



Bentley Transportation Intelligence Gateway

Streamlined Analysis and Reporting of Transportation Asset Information

Bentley Transportation Intelligence Gateway improves your ability to analyze asset information. It significantly reduces preparation time for governmental submissions including the U.S. Highway Performance Monitoring System (HPMS) submission, the World Bank's Highway Development and Management Model (HDM4) submission, and other transportation-based information requirements. You can access any linear-referenced transaction data set, perform any standard or custom aggregate and analytic function, generate extract data, and spatially enable the results for display on a map. Bentley Transportation Intelligence Gateway easily supports changing user reporting requirements without the need for custom programming or programming resources.

Maximized Use of Transportation Asset Information

The majority of transportation asset data is collected, stored, managed, and reported using several types of location reference methods such as route/mile point, spatial coordinates and fixed object/offset. There are plenty of business intelligence applications on the market that can assemble, aggregate, and analyze data, but most of these commercially available applications are not designed to natively work with linearly referenced data. Bentley Transportation Intelligence Gateway was initially created to support transportation specific requirements for MAP-21, HPMS, and HDM4 using a configurable approach. With this configurability, its power to provide support in day-to-day business functions was soon realized. The product helps you turn your AssetWise® implementation into a transportation business intelligence mechanism.

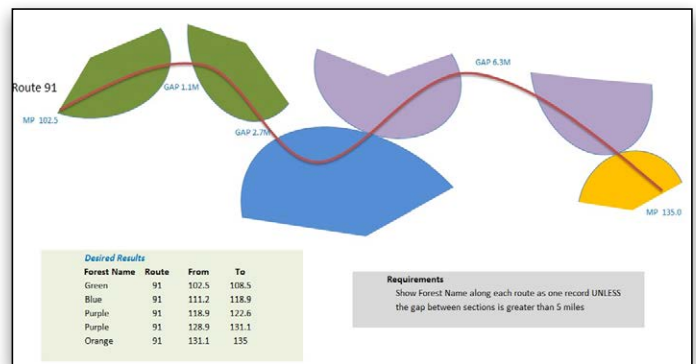
Streamlines the Entire Data Analysis Process

Bentley Transportation Intelligence Gateway enables AssetWise users to dispose of the mountain of custom-developed code that was previously required to analyze transportation data. Users that had to rely on scarce GIS or IT resources, now have the ability to deliver transportation intelligence to their respective clients using a simple user interface.

The Bentley Transportation Intelligence Gateway enables users to lower the cost of extract and report development by eliminating the need for custom development, speed the delivery process by avoiding the need to engage with the IT development team or being reliant on the GIS team for spatial display, and extend the reach of decision support systems by connecting to any database system visible to Oracle. Because it is easy to use, it is ideal for data analysts and programmers. Data analysts can produce extracts unaided and programmers can use the product as a productivity mechanism that performs many of the most difficult linear referencing tasks easily and quickly.

Complex or Simple Data Analysis

Bentley Transportation Intelligence Gateway supports simple and complex reporting. For the simplest extract requirements, it can be used to extract asset or group attribute



Configurable rules can be defined to summarize and roll up data.

values and then spatially enable the results to be displayed on a map. For more complex requirements the user can perform aggregate functions such as MIN, MAX, SUM, COUNT, AVERAGE, analytic functions such as Length Weighted Average and Most Common Value, include custom formulas and Fixed Text output, and save results sets and link them back into the process. Bentley Transportation Intelligence Gateway produces results that can be viewed on a map for export into an Esri shape file, or accessed directly via a table through the user interface. Data can be exported into CSV format, which is readable by Excel and Access, and directly connected to external applications using open database connectivity.

Highway Performance Monitoring System

US DOTs have used Bentley Transportation Intelligence Gateway to satisfy their mandated Federal Highway Administration (FHWA) reporting requirements for the Highway Performance Monitoring System. HPMS is a complex requirement that involves dynamic segmentation of the road network and reporting against numerous data sets, which are typically managed across multiple solutions. The capabilities enable you to continue managing your data in the most efficient manner to support your business. The configurability allows you to respond more effectively to changes by the FHWA without costly vendor engagements or data remodeling exercises. Bentley Transportation Intelligence Gateway helps you reduce your effort and time to extract, assemble, and analyze data when preparing your HPMS extracts for submission.

MAP-21

The cornerstone of MAP-21's highway program transformation is the transition to a performance- and outcome-based program. State governments are investing resources in projects to achieve individual targets that will progress toward national goals. Bentley Transportation Intelligence Gateway helps AssetWise users meet the demands of this new federal program by enabling the easy assembly and reporting of asset and network performance measurements.

“Bentley Transportation Intelligence Gateway is a robust data extraction tool that turned our Bentley asset management system into a transportation business intelligence tool.”

- Heather King, Oregon DOT

Find out about Bentley at: www.bentley.com

Contact Bentley
1-800-BENTLEY (1-800-236-8539)
Outside the US +1 610-458-5000

Global Office Listings
www.bentley.com/contact

HDM4

Bentley Transportation Intelligence Gateway has been used to create HDM4 submissions. The application supports Homogenous Program Analysis section creation, can be configured to automate the consolidation process and can automatically combine adjoining sections by including rules.

Rules criteria include evaluating the length of a section, comparing current row values to previous row values, or combining a series of evaluation criteria. For manual section consolidation, the product provides the ability to save extract output to Excel or Access.

Bentley Transportation Intelligence Gateway At-A-Glance

Bentley Transportation Intelligence Gateway Value Proposition

Reach

- Connect to any data set that has LRS data
- Connect to any data set that has XY data
- Connect to any data set that has attributes that relate to assets.

Lower Cost

- Faster to produce
- No programming required
- Extracts are produced internally to your group

Upgrade Protection

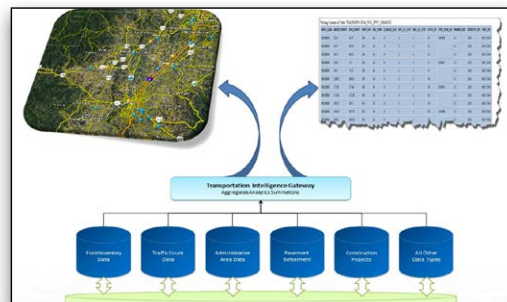
- No re-programming through upgrades
- Protects customization investment
- Focus on business, not technology

Optimized

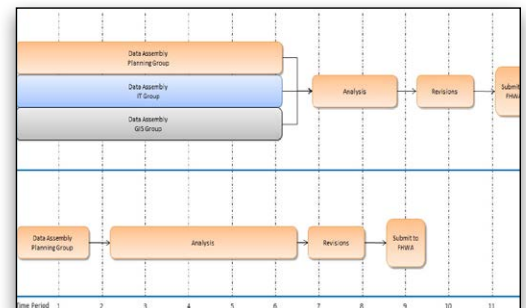
- Extract/query definitions are based on optimized templates
- Templates can change over time to take advantage of SQL advances
- Words you should not care about (TIG takes care of):
 - Subquery Factoring
 - Explain Plans
 - Inner Join/Outer Join
 - CBO (Cost-based Optimization)
 - Hash, Range, Bitmap Indexing
 - Semantic Analysis

Flexible

- Easy UI
- Accommodate data model changes
- Produces schedulable procedure and reusable views



Multiple data sources can be aggregated and summarized to both tabular and spatial extract tables.



Reduced effort for data assembly and reliance on external groups substantially reduces overall timelines.