT measures component performance against budget and allows users to dive into historical performance by failure mode, symptoms, cause of failure, and even down to the part number that failed. AMT uses historical performance to predict future component lives by incorporating RCM logic into future projections while also flagging high risk / opportunity components to users.

Proactive component forecasting
AMT generates a live component forecast which, in turn, generates the upcoming component requirements and consolidates it across all pieces of equipment for higher equipment productivity and lower operating costs. AMT's Proactive Component Forecasting solution dynamically calculates the required labour resources to perform future maintenance, provide justification for headcount, part forecasting, and analyses uses of equipment. As soon as a component change-out is performed, the next change-out updates and all of these forecasts automatically update and are visible to all users.

Understand the impact of changes before they are made
AMT enables users to visualise the impact changes in asset strategy have before implementing them. Model "what-if" scenarios to understand the impact of making changes to life-cycle costing over the entire life of the equipment.

Minimise downtime to maximise output
AMT provides the data structure to allow effective integration of production and cost data. This streamlines data capture into a single system for maintenance and integrates downtime capture systems such as dispatch or historian data with ERP cost records. AMT goes one step further with the ability to capture additional analytics data that is not captured by ERP's or Dispatch systems and integrate this data to form one single source of truth.

Minimise risk with strategy risk assessment
AMT's Risk Assessment solution identifies specific high-risk and opportunity components relative to the equipment's life cycle to bring higher productivity and lower capital and maintenance costs.

Understand the cost drivers behind your strategy
AMT's Strategy Optimisation solution facilitates planning of individual projects, using intuitive workflows. Powered by DLCC, the solution uses proven methodologies and enables management of projects based on cost, time, resources and individual specifications.

Generate budgets in minutes, not weeks
AMT has detailed functionality to produce comprehensive forecasts that reflect maintenance strategy to create a live budget in minutes, not weeks. Using AMT's Budgeting solution, users can forecast total equipment costs, prepare and store equipment budgets at the component level in minutes. Users can also perform detail analysis of actual performance including compliance plan reporting, projection of expected variances at year end and the ability to drill down into the detail.

Dashboards & reporting
Real-time maintenance reporting is delivered by the configurable dashboard in AMT, displaying key metrics relevant to specific user roles at every log in. There are over 200+ standard reports available depending on your requirements; from daily role-specific KPI reports through to complex statutory and compliance requirements.

Integrated, Enterprise Solution

Enterprise integration and collaboration will deliver the operational improvements mining companies need to realise the next wave of productivity improvements. Whilst most mining companies have realised value implementing an integrated strategy in their Corporate functions, such as finance and HR, they have not extended this to their Technical Mining Operations (TMO). Consequently the TMO is a complex web of point solutions, data sources and silos that delivers complex structures and inadequate functional collaboration.

RPMGlobal's Enterprise Planning Framework (EPF) is a strategic platform that consumes and exchanges data from multiple sources including ERP, Business Intelligence (BI) tools, mine planning and command and control fleet management systems (FMS). It supports management processes, eliminates reliance on disconnected spreadsheets, individual departmental point solutions and fragmented BI technologies. Integrating the data delivers timely decision-making as well as greater communication and visibility across the mining operations.

INTELLIGENT
ASSET MANAGEMENT

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.

RPMGlobal'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.

RPMGlobal is 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**
or email **info@rpmglobal.com.**