Bentley Map® V8ı (SELECTseries 3)
Powerful, Extensible 3D GIS for the World’s Infrastructure

Bentley Map is a fully featured GIS that is intrinsically 3D. It is designed to address the unique and challenging needs of organizations that map, plan, design, build, and operate the world’s infrastructure. Bentley Map supports the creation, persistence, maintenance, analysis, and sharing of 2D and 3D geospatial information. It is also ideal for developing custom GIS applications, and is available in three editions to support different geospatial workflows.

Available in Three New Versions to Support Different Workflows
Bentley Map is now available in three versions for different geospatial workflows. Bentley Map PowerView supports viewing and light editing, Bentley Map supports 2D and 3D editing and analysis, and Bentley Map Enterprise supports advanced image and point-cloud processing as well as long transactions in Oracle Spatial without the need for a server connection.

Support for Leading Spatial Databases
Bentley Map supports Oracle Spatial and Microsoft SQL Server Spatial databases that allow organizations to store and manage very large volumes of spatial data. Bentley Map can edit 2D and 3D data directly in any standard Oracle Spatial environment. Bentley Map’s connection to Oracle enables raster and vector data to be stored in a centralized database using native Oracle Spatial object definitions. Spatial data is now streamed to the desktop to improve productivity and usability.

Intelligently Create Geospatial Objects
Bentley Map includes advanced 2D and 3D design productivity innovations to create and maintain engineering-quality spatial data. Geospatial objects can be intelligently created with ease using interactive snapping tools. Bentley Map also includes dimensioning, annotation, raster display and editing, printing, publishing, and much more.

Offers Spatial Analysis and Presentation Capabilities
The software also includes a full collection of spatial analysis and presentation capabilities using 2D and 3D data. Among these are tools for creating buffers around objects, performing topology overlays, creating thematic maps, 3D collision detection, labeling, and more.

Improved Interoperability for Shorter Design Time
Users can leverage the tools in Bentley Map to improve interoperability with other GIS formats. They can directly reference from the Bentley Map interface Esri SHP files, MapInfo TAB files, Oracle Spatial, Microsoft SQL Server Spatial, ODBC, WMS, 3D PDF, i-models, and others. Data can also be exported into these formats and with other engineering disciplines. Moreover, Bentley Map interfaces to FME from Safe Software, greatly extending interoperability.

Feature Symbology Synchronized With Attribution
Bentley Map has administrative tools to define features, attributes, symbology, behavior, and placement tools. It also includes tools to promote simple geometries to intelligent features with full attribution. The product ensures that feature symbology remains synchronized with attribution.

Powerful Rendering Tools Generate Scenes and Fly-Throughs
Powerful 3D rendering tools are included to generate scenes and fly-throughs of urban models. Capabilities include shadow studies, line of sight, view corridors, street profiles, disaster scenario studies, and more.

Profit from Advanced Map Finishing Tools and an Extended API for Speedy Customization
Its advanced text display capabilities allow map features to be presented with drop shadows, halo effects, linear graduated fill, and other map finishing effects. Advanced support for the placement and manipulation of curved text enables users to create and modify text and annotations associated with any spatial element. Bentley Map is also designed with a remarkable degree of flexibility and configurability so that subject matter experts can customize it without having to write new code.
Bentley Map At-A-Glance

Mapping and Infrastructure GIS
- Compile and edit data efficiently
- Design, build, and publish accurate maps and infrastructure models
- Enforce business and topological rules
- Bring CAD accuracy, ease-of-use and efficiency to GIS
- Work seamlessly with Bentley’s AEC applications

All the Power of MicroStation
- Smart, quick drawing, and editing of GIS features in a MicroStation environment
- Raster management
- AccuSnap, AccuDraw®
- Display priority, transparency
- Coordinate system assignment and on the fly re-projection
- Full 3D modeling especially relevant for 3D City GIS projects
- Point cloud viewing

Map Manager
- Easy-to-learn interface to your spatial data
- Intuitive, easy-to-use, persisted map definitions
- Drag-and-drop layers to control display order
- Control all aspects of map display
- Automatic creation of thematic map from template
- Export of layers to MicroStation elements

XML Feature Modeling
- XML metadata-driven GIS
- Extensible
- Property-based symbology and annotation
- Convert simple elements to smart GIS features

Geospatial Administrator
- Manages the XFM framework through one interface
- Runs outside MicroStation
- Defines and maintains XFM project files
- Defines features, properties, and the tools used to build those features

Choice of Data Stores
- Three-tier and two-tier connection to Oracle Spatial
- Three-tier connection to Esri ArcGIS
- Two-tier connection to SQL Server Spatial
- Self-contained XFM DGN files
- Any RDBMS/DGN supported by MicroStation

Oracle Spatial Editing
- Fully Oracle Spatial compliant
- Two- or three-tier connection
- 3D object support
- Adherence to native Oracle Spatial feature and topology models

SQL Server Spatial Editing
- Fully SQL Server Spatial compliant
- Two-tier direct connection
- 3D object support

Data Capture and Maintenance
- Polygon parallel creation
- Digital terrain model support
- Dynamic domain lists

Geographic Coordinate Systems
- Custom datum and ellipsoid definition creation
- Custom grid and graticule definition creation
- Dynamic update of grid and graticule elements
- Integrated alternate coordinate system (ACS) input and readout

Topology modes
- Topology maintenance
- Workflows for cadastral management (split, merge, build)
- Topology graph maintained while editing
- Shared editing commands to move common primitives

Measurement Tools and Linear Adjustment
- Place points through radial or rectangular measurements from a baseline
- Create list of radial or rectangular staking measurements
- Perform linear adjustments on inaccurate data

Integrated COGO Editor
- Input precision coordinate geometry (COGO)
- Convert COGO data into geometry
- Create parcels from legal descriptions

Spatial Analysis and Presentation
- Spatial analysis
- Thematic display
- Buffer creation
- Dynamic labeling
- Curved text placement, follow angle or curve
- Text and element halo tools
- Direct data access (DDA)
- Automatic geo-location of features instances *

Map Generation and Print Preparation
- Grid and graticule generation
- Interactive location map index with references
- WYSIWYG plot generation with user defined templates and legends
- Publishing to intelligent PDF, Post-Script, color separates
- Data cleanup and integrity tools
- Solve integrity problems with imported or legacy data
- Easily adopt XFM schema for imported or legacy data through Dynamic Feature Scoring (DFS)

Interoperability
- Direct reference geospatial formats
- MapInfo (TAB, MID/MIF), Shapefiles, Oracle Spatial, CSV, GML, and ODBC sources
- Import/Export tools
- Integration with Safe Software’s FME for access to 225+ data formats
- Direct reference attach GIS data formats
- Publishing of Bentley i-model files with RDBMS properties (export)
- Spatial data streaming
- Web feature service (WFS) client - read (query) access

GIS Development Platform
- Utilize Open API
- Develop via C expressions, XSLT, VBScript

* Only applies to Direct Data Access (DDA) graphical source connections (e.g. Oracle Spatial, SQL Server, WFS etc...).