

INSTALL

Vulcan 64-bit coming in April



REGISTER

Users Conference, Adelaide in May



VISIT US

MINExpo, Las Vegas in September



NEW YEAR

New focus: Maptek CEO, Barry Henderson talks about opportunities in 2012.

In 2011 Maptek celebrated 30 years in business. As we enter 2012, we look forward to the challenges and opportunities as we work to meet the growing needs of the mining industry.

Our Vulcan users want the ability to manage larger datasets. Data volumes are growing exponentially across all industries, and the increased use of mine-operated tracking and sensing devices will certainly accelerate the trend for unstructured data types such as video, text and media files. Software interoperability, tagging, privacy and security of data are also issues. Our Vulcan development team is addressing this.

Scanners are now essential mine survey equipment. Two large coal entities in North America and Australia each ordered 7 high performance I-Site 8800 systems at the end of last year. We expect uptake of our I-Site systems to accelerate this year.

The first I-Site 8400 long range laser scanners rolled off the production line in January 2012, and many sites with the high resolution imaging I-Site 8800 are taking on an extra 8400 for routine topographic survey and volumetric tasks.

In 2012, we expect that emerging trends like virtualisation, cloud-based services, enhanced business intelligence capabilities and social platforms will become focal points for our industry. Many of our customers are already working to leverage these technologies and Maptek is devoting significant resources towards researching and developing solutions that will exploit this potential.

Introducing a new product to the market is an enormously satisfying achievement after the dedicated work invested in its creation. Certainly that is the case with BlastLogic - our innovative drill and blast accuracy management system. What is distinctive about this development is the customer collaboration from the very start of the process.

This has enabled Maptek to shape the technology knowing it will deliver real benefits. BlastLogic will help drill & blast engineers manage all their operational and design data, enabling them to improve processes and optimise mineral recovery.

Our first users conference for this year will be held in Adelaide, Australia at the end of May. I hope to meet many of our customers at this premier event.

Barry Henderson

> In this issue

Scanning Powerlines
Future Vulcan
News & Views
Users Conferences
I-Site Survey Guide

BOOK A DEMO

I-Site 8400 Laser Scanner + I-Site Topo Software



POWERLINE SCANNING

The Maptek I-Site™ 8800 laser scanner was deployed to locate conductors on powerlines to test the suitability of the method for sag profiling.

The power transmission lines near Carina in Queensland, Australia, are strung between towers over a 300 m span, with 24 unique wires to differentiate. The scanner was set up in several locations to help determine the optimum scanning positions, the attainable range of the conductor from the scanner, and the time required to conduct such a survey. All scans were taken on an arbitrary coordinate system.

After scanning at different resolutions it was determined that 5-minute scans taken in two locations along the 300 m length provided adequate detail to produce lines of best fit along the point data, provided there were no obstructions. Therefore, a survey of each span would collect enough data for all conductors in view in approximately 10-15 minutes of field time.

All conductors could be projected to a uniform vertical plane for easy comparison against each other or with archival data. Measurements can be taken for ground clearance information, and to identify trees growing under the conductors which could be within a dangerous height range.


Surrounding data (such as trees, buildings, roads and paths) can be identified and traced, or the coordinates can be used for placing symbols and annotations in a CAD package. All data presented can also be used in CAD packages.

Scanning acquires finer detail (closer point spacing) in less time than traditional survey techniques. The scan data can be used for a range of tasks.

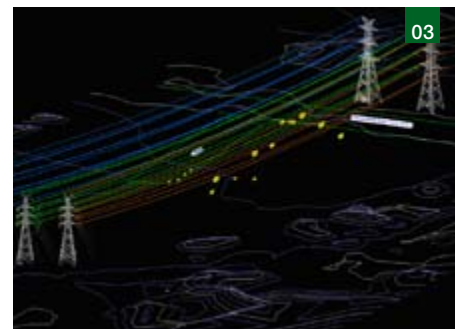
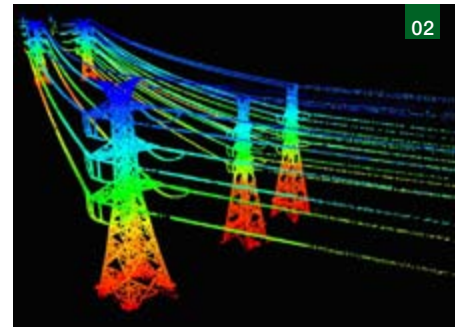
- > Locating conductors for sag profiling
- > Locating infrastructure for as-built data
- > Locating surrounding topography, features and buildings to create annotations, surfaces and contours – as well as measure height clearances
- > Matching photo data with known geometry
- > Scan data can be easily exported and used in other CAD packages

Laser scanning prevents features being missed during a survey, as everything can be located in the scan data. Scanning can be done before or after survey control is established, or without survey control for arbitrary scans. Using a simple user interface on the scanner controller, trained operators can conduct the scans without surveyors on-hand. Survey control is required to register the scans on a coordinate system.

The hand-held controller provides real-time feedback so users can see that the conductors are being located during the scan process. Traditional survey techniques can be prone to sighting or coding errors when locating many conductors in a single span. This is not an issue with laser scanning.

Laser scanning allows resources to be allocated more efficiently. Surveyors can provide survey control, but don't need to do all the field work. Draftspeople can work with the scan data, with the surveyors using their expertise to guide the outcomes. In this way more cost effective resourcing can be achieved. 

Contact isite.sales@maptek.com.au



- 01 Scanning automatically located 24 separate conductors (including overhead earth cables)
- 02 Point data of towers and conductors
- 03 Conductors in the span converted to lines; surrounding topography surface and contours; annotations show trees underneath conductors

VULCAN IN 2012

In preparation for release of the Maptek Vulcan™ 64-bit version, we talked with Vulcan Product Manager, Eric Gonzalez, about upgrades and features expected in the new software.

What is the primary focus behind the new 64-bit version of Vulcan?

Our customers need to process data and models with a greater level of detail than previously possible. Current computer hardware is built with support for 64-bit, and many applications are transitioning to this standard.

We are providing a 64-bit version of Vulcan to leverage the capabilities of the latest technology. At a time when most other applications are still migrating and adapting to the new platform, Maptek's release of Vulcan 64-bit will help us stay on top of the market.

What are the benefits of Vulcan 64-bit?

Vulcan 64-bit users will be able to take advantage of modern hardware with more memory. A 32-bit operating system is limited to less than 4GB of useable memory, which is shared among all applications including the operating system itself. A 32-bit application on a 32-bit operating system actually never reaches full potential.

With enough memory in a 64-bit system, a 32-bit application can access more memory than when running on a 32-bit platform, but it is still limited to 4GB. When the application runs as a native 64-bit operating system that limit is removed.

The main advantage of running Vulcan 64-bit in a 64-bit environment with enough resources, is that large amounts of data can be displayed, with enough memory for other Vulcan or non-Vulcan applications to run.

What can users expect to see with the Vulcan 8.1.4 software upgrade?

Since Vulcan 8.1, our approach has been to add selected functionality with each upgrade, delivering new features to customers more frequently. Our 64-bit version has virtually the same functionality as the 32-bit version. The 64-bit support is not just for certain areas, modules or programs; our whole suite will be delivered this way.

Vulcan 8.1.4 includes new options for resource modelling, data interchange, and the short term planner. Other additions worth mentioning are composited models for stratigraphic deposits and improved grade shells.

Will Vulcan 64-bit affect current users?

There will be only minor changes in user workflows. Changes in setup procedures mostly relate to third-party components like ODBC drivers. Users of high-end hardware will notice that loading large triangulations or block models works now without memory constraints.

Data is compatible between platforms, allowing users running Vulcan 8.1.4 32-bit to share data seamlessly with 64-bit users.

When will Vulcan 64-bit be released, and will existing customers have to pay more?

Vulcan 8.1.4 is scheduled for release on April 10. Users will receive installation discs with the new 64-bit version and an upgraded 32-bit version. Existing customers will receive Vulcan 64-bit under their maintenance contracts.

What are the plans for Vulcan 8.2?

We've been working on many projects for Vulcan 8.2 which is planned for release in the third quarter of 2012. Some of the upgrades are foundational for enhancements in future releases.

The Rapid Pit Design tool will allow open pit engineers to quickly create and evaluate many alternative designs, resulting in better decision making.


Enhancements in resource modelling will include new methods for working with folded deposits, ultimately offering better modelling options for this environment.

We're planning a support analysis tool for predicting and validating grade models, and general tools for mass editing the attributes of objects. Extending metadata to triangulations is another area of focus.

An advantage for users is that extra information can be stored and used through triangulation models. We will also provide a larger colour palette and more colour depth for design objects. Additionally, the Vulcan Chronos scheduling module will have enhanced performance.

What is planned beyond Vulcan 8.2?

Our 3D graphics environment is currently being improved to deal with entities more efficiently. We are researching the use of the processing power of graphics cards to improve the speed of massive calculations; the aim is to help in reserving large models. Customer requests for Vulcan to use corporate database infrastructure are being addressed.

Other plans range across model creation and editing for both stratigraphic and non-stratigraphic deposits, through all mine applications to scheduling. I'm sure that Vulcan users will be excited about the new tools that will be delivered in the short and long term. 

'Benchmarking conducted by Maptek, and supported by the global Vulcan 64-bit customer beta testing program, shows massive step-wise improvements in loading large datasets compared to Vulcan 32-bit.'

VULCAN 8.1.4

- > Available April 10, 2012
- > Provides 64-bit and 32-bit versions
- > ROM composited strat models
- > Stripping ratio tool for strat models
- > Improved grade shells
- > Solid modelling from polygons
- > About 100 smaller upgrades

MINESUITE TRANSFER TO MINLOG

Maptek and distribution partner MinLog have consolidated their MineSuite businesses.

MinLog assumed responsibility for the development, delivery and support of MineSuite for Maptek customers effective from January 1, 2012.

MinLog has a successful history of delivering and supporting MineSuite systems in Africa. The new cross-regional MinLog operations will provide a coordinated and strengthened service.

'We are confident the consolidated business will be beneficial to MineSuite customers,' said Maptek General Manager, Australia, Peter Johnson.

'MinLog will operate with a single strategic goal of delivering the best Production Management Information Systems in the world,' he added.

'MinLog will work with the industry as a preferred strategic partner in production information solutions that will deliver bottom-line operational results,' said MinLog Managing Director, Karel Gilliland.

'MinLog looks forward to taking MineSuite to the next level,' he added.

Maptek maintained continuity of service during the transition period, with Maptek and MinLog continuing to collaborate and provide mutual support.

MineSuite installations will be serviced and supported by the same people as before, with MinLog operating from the existing Maptek premises in Callistemon Close, Warabrook, New South Wales, as well as its premises in South Africa.

Contact MinLog at one@minlog.com.au or one@minlog.co.za for more information about MineSuite in your region.



ACADEMIC CIRCUIT

Maptek Edinburgh staff have recently presented to various European academic institutes.

GERMANY

In November 2011, Maptek was invited to lecture at the TU Bergakademie, Freiberg, about our latest 3D software technologies for mining.

Founded in 1765, TU Freiberg in Saxony is the oldest established mining sciences school in the world. The school is actively pursuing a plan to establish Vulcan as the standard program for senior students.



Freiberg University of Mining and Technology has about 5000 students

The lecture room overflowed with students and senior staff. The 2 hour presentation reviewed the latest Maptek software tools applied to 3D geological modelling, open pit and underground mine design, and mine planning.

Maptek appreciated the opportunity to present at TU Freiberg - a prestigious school that annually turns out so many skilled mining professionals. We look forward to having a greater involvement in the education of these eager students.

SCOTLAND

In January, Maptek attended the 2012 Edinburgh University School of Geosciences Graduate Conference in Pitlochry, Scotland.

The sessions were dominated by PhD students who delivered interesting presentations on their diverse projects.

Maptek was pleased to present at a conference where so many bright brains were able to show that Edinburgh is still at the forefront of geoscientific research.

POLAND

Poland has an extensive and extremely important mining industry. Maptek was invited to deliver a short presentation at the School of Underground Exploitation in Krakow, in February 2012.

The conference covered a wide range of topics and was attended by around 500 people including CEOs, mine managers, geologists and engineers.

Maptek is keen to be more involved with the Polish mining community.

Contact info@maptek.co.uk

MAPTEK HQ EXPANSION

Maptek has expanded to include another office location in Adelaide, South Australia.

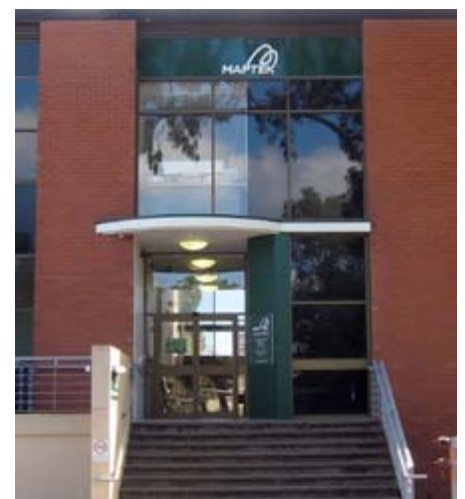
Maptek Vulcan Sales and Technical Services (including training), Marketing, Accounts and Administration are now at:

31 Flemington Street
Glenside SA 5065

The Maptek I-Site Laser Scanner Facility, I-Site Technical Services and Software Development teams remain at:

63 Conyngham Street
Glenside SA 5065

Telephone / fax numbers remain the same.



The newest Maptek office, in Flemington Street, Glenside - staff keep fit walking between offices

If you are unsure of which office you should visit, please telephone Reception on +61-8 8338 8222.

MAPTEK USERS CONFERENCES

NORTH AMERICA

24-26 October 2012

The Ritz-Carlton Hotel, Denver

CALL FOR PAPERS

Partnership with our clients is what sets Maptek apart. We want to hear about your experiences with our products, so that others can benefit, and we can continue to provide better solutions.

Maptek is offering Complimentary Registration to client speakers at the 2012 North American Maptek Users Conference, including a 3-night stay at The Ritz-Carlton Hotel.

If you would like to present a paper at the users conference, please submit a short abstract to cherie.ledoux@maptek.com by 1 May 2012. You will be notified of acceptance by 31 May 2012.

AUSTRALIA

28-30 May 2012

National Wine Centre, Adelaide

REGISTER NOW

A wide-ranging technical program, tradeshow product booths and intimate forums will be supported by exciting social activities with an Olympic theme.

Visit www.maptek.com/australia_2012 or email register@maptek.com.au

MAKE A WISH

Maptek Denver office has raised nearly \$12,000 for the Make-A-Wish foundation.

In late 2011 Maptek continued its fundraising traditions with Make-A-Wish® Colorado, an organisation that grants the wishes of children suffering from life-threatening medical conditions.



As a result of Maptek efforts, 16-year-old leukaemia patient, Robert received an electric cello and bow, while 13-year-old haemophiliac, Briana visited Hawaii with her family to swim with the dolphins.

This was Maptek's third 'Growvember' fundraising event, held in conjunction with a best-beard challenge. The entire Denver office supported the 17 contestants. Best-beard winner, Jim Philpott selected Life Turns, an organisation dedicated to transforming the lives of medically challenged children through outdoor activities, for an additional \$5000 contribution by Maptek.

'Most of the guys like not shaving for a month and most of our wives hate it, but when you hand over that cheque to great organisations like Make-A-Wish and Life Turns, it's something that we are all very proud of,' said Steve Uecker, Client Experience Manager in North America.

GEOSTATS

Maptek will be hosting Applied Geostatistics courses in North and South America during 2012.

Theoretical and practical sessions in the use of modern geostatistics in mining will be led by Professor Clayton Deutsch.

Viña del Mar is hosting the 11th Citation Course in South America. To register or to find out more, email cursos@maptek.cl

Viña del Mar teaching sessions:

- > 5 March - 30 March
- > 23 April - 27 April

Denver will host its 8th Citation Program. Email info@maptek.com

Denver teaching sessions:

- > 28 May - 8 June
- > 20 August - 31 August



Clayton Deutsch lecturing at a previous Citation Course in Chile



The countdown is on...
to Realise your Potential

2012 Australian Users Conference

Dynamic 3 day program. Fantastic networking opportunities. Meet the experts.

Register and pay within 30 days and receive a \$500 discount!
Visit www.maptek.com/australia_2012

SERVICE FOCUS

Working at Maptek provides opportunities for using professional skills in varied tasks, meeting people from different sites and supporting product development.

Project Geological Engineer, Kira Johnson started at Maptek in 2008. Working in Technical Services in Denver, she enjoys the variety in her role, which includes Vulcan consulting, technical support and training.

A typical day may involve answering support calls, ensuring the client training experience matches their needs, and checking consulting reports with clients.

'There is always a new project to tackle. I enjoy coming up with solutions to client issues,' said Kira.

Taking a project from start to finish is very satisfying.

Kira's biggest achievement was taking the technical lead throughout the course of a large-scale phosphates project.

'The company chose Maptek because of our great work on their Canadian potash properties, as well as our ability to provide them with a one package solution.'

The project involved interpretation and import of historical data, geological modelling, pit optimisation, mine design and layout, scheduling, and reclamation. Maptek helped prepare the final report for permit approval.

'It took about a year and a half to finish the project, and in the end both the client and the authorities were happy.'

'I like to think that our work makes everyone's job in the industry easier. We value efficiency at Maptek, and take time on site to provide clients with suggestions to make their operation more accurate, efficient and safe.'

The variety of the job appeals strongly to Kira.

'Different exercises in problem solving are always coming up. I enjoy meeting new people in the industry. It is a great opportunity to network and build rapport. We want to maintain positive relationships with our clients.'

Customer focus is one of the core values at Maptek.

'From a business standpoint, outstanding service is a core value. We care about our client experience and we are dedicated to getting the work done the way they want it.'

Maptek is like a family, everyone is great about teamwork.

'Maptek products are supported by field experienced mining engineers, geologists and surveyors. Our consulting and training services are tailored to help our customers work efficiently.'

'Maptek is a collaborative company. We all work hard to accomplish a common goal, no matter what it takes.'

Kira sees Maptek's greatest strength as being a leading innovator in total project solutions.

'The first thing that comes to mind is the I-Site laser scanner. Improvements in site survey flow on through an operation.'

'We also have excellent in-house product development and testing. Since I started working here we have provided 10 Vulcan software updates. Our product development team is great about logging and addressing software issues.'

Engineers and geologists who work at Maptek are able to hone their skills on a wide range of projects. Contact with clients and regular site visits ensure they stay at the top of their field. *✍*



Development team in Viña del Mar



Vulcan classroom training course in Denver



Vulcan training on site in Mexico



Maptek Europe-Africa consulting services on show at Indaba in Cape Town in February



Demonstrating Vulcan, I-Site 8800 & 8400 laser scanners at SME in Washington in February



Stratigraphic modelling workshop at the 2011 users conference in Perth, WA

SURVEY OF I-SITE OPTIONS

Maptek develops purpose built laser scanners and point cloud processing software for mining, civil and forensic applications. Choose the most effective I-Site hardware and software combination for your operation.



I-Site Studio

- > Solid & Surface Volumetric Tools
- > Automated Pit Updates
- > Automated Feature Extraction
- > Intensity Mapped Point Cloud
- > High Resolution Imagery
- > Animation and 3D PDF Files
- > Topographic, 3D & Fusion Modelling
- > Extensive Filtering Options
- > Optional Geotechnical Module Add-on

I-Site Topo

- > Topographic Modelling Tools
- > Surface & Bench Volumes
- > Manual Pit Update Tools
- > Manual Feature Creation
- > Intensity Mapped Point Cloud
- > Basic CAD Tools
- > Basic Filtering Options
- > Common Import / Export Options

The perfect combinations

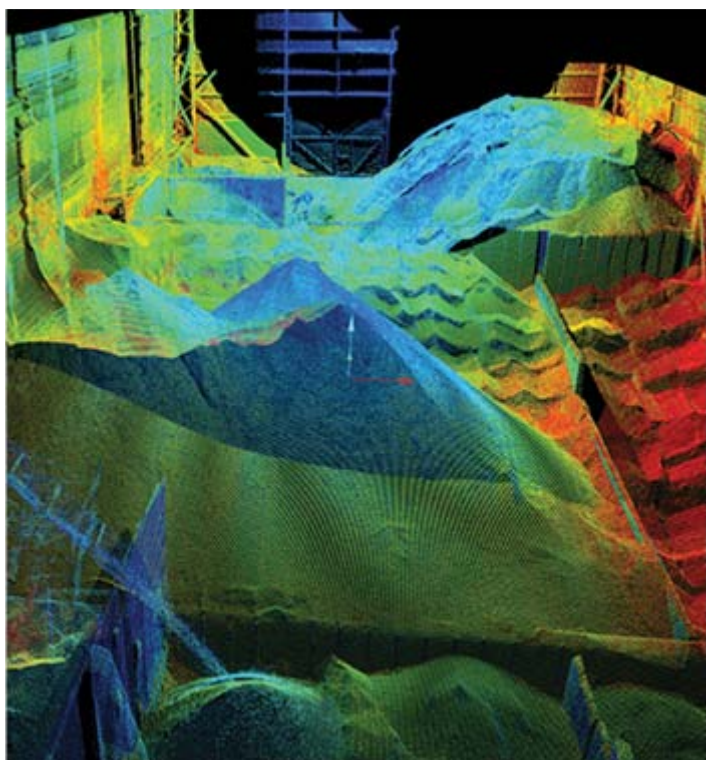
I-Site 8800 scanner + Studio software

I-Site 8400 scanner + Topo software

This information should be used as a guide only. To find out more, arrange a demonstration where you can discuss the different options and combinations with Maptek staff. Or visit our booth next time we are exhibiting at a tradeshow in your region.

www.maptek.com/products/i-site/

MAPTEK I-SITE 8800 AND 8400 LASER SCANNERS ARE BUILT ON THE SAME DESIGN PRINCIPLES. THEY ARE EASY TO SET UP AND USE. SOFTWARE IS TAILORED TO OPERATIONAL NEEDS, HELPING SURVEYORS GET ACCURATE RESULTS AND FEED THEM QUICKLY INTO THE PLANNING CYCLE.



	I-SITE 8800	I-SITE 8400
RANGE @ 80% reflectivity	1400m	700m
MAXIMUM RANGE	2000m	1000m
ACCURACY	10mm	20mm
WEIGHT	14kg	12kg
CAMERA	✓	
BACKSIGHT TELESCOPE	✓	
DIGITAL COMPASS		✓
ONBOARD CONTROLS		✓
USB SCAN STORAGE		✓
HANDHELD CONTROLLER	✓	Optional
SCAN RESOLUTIONS	5	2 (4 with HHC)
VEHICLE MOUNT COMPLIANT	✓	✓
SURVEY APPLICATIONS	Large pit operations Geological mapping Geotechnical analysis Topography Stockpiles	Stockpile volumes Bench volumes Indoor sheds & silos Pit surveys Underground

VULCAN

BATHURST RESOURCES, New Zealand, has purchased Vulcan MineModeller and GeoModeller licences for development of open pit and underground coal mines in the South Island Buller coalfield.

BILBAO RESOURCES INC., a subsidiary of Xterra Inc., has purchased Vulcan for geological modelling and mine design for the Bilbao project located in Zacatecas State, Mexico.



Bilbao Resources staff undertook Vulcan training led by Jorge Sanchez, Maptek (right)

EAGLE DOWNS COAL MANAGEMENT PTY LTD has purchased Vulcan for geological modelling and reserving at the Bowen Basin coalfield project in Central Queensland, Australia.

ISSARA MINING LIMITED is renting Vulcan GeoStatModeller for resource estimation of their gold projects in Thailand.

JINKA MINERALS LTD, now owned by **KENTOR GOLD** has purchased Vulcan for use at its copper gold operations in Western Australia and the Northern Territory.

PT NEWMONT NUSA TENGGARA has purchased a Vulcan GeoModeller licence for evaluation of copper and gold prospects in Indonesia.

I-SITE

BECHTEL has purchased an I-Site 8800 laser scanning system for monthly volume control of their outdoor and indoor stockpiles at the Xstrata Copper Antapaccy Mine in southern Peru.

BHP MITSUI COAL SOUTH WALKER CREEK in the north of Queensland's Bowen Basin has purchased an I-Site 8800 laser scanning system for end of month survey, coal intersect pickups and updating daily dig areas.

LEIGHTON CONTRACTORS has purchased 2 I-Site 8800 laser scanning systems for Poitrel Mine in Queensland's Bowen Basin and Duralie Mine in the Hunter Valley of NSW. Applications include mine survey and volume reconciliation.

MOLYCORP MINERALS, LLC has invested in an I-Site 8400 vehicle mounted system for its Mountain Pass Rare Earth Mine. The primary application will be end-of-month surveys at the open pit molybdenum mine in Mountain Pass, California.

NEWMONT MINING CORPORATION Gold Quarry Mine has upgraded its I-Site 4400LR laser scanning system with an I-Site 8800 system. This open pit gold operation is located in Elko, Nevada.

GOLDCORP PORCUPINE INC. MINE has purchased an I-Site 8800 vehicle mounted system for its open pit/underground gold operation in South Porcupine, Ontario. The system will primarily be used for stockpile volumes and mapping.

RICHARDS BAY MINERALS, a South African mineral sands mining and processing operation managed by Rio Tinto, has purchased an I-Site 8800 laser scanning system for weekly production monitoring and month-end survey. The system will also be used in the development of a slope stability monitoring solution.

VALE POTASIO RIO COLORADO has purchased an I-Site 8800 laser scanning system for surveying outdoor stockpiles in Central Argentina.

YAMANA GOLD - MINERA FLORIDA has purchased an I-Site 8400 laser scanning system for underground scanning and stockpile control in Alhué, 73 km south of Santiago, Chile.



Praveen Mishra demonstrates Maptek products at IME in Kolkata, India in February

VISIT MAPTEK AT THESE TRADESHOWS IN 2012

April 9-13

EXPOMIN
Santiago, Chile

April 15-18

SPAR International - Booth 6
Houston, Texas, USA

April 24-26

Mining World Russia
Moscow, Russia

April 25-27

IX Conferencia Internacional de Minería
Chihuahua, Mexico - Booth 227-228

May 6-9

CIM - Booth 506
Edmonton, AB, Canada

May 10-11

38th Symposium on the Geology
of the Sydney Basin - Booth 10
Hunter Valley, NSW, Australia

May 14-16

9th International Gold Symposium
Lima, Perú

June 7-8

Elko Mining Expo
Elko, Nevada, USA

June 15-16

Expo Minera Zacatecas 2012 - Booth 43
Zacatecas, Mexico

June 19-21

Hillhead 2012
Buxton, UK

July 24-26

Queensland Mining Expo
Mackay, Queensland, Australia

September 24-26

MINExpo International - Booth 6062
Las Vegas, Nevada, USA