

BENTLEY® POWERMAP™

A comprehensive production mapping solution

Bentley® PowerMap™ is a comprehensive, stand-alone, and fully self-contained production mapping solution. Bentley PowerMap functionality is also available through the MicroStation's GeoGraphics® extension, for those users who have workflows that require integrated use with other Bentley geospatial or engineering applications. Bentley PowerMap also includes a full-featured development environment enabling customized implementations and making it an ideal platform for third-party geospatial solutions.

Comprehensive 2D and 3D Mapping Tools

Bentley PowerMap provides a rich 3D production environment, allowing you to quickly and easily create and edit any type of map or 3D representation. Bentley PowerMap supports feature-based mapping, so you can consistently create and maintain intuitive thematic representations. You can work in DGN or DWG, natively read and reference SHP and MXD file formats, and import a wide range of industry-standard raster and vector file formats. To assist your production workflows, a range of network and topological analysis tools are available.

Built for Production Efficiency

No mapping platform rivals Bentley PowerMap's efficiency in creating clean and accurate spatial data. Bentley PowerMap provides an XML-driven user interface for easy and rapid configuration of custom workflows. Simple XML "templates" can be modified to control user interface, dialog, and attribution choices to address specific tasks, resulting in streamlined and focused workflows. To efficiently identify and fix common spatial data errors, Bentley PowerMap provides a suite of interactive and automated geometry cleanup and validation tools. These tools help ensure data accuracy and consistency, so that analytical operations produce accurate results.

A Unique Paradigm for Data Management

Bentley PowerMap fully supports Oracle Spatial and ODBC-connected databases. You can easily query and update attribute information while editing graphics. And your data, once created, can be fully managed through Bentley's Geospatial Management, for a spatially enabled managed environment that integrates document management with spatial databases and facilitates intelligent and automated interoperability with other enterprise software solutions. With Bentley's ArcGIS Connector, for example, PowerMap users can intelligently extract data, make modifications, and then post the results back—with complete fidelity with Geodatabase domain constraints and attribution rules.

Disconnected Use

Since attribute and other ancillary data is stored in XML fragments within the DGN file, Bentley PowerMap provides for "disconnected use" when access to the attribute database is simply not an option. This unique capability allows you to utilize Bentley PowerMap for data editing offline and reliably synchronize upon reconnecting to the database.

Superior Imaging

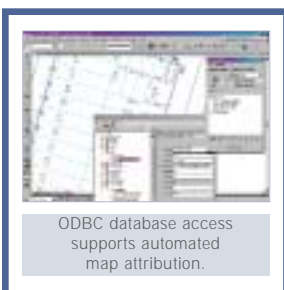
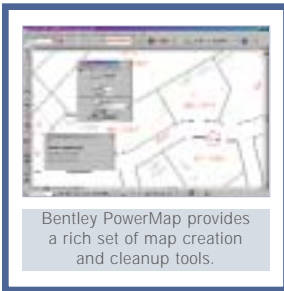
Bentley PowerMap supports high-performance binary and continuous tone raster display for a wide range of standard image formats. Since the imagery is georeferenced as it is displayed, you can overlay engineering designs or maps and use the background context to modify a current map or to create a new map.

Projected Coordinate System Management

Bentley PowerMap manages data in standard or customized projected coordinate systems. This capability allows you to combine data of dissimilar projections to conform to your map projection standards. With automatic projection-on-the-fly capabilities, Bentley PowerMap streamlines the reference data attachment process.

Extensible Platform

Bentley PowerMap supports customization through Visual Basic, MicroStation® Development Language (MDL®), MicroStation BASIC, Scripting, and Topology Macro Language. Advanced Bentley PowerMap development tools are available to Bentley Development Network members.



BENTLEY POWERMAP AT-A-GLANCE



Bentley PowerMap provides high-performance imaging capabilities via Raster Manager integration.



Geospatial querying tools support "what if" and other mapping workflows.

SYSTEM REQUIREMENTS

- Processor: Intel Pentium-based or AMD Athlon-based PC or workstation
- Operating System: Microsoft Windows 2000 (SP2 or higher recommended), Windows XP, Windows NT 4 (SP6 recommended), Windows 98 (Second Edition recommended)††, Windows Me
- Prerequisite Application: none
- Memory: 128 MB (256 MB or more typically results in better performance).
- Hard Disk: 200 MB minimum free disk space
- Input Device: Mouse or digitizing tablet
- Output Device: Most industry-standard devices are supported. Works with output devices supported by Windows.
- Video: Supported graphics card. Dual-screen graphics supported with vendor-supplied drivers for Windows NT 4. Multi-monitor configurations supported with Windows 98, Windows 2000 and Windows XP.

Map Creation and Cleanup

- High-fidelity 2D and 3D element add/delete/modify capabilities
- Fast, configurable import and export of industry-standard file formats
- Direct DGN, DWG, SHP, MXD file access
- Data cleanup and validation tools for high-fidelity mapping environments
- Automatically find and repair dangles, undershoots, overshoots, linework gaps, and more

Network Tools

- Analysis of directed, weighted, linear networks
- Creation and editing of network entities
- Support for shortest path, radial search, trace forward, trace back
- Provides for "what if" scenario analysis

Topological Tools

- Generate clean, high-precision data automatically
- Creation and editing of node, line, and polygon topologies
- Polygon-to-polygon overlay
- Point-in-polygon overlay
- Line-in-polygon overlay
- Buffer zone generation

Analysis Tools

- Annotate graphic objects automatically from database attributes
- Generate buffers and zones for analysis
- Measurement tools provide for distance, area, and volume calculations
- Query spatial and ancillary data for selected graphic elements
- Utilize Oracle Spatial data for enhanced enterprise data access

Presentation Tools

- Add grids and legends to mapping data
- Utilize powerful raster tools for image backdrops
- Thematic representation of attributes and graphics
- Supports high-resolution output to printers and plotters

Programmatic Access

- Visual Basic for Applications (VBA) support
- Existing MDL API support
- Topology Macro Language (TML)
- Powerful scripting language for processing, analyzing, and reporting

Coordinate Transformation Tools

- Integrated coordinate system toolset
- Predefined coordinate systems included
- Ability to create custom coordinate system definitions
- Automatic reference file transformations
- Configurable coordinate system definition and transformation

Raster Tools

- High-performance image display
- Support for industry-standard file formats
- Support for MrSID and ECW image compression types
- 24-bit color image depth support
- Automatic positioning of image types supporting georeferencing

ABOUT BENTLEY

Bentley Systems, Incorporated provides software for the lifecycle of the world's infrastructure. The company's comprehensive portfolio for the building, plant, civil, and geospatial vertical markets spans architecture, engineering, construction (AEC) and operations. With 2003 revenues reaching \$260 million, Bentley is the leading provider of AEC software to the Engineering News-Record Design 500 and major owner-operators.

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