

# Bentley Integrates Optram Railway Corridor Infrastructure Management with PeopleSoft Using Oracle Service Oriented Architecture



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## Industry

Public Sector  
  
Transportation

## Oracle Products

Oracle PeopleSoft  
Oracle BPEL Process Manager

"The railway corridor represents what I call a 'pinch-point' – the critical portion of a Railway where a single point of failure has a dramatic impact on safety, reliability, and profitability. Our customers require an integrated, financially prioritized proactive corridor maintenance system to manage the challenge of the "pinch point" in a green era where increased traffic demands must pass through inflexible corridors. Leveraging Oracle's Service Oriented Architecture technology Bentley has been able to deliver a secure and integrated system by integrating Bentley's Optram with Oracle PeopleSoft ERP/ALM systems."

**Ted Selig - Director  
Bentley Operations  
Solutions**

*Bentley leads the most comprehensive and integrated enterprise solutions for world's railway corridor infrastructure management.*

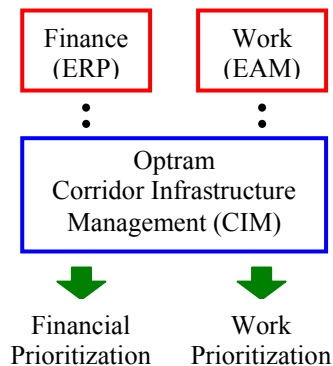
## Partner Overview

Bentley Systems, Inc. provides software for the lifecycle of the world's infrastructure. The company's comprehensive portfolio for the building, plant, civil, and geospatial verticals spans architecture, engineering, construction (AEC) and operations. Bentley's Optram product provides railway Corridor Infrastructure Management (CIM) solutions to the railway industry worldwide. Optram lets users capture, integrate, and manage information about work, condition, traffic, and assets to let customers visualize and prioritize what should happen when and where.

## Integration Solution Overview

The world's leading railways use ERP, EAM, and CIM systems to maximize their operating safety, reliability, and profitability. Enterprise Asset Management (EAM) systems, like Oracle PeopleSoft's ALM, maintains work history, work plans and resources as well as asset information. Enterprise Resource Planning (ERP) systems such as Oracle PeopleSoft, maintains financial information about income, expense, and capital value. Corridor Infrastructure Management (CIM) systems, like Bentley's Optram, capture, manage and integrate corridor information with location (where on the asset network) and over time (past and future) to prioritize what should happen when and where.

As the world's demand for train traffic increases, Bentley's railway customers are looking for step-change improvement in railway corridor performance. Knowing where, when, and how much is spent at each point along the track is the key to prioritizing and proactively maintaining a safe, reliable and efficient railway. Connecting EAM and ERP with Optram allows Optram to correlate work and finance down to the track network enabling a prioritized corridor management. Sharing asset data simplifies data maintenance and improves accuracy both critical to an industry where much of the capital value is in the assets. Bentley and Oracle in partnership are linking PeopleSoft ALM, PeopleSoft Financials, and Optram via Oracle BPEL to provide a combined solution enabling work-driven and



financial-driven prioritized corridor infrastructure management.

Prioritized proactive work orders enable planned repairs before asset failure and during planned work windows limiting reactive work during peak operational periods. Bentley teamed up with Oracle, to provide an interface between Optram and PeopleSoft ALM systems. The real-time CIM-EAM integration provides capabilities such as real-time work order management, prioritized proactive work orders based on work history and inspection. Oracle's PeopleSoft ALM maintains and manages key data related to assets, time and labor. Optram's patent-pending Linear Data Analytical (LDA) engine enables customers to analyze past work and the impact on condition using mathematical operators designed specifically to accommodate non-overlapping characteristic changes along linear assets. Optram LDA results are used to automatically trigger proactive high-priority work-orders in Oracle's PeopleSoft ALM.

An interface between Optram and PeopleSoft Financials enables capital and maintenance work prioritization based on best value (e.g., repair cost, traffic revenue, average speed) and makes possible calculating capital value using current corridor assets inventory, condition, and rate of deterioration.

Bentley with Oracle teamed to provide financially prioritized proactive work orders, project cost analysis, and cost projections by building real time integrations with ERP systems. Optram's patent-pending Linear Data Analytical (LDA) engine analyzes measured condition, condition deterioration, and work influence to calculate asset lifespan at each point along the track. Railways identify peak costs areas with Optram's visualization of work along the track. Oracle's PeopleSoft Financials sums the linear results into balance sheets and capital budgets based on actual asset condition along the rail corridor.

### **Flexible Integration**

With the Optram - Oracle PeopleSoft integration, customers gain greater flexibility, as well as a truly comprehensive CIM solution. Oracle Fusion Middleware integrates these applications together by leveraging BPEL PM for orchestration and web services management. In addition, Oracle Fusion Middleware provides security, reliability, and high availability through its unbreakable, Services Oriented Architecture (SOA). The results are a simple, maintainable, and robust interface.

### **Why Oracle?**

Bentley has recognized that Oracle's PeopleSoft is important component of their customers' business solutions. As an ISV, Bentley recognizes the need to provide their customers with standards-based, integrated solutions that are easy to manage and maintain. Bentley has chosen Oracle Fusion Middleware to provide a reliable and flexible framework to create and manage a secure, service-oriented solution for their customers.

## Essential Benefits

- Comprehensive railway management through integrated Enterprise Resource Planning (ERP), Asset Lifecycle Management (ALM), and Corridor Infrastructure Management (CIM) systems.
- A step-change in railway corridor infrastructure management through work-driven and financial-driven prioritized Corridor Infrastructure Management
- Simple, maintainable, secure and robust Optram-PeopleSoft/ALM and Optram-PeopleSoft/Financials integrations using Oracle Fusion Middleware's BPEL PM services-oriented architecture (SOA).
- Enables accurate balance sheet and capital planning based on asset condition incorporating characteristic changes in condition and life along linear assets of the railway corridor through real time integrations with ERP and ALM.

For additional information about partnering with Oracle, please contact us at [opninfo\\_us@oracle.com](mailto:opninfo_us@oracle.com) or visit us at [www.partners.oracle.com](http://www.partners.oracle.com).

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