

Bentley[®]
Advancing Infrastructure

CONNECT Edition



AssetWise[®] 4D Analytics CONNECT Edition

Real-time Insights and Advanced Analytical Capabilities

AssetWise 4D Analytics helps you run your operation smoothly with context and confidence. The application's user-driven operational intelligence platform provides rapid data driven-insights and advanced analytical capabilities to improve asset performance, reduce costs, and facilitate mission-critical decision-making at the right time.

AssetWise Leads the Digital Revolution

AssetWise is at the forefront of digitalization. Data is fast becoming the number one asset of any organization. With accessible, accurate data, you can improve business processes and asset performance, reducing unnecessary costs and resource hours. AssetWise provides you with the ability to access the information you need to fully understand the performance of your business, operations, or assets. However, data cannot provide insights if it is not properly analyzed and managed.

Too often, large amounts of critical data becomes unused, unnoticed, or lost. You need a solution that consistently brings critical data to the forefront. AssetWise 4D Analytics collects multiple data types from multiple data sources, performs in-depth analysis, and brings data to life with interactive visualizations. The solution allows all people in your organization to access hidden data with context and produce insightful reports. You can improve your operational decisions using data mining, aggregation, and calculation tools for timely information output and automated actions to deliver dynamic asset performance management.

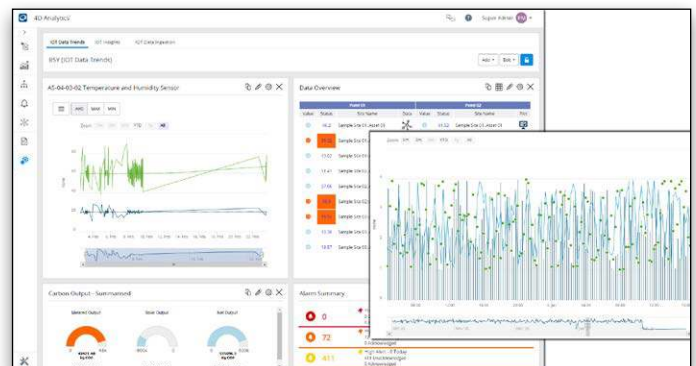
Incorporate into a Digital Twin Environment

With AssetWise iTwin[®] Immersive Asset Service, your data is visualized in an immersive context either within existing 3D models of your assets or within a reality mesh that can be created from high-resolution photographs via Bentley's ContextCapture software, which can be used within applications such as PlantSight. By clicking on an object, you can display 4D analytics data and relevant performance information directly within a digital twin. Alternately, you can display models within the dashboards. AssetWise makes engineering information readily available, comprehensible, and instantly accessible to a wider population. With the application's advanced analytics capabilities, your high-volume engineering information becomes more valuable, even when gathered from a variety of sources such as the Internet of Things.

More than an Analytics Tool

AssetWise 4D Analytics allows you to monitor, diagnose, manage, and optimize all aspects of your operation. You can report events and track behaviors in real time, granting instant insights into performance. AssetWise 4D Analytics can diagnose and identify problems, allowing you to take immediate action. Optimization improves visibility and decision-making through the convergence of information technology (IT) and operational technology (OT) with foundational engineering technology (ET) to prescribe and automate actions. AssetWise 4D Analytics helps you move seamlessly from reactive to proactive, and from asking what happened to determining what will happen. The application's flexibility makes it the complete solution for analytics, KPI calculations, and predictions. You can easily configure dashboards without the need for IT support, and asset data can be quickly shared across your organization. You can view and compare information on the component level, across a region, or globally.

AssetWise 4D Analytics can access data sources such as Azure IOT, OSIsoft Pi, Oracle, OPC servers, databases, and SCADA systems. AssetWise 4D Analytics can leverage data directly using an embedded data collection and IOT data ingestion service. A template-based approach provides easy implementation and rapid deployment through replication and synchronization that allows you to build and manage large systems through user-specified or industry-specific templates.



Create KPI reports to display different sources of IIoT data and check on performance status in a number of different ways.

System Requirements

Supported Browsers

Chrome, Firefox, Edge

Client or Cloud Hosted

Recommended Environment

Open JDK

Recommended Web Service

Apache Tomcat 9

Require/Supported

Database Environments

SQL Server 2016 and 2019, and supports SQL in Azure

Find out about Bentley at: www.bentley.com

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AssetWise 4D Analytics At-A-Glance

Digital Twin

- View data within a digital twin or 3D models within dashboards
- Add context within an immersive environment

IoT Data Ingestion Service

- Connect to databases and IoT sensors
- Integrate with any industry-standard interface
- Incorporate structured and unstructured data
- Web-based and manual input forms
- Upload data with mobile devices while in the field
- Ingests millions of readings per day

Digital Twin Object Explorer

- Represent asset hierarchy within a digital twin and organization
- Add and maintain measurement points, calculations, logic, and analytics
- Drill down to any measurement or calculation to view performance
- Drag and drop different points from a hierarchy for "slice and dice" data analysis
- Save and store individual user-defined selections for reuse or sharing
- User-driven analytical tools and ad-hoc analysis
- Add, filter, and view any type of metadata against any object via Attributes feature

Templates and Replication for Scalability

- Build and grow complex systems based on similar structures, including pre-built calculations and KPIs
- Instantly replicate and synchronize changes made to a template across all instances
- Scalable for expanding systems
- Rapid, auditable, and automatic deployment

Calculation and Analytics Engine

- Analysis, alarm, and event creation as well as trending across large data sets
- KPIs based on any measurement or analytical points in the system
- User-defined predictive calculations facilitates proactive behavior
- Deterministic rules engine with Boolean logic for predicting conditions and events
- Perform millions of calculations daily

Interactive Customizable Data Visualization

- Use dashboards to communicate across the whole organization
- Extensive widget library for visualization including tables, mimics, maps, graphs, gauges, and more
- Engineering tools for in-depth analysis
- Visualization tools to identify events at a glance and in real time
- Create user-driven operational and management dashboards within minutes
- Multilayered dashboard navigation

Alarm Management

- Intelligent alarm analysis
- Alarm forwarding and notification to the right person at the right time
- Predict trends, patterns, and common causes of alarms
- Alarm management includes user acknowledgment, action, and clearance
- Filter with rules, directives, and business logic
- Define optimal operating windows

Interactive Operational and Performance Reporting

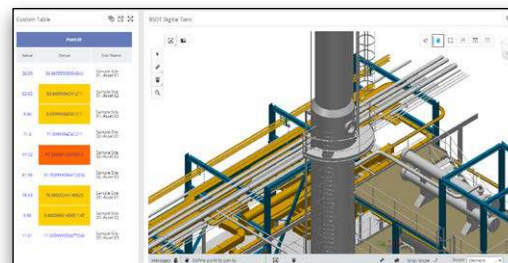
- Ad-hoc reporting based on KPIs, processes, or assets
- Create snapshots of performance or operational efficiency
- Exception and diagnostic reporting to identify issues and causes
- Self-service access to query, analyze, and share information

Online Security

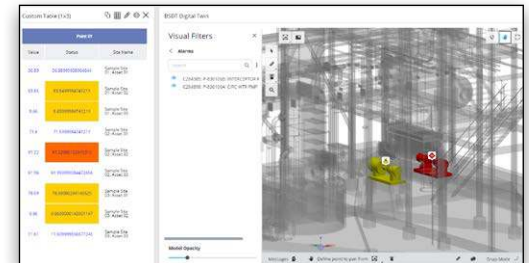
- Role-based and feature access control
- Data can be viewed across many organizations mapped to operations
- Single sign-on capability
- Continuously scanned secure application and release process

Bentley Interoperability

- Message bus technology for publishing and subscriptions
- Synchronize objects across AssetWise services
- Embedded intelligence and visualization services within other AssetWise capabilities



View models and their operational information with geospatial context within the dashboard.



Pinpoint alarms directly from within PlantSight to highlight problem areas quicker.