

Controlling planning deviations with MineRP in One

Deviations in Planned vs Actual relate to differences in actual content (grade), volume (size) and location of excavations compared to initial plans. Typically caused by incorrect planning assumptions or inaccuracies in execution, these deviations have a myriad of negative impacts on productivity and profitability.

THE CHALLENGE

The primary objective of every mining manager has to be the effective and efficient execution of short term mining plans. This focus creates questions such as:

- What is the cost and time of losses or rework caused by deviation from the mining plan?
- Were any unsafe conditions created as a result of deviations, and if so, what controls have been implemented to mitigate the resultant risk?
- Is ore-bearing material being sterilized or left behind?
- Did overbreak/underbreak occur, and if so, when and why?
- What volume of additional waste was generated?

Answering these and other questions require multi-disciplinary inputs, perspectives and data. In reality such data is often unavailable or inaccessible due to non-integrated mining technical software.

MineRP facilitates integrated operational reporting and establishes a spatial integration platform bringing together all of the data created in fragmented mining systems.

WHY DEVIATIONS OCCUR

Deviations fall into two general categories – Planned Not Mined (PNM) and Mined not Planned (MNP), and are typically caused by:

- Overbreak and underbreak - deviations in a specific workplace from the planned excavation size and shape (PNM, MNP)
- Hazardous working conditions rendering a workplace temporarily or permanently unavailable to mine (PNM)
- Optimistic planning - either purposely to please someone else with an expectation figure or inadvertently due to natural miner's optimism! (PNM)
- Changes in grade, geological structure or ground quality necessitating deviations from the plan (PNM, MNP)
- Decreased efficiency associated with factors such as crew skills, distance from the shaft (increased traveling time) or some support service not being delivered on time (PNM)
- Interruptions to sequential progress where one planned mining activity can only be executed after another one completes (PNM)

KEY BENEFITS

MineRP in One offers a variety of productivity and quality improvements to the mining specialist, These are enabled by the ability to:

- Visually highlight planned and actual deviations by overlaying survey results with initial plans.
- Visually identify incorrect or hazardous mining practices or emerging trends
- Rapidly identify and respond to emerging deviations
- Spatially visualize production performance indicators
- Improve collaboration between various mining disciplines through integrating specialist mining technical systems

In addition to these benefits MineRP in One also enables:

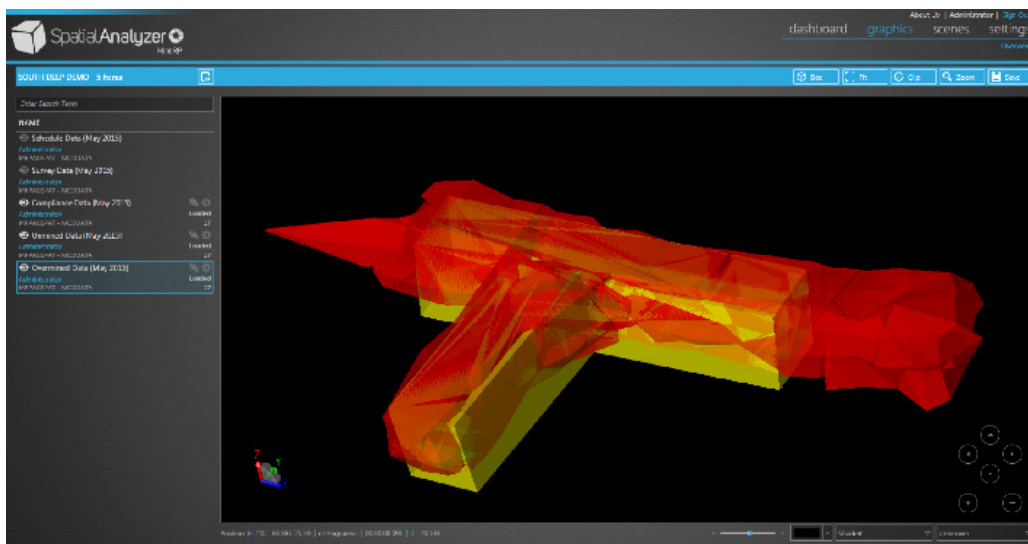
- Single source reporting and analysis of integrated mining data from the centralized spatial data store
- Fully auditable and transparent history of interactions with the ore body, without the need to access complicated and expensive specialist mining systems

THE SOLUTION

Although the reasons for deviations from initial plans are often complex and beyond immediate control, MineRP in One addresses the fundamental principles of managing this issue by allowing mines to:

- Productively share plans and targets in a way accessible and available to all stakeholders, including planning, production, safety and others
- Identify the set of critical production indicators required to alert management of deviations as they occur
- Visualize Planned and Actual data in 3D and in real time
- Visualize all critical productivity indicators in 3D and automatically create trigger or action levels to alert management through workflow-driven procedures of emerging risks

// MineRP in One provides an integration platform for the amalgamation of all your mining technical data, without the need to change the source systems you already use //



Mining deviations including overbreak, underbreak and unplanned development highlighted in red against the mine plan shown in yellow using MineRP's Spatial Analyzer

WANT TO KNOW MORE?

Visit our website at www.minerp.com to find out more about MineRP in One and other mining solutions