BASF Intelligent Mine powered by IntelliSense.io®



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Stockpile and Inventory Optimization Application

BASF Intelligent Mine, Stockpile and Inventory Optimization Application provides near real time, 3D ore control models of stockpiles to optimize mine planning and mineral processing.

The Problems Faced by Managing Stockpiles

- The 'weighted average' approach to stockpile modelling results in a fundamental lack of knowledge of the stockpile contents and crucially its properties
- This lack of knowledge causes a high degree of variance in the feed to the mineral processing plant; including hardness and grade
- The impact of this variance can also mean the processing plant can't operate at an optimum throughput or recovery

The BASF Solution

Powered by the IntelliSense brains.app platform, the Stockpile and Inventory Optimization application:

- Uses 3D modelling to keep track of where and when materials are deposited and reclaimed in near realtime
- Tracks the material flows and associated properties (e.g. source, volume, key minerals & elements, hardness, lithology) from the mine to the stockpile and into the plant
- Integrates data from multiple sources such as Fleet Management Systems and Drone Scans to increase stockpile accuracy
- 4. Provides real-time information including predictions of when material will arrive at a particular point and alerts such as 'time in situ'.

Knowing the material characteristics and quality of your Stockpile will increase your operational efficiency and maximise your product grade by allowing you to make informed blending decisions about the feed sent to the processing plant



The BASF Intelligent Mine Stockpile and Inventory Application has been developed and refined over a number of years at multiple customer sites, creating an 'out-of-the-box' product that can be rapidly deployed to deliver value within weeks.

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The Value Gained from Optimization

The Stockpile and Inventory Optimization Application will:

- Optimize throughput and recovery with improved blending decisions
- Eliminate reclaim errors by knowing exactly where your material is, where it came from and where it's going
- Avoid value destruction caused by dumping errors
- Decrease waste and risk caused by material remaining in-situ for longer than is safe

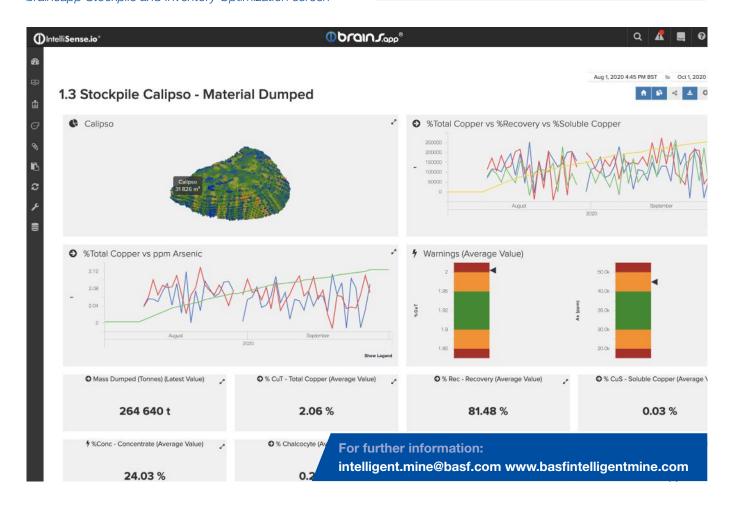
Mine to Market: Value Chain Optimization

Powered and connected together by the brains.app platform, the Stockpile and Inventory Optimization Application is one of a suite of real-time decision-making applications that uses Artificial Intelligence (AI) to optimize each process; from mine-to-market.

Our Material flow model connects these applications together to drive even greater efficiency gains.

The BASF Intelligent Mine Stockpile and Inventory Optimization application is helping deliver \$120M per year in value creation at a South African Platinum Mine

brainsapp Stockpile and Inventory Optimization screen



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