

Taking the pain out of routine mine survey tasks

Maptek I-Site™ tackles routine survey applications efficiently. End of month reconciliation of pits is a time-consuming and sometimes tedious task that all mine sites must undertake. Boddington Bauxite Mine in Western Australia uses the Maptek I-Site™ system for regular open pit surveys.



HIGHLIGHTS

- Multiple pits easily scanned, post processed and results exported to site specifications
- Many filtering options to choose from when processing data
- Direct export to Maptek Vulcan

Using GPS technology and a laser scanner, a total of 16 pits covering an area of 12 km x 10 km can be surveyed in less than a day and a half.

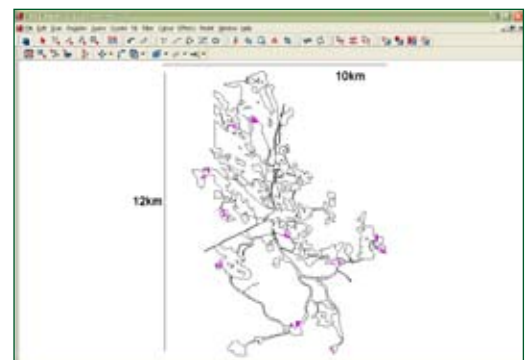
At Boddington, around 18 million points were acquired, with all pits being scanned, data post-processed and results delivered to site within 2 days.

Maptek I-Site Studio software makes it simple to register, filter and model the data. Registration is performed using standard survey setup and backsighting techniques.

By importing the survey stations from the GPS into I-Site Studio, the entire area can be registered in local coordinates.

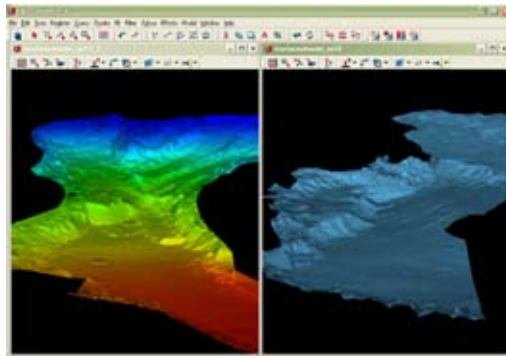
Simple polygonal deletion for boundary definition is then performed on each pit. Finally, a triangulation is created, and if necessary, contours and sections are easily generated.

All models are exported to Maptek Vulcan™ mine planning software as triangulation files, directly out of I-Site Studio, while all filtered point cloud data is exported as archived layers.

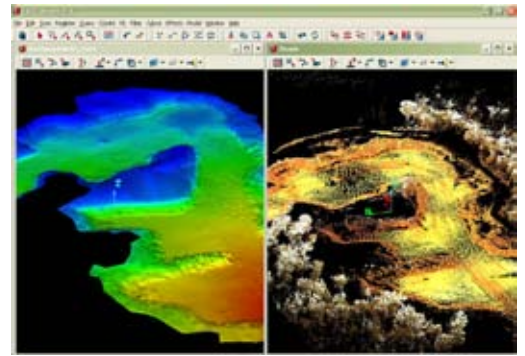


Mine area showing the pits in pink

The I-Site system saves time, frees up surveyors for other tasks and relieves some of the stress associated with getting end of month surveys completed promptly.



Final models used for end of month reconciliation



Final model on left, point cloud data on right

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Other departments in the mine also benefit from being able to rely on having access to accurate and up-to-date data for their planning, design and decision-making processes.



The topography filter is the best option for tackling open pit scan data, allowing users to remove unwanted structures such as trees, people and vehicles, leaving the ground points of scan data.

Thanks to Boddington Bauxite Mine