



How to Integrate Mining Data While Creating an Audit Trail

BY A. FRED BANFIELD

AS DEVELOPERS AND USERS OF SOFTWARE THAT CREATES MINE MODELS AND MINE PLANS, WE ON THE ECLIPSE TEAM HAVE ALWAYS BEEN AWARE OF COMMON PROBLEMS THAT ARE STILL UNRESOLVED BY EXISTING SOLUTIONS.

First, the difficulty of storing and integrating mining data, and second, the lack of a reliable audit trail for our work.

INTEGRATING MINING DATA

It is essential to integrate mining data to not only enhance the performance of applications that share that data, but also to prepare for technology that is right around the corner. More advanced analytic software that incorporates artificial intelligence (AI) and machine learning will provide operational insight that until now, has been impossible to achieve.

Existing General Mine Planning (GMP) products integrate data to some degree, but there are hard line limits to what can be achieved with data that is stored in varied formats among different applications, or even different versions of the same application. Legacy data is often trapped in systems that were developed long before the tools and computing power of today could be applied. And it's not just legacy data. New applications are developed every day and additional data is collected—compounding the problem.

To truly integrate all relevant mining data, the Eclipse Mining Data Platform simultaneously manages traditional GMP data and adapts to storing and integrating new data and applications without missing a beat.

AUDIT TRAIL

Disparate legacy data limits integration efforts and also limits audit capabilities. To develop the best models and mine plans, users have attempted a “best in breed” strategy by using programs from multiple vendors—which routinely use unique data formats. While attempts by GMP system vendors to provide API's that facilitate the transfer of data between programs are being made with varying levels of success, the problem still exists.

The effort required to ensure that the data sources are the intended ones and the programs used are the correct versions is incredibly time consuming, and for the most part, a collaborative manual effort of multiple contributors based upon data in folders and files. Mistakes are made, and the results from the data is less reliable for evaluating mine projects and operations.

To make sure the data is reliable, the Eclipse Mining Data Platform verifies software versions, and offers reporting options for all data sources, workflows, and calculations.

THE ECLIPSE MINING DATA PLATFORM

The Eclipse Mining Data Platform provides fast and reliable data integration and auditability without the limitation of legacy software. Our focus is mining data, not mining function. Our aim is not to replace solutions that are working well, but to consolidate the data in one place for distribution throughout the pipeline while providing a more cohesive and accurate picture of mining operations.

So, how do you integrate mining data while creating and audit trail? With the Eclipse Mining Data Platform.

FRED BANFIELD – CHAIRMAN

Fred Banfield earned his degree as a mining engineer at the Colorado School of Mines and has been involved in the application of computer technology to mining ever since. In 1970, Fred and a colleague founded Mintec, Inc., a multinational consulting and software development company for the application of computer techniques in the mineral industry, where he remained its Chairman until 2014. Fred has received numerous honors throughout his long career. He was inducted to the American Mining Hall of Fame in 2014, and the International Mining Technology Hall of Fame in 2015. He was also a Recipient of the Society for Mining, Metallurgy and Exploration's Daniel C. Jackling Award in 2007 for significant contributions to technical progress in mining geology and geophysics. Fred is currently a member of CIMM, SME, a member of the Board of Directors of Seabridge Gold, Inc and Chairman of the Board of Directors of Eclipse Mining Technologies, LLC

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