

Bentley®
Advancing Infrastructure

 CONNECT Edition



AssetWise®

Linear Network Management

AssetWise provides linear network management, linear referencing, and decision support capabilities to manage transportation network infrastructure and all associated information including assets and linear events. The linear network management delivers spatially enabled network editing and dynamic segmentation capabilities that allow owner-operators to address the complex and diverse needs of asset lifecycle management in a linear business environment. AssetWise provides a single source of truth for all network and associated information in a linear, spatial, and data-driven approach.

Address Complex Road Network Management Requirements

AssetWise provides network management capabilities to manage network centerlines and linear offsets while tracking the lifecycle of changes made with revision history. You can create and update the network spatially to reflect the ongoing changes that occur during construction, improvement, and maintenance.

AssetWise offers a business data-driven approach rather than depending on traditional geospatial information system (GIS) spatial geometries to drive the business. It helps maintain an accurate enterprise network model against which all associated network information across the entire enterprise is located, reported on, and displayed. AssetWise supports the critical business functions of the entire organization and delivers relevant data when and where it is needed.

Spatially Enabled Asset Information

The scalable, open technology offered through AssetWise allows for instant-on web deployment. Its single database includes spatial and logical data – with embedded spatial capabilities – in an integrated environment, offering easier deployment for users initially and for ongoing software enhancements. This network-based approach allows you to locate and manage information through a single process while ensuring that both business and spatial data remain consistent. With AssetWise, you can save on deployment costs and internal hardware resources, and optimize data management resources.

Optimized Approach to Network Management

AssetWise automatically maintains location information as network changes occur and provides a single integrated approach to network and location management. It offers a single point of data entry so that users are not required to update multiple data types independently. Changes made to the network automatically update any associated asset or event location information. This approach ensures that all associated network location information remains consistent through the lifecycle of the road.

Multiple Linear Referencing Methods

AssetWise offers multiple linear referencing methods that support different network types and multiple linear referencing methodologies. This is supported through a flexible and configurable data model approach. You can create conceptual networks (roadways, bus lanes, paths) with many physical representations (street name, route number, jurisdiction, scale) and then apply the same business data to the network simply by locating data once. There is no need to enter multiple locations against a feature to ensure it gets reported on each referencing methodology.

Complete Historical Record

AssetWise provides the ability to query and analyze all historical information. The date-stamping approach used within AssetWise allows you to view the network and related assets based on any date. A complete historical record of the network and assets is maintained in the database, facilitating time-related studies, and the input of field data months after it is collected. This allows users to analyze performance trends of assets and networks over a period of time to improve decision-making.

Streamline the Entire Data Analysis and Reporting Process

Eliminate the mountain of custom developed code previously required to consolidate and analyze transportation data for regulatory reporting requirements. AssetWise reduces the time and effort required to extract, assemble, and analyze data to prepare for and meet legislative or mandated reporting submissions (including HPMS, HDM4, or other regulatory reporting requirements around the world). The software allows you to perform complex analysis and spatial reporting without having to rely on GIS or IT resources to collect, consolidate, and analyze the extent, condition, performance, and operating characteristics of the roadway or highway. Data analysts can produce extracts unaided and use the product as a productivity tool to perform many of the most difficult linear referencing tasks easily and quickly.

Simplified Integration

AssetWise is designed to integrate with GIS for the direct spatial query and map display of assets, activities, and events associated with the network through multiple LRMs. However, you can use AssetWise with or without a separate GIS. The AssetWise database supports dynamic segmentation to determine location on linear features from tables of features containing measurements.

Benefits of AssetWise hosted via managed services

Key reasons why transportation agencies choose AssetWise offered through Bentley managed services

- Quick start-up
- Industry standard methodology common to all stakeholders reduces risk
- Streamlined and standardized processes across offices
- Remote access for submitters and reviewers reduces cost, improves availability, and ensures compliance
- Single services provide accountability
- Ensures the most up-to-date version of software

Find out about Bentley at: www.bentley.com

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AssetWise CONNECT Edition At-A-Glance

Network Management

- Fully flexible network data model
- Dynamic data validation
- Multiple network types
- Multiple linear referencing methods
- Full network editing functionality
- Network hierarchy
- Full network history

Network Modeling

- View multiple network types
- Sub-classify network types
- View flexible network attribution by network type
- Assign elements to network groups automatically
- Convert units of measure dynamically
- Create temporary network extents or regions of interest

Network Grouping Hierarchy

- Categorize multilevel network groupings
- Classify linear network groupings, such as routes
- Classify nonlinear groupings, such as administrative boundary areas
- Categorize partial linear network groupings
- View flexible attribution on network groupings

Multiple Linear Referencing Methods

- Underpin datum
- Manage network cardinality
- Handle points of equation
- Manage distance breaks for discontinuous routes
- Reference
 - » Routes and offset
 - » Route mile posts
 - » Route mile

Dynamic Data Validation

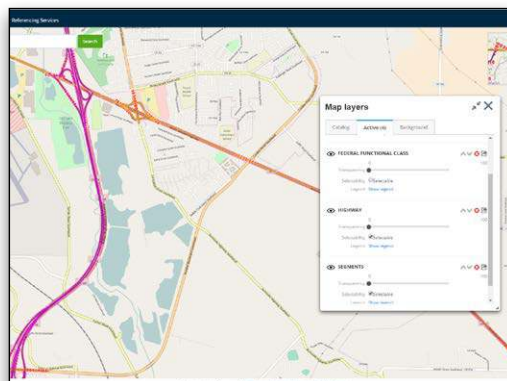
- Attribute value
- Cross attribute value
- Linear location

Network Elements Editing

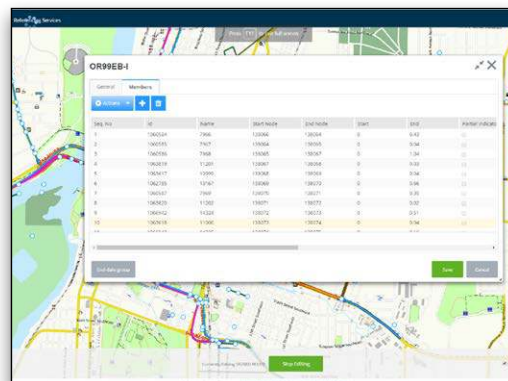
- Create
- Split and unsplit
- Merge and unmerge
- Replace and undo
- Close and unclosed
- Recalibrate
- Reclassify

Network History

- Retain full temporal history
- View network and associated information at any point in the past



Visualize network located data from different sources.



Define multiple network types in a single environment.