

AssetWise® 4D Analytics

Chemical Management to Maintain Production and Reduce Costs

AssetWise 4D Analytics, part of the AssetWise Digital Twin Services solution, significantly reduces chemical costs so that you can become more efficient, productive, and cost-effective in your project work. With AssetWise 4D Analytics you can monitor, manage, and control the application of chemicals.

The CONNECT Edition

The SELECT® CONNECT Edition includes SELECT CONNECT services, new Azure-based services that provide comprehensive learning, mobility, and collaboration benefits to every Bentley application subscriber. Adaptive Learning Services helps you master use of Bentley applications through CONNECT Advisor, a new in-application service that provides contextual and personalized learning. Personal Mobility Services provides unlimited access to Bentley apps, ensuring you have access to the right project information when and where you need it. ProjectWise® Connection Services allow you to securely share application and project information, to manage and resolve issues, and to create, send, and receive transmittals, submittals, and RFIs.

Optimize Chemical Usage

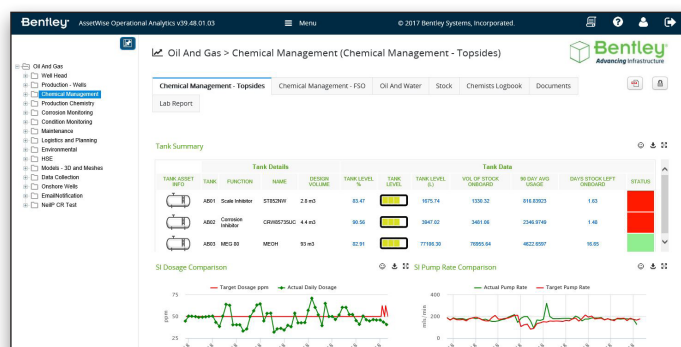
The oil and gas industry spends USD billions a year on chemicals across their operations. As a result, most oil companies are looking for ways to reduce this spending. Bentley's AssetWise 4D Analytics chemical management solution helps control expenses by assuring you are applying the right chemicals at the right rate to deliver optimal and continuous operating performance.

A Connected Data Environment

One of the main challenges of effective chemical management is connecting all relevant data and information sources together to make timely and accurate decisions. Even in a digitally connected world, many processes are still manual and isolated, and collating and analyzing data wastes time. By the time reports are produced, the information is already out of date.

This inefficiency can result from data that is manually entered, stored in multiple or remote locations, in different formats, or simply hard to access. AssetWise 4D Analytics is backed by a connected data environment with interoperability at the core of Bentley's technology.

AssetWise seamlessly integrates systems and processes that gather the information you need into the 4D Analytics platform. The data is consolidated and analyzed into actionable information that can be configured and viewed within dashboards easily tailored to your specific needs.



Monitor all aspects of chemical management, from pumps, injection rates, and tank levels to costs and environmental compliance.

Templating and Replication for Speedier Implementation and Expansion

As the volume of data increases and new assets are brought into operation, it is important to quickly bring assets online. With AssetWise 4D Analytics, you can create templates of commonly used systems and structures so that new additions to the registry can be uploaded immediately. The software allows you to make changes across multiple sites or assets and easily replicate them across all required points by simply adjusting the template for a specific instance.

Automating Processes

As an oil and gas producer, you depend on a single source of truth. AssetWise 4D Analytics provides you with a single point of entry to view all operational and asset information in one environment. The application autonomously manages this information for all engineering disciplines – chemical, corrosion, integrity, erosion, production, environmental, lab analysis, and more – so that once the initial configuration is complete, all subsequent data is automatically delivered and displayed within the dashboards. This makes scalability and new data entry a continuous and pervasive process.

Key Benefits

- Reduce chemical spend (typically between 10% - 20%)
- Increase availability (typically by 1% – 2%)
- Increase or protect production rates
- Improve production performance and effectively manage your wells
- Improve reporting and decision-making
- Benchmark well and vendor performance
- Improve data integration and process automation

System Requirements

Hosted

Supported Browsers

Firefox, Internet Explorer 11, Edge

Client Hosted

Recommended Environment

Java 8

Recommended Web Service

Apache Tomcat 8.5

Recommended Server

SQL Server 2016 and Azure SQL

Find out about Bentley at: www.bentley.com

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AssetWise 4D Analytics At-A-Glance

Plan and Predict Chemical Usage

- Understand production costs per barrel, per cubic meter, per hour, day, week, month, quarter, or year
- Predict usage costs and variance against targets
- Benchmark across the organization and vendors
- Determine optimum dosage rates
- Predict scale management based on water quality

Comprehensive Corrosion Monitoring and Control

- Analysis of corrosion probe data
- Analysis of acoustic and metal loss
- Calculations to predict corrosion rates

Environmental Emissions and Discharge

- Calculate emission levels and automatic reporting
- Determine discharge and alarms on variance against compliance

Summaries of Production

- All fluids, including wells, high-pressure and low-pressure separators, initial water saturation, and more

Data Collection Framework

- Data input from SCADA, DCS, Excel, email, web forms, instrumentation, and manual entry
- Create a master data set that separates systems and removes data silos
- Integrate with any industry standard interface using custom data connectors
- Web-based and manual input forms

Controlled Access

- Separate access for clients and vendors
- Manage ownership and reporting among third parties

Customized Calculations

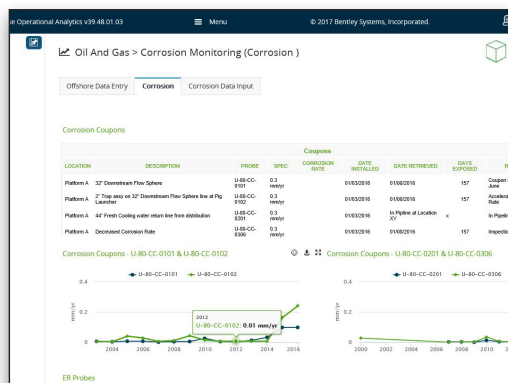
- Customized calculations, Boolean logic, and nested calculations
- Calculations can be configured for corrosion, scale, hydrates, and emulsions, and then be operation-tracked for compliance
- Create KPIs based on any points in the system
- Advanced alarm management and notifications
- Intelligent filtering to focus on critical alarms
- Alarm forwarding and notification to the right person at the right time for proactive action
- Predict trends, patterns, and common causes of alarm faults

Interactive Customizable Digital Dashboards

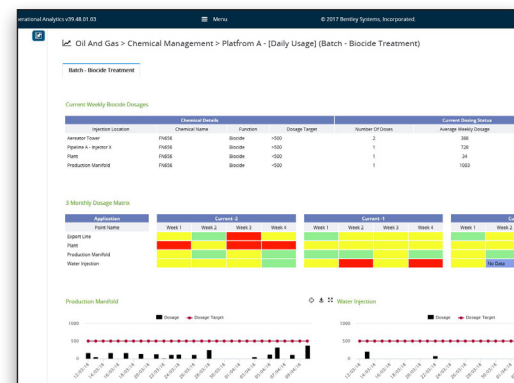
- Communicate across the whole organization more effectively
- Aid visualization with an extensive widget library that includes tables, mimics, maps, graphs, gauges, and more
- Visualization capabilities help identify events at a glance in real time
- Create easy-to-configure, user-driven dashboards in minutes

Automated Reporting

- Automatic reporting and scheduling
- Connect to third-party reporting capabilities, if required
- Save up to 50 percent in labor costs



Track and analyze corrosion rates.



View current and historical chemical dosage rates.