

Welcome to our Forge newsletter June 2023

Safety is the bedrock on which our industry will thrive. Let us help you bring everyone home safely at the end of every shift.

I'm pleased to announce the new Maptek safety system for proximity awareness. Vehicle interactions continue to be one of the major risks in underground mines. Avoiding collisions involves a complex interplay of technology, connectivity and human factors. VisionV2X is your eyes underground.

Our system is reliable, easy to learn and simple to use. Miners can see underground and around corners with metre accuracy, ensuring that even fully loaded high speed trucks have time to react to each other in all conditions.

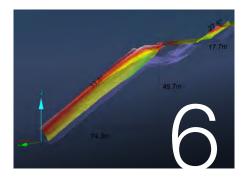
Our Sentry monitoring system is tackling another safety issue, allowing an operation in South America to autonomously manage blind spots and avoid landslides in particulate material on secondary leach pad cones.

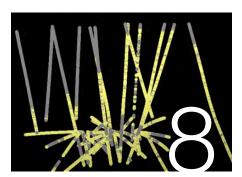
We believe that miners should have access to simple solutions that lead to better decisions. We've applied our computing framework to automate the blast design process, resulting in a new paradigm that optimises cost, fragmentation and vibration. Leveraging cloud computing allows engineers to retain control of the design without having to spend days going through multiple potential solutions.

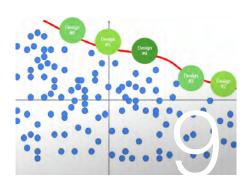
It's university graduation ceremony season in the southern hemisphere and we're thrilled to participate in the various prize-giving events and to reward academic excellence.

We look forward to sharing more success stories throughout 2023.

Eduardo Coloma CEO















Maptek VisionV2X holds underground mine safety as the highest priority

Contact us: forge@maptek.com

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Maptek VisionV2X eyes underground

The latest Maptek solution, VisionV2X has a simple, yet important objective - to ensure a safe working environment underground



Improving leach pad safety

A monitoring technique using Maptek Sentry safely controls the shape of a secondary leach pad at a copper mine in South America



Geotechnical analysis tools

Maptek brings together the most comprehensive and powerful set of analysis tools for geostatistical studies in Vulcan Data Analyser



Ahead of the blast curve

Maptek has developed a new machine learning method for blast design which allows operations to do more with less with BlastMCF

University partnerships

Maptek supports university students across the globe, providing software access for mine design projects and awarding computer science excellence

Australian events showcase

Maptek generated a lot of excitement from our participation at Austmine and AusIMM Mineral Resource Estimation events during May 2023



Remaining true to geology roots

Maptek Vulcan GeologyCore presents fundamental tools in a streamlined workflow to guide geologists through the modelling process

Legacy of long service relationship

Retiring Maptek reseller Norimitsu Mizukoshi leaves a legacy of friendship and enthusiasm for Japanese culture among Australian colleagues

Decisions at all layers of ore control

Peeling back the layers of ore control exposes a complex interplay of important considerations for decision making in mine planning

Top workplaces honour

Maptek North America has won a Top Workplaces 2023 award stemming from a survey of 6400 companies in Colorado

Maptek VisionV2X is your eyes underground

The latest Maptek $^{\text{\tiny M}}$ solution, VisionV2X has a simple, yet important objective – to ensure a safe working environment underground.

Maptek™ VisionV2X is a reliable solution that enhances vision underground for all mine personnel, enabling them to make better decisions for keeping people and equipment safe.

Launched in May, VisionV2X is the latest part of the Maptek technology innovation story that began in 1981.

To create a vehicle proximity detection system that underground miners could rely on, Maptek turned to technology already proven in the automotive industry. Maptek engineers applied software smarts, and combined their knowledge of mining with input from ergonomics and human experience experts to design a simple system interface.

The result – VisionV2X – is operating hundreds of metres underground at one of the world's largest underground copper mines.

One of the key benefits of VisionV2X is that it does not rely on external infrastructure such as Wi-Fi networks.

This means that it can operate in any area of the mine, even in areas without power, to continue providing awareness of people and vehicles in at-risk zones.

Keeping people and equipment safe is the Number 1 priority for mine managers, operators and supervisors. And at the same time they need to meet their production output and decarbonisation targets.

Safety

'This latest product is firmly in touch with our Create Tomorrow principle and in line with the industry imperative to bring everyone home at the end of a shift underground,' said Maptek CEO Eduardo Coloma.

'That's a lot of people,' he continued. 'The numbers around underground mines globally are staggering. Hundreds of kilometres of tunnels across multiple shafts, operating kilometres below the surface. And of course thousands of people operating heavy and light machinery in Wi-Fi and GPS denied environments.'







'VisionV2X has clocked up over 1.5 million vehicle operation hours at our first full-scale deployment site.'

Maptek CEO Eduardo Coloma at the Austmine launch



VisionV2X allows miners to see underground and around corners, and metre accuracy ensures even fully loaded high speed trucks have time to react to each other in all conditions.

'As every heavy equipment operator knows, awareness of other heavy machines coming and going around your vehicle and the location of pedestrians and light vehicles is paramount to avoiding collisions that can too easily cause fatalities,' added Coloma.

The Maptek proximity awareness system has underground safety as the key objective, and can be fitted to any vehicle across a mixed manufacturer fleet such as is commonly deployed in underground mines.

The golden rule for any safety system is simplicity – it must be reliable, easy to install and straightforward to use.

At the heart of VisionV2X is an ergonomic touchscreen interface installed in heavy vehicle cabs that operators can rely on for warning of the proximity of at-risk personnel and vehicles.

VisionV2X provides visible and audible alarms, ensuring that operators have the situational awareness and enough time to anticipate any interactions. As well as avoiding dangerous situations, operators can make more effective decisions earlier.

The onboard system continuously runs automated background checks to ensure VisionV2X is operating correctly.

Detailed proximity data is logged onboard the vehicle and sent back to a central server for analysis and reporting, helping to deliver continual improvement in risk management and worker safety.

VisionV2X is a strategic system that enables mine managers and supervisors to achieve operational safety KPIs.

Proven outcomes

- > See underground and around corners – advanced ranging capability with metre accuracy ensures vehicles have time to react in all conditions
- > Purpose built proximity detection technology – designed for underground and applying automotive grade systems
- Straightforward and easy to use touchscreen tablet interface that operators can rely on for clear communication
- Deploy with current equipment vehicle manufacturer neutral system ready to implement on mixed fleets
- Mitigate risk underground visible and audible feedback ensures operators know the proximity of at-risk personnel and vehicles
- Achieve operational safety KPIs detailed proximity data available for analysis and reporting





Improving leach pad safety

A monitoring technique using Maptek™ Sentry safely controls the shape of a secondary leach pad to avoid landslides at a copper mine in South America.

This study presents a monitoring technique for performing geometric control over a secondary leach pad construction. Maptek™ Sentry allows monitoring and characterisation of volume and tonnage to verify design parameters.

Dimensions such as width, length, height and slope angle must be precise to preserve the shape of the deposited crushed material and avoid landslides after the material settles.

Accurate values are needed to determine cubic metres of fill and tonnage of the pile. Existing volume estimates are frequently inaccurate depending on how they are calculated.

Continuous monitoring of the construction of leach pad cones allows unloading of material to create 'low' and 'high' zones that respect the design parameters. Real-time geometric control of the pad construction ensures the filling cones are not overloaded, providing greater operational safety.

The cumulative volume of material is measured topographically on a weekly basis, rather than relying on a weight sensor in the spreader.

Design conformance

Maptek Sentry DMS integrates a Maptek XR3-CT MkII laser scanner that captures a 3D point cloud, with Maptek Sentry Field software to display data in real time.

Users can configure monitoring windows to establish alarms that notify by email and text message when there is movement outside the defined range, allowing quick action in response to events of high operational risk.

Processing of the point cloud data and quantisation of the leach pad advance material was achieved with Maptek PointStudio™ software Design Conformance tools. Compliance was determined between triangulations that were generated daily over a six-week period.

Monitoring results

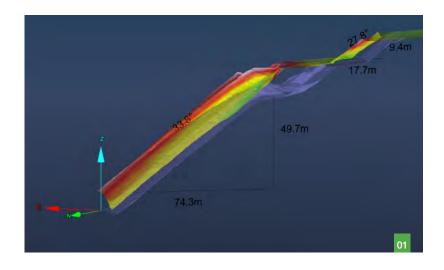
Data from the most representative week of the Sentry monitoring period were selected for this study.

Sentry Field automatically alerted users to displacements of built cones and enabled the spreader operator to observe the material discharge point. Because discharge stop alerts were also provided, additional personnel were not required for geometric control and stability.

Geometric control of material discharge requires knowing the slope angle of the discharge cone and the heights of the cone and low zone blind spots. In one profile, PointStudio showed slope angles of 33.8° for the cone and 27.8° for the low zone, while heights were 49.7m and 9.4m, respectively (Figure 1).

The ability to observe material discharge minute by minute, along with managing the slope angle and covering the discharge blind spot, provides greater control and safety to mining operations.

Unloading volumes and tonnages were tabulated in the unloaded and low cone advance zones. In Figure 2, areas of the triangulated stockpile coloured in red and white correspond to the highest concentration of material. Red indicates an accumulation of material of more than 5m in one week and white indicates an accumulation of more than 10m.



Geometric control

Monitoring the construction of secondary leach pad cones has shown that the design parameters can be correctly determined, providing reportability, quantification, calculation and geometric control.

Importantly, this was achieved without exposing the equipment operator to the deposition area.

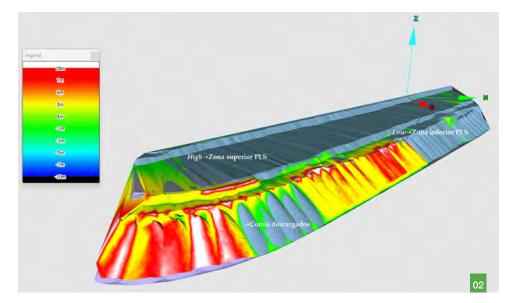
Ensuring operational safety of personnel was important.

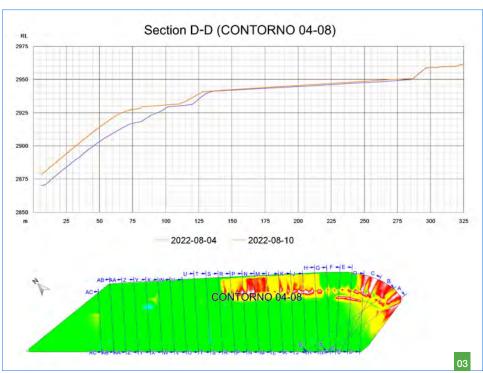
Specific monitoring must be carried out for deposits of already leached material because the granulometry of the mineral varies. Particulate material, with lower slip resistance is generated, affecting the stability of the pile. In addition, the humidity level is key to maintaining particle cohesion.

With the stability of the pile depending on multiple factors, this study has focused on the monitoring process for material deposits and how that contributes to the reportability and calculation of volumetrics and geometric control of the pile.

The technique used in this study provides a remote, safe, autonomous and sustainable way to manage blind spots when an operator is building cones and/or slopes, avoiding landslides after the particulate material has settled.

Based on a paper presented to Geotechnical and Hydrogeology Symposium, Lima, Peru

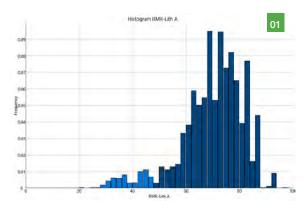




- 01 Slope angles and heights for the cone and low zones determined in Maptek PointStudio
- 02 Triangulated stockpile areas coloured in red and white correspond to the highest concentration of material
- 03 Cross-section of stockpile, highlighting areas where the most material accumulates in a week

Geotechnical analysis tools

Maptek[™] brings together the most comprehensive and powerful set of analysis tools for geostatistical studies in Vulcan Data Analyser.



Histogram in Vulcan Data Analyser

Integrating geological database analysis with other geological project work in Maptek™ Vulcan provides a single source of truth and avoids difficult, iterative spreadsheet approaches.

Custom domaining, flexible viewing and reporting ensures users can identify where data is deficient and communicate recommendations clearly with high impact visuals.

Using drillhole information to interpret the geotechnical data at the early stage of mining is a common practice in the industry. Most geotechnical drillhole information is thinly spread.

A fast, routine solution is needed to calculate and interpret the statistical distribution for multiple geological conditions and mining scenarios.

This solution acknowledges the spread and general trend of the data, correlates and visualises the statistical distribution in the 3D CAD environment, and groups the data into several domains for further geotechnical analysis.

Vulcan Data Analyser assists geotechnical practitioners to perform statistical studies, with tools including general statistics, histograms, cumulative frequency plots, scatterplots, probability plots and quantile-quantile plots.

This enables users to explore and understand the data distribution and confidently estimate geotechnical parameters for further analysis.

A histogram of the Rock Mass rating (RMR) for a particular lithology indicates that the data has a noticeable tail-left-skewed distribution toward Poor-Fair RMR (Figure 1). Further data refinement is conducted to investigate the potential of two principal data distributions within a lithology unit.

Using Vulcan Data Analyser to investigate the spatial location of the Poor-Fair RMR shows that the Poor-Fair RMR does not form a prominent cluster that may indicate a separate geotechnical domain, and the tail likely represents the variation within the rock mass (Figure 2). Other general statistics calculations enable users to assign the appropriate RMR value for the domain.

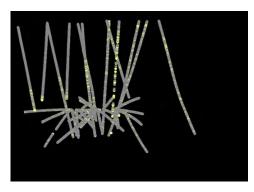
Vulcan Data Analyser speeds up the interpretation of geotechnical data to assist all stakeholders (geotechnical engineers, mining engineers and project managers) in evaluating different mining scenarios to meet tight project delivery frameworks.

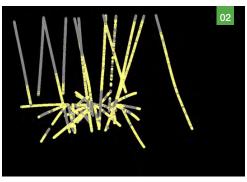
Vulcan Data Analyser drives a better understanding of geological and analytical data, with a streamlined variogram analysis workflow.

Vulcan Data Analyser is available in the Analyse menu of the Vulcan GeostatModeller bundle.

Benefits

- Advanced analysis better understand technical data with statistical, graphing and display options
- > Fast iterations easily create and test multiple alternatives aided by tools that speed up trial and error in determining variogram parameters
- > Clear comparisons display multiple models concurrently for real-time, side-by-side comparisons, impossible with spreadsheets
- Customisable output produce high quality charts and export to .png and .csv formats for resource reporting





Location of (L) Poor-Fair RMR and (R) Fair-Very Good RMR highlighted in yellow

Ahead of the curve with BlastMCF

Maptek[™] has developed a new machine learning method for blast design which allows operations to do more with less.

Automation, data analytics and optimisation are key industry trends. In reality they mean doing more and better, while using less resources. The continuing explosion of mine technical data requires solutions to harness this data, allowing miners to derive optimum value from it.

Traditional blast design is being challenged on several fronts. The engineering intensive methodology is not practical given the shrinking pool of mine professionals, and a *just-in-time* philosophy is not consistent with the drive for automation. A more automated approach is needed to generate scenarios that are critical for evaluating the interrelated factors influencing blast performance and to better understand them.

Maptek™ BlastMCF uses a customised genetic algorithm, drawing inspiration from the principles of natural evolution to solve complex problems, which provides a powerful and flexible approach to optimisation. It will enable engineers to perform more scenario analysis to objectively validate and verify design concepts quickly, thereby benchmarking the critical factors that impact blast performance specific to localised conditions.

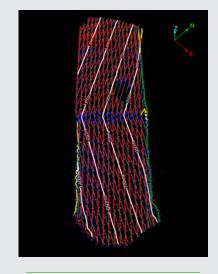
A significant advantage of BlastMCF over traditional design tools is the

automated generation of drill pattern, per hole charge plan and timing in a single step. Even for designs that comprise different lithological domains, running separate processing jobs for each domain and using the resulting design from the first domain as an input to the next, the process is still simple.

Leveraging the differences between possible design options, BlastMCF converges on the best possible solutions considering competing design objectives such as cost, fly rock, fragmentation, powder factor and vibration.

Optimising competing blast objectives will no longer require brute force by engineers, allowing optimal blast design outcomes to be more accessible. A cross-section of possible solutions is available for the engineer to compare and better understand the trade-offs between various design parameters.

Integrating cost, fly rock, fragmentation, powder factor and vibration models into the blast design with BlastMCF will enable blast outcomes to be targeted with greater precision. Given their interconnectedness as part of upstream and downstream processes, this will maximise the value realised.

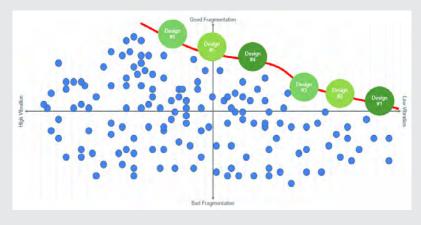


BlastMCF delivers an innovative machine learning approach to optimising blast design, allowing for consistent repeatable designs that can be evaluated alongside short and medium term planning workflows.

Engineers retain control of the design without needing to spend days going through multiple potential solutions, and cloud computing is leveraged for running optimisations faster than on local machines. Even complex results are generated within minutes, improving the ability to review scenarios and improve designs under production pressures.

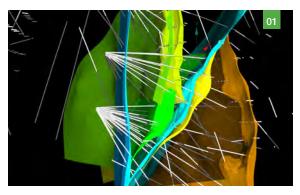
BlastMCF can help mines save thousands of dollars on a per blast basis without compromising safety or productivity. Harnessing automation, data analytics and optimisation for the best blast performance supports engineers to transform their drill and blast design practices and change the way mining is done, forever.

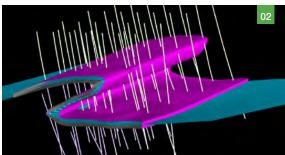
Contact Maptek to request a demonstration with your data.

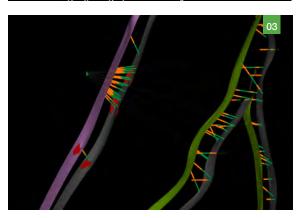


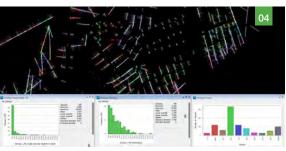
Remaining true to geology roots

Maptek™ Vulcan GeologyCore sits at the heart of geological modelling, providing all the tools needed to generate domain models.









01 Latest Maptek tools for vein and vein network modelling
02 Modelling complex geology of folded deposits
03 Understand influence of hanging/footwall contacts on modelling
04 Automated chart updates display interval counts

Maptek™ Vulcan GeologyCore arose from a strategy to present the latest geological modelling tools to our geology licence users in a single package. A plethora of great modelling tools were unknown to users or only available in specific licensing configurations.

Importantly, Vulcan GeologyCore presents the tools in a simple geological workflow for setting up and validating models, while also making it easy to update the model or experiment with the modelling parameters.

This streamlined approach aims to encourage geologists to get the best modelling outcome and not accept the first model that is generated.

The workflow is designed around six steps that guide geologists through the modelling process.

Vulcan GeologyCore captures a snapshot of the data when it is loaded from Vulcan, CSV or ODBC linked databases. With the data now stored internally for modelling, any changes to the domaining are non-destructive to the modelling process.

Updates in domain tables can be easily exported back to Vulcan or uploaded to a centralised database.

Integration is a key element – selecting drillholes on screen sees charts update to show interval counts – and connectivity is inherent in the modelling workflow.

New domains can be re-coded, for instance based on grade and lithology conditions, and the modelling stage turns these domains into vein or intrusive models.

Vein Modeller and Implicit Modeller are powerful tools that help geologists easily create a model of a single domain. However, geology is rarely simple. Deposits are typically made up of many domains that interact with each other in different ways, and manually generating wireframes is a tiresome task.

Modelling Manager delivers a structured, automated framework for building a complete geological model and defining how all the different units interact with each other to form the final triangulation surfaces and solids.

It allows users to create veins and vein networks, which is a group of veins that can define how each vein interacts with other veins in the network.

The May 2023 Vulcan GeologyCore release allows geologists to create 'intrusive' style implicit models in the geological model. Modelling different types of contacts and stratigraphic surfaces as part of the geological model is also on the development roadmap.

A new option for Vein Contacts within both Modelling Manager and the standalone Vein Modeller, provides full drillhole by drillhole control over the hanging wall and footwall points to use in the model.

Development projects to strengthen Vulcan GeologyCore as the heart of Maptek geology tools include modelling fault blocks and structural trends to feed into implicit and DomainMCF machine learning techniques. A vital aspect of the resource continuum will flow effortlessly into generating the necessary files for grade estimation in Vulcan.

Decisions at all layers of ore control

Peeling back the layers of ore control exposes a complex interplay of considerations that reveal the importance of this process for decision making in mine planning.

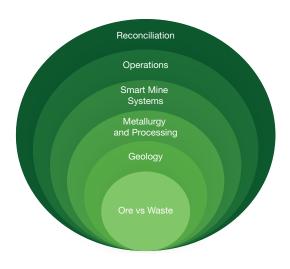
Implementing an effective ore control system at a mine site will ultimately determine the productivity and profitability of the operation. Decisions made at each stage affect every other stage.

The central consideration is whether we are mining ore or waste. Material designation defines what's going to make money versus what's going to cost money. Everything passes through grade control.

Surrounding the ore/waste layer are the complexities of geology and lithology domains, where every rock type has different characteristics that can influence your control. The metallurgy and processing of the material also play a big role in what is considered ore and what is considered waste.

Another layer of complexity involves the mine systems that the ore control system has to either fit into or feed. Operational decisions include how planning for ore control impacts extraction method and material movement.

Ore control also plays a huge part in the broader reconciliation processes, which occur throughout the mining lifecycle.



Ore vs waste?

At the heart of the matter is how material is designated, given that classification relies on data from various sources. Mine planning engineers need to consider the source, validation and organisation of this data. Material may have been classified by holes/samples or by block models. Cutoff grades are determined based on different premises. Looking at expected revenue, cut off grades could be determined on different cost and dilution factors.

Maptek Vulcan Grade Control Optimiser is used to group and reclassify destinations at the block model level to meet minimum mining widths based on either economic value or material classifications.

Geology

Geology has a key impact on the ore control process. A model is built on the available data and particular interpretations of the geologist.

Factors such as frequency of model updates help determine confidence in the data used for production modelling. Deposits may be massive or narrow, and different dilution factors must be considered when predicting ore recovery.

Metallurgy & processing

Geochemistry and metallurgy that varies across a deposit can introduce a huge layer of complexity to the ore control process. What may appear very high grade material can be sterilised by contaminant or deleterious elements. Variable seasonal conditions and oxidisation of material due to time on stockpiles can result in handling issues and ore loss.

Smart mine systems

Overseers of ore control programs must ensure there is open communication between the ore control implementation and database managers. The way the information created by ore control is translated and communicated to the different mine systems is crucial for effective decision making.

Operations

GPS, fleet tracking and dispatch map printouts for survey, shovel operators and truck operators, must be kept in mind when designing an ore control system. Effective communication on the effect of blast movement on the grade block polygons is important.

Reconciliation

Reconciliation at every stage ensures a tight operation. At the mill, actual ore produced is reconciled against ore control predictions. Operationally, material dug must be balanced against material received.

Short range reconciliation reviews the mine plan against ore control, and resource model updates will be triggered as reserve predictions are reconciled. Importantly, the geological model must be evaluated against the geology that is actually encountered when mining.

Building integration into your ore control system from the start means that teams consuming the data can make educated decisions in their individual roles.

Based on paper presented to SME 2023

University partnerships

Maptek[™] supports university students across the globe, providing software access for mining engineers and geologists, and rewarding computer science excellence.

Designing for the future

Maptek™ helps final year mining engineering students at the University of Pretoria build strong skills in mine design.

Established in 1908, the multicampus public research university in South Africa includes the Department of Mining Engineering in the Faculty of Engineering, Built Environment and IT.

Ten years ago Maptek and the Mining Engineering Department entered into an agreement that would give students access to Maptek™ Vulcan™. The partnership increases the quality of software training and mine design projects.

Each year about 25 fourth year students take the Mine Design subject, tackling a practical project in the second semester. Students and lecturers have access to all Maptek Online Training courses for the semester, as well as support for student queries.

Robust modelling and mine design software helps students complete better mine design projects.



Staff in the Mining Engineering Department at the University of Pretoria

Keaton Philo, University alumnus and lecturer, said that students gain valuable experience through using industry-standard software that they will most likely encounter in their professional work.

'This collaboration provides students with practical knowledge and skills that are highly sought after in the mining industry, increasing their employability after graduation. Maptek has also assisted students with vacation work experience,' said Philo.

'As an undergrad, I really enjoyed the hands-on learning with Vulcan. Designing an underground block caving mining method for a diamond deposit was a great opportunity to combine everything that we had learned, to analyse geotechnical data and design safe and efficient mine layouts.'

Several Maptek staff members, including Gideon Slabbert, Thulisani Msimanga, Nontsikelelo Mzotho and Mmoloke Ndlovu have taken mining courses at the University of Pretoria.

Computer science prize

Maptek™ supports an annual award for excellence in second year computer science subjects at the University of Adelaide in South Australia.

Peter Yeoh received the 2022 Maptek Prize for Computer Science at the annual prize giving ceremony in May 2023. This prize is awarded to the student achieving the highest average mark for computer science subjects taken at second year level. Currently in his penultimate year of a Software Engineering course, Yeoh ascribes his results to 'decent time management, a good support structure and a little determination'. His dream career is 'developing something that will change the world'.



Peter Yeoh and Simon Ratcliffe with the Computer Science Prize

Yeoh is in line for automatic entry to a summer internship at Maptek and is excited about the broad range of projects available. He most enjoys the problem-solving aspect of computer science, saying 'it's immensely satisfying when a good solution comes together'.

Head of Experimentation and Technology, Simon Ratcliffe noted that undergraduate engineers and geologists have been supported by Maptek since the company started, with an established academic licensing, internship and scholarship program available to universities globally.

Maptek has sponsored the computer science award for more than 10 years and retains contact with past winners, including several who have forged very successful careers within the company.

Legacy of long service relationship

Maptek™ reseller, Norimitsu Mizukoshi leaves a legacy of friendship and enthusiasm for Japanese culture among Maptek Australian colleagues as he heads into retirement.



Norimitsu Mizukoshi with Maptek founder Bob Johnson and a Sentry DMS system in Adelaide, 2017

Mizukoshi first became involved with Maptek™ Vulcan™ software in 2002, and then established Office Pipi to support Maptek customers in 2006.

He travelled to Sydney in 2013 to participate in technical training ahead of the release of Vulcan 9, and in early 2017 visited the Adelaide office for a laser scanning workshop, including a tour of Hillgrove Resources Kanmantoo Mine, where the Maptek Sentry DMS system was monitoring the pit.

Maptek Senior Technical Sales Manager, Steve Sullivan clearly remembers his first visit to Japan to deliver Vulcan block model training to a customer in northern Hokkaido. 'It was summer and we stayed in a *ryokan* and slept on *tatami* mats with rice husk pillows. We dressed for dinner in traditional Japanese garments and footwear and had splendid meals,' Sullivan recalled.

Sullivan commented that Nori-san's organisation was always efficient and the schedule performed as planned, sales forecasts were accurate and advice was sage.

Maptek Technical Lead for Stratigraphic Geology, Peter Odins also enjoyed a close cultural and business connection, recalling Nori's genuine enthusiasm for Maptek and its products. 'You had the ability to share your enthusiasm with your clients, making it 'contagious' – the mark of

a great salesperson,' Odins said.

Describing his involvement with Maptek as a lot of fun, Mizukoshi looks forward to listening to the surf, taking short trips and continuing to study cutting-edge technology.

Nori-san has created a lasting friendship with his Maptek Australian family and we wish him all the best for the future.

Maptek customers will be served by new reseller, Mineria Jp Inc. operated by Geologist and Professional Engineer Michiteru Kai.

From Steve Sullivan

You guided me through the complexities of Tokyo and I still marvel at the politeness during the busyness of the rush hour commute.

You provided me with my first taste of Japan, which led me to travel with my family on holidays several years later, where we enjoyed the snowy delights of Kyoto in winter.

'Nori, after more than a decade of working together, I wish you a long and fruitful retirement.'

From Peter Odins

Thank you for sharing your love of Japan with me, something which has led me and my family to visit many times since.

'I hope that I was able to return the favour when you visited Australia all those years ago, when we went for a bushwalk in the chilly Blue Mountains west of Sydney.

'I wish you all the best in your retirement and look forward to catching up with you in Tokyo sometime for some more spicy chicken wings and cold Asahi beers!'

Top workplaces honour

Maptek $^{\text{\tiny{M}}}$ has won a Colorado Top Workplaces 2023 award stemming from a survey of 6400 local companies.

Maptek[™] has been awarded a Top Workplaces 2023 honour by Denver Post Top Workplaces.

The list is based solely on employee feedback gathered through a third-party survey administered by employee engagement technology partner Energage LLC.

The confidential survey uniquely measures 15 culture drivers that are critical to the success of any organisation, including alignment, execution and connection, to name a few.

'We've put a lot of focus and effort into making a great work environment for people. This award confirms that our company is among the best places to work in Colorado, and is a source of pride for all employees,' said Jon Dale, Senior Director of People at Maptek North America.

'Top Workplaces awards also help us locate and retain highly skilled technical employees in a challenging employment market.' 'Earning a Top Workplaces award is a badge of honour for companies, especially because it comes authentically from their employees,' said Eric Rubino, Energage CEO.

'That's something to be proud of. In today's market, leaders must ensure they're allowing employees to have a voice and be heard. That's paramount. Top Workplaces do this, and it pays dividends.'









The Top Workplaces award confirms that Maptek is among the best places to work in Colorado, and is a source of pride for all employees























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