

Smartmine Collision Awareness Solution (CAS) Surface

SMARTMINE IoT

Mining meets efficiency, by turning data into profit



The Schauenburg Smartmine IoT Solution

SmartMine IoT is an all-in-one IoT and data analytics platform that is revolutionising the mining industry with its open architecture software. By turning device/asset data into insights SmartMine gives you a bird's eye view of all your mining operations, enabling smarter, quicker and more data driven decisions making for a smarter and more productive tomorrow. Experience the future of mining - Today



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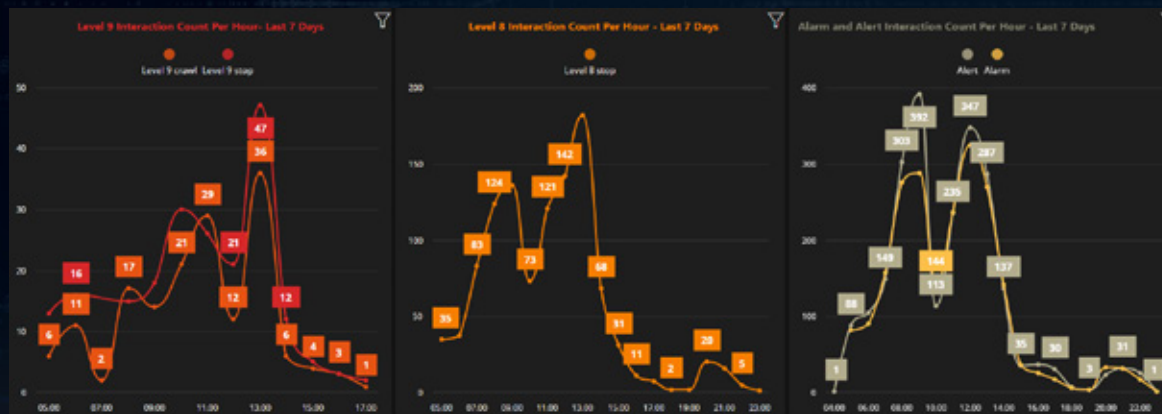
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CAS Overview

SmartMine Collision Awareness Solution for surface mining leverages data driven insights to enhance safety, optimise traffic flow, and drive operational efficiency.

By driving trend analysis, optimising traffic management, fostering a safety culture, and enabling continuous improvement through data analysis, SmartMine CAS empowers mining companies to mitigate risks, protect personnel and assets, and achieve sustainable success in surface mining operations.

SmartMine CAS integrates seamlessly with Schauenburg's CAS technologies to enhance safety and productivity in mining operations.



CAS Overview

This system combines collision avoidance technology, near real-time data processing, and advanced algorithms to provide you with a holistic view of your CAS data insights for your mining operations to enhance the safety of your workers, optimise your processes and increase productivity within your mining operation.



The SCAS Underground Reporter allows for:



Monitoring of metrics such as the number of near-misses, adherence to safety protocols, and response times to collision alerts, using the dashboard to track progress towards safety goals and identify areas for improvement.



Identification and detection of recurring patterns and trends using historical data, to implement targeted interventions to address underlying causes and reduce frequency of incidents.



Monitoring of compliance with regulatory standards by tracking relevant metrics and generating of reports for audits.



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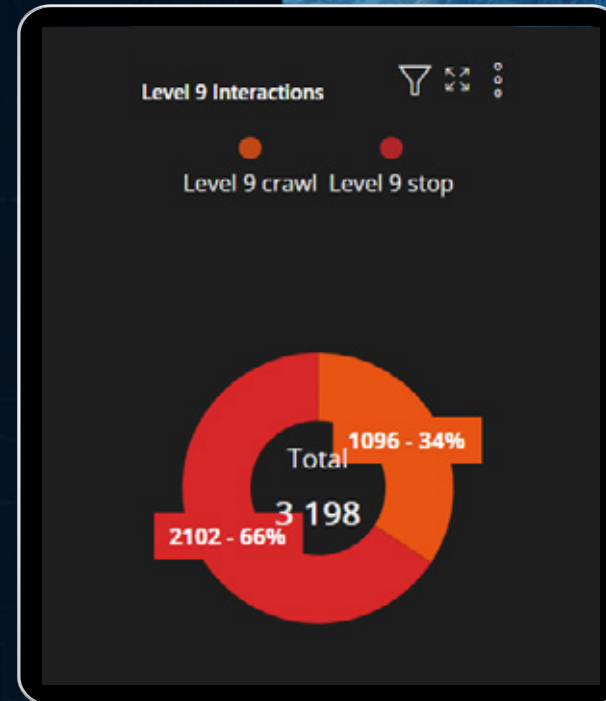
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CAS Reporter – Key Features

- Holistic view, **level 9**, **stop** and **crawl** events
 - Enables you to improve assessments of vehicle interactions
 - Proximity detection of other vehicles or hazards
 - Warnings / intervention triggers to prevent accidents
- **Top offenders list** – allows visibility of top persons and vehicles responsible for stop and crawl events to facilitate corrective action
- Vehicle-to-vehicle/vehicle-to-person/vehicle-to-hazard detection
- **Investigate historical** stop and crawl events leading up to incidents
- Identify patterns of risk within a cluster of events
- **Exclusion events** analysis
- **Cas system health diagnostics** dashboard
- **Data-logging** and **reporting**
- **Manual** and/or **automated reporting**
- E-mail and whatsapp **alerts**
- **Trends** analysis
- **Multi-technology** tag-based systems
- Indicate **remote object detection** based on orientation

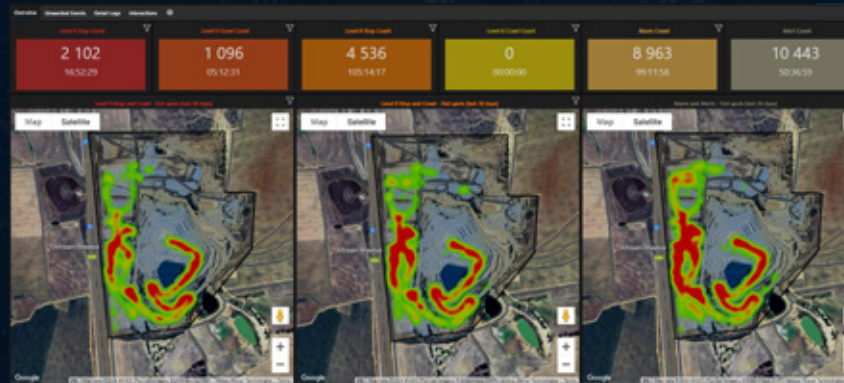


CAS Reporter – Key Features

Heat Maps

Provides a visual representation of vehicle movements and interactions.

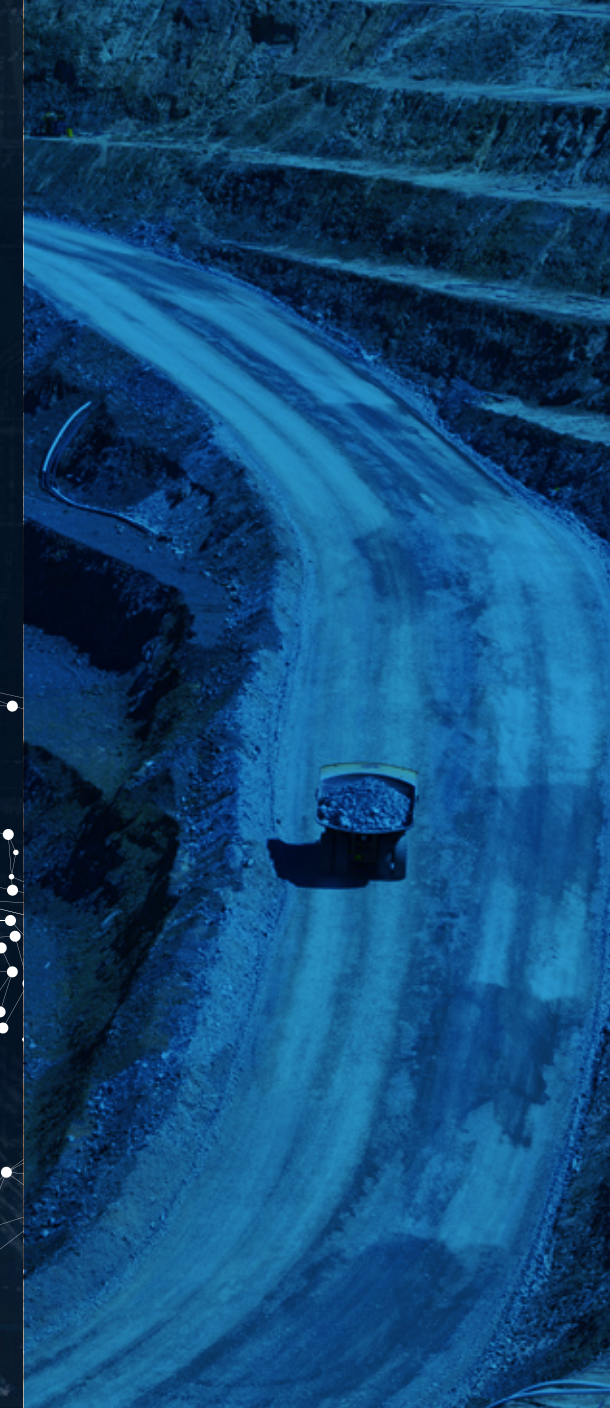
Optimise the flow of vehicles, reducing congestion and improving overall efficiency.



Vector Maps

Precise tracking of vehicle-to-vehicle and vehicle-to-person interactions and the orientation/movement direction of the vehicle.

Detailed route planning by providing information on road networks, elevation changes, & specific landmarks.



CAS - Benefits

Early Warning and Prevention

Reduces the likelihood of accidents, enhancing overall safety and minimising the risk of injuries to personnel and damage to equipment.

Optimized Traffic Flow

Ensures efficient traffic flow, reducing idle time and improving the productivity of mining operations.

Optimisation could lead to fuel savings, decreased equipment wear, and enhanced overall operational efficiency.

Remote Monitoring and Control

Remote capabilities enable swift responses to emergencies, preventing collisions and minimising downtime.

Enhances the safety of personnel and equipment while improving the overall responsiveness of the mining operation.

Reduced Equipment Downtime

By proactively addressing maintenance issues based on predictive insights, the system helps reduce unexpected breakdowns.

This leads to decreased equipment downtime, increased availability, and improved overall operational efficiency.

Continuous Improvement through Data Analysis

Insights derived from data analysis lead to ongoing refinements in collision avoidance strategies.

System evolves over time, staying adaptive to changing conditions and advancing safety measures.



CAS Surface Reporter

Empowering mining companies to mitigate risks, protect personnel and assets, and achieve sustainable success in surface mining operations.



Powered by

**SmartMine
IoT**



Occupational Safety
Solutions

Lamp Room Asset
Management Solutions

SCAS Underground
Reporter

We can build it

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