RPMGLOBAL
TALPAC-3D

Trusted by the mining industry for its accuracy and independence, TALPAC-3D is a simulation tool for evaluating the efficiency, productivity, and economics of truck and loader haulage.

TALPAC-3D harnesses a game-inspired 3D interface to help mining companies all over the globe simulate complex fleet scenarios.

Investigate your options. Build your fleet. Accurately forecast future productivity. Reduce risk and uncertainty, and improve your operations.

Benefits

Minimise Haulage costs through fleet optimisation

TALPAC-3D calculates equipment productivity over operating hour, shift and year. It calculates the total cycle time including travel time, dump time, spot time, loading time, and queue time. It does simulation of the fleet and can simulate different types of loading such as single sided and double sided. TALPAC-3D can also optimise the truck fleet based on user selected parameters.

Scenario analysis

Small changes in productivities can have a large impact in long range plans so once determined, equipment productivities can be brought into financial modelling and scheduling packages for scenario analysis. Information from TALPAC-3D allows you to determine the best equipment scenario for a given planning horizon.

Effectively compare your fleet options

Look at the sensitivity of equipment productivity for various parameters within a haul system, such as varying ramp length and optimal truck numbers with each incremental ramp change. TALPAC-3D can automatically generate a set of results based on changed parameters. All results from every run are stored so you can review previous calculations.

Graphical User Interface

Users are able to add a road network in the 3D user interface using the road drawing tools. Roads are simply added by snapping them to a 3D triangulation. Importing roads or road networks is also available, with many different file formats available. This can be taken directly from a fleet management system and imported directly in TALPAC-3D.
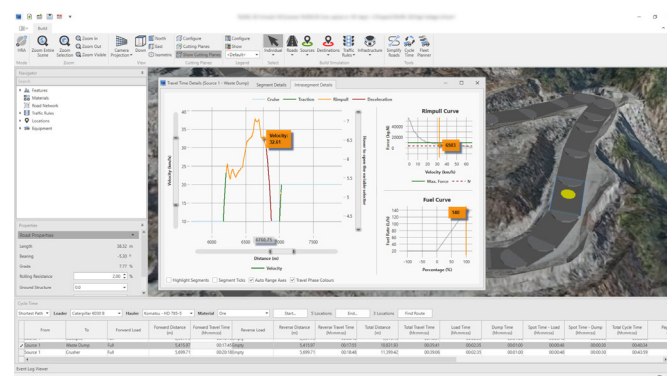
Model Interactions using HaulSim

Predict the impact of your planning on fuel consumption. TALPAC-3D uses real information from the RPMGlobal equipment library to calculate fuel burn based on the proportion of available rimpull force that is used.

Run full simulations

TALPAC-3D takes into consideration the variability of critical truck and loader parameters involved in productivity calculations. Full simulation is carried out over a number of shifts, with events occurring as dictated by the haul cycle. TALPAC-3D uses stochastic variables to ensure that you get the most realistic simulated results for your fleet.

Minimise fuel burn

Because TALPAC-3D uses the same platform as HAULSIM, it has never been easier for users to move into Discrete Event Simulation (DES) modelling — a key feature that isn't offered by industry competitors. DES is the only modelling technique that models the entire fleet across your road network. Users of DES gain a deeper understanding of the operation of the fleet and can use the models for schedule validation and decision support.

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Features

Simple, easy to use interface

Get the results you need quickly with minimal training and implementation costs. Most users are up and running in hours.

Largest publically available equipment library

TALPAC-3D's comprehensive equipment database of trucks, loaders, scrapers and underground equipment includes more than 500 trucks and 400 loaders and is updated annually, directly from manufacturers. This makes it the ideal independent adjudicator of more of the mining equipment on the market.

Cycle time analysis

Cycle Time Analysis is now available across the whole network, allowing users to quickly and easily see haul speed limitations across the whole operation. As well as a detailed segment by segment breakdown of the haul cycle, TALPAC-3D also has an intra-segment report designed to demystify the Travel Time calculation, explaining the relationship between truck speed, rimpull curve and fuel consumption

Fleet Manager

The new "Fleet Manager" helps with allocation of trucks to loading units in a truck-constrained environment. By maximising the productivity of the truck fleet the operation can improve output and reduce idle cost and non-utilised time. directly in TALPAC-3D.

Trusted travel time calculations

TALPAC-3D combines more than 40 years' of industry experience to deliver best practice simulation for miners, consultants and OEMs.
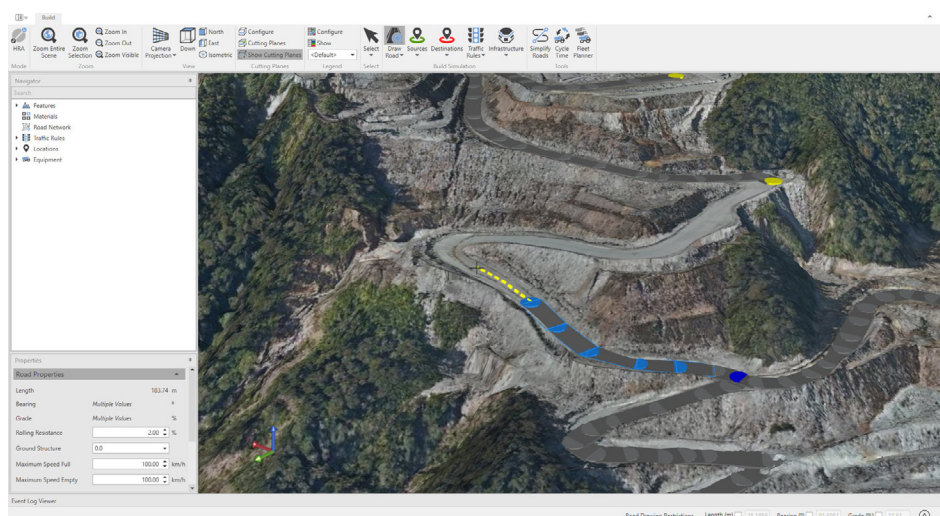
TALPAC-3D is key for evaluating the efficiency, productivity and economics of mining fleet.

Using proven logic that models real haulage situations, TALPAC-3D enables users to study the measurable factors that affect productivity, and how fleets will react to them.

Customisable Reports and Outputs

Get results exactly as you need them with flexibility to choose your import and output fields for reporting. You can break down the haul cycle into many segments, allowing you to report on each segment individually. This allows you to identifying where the critical segments are in a haul cycle. Report on:

- Haulage cycle time

- Productivity of the fleet

- Optimal fleet size

- Owning, Operating and Fuel cost

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iNTELLiGENT SIMULATION

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.**

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