



SourceOne

“THE FINAL ARTICLE TIES THE PREVIOUS TWO ARTICLES TOGETHER, AND LOOK TO THE FUTURE OF MINING DATA APPLICATIONS.”

Erik Johnson has over 20 years of experience leading highly skilled teams in the creation of high-performance engineering and scientific software for the mining industry. His industry knowledge and background in mining engineering, geology, geophysics, and geo modeling, provides insight into how we view and use the invaluable asset of DATA in mining.

This is the last in a series of articles that discuss the realities of data handling in the mining industry.

The previous articles discussed the current state of open data and data handling in the mining industry, highlighting the strengths, weaknesses and misconception about this highly critical data. This article will discuss how SourceOne is addressing those challenges.

HOW DOES SOURCEONE MEET THE CHALLENGES OF OPEN DATA IN MINING?

SourceOne is a vendor agnostic, unifying platform with accessible, searchable, contextual open data.

With a distributed ACID compliant data hub, SourceOne provides maximum flexibility so users can work in ways that make sense for the mine. All data and meta-data (contextual data like setup files, variography etc...) are stored in an automatic, richly attributed and correlative way (e.g. the kriging parameters associated with a block model quality is linked with that model).

SourceOne is more than just a geospatial database. It is a mine data platform, complete with internal optimization and an understanding of mining objects. This includes user management, visualization and interrogation of data in a modern framework.

SourceOne reporting for mining specific elements (geostatistical plotting, etc) is integrated internally with the platform. SourceOne also provides easy access to off-the-shelf analytic tools (like PowerBI, Tableau, etc) through open data connectors.

History and Audit is more than a simple log of events that happened in a project. It includes live links to all element references, and the ability to access a historical version of data as easily as the most current one. Do you want to track how a quality in the block model changes through time, as more and more data and resolution are provided? ...Simple. SourceOne makes that happen.

COMMITMENT TO OPEN DATA

As discussed in the first paper of this series, the current reality of data ownership doesn't necessarily serve the mine. **SourceOne has true open data that you can access and analyze on your terms.**

Data lookup is centralized, richly attributed, and provided in non-proprietary formats like the ubiquitous JSON format. **There is one place to look for your data, regardless of the domain or tools it is used by or for.**

Reading existing data in the hub is unimpeded by licensing restrictions and open to generalized access using industry standard data adapters. This provides for easy leveraging of the rich set of generalized data analytics and reporting systems which are becoming very mature. The visualization portion of this is open to use in a read-only fashion for interrogation of all platform data, meta-data and other attributions without impediments.

COMMITMENT TO THE OPEN PLATFORM

All the data described above is housed in a platform that provides more than just a framework for looking up data. It also provides context and navigable links among data and persists relationships between data and meta-data (like setup parameters, source data and the resulting data). These links are persisted in the same way as the base data, giving the users the ability to track all critical aspects related to the data and not just the results.

Multi-user capabilities are built in from the foundation. Changes to data are tracked at all times, even when disconnected. When it is time to store back to the server, nothing is lost – not ever – all of the history is maintained. If the server's version of the data have changed as well, conflict resolution is triggered, presenting the user with options for what should be viewed as the most current, while maintaining rather than overwriting all of the other versions in history. Nothing is ever lost.

ACID compliance is a term used with many database technologies. It is usually meant in context to a single data store, not an entire system. **SourceOne is ACID compliant at the system level.** What does this mean? It means that what you do on your possibly disconnected local machine is transacted (no data loss) and will be replicated back to the main server when a connection is restored. This includes all the associated correlated meta data, not just the result set.

FLEXIBLE AND FORWARD LOOKING

We are quickly expanding to more and more areas of mining data and data types. We are set to be will be the open data hub for the mine. **SourceOne's open platform and data hub guarantee that mines can use whatever technologies they choose on top of it, instead of waiting for the provider to offer that functionality themselves.**

WHAT DOES THIS MEAN FOR YOU?

The conversation has changed.

What the mining industry needed was not possible before, for many different reasons. Now it is not only possible, it is a reality.

It is no longer a question of if or when a solution will make it possible for you to centralize and access all of your mine's data. The question now is: When will you adopt it?

THROUGH PRODUCTS THAT REVOLUTIONIZE DATA CONNECTIVITY AND DATA MANAGEMENT, THEIR DECADES OF EXPERIENCE IN THE INDUSTRY AND FREEDOM FROM RESTRICTIVE LEGACY TECHNOLOGY, THE ECLIPSE TEAM IS UNIQUELY EQUIPPED TO BRING A MUCH-DEMANDED SEA OF CHANGE TO THE INDUSTRY.

A NEW STANDARD FOR MINING TECHNOLOGY