



# Building a Multidimensional View to Harness the Power of Your Data

DATA ELEVATES INTO ORGANIZATIONAL KNOWLEDGE, WHICH ELEVATES INTO DATA-BACKED DECISIONS AND IMPROVEMENTS ACROSS AN ORGANIZATION.

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Empowering decision-makers requires unfettered access to and complete comprehension of their organization's data. Yet, grappling with subpar data quality, trust deficits, compatibility issues, data silos, visibility gaps, and security concerns poses a formidable challenge for most organizations. A panoramic understanding of data is paramount, enabling organizations to discern trends, correlations, and outliers that might elude conventional scrutiny. This comprehensive perspective not only equips decision-makers to address current challenges but also positions them to proactively seize future opportunities.

## WHAT DO WE MEAN BY MULTIDIMENSIONAL VIEW?

Understanding the concepts of data ontology and knowledge graphs is important to better understand what a multidimensional view provides. In short, data ontology is the formal framework for giving data meaning and context, and the knowledge graph stores information in the form of entities (nodes) and their interrelationships (edges).

In the realm of business, one can visualize the power of knowledge graphs and data ontology to structure and analyze intricate relationships among diverse datasets. This type of multidimensional view not only reveals direct cause-and-effect relationships within the organization but also unravels complex relational information that takes into account various avenues of diverse data. This capability empowers decision-makers to make informed choices that yield tangible operational efficiencies.

If you want to explore these concepts more, we recommend our article, [“Data Ontology and Knowledge Graphs Have Incredible Potential for the Mining Industry.”](#)

## POWERFUL DECISION-MAKING

It is impossible to find these innovations simply by working with the management teams at each department of your operation, office locations, or corporate office. The opportunities for improvement and efficiency are hidden in complexity that is not visible to the individual.

With your data structured as multidimensional views, it is easier than ever to cross organizational boundaries and allows managers and decision-makers to see all the context of a situation. Data elevates into organizational knowledge, which elevates into data-backed decisions and improvements across an organization.

## IN THE MINING INDUSTRY

Data gathered from all the different aspects of a mine or mining fleet can be complicated. If an organization is not able to track or organize all this data, it risks being lost or quickly outdated. Fixing these modern operational challenges requires a data-driven approach; however, current data management tools and business intelligence are available only to some knowledge workers and analysts. These experts are often missing out on the historical data and insights that become inaccessible with current data management.

For example, decisions to optimize tons moved and equipment utilization targets in mine operations can affect the grade and quality of material sent to the process plant. This can cause the plant to miss production targets, which can have a severe impact on futures contracts and revenue.

Knowledge Graphs within a Data Ontology framework are effectively multidimensional views, which the mining industry can use to empower their staff with the ability to find inefficiencies and make improvements. Mine managers now have the information to understand how current targets and decisions made in mine operations can affect processing. This history allows questions to be answered about how reports were generated in the past and what data was used, and it allows for comparisons over time. By intervening with this new knowledge, mine managers can optimize production targets instead of just material movement and utilization targets.

## HOW TO BUILD A MULTIDIMENSIONAL VIEW OF YOUR DATA

SourceOne® EKPS is an enterprise knowledge performance system that is unlike anything on the market and the only Big Data solution backed by decades of experience in the mining industry. It provides a compelling user experience for data scientists, business decision-makers, and front-line employees. The system allows everyone to visualize their interactions and workflow by presenting the users with a multidimensional view of their operations, contextually relevant to their job function, derived directly from the data created by the source tools that manage the mines.

SourceOne functions like a machine that is always running, collecting data, refreshing views, and available for complex queries that require limited software or expertise to write. As deployment increases, the machine becomes a more knowledgeable system that can provide answers for now, in the past, and for the future. The ability to provide a holistic understanding of the interrelations between domains across any production value chain is a unique differentiator of SourceOne. It enables organizations to understand their decision networks and optimize these based on specific targets. It is a game changer for the mining industry.

## CONCLUSION

The future of mining belongs to those companies that are not averse to new technologies that help them achieve their objective. It is critical that the mining industry be able to access, store, and analyze its massive amounts of data. Companies and management teams who master their data and put it to work for their unique business purposes will have a first-to-market advantage over companies that wait. The capabilities that are available in the underlying technology for analytics and digital knowledge are a paradigm shift.

SourceOne EKPS is the only knowledge performance system on the market designed, tailored, and perfected for the data of the mining industry. SourceOne creates a multidimensional view of your mining company's data, both on the ground and on the corporate side. Business and operational questions that used to take months to answer with a technical team can be reduced to days or even hours.

Mine managers now have the information to understand how current targets and decisions made in mine operations can affect mine processing. By intervening with this new knowledge, mine managers can optimize production targets instead of just material movement and utilization targets.

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[SourceOne Enterprise Knowledge Performance System](#)

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**SourceOne® is an Enterprise Knowledge Performance System with intelligent integration that augments the data with context, history, and digital workflow automation to provide breakthrough insights and enable strategic decision-making in near real-time, driving value generation at all organizational levels.**