



Sentry

Versatile solution for monitoring risk

Safe > Accurate > Reliable





Monitoring and risk management solution

Maptek™ Sentry is an intuitive visualisation and monitoring analysis tool for better understanding surface stability in mining and engineering environments.

Maptek™ Sentry combines a Maptek laser scanner with sophisticated software to monitor and analyse movement over time.

Sentry is available as a fully transportable monitoring system deployed in a custom built trailer. It offers a power and communications module, cellular and wifi networking, a dedicated stable bollard for an Maptek laser scanner, and Sentry software.

Sentry is quick and simple to set up and operate, allowing site personnel to capture and analyse accurate 3D data to avoid incidents that have the potential to interrupt operations.

A dedicated cold climate monitoring system, which includes redesigned internal components and XR3 laser scanner, allows for continuous monitoring down to -40°C,

Identify movement - Generate and animate zones to show movement over time. Intuitive visualisation helps identify trends. Integrated smoothing tools reveal rates of movement as fine as 1mm per day.

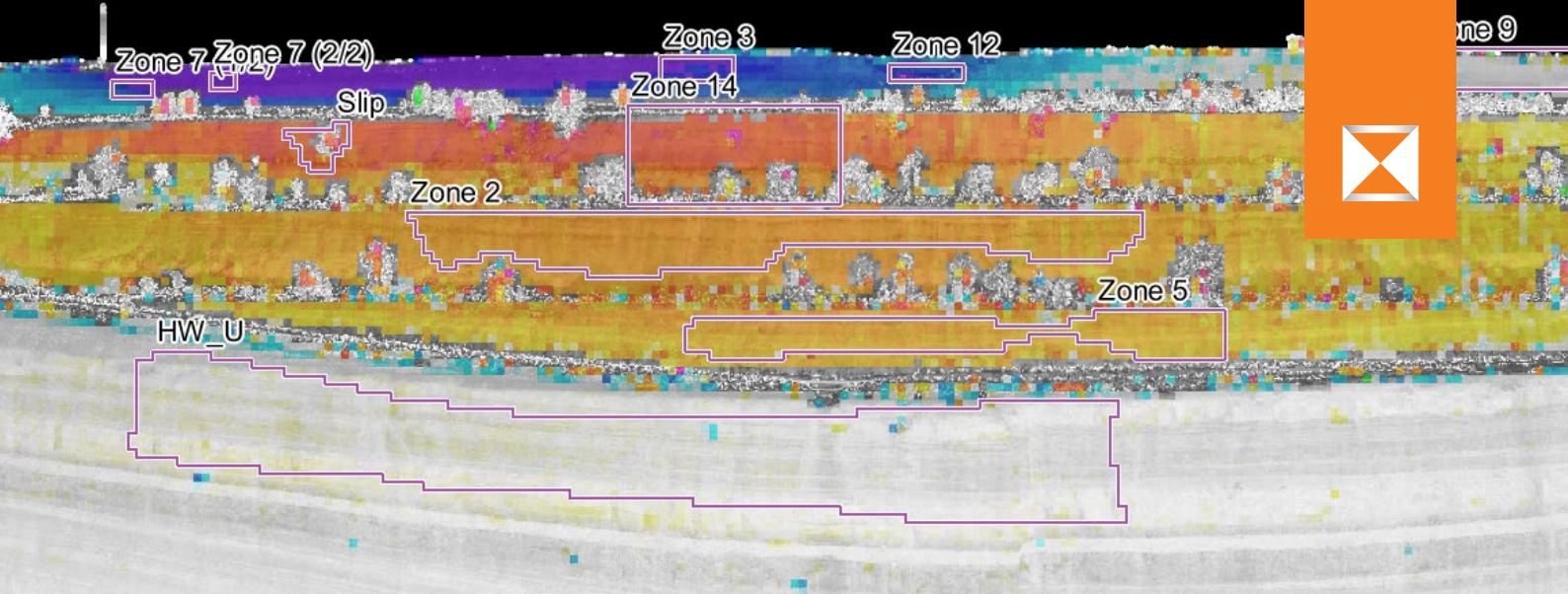
Analyse failures - Analyse the mechanics of wall failures with greater fidelity than other systems. Capture and maintain a continuous monitoring history.

Analyse rock falls - Record rockfalls and easily view the points of origin and landing. Export data to PointStudio for further analysis including volume calculation. Use this information to update rockfall databases for reducing risk in the vicinity of highwall toes.

Versatile system - Laser-based system handles all survey and monitoring tasks. Choose periodic, wide-area monitoring for determining zones to watch more closely. Continuous monitoring where conditions pose the greatest risk provides real-time accurate data to guide safety programs.

Use one laser-based system for general survey, geological mapping, geotechnical analysis, tracking surface movements and trend analysis.





The Sentry difference

Risk management: Monitor multiple zones of concern within a single scene and notify movement outside of set tolerances.

High impact: Better visualisation and understanding of failure mechanisms leads to safer, more productive operations.

Mining-dedicated: Sentry is designed to operate reliably and continuously in rugged mining environments.

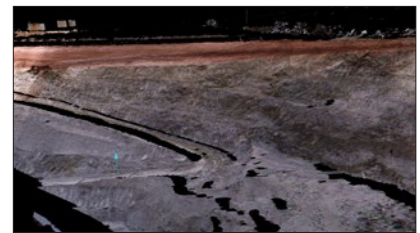
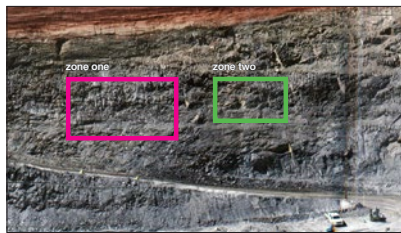
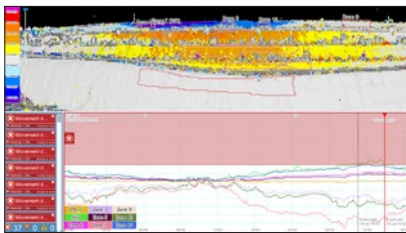
Site safety: Self-contained, autonomous operation is a safer alternative to prism monitoring on highwalls and slopes.

Analysis: Use previous data to create timelines to improve understanding of operational structures and their behaviour.

Versatility: Sentry operates in low light and underground for periodic or real-time convergence monitoring.

Flexibility: Use the same survey-grade data for survey applications and geotechnical analysis in PointStudio.

Extreme conditions: Cold climate model operates for hours at -20°C, with limited operation at lower temperatures.



Data interrogation

- 3D digital terrain model (DTM)
- 3D imagery overlay with heatmap
- Animate zones to show morphology of terrain changes
- Spatial averaging within a single scan improves sensitivity
- Intuitive algorithms help reduce scan noise
- Raw laser scan data available for other applications

Notifications

- Report on multiple zones within a scene
- Report on displacement, velocity or inverse velocity
- Automatic email notifications

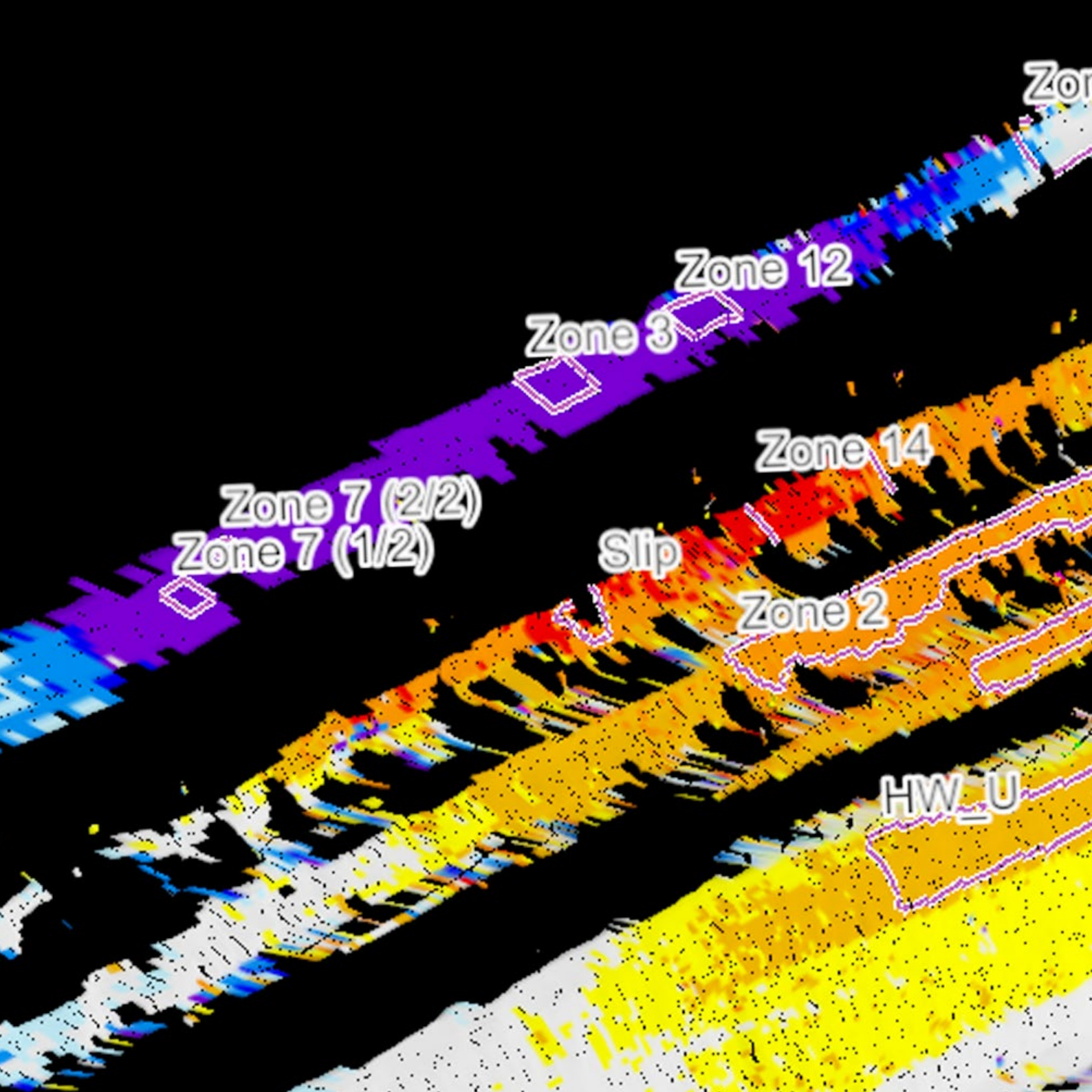
Analysis graphs

- Create graphs based on individual preferences
- Graphs report on displacement, velocity, inverse velocity and weather conditions

Further analysis

- Use survey grade data to record rockfalls, including points of origin and landing
- Use data to update rockfall databases and mark out highwall toe exclusion zones
- Conduct geological mapping in PointStudio
- Seamlessly export 3D laser scan data for kinematic analysis

Sentry is compatible with Maptek XR3, LR3, SR3, I-Site 8820 and 8200ER/SR laser scanners.



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