BENTLEY® GEOSPATIAL SERVER
A FEDERATED APPROACH TO MANAGING INFORMATION

Bentley Geospatial Server, the centerpiece of Bentley's GIS architecture, brings together information in spatial databases, drawings, business documents and other forms through a unique Federated Information Management approach based on indexing. Information in enterprise databases, legacy and departmental systems, and project-based data in virtually any format is accessible to users through a spatial interface. Bentley Geospatial Server also supports extensive printing and plotting functions.

Distributed Enterprise GIS

When configured with Bentley Geospatial Server, Bentley's geospatial desktop and industry applications support simultaneous multi-user editing, optimistic and pessimistic transactions, and the time component features provided by Oracle. Versioning relies on the Oracle Workspace Manager. Users can work directly with Oracle Spatial for live editing or in a disconnected mode via an "extract, modify, post" paradigm.

Ability to Spatially Index the Enterprise

Bentley Geospatial Server supports the spatial indexing of features, databases, files, and documents. Users can display, search and review the properties of features from the spatial interface. Individual features can be found and depicted visually on a map or a list view. Location is automatically deduced for files or documents with inherent coordinate systems—DGN, GeoTIFF, SHP, and more. Documents that are non-spatial can inherit the location of the folder into which they reside.

Live Oracle Spatial editing

Perform live viewing and editing of an Oracle Spatial database simply by opening a DGN document stored in the Bentley GeoSpatial Server. This allows users to take advantage of the editing productivity of MicroStation® while working directly with Oracle Spatial information. Native versioning capabilities of Oracle is also supported and facilitated by allowing for the creation of database connection documents (DGN) that can be used to connect directly to the Oracle database.

Disconnected Editing Workflows

Perform reliable disconnected field editing and resynchronize your device once back in the office. This avoids repetitive or unnecessary trips to the office by allowing field

workers to carry the most current information into the field and improves data quality and currency by capturing in-the-field edits, especially useful in areas of low network availability.

### Multi-User Editing via Oracle Versioning

Bentley Geospatial Server works with the standard Oracle Workspace Manager to enable multi-user editing workflows. It provides for versioning and long transactions with pessimistic locking or optimistic locking. This means versions created by the connector can be accessed by any other SQL clients.
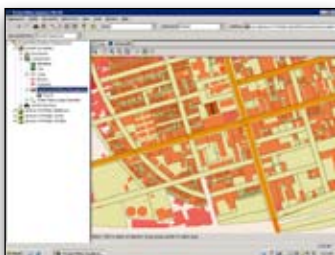
Temporal Data Management

Historical maps and reports can be produced by leveraging historical data management capabilities. Bentley Geospatial Server leverages the temporal component of Oracle that allow the storage of historical data in the database. When enabled, deleted features are not deleted from the database, they are retired. When performing updates, a copy of feature is made and an updated feature is created. All transactions are detailed in users logs. It enables comparisons between versions of digital plots, documents and folder activity in audit trails, and ensures that users always have access to the latest version.

An Open, Extensible Architecture

Bentley Geospatial Server is a highly extensible product allowing customization, without programming, at any level of the architecture. Bentley Geospatial Server can be extended by developers since it is based on .NET Web services technology. This allows the Bentley Geospatial Server to be integrated into a service-oriented architecture to support business and operational workflows.
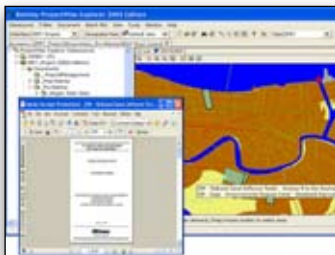
Navigate spatial and non-spatial engineering documentation in a spatial environment.

Spatial indexing and searching service.

ABOUT BENTLEY

Bentley Systems, Incorporated is the global leader dedicated to providing comprehensive software solutions for sustaining infrastructure. Architects, engineers, constructors, and owner-operators are indispensable in improving our world and our quality of life; the company's mission is to improve the performance of their projects and of the assets they design, build, and operate. Bentley sustains the infrastructure professions by helping to leverage information technology, learning, best practices, and global collaboration — and by promoting careers devoted to this crucial work.

For more information, visit www.bentley.com

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BENTLEY GEOSPATIAL SERVER AT-A-GLANCE

Unique Federated Information Management Approach

- Indexing rather than data conversion
- Find information via spatial or non-spatial criteria
- Document Service
- Ability to store spatial and non-spatial files
- Ability to manage complex files with references (for example: DGN, SHP, MXD, DWG)
- CAD Standards Management
- Multiple application integration
- MicroStation v7, v8, XM
- Applications based on MicroStation
- AutoCAD 2008, 2007, 2006, 2005, 2004, 2002, 2000
- ArcMap (ESRI) 9.X
- Microsoft Office 2007, 2003, XP, 2000, 97

Spatial Indexing/ Searching Service

- Ability to quickly find files based on multiple criteria
- Background map support
- Projection management
- Flexible assignment of s patial locations
- Text indexing (Office, DGN, DWG, PDF)
- Feature indexing

Workflow Service

- Supports workflow as a set of states (for example: initial, design, 75% design, complete) successively traversed by an object
- For each state different security can be enforced on objects stored in the system
- For each state it is also possible to have specific communication enforced through e-mails.
- The Federated System helps organization members get the right information at the right time and in the right context

Spatial Database Service

- Excellent Oracle database compliance
- Multi-user editing via Oracle standard versioning
- Short and long editing sessions using standard Oracle database lock
- Time component support
- Advanced data loading tools
- Web services based
- Service Oriented Architecture allows extraction and posting using standard SOAP Web services
- Creates simplified user interface and then simply calls the Web services for performing operations

Plotting Service

- Multi-format plotting and publishing support
- Multiple print interfaces
- Batch plotting
- Custom presentation
- Content-rich PDF output
- Digital archiving
- Detailed design comparisons
- Plot tracking
- Fully-featured printer drivers

Security

- Complete security system
- Integrated with windows security
- Security based on workflow state, folder, document, events
- Audit of changes
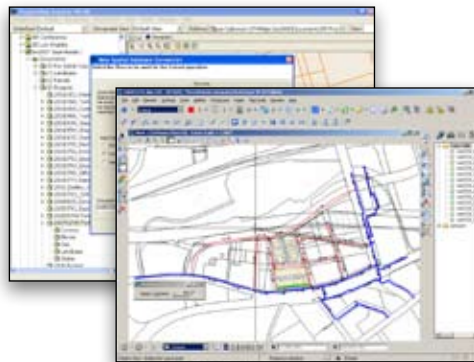
Bentley Geospatial Server supports long transactions using Oracle Spatial.
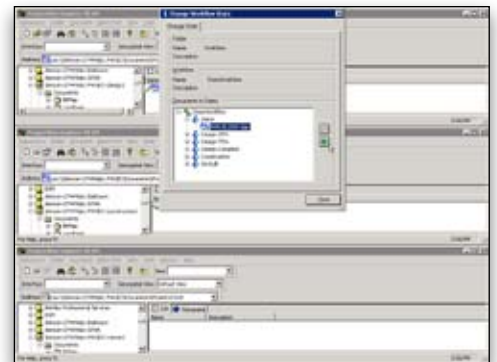
Workflows are easily configured and administered.