From Reactive to Proactive

with AssetWise® 4D Analytics for the Water Utilities

Bentley®

Water Utilities Continually Face Tough Challenges

Population growth and climate change are placing growing pressure on the water sector to address challenges such as water scarcity and environmental quality while improving the resilience of systems and services to customers.

- Data Volume and Visibility
- Aging Infrastructure
- Increasing Costs
- Environmental Impact
- Regulations
- Customer Demand
- Water Delivery Optimization
- Reducing Carbon Output

The Only Water Solution You Need

For many years, Bentley have provided solutions for water and wastewater utilities, helping our clients improve network performance and make more effective and information-led business decisions.

- Energy Monitoring and Best Performance
- Asset Performance and Integrity
- Operational Digital Twins
- Process Optimization
- Water Quality
- Chemical Management
- Environmental and Emissions Control
- Alarm and Alert Management
- Integrity Operating Window
- Corporate KPIs and Compliance
- Demand and Weather Forecasting
- Hydraulic Modeling and Simulation
- TOTEX Common Data Environment
- Reality Modeling

Introducing AssetWise 4D Analytics

One Source for Plant Asset Performance

AssetWise 4D Analytics was designed for water utilities' data-intense environments. It provides a consolidated view of asset performance data, providing a single source of truth to help you make decisions faster and with confidence, enabling you to focus on where to make changes that will result in the biggest gain.

AssetWise 4D Analytics provides rapid data driven-insights and advanced analytical capabilities to improve asset and process performance, reduce costs, and facilitate mission-critical decision-making at the right time.

Use Case Examples

AssetWise 4D Analytics was designed with the water utilities industry in mind to help make your job easier.

Reduce Process Alarms

- Optimization / instrumentation validation / calibration
- Validation of hidden failure inspections

Reliable Water Quality

- Repeatable and reproduceable quality monitoring
- Trend analysis over historical data
- Correlation with other measurement parameters

Cost Efficient Chemical Management

- Dosage calculation
- Optimization and production assurance
- Process optimization and compliance
- Reduction of risk
- Environmental monitoring

Analysis, Trending & Forecasting

- Water consumption forecasting vs. weather
- Waste leakage vs. weather vs. consumption

Improved Energy Efficiencies

- Load shedding
- Equipment reliability and performance
- Detailed monitoring and IIOT capabilities

User Examples

Decreased Pollution Incidents by 50%

Mitigate potential pollution events

Unable to cope with significant increases in alarms or differentiate easily between water level rises due to rainfall or rises caused by blockages or other problems, this user required AssetWise 4D Analytics to help identify prioritized alarms and mitigate potential pollution events. By using rain and trend analysis, they were able to optimize maintenance and lower call outs by reducing false alarms. As a result, they increased response times significantly, leading to a 50% decrease in pollution incidents.

OFWAT Top Performer

Asset performance management

This user discovered their previous method of asset monitoring had many gaps, leading to a severe lack in asset visibility and shortfalls across the business. They introduced a complete, centralized asset performance system with AssetWise 4D Analytics. Their new system lowered chemical dosage levels, improved energy management, avoided high energy tariffs, and enabled them to identify asset failures ahead of time. During the first year in use, total operation savings amounted to over GBP 48M, and the user became OFWAT's top performer.

Operational Transformation

Real-time data analysis

This user was unable to visualize overall performance of their water network due to the time needed for analytical calculation of large data sets. Compounding the problem, analysis could only be performed by trained IT personnel. With AssetWise 4D Analytics, they were able to connect all of their information sources in one system and view performance in real-time via dashboards without the need of IT, allowing them to react faster and be more proactive with any situation that may arise across multiple plants.

Saved AUD 3M in the first year

Demand forecasting and energy management

One user was looking for smarter ways to manage their highly flexible yet complex network to optimize water usage. Using AssetWise 4D Analytics as the central platform, they implemented a suite of decision support tools for demand forecasting, distribution optimization, network operations, network status displays, and energy management. The award-winning solution optimized their operations and saved them over AUD 3 million in its first year.

About AssetWise 4D Analytics

Your success goes beyond software. It is also dependent on doing business the way that best serves your organization. That is why we have a variety of subscription and license options as well as 24/7/365 support to ensure you are up and running quickly and continuously.

Tell Me More ›

Contact Us at WATERUK@BENTLEY.COM

About Bentley Systems

Bentley Systems (Nasdaq: BSY) is the infrastructure engineering software company. We provide innovative software to advance the world's infrastructure – sustaining both the global economy and environment. Our industry-leading software solutions are used by professionals, and organizations of every size, for the design, construction, and operations of roads and bridges, rail and transit, water and wastewater, public works and utilities, buildings and campuses, and industrial facilities. Our offerings include *MicroStation*-based applications for modeling and simulation, *ProjectWise*® for project delivery, *AssetWise* for asset and network performance, and the *iTwin*® platform for infrastructure digital twins. Bentley Systems employs more than 4,000 colleagues and generates annual revenues of more than $800 million, in 172 countries. www.bentley.com

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