

Blasting in vibration sensitive areas

Maptek™ BlastLogic™ allows engineers to optimise blast performance while solving blast vibration concerns.

Drill and blast engineers understand the challenge of staying within recommended vibration limits during a blast while optimising blast performance. This process is time consuming. In addition, errors are costly and can result in infrastructure damage, poor digging rates and delays.

This means that most sites adopt conservative figures when creating plans, by assuming a single MIC (maximum instantaneous charge) mass for every hole in the blast or by reducing blast size.

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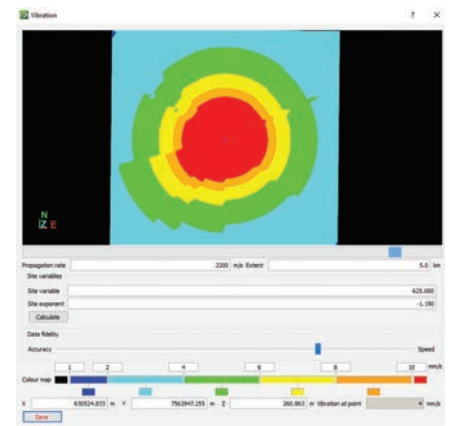
BlastLogic charge rules combine with timing and analytics tools to facilitate creation of design plans, allowing users to automate parts of the process, view resulting vibration levels and easily make adjustments.

Advanced charge deck placement options in BlastLogic allow users to automatically calculate each hole MIC, based on its location, from many vibration monitoring points and create charge plans.

Users can specify if decking is required, what product to use in the bottom or upper decks, length of stemming between decks, and create design charge plans in a few clicks.

The charge rule will determine the optimum number of decks required, even weighting the charges for better energy distribution. After dip data has been collected, dry hole explosive products are replaced with water resistant products when water is detected in a deck.

Once charge and timing plans have been created, engineers have a set of tools at their disposal to assess the overall blast performance and ensure that vibration estimates, calculated in PPV (peak particle velocity), are within limits using the vibration model.



Another key tool is the timing envelope which allows engineers to view the number of detonations and total charge mass detonating within a specified timing window.

Adjustments can be easily made by varying one of the parameters, such as a connector in the tie-up or the charge placement for a few holes; the models will dynamically update to display the changes. This enables engineers to easily compare multiple scenarios.

With BlastLogic, initial charge plans are automatically updated on the field tablets once drilling data is available or as QA/QC data information is collated. Charge plans are therefore accurate and created on the latest available information.

Engineers can now push through updated designs at any time without interruption to workflow performance and accuracy.

More information can be found at www.maptek.com/blastlogic

