AssetWise

DATA-DRIVEN DECISION MAKING

Improve Asset Performance to Deliver Safe, Reliable, Compliant, and Cost-effective Service
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MAKING THE RIGHT DECISION

Data-driven decision-making is making decisions that are backed by hard, reliable, and trustworthy data. This method is in stark contrast to the way that decisions were made throughout the history of commercial and industrial enterprise where, before the presence of new and complex technologies, individuals made decisions based on observation, gut instinct, or informed guesswork alone.

However, even with new, complex technologies and the abundance of data that is generated from millions of devices, there is still the possibility that critical data is missing, remains hidden, or is incorrect.

So, how do you know that you have the correct information and that you are making the right decision at the right time?

This e-book looks at the challenges that asset-intensive and data-rich industries face in managing their data and critical information, how it affects making the right decisions at the right time, and how Bentley's AssetWise enables organizations to make more effective and timely decisions.
WHAT PREVENTS ORGANIZATIONS FROM MAKING DATA-DRIVEN DECISIONS?

While not a new concept, data-driven decision-making has become a trend due to the growth of generated data with the advent of the Industrial Internet of Things (IIoT). Big data was expected to make decision-making easier, but there are still many organizations that are struggling with performance optimization, maintenance, and reliability. Why are they not as competitive as they should be? Why aren’t they making the cost savings that big data promised?

One of the main reasons that organizations are not tapping into big data’s full potential is because they have not learned how to harness and leverage their data in a way that validates it as trustworthy. Additionally, they are not analyzing the data for the purpose of attaining operational excellence. Data-specific reasons that are often barriers to making confident decisions center around:

- **Availability** – data about your problem simply doesn’t exist
- **Accessibility** – data isn’t accessible or is hidden away
- **Relevancy** – data pertinent to the problem isn’t relatable
- **Reliability** – data can be trusted and is reliable
- **Processing** – data is in the correct format
- **Volume** – too much data to manage

BY NOT HAVING THE RIGHT AND NECESSARY DATA IN PLACE, MAKING THE CORRECT DECISION BECOMES IMPOSSIBLE:
**WHY DATA IS CRITICAL TO ASSET PERFORMANCE**

Everything now is data driven. Everything is monitored. Everything is connected. Data can shed light on all aspects across the industrial plant, the project, or the site. When the right data is in place after it has been collected, managed, analyzed, and shared, it provides critical information to decision makers, giving them:

**Goal Alignment**
Ensure that goals and targets are met by first identifying your goals and then asking what the data can do for you to achieve it. Build a strategy around the data. This practice will save time in the long run because you are only using the data that is related to your goals.

**Confidence**
Eliminate guess work and estimates by ensuring that you make the right decisions with the knowledge that they were made with facts, straight from your trusted information sources. It not only makes decision-making easier, but faster.

**Insights**
Dive deep into your data and uncover patterns and events that would have otherwise remained undiscovered. With the addition of machine learning and artificial intelligence, gain more insight into future predictions and forecasts.

**Real-time Information**
With a constant source of real-time or near real-time data, you will always be up-to-date with asset performance across all aspects of the organization. There is no need for late reports or unscheduled events with real-time information at all times.

**Situational Awareness**
Personnel who make data-driven decisions know what is happening and how to prepare; what’s working, what’s not; how their assets are performing; and how reliable their equipment is. They can see the effects of their decisions both in the past and in the present.

**Contextual Visibility**
With trusted information, you can bring your data to life. It doesn’t just apply to operations and maintenance data, but also to design and engineering data, from 2D process diagrams to complex 3D/4D models and reality meshes within digital twins.
ADVANCING DIGITALIZATION

With data continuing to grow at exponential rates, accelerating your digitalization strategy is key in moving forward and remaining competitive. Make trusted data-driven decisions with confidence. With AssetWise, you can:

✓ Capture all asset information sources
✓ Improve data quality from CapEx to OpEx
✓ Ensure operational readiness and superior asset performance
✓ Lower operational costs
✓ Make information easier to find
✓ Ensure information is up to date
✓ Interpret, manage, and analyze data from one central source
✓ Improve the way information is presented
✓ Provide intelligent insights

AssetWise and the digital twin solutions focus on asset information management, reliability, and analytics, within a connected data environment. The foundation of the digital twin.
WHY ASSETWISE

Digital twins
Create an immersive 4D experience to continuously synchronize and update the operational digital twin for accurate and trusted information when and where you need it.

Data-driven decision-making
Connect the thousands of interrelated assets that make up your facility, plant, or network, and gain better insights into asset performance to make timely and better data-driven business decisions.

Maximum flexibility in a connected data environment
Interoperability is the cornerstone of Bentley’s technology and the key to your successful asset information management solution. Minimize the need for customized ERP/EAM/CMMS and GIS integrations and accelerate integration projects for faster return on investment, accessibility, and scalability.

The only solution to solve your critical issues
Across all asset intensive industries, there are common critical issues that prevent them from achieving their goals of excellence in asset performance across operations and maintenance.

Increase asset availability and extend operable life
Increase asset reliability and information management and improve operational performance by achieving a proactive approach to asset maintenance and inspections across the whole asset lifecycle.

AssetWise unlocks your data potential
As data continues to grow, create, collect, manage, and control it more efficiently across an open, connected data environment.

Situational awareness
Utilizing our state-of-the-art software, we empower decision makers to make the most out of their data, workforce, and automations, enabling them to have confidence to see the effects of their past, present, and future decisions.

Oman Gas sees 9% in reliability improvement
Suncor Energy saved CAD$ 12 million for full ROI in six years
Cairn digitalized flow assurance and well integrity
Volgogradnefteproekt reduced annual operations cost by 30%
EPCOR achieved 15% improvement in system reliability
DISCOVER POWERFUL DECISION SUPPORT

Realize the Benefits of AssetWise CONNECT Edition

Asset-intensive industries face risks that can collectively affect the safety of workers, the public, and the environment. Unplanned downtime or outages can result in lost revenue and unsatisfactory customer service. Ensure that your **ASSETS ARE SAFE, RELIABLE, AND EFFICIENT OVER THEIR OPERATING LIFE** by developing and continuously improving reliability programs that minimize future failures and high maintenance costs.

If one of your top priorities is to improve **OPERATIONAL PERFORMANCE**, then asset performance is a key strategic objective. Poor performing assets result in lost revenue, while failing to spot and act upon poor performance affects the bottom line. Superior asset performance delivers financial benefits, reduces operational risk, and improves safety and reliability.

**REGULATORY COMPLIANCE** can be a slow and labor-intensive process that can be onerous, disruptive, and prone to error. AssetWise delivers the information that you need to ensure and to prove operational and regulatory compliance. AssetWise provides support throughout the lifecycle to certify that assets comply with government, industry, environmental, and corporate regulations.
ASSETWISE SUBSCRIPTION SERVICES

**ASSET LIFECYCLE INFORMATION MANAGEMENT (ALIM)**
Trusted information, when and where it’s needed
Manage asset information and control change throughout the lifecycle. Ensure overall accessibility, quality, integrity, and relevance of asset data, and do so in context. Ensure accessibility of accurate engineering data so you can make fast and reliable decisions.

**ASSET RELIABILITY**
Increase asset availability and reduce maintenance costs
Manage and continuously improve reliability and integrity management strategies. Consolidate and analyze IoT and condition data to gain visibility to overall asset health and make faster and more accurate maintenance decisions to optimize asset performance and extend asset life.

**IMMERSIVE ASSET SERVICES**
Visibility to your asset data like never before
Combine reality modeling with our engineering specifications and data, asset tags, historical information, and current performance data. It creates an immersive 3D and 4D experience to gain a deeper understanding of your infrastructure assets.

**4D ANALYTICS**
Gain insights and situational intelligence to make better decisions
Gain predictive insights with machine learning to spot hidden patterns and future trends. Converge operational and IT data with IoT for right-time predictions and informed actions. Bring your data to life and gain visibility and deeper insights across the asset base on production, condition, and usage.

**LINEAR ANALYTICS**
Visualize, understand, and make better decisions on linear networks
Overcome data errors due to wrong location, poor calibration, and environmental issues. Assess data from many observed sources and align it to location and time on a linear network. Identify trends and anomalies within rail or road networks and get instant access to all data at any location on any network.
ADVANCING ASSET PERFORMANCE

A single comprehensive asset performance solution built on an open platform, AssetWise CONNECT Edition makes it easier for you to accelerate your digital advancement. Phase deployments by selecting a process or discipline to digitize and realize the benefits and return on investment. Then, deploy additional services as needed, such as digital twin capabilities, ensuring functionality to support your business goals and budgetary requirements.

AssetWise strengthens your business processes and drives asset performance to help you achieve a greater return on asset investments. AssetWise can be deployed on your servers, through cloud services, or through a hybrid combination based on secure Microsoft Azure technology. AssetWise can also be delivered via managed services with solution experts to help develop success plans that best fit your business and solve your business challenges.

About Bentley Systems

Bentley Systems is a leading global provider of software solutions to engineers, architects, geospatial professionals, constructors, and owner-operators for the design, construction, and operations of infrastructure. Bentley's MicroStation-based engineering and BIM applications, and its digital twin cloud services, advance the project delivery (ProjectWise) and the asset performance (AssetWise) of transportation and other public works, utilities, industrial and resources plants, and commercial and institutional facilities.

Bentley Systems employs more than 3,600 colleagues and generates annual revenues of more than $700 million in 172 countries. From inception in 1984, the company has remained majority-owned by its five founding Bentley brothers. www.bentley.com