

Bentley Map® Functionality Comparison

Functionality	Bentley Map Enterprise V8i (SELECTseries 4)	Bentley Map V8i (SELECTseries 4)	Bentley Map PowerView V8i (SELECTseries 4)
Advanced Point-cloud Viewing, Modeling, and Processing			
3D Line Following Yes	Yes	No	No
Assign/Delete GCS	Yes	No	No
Clash Detection	Yes	No	No
Clip Manager and Tools	Yes	No	No
Elbow Creation	Yes	No	No
Model by Section Tool	Yes	No	No
One-click Pipe Extraction (pipe run)	Yes	No	No
Pipe Connection	Yes	No	No
Point-cloud Advanced Export	Yes	No	No
Point-cloud Classification Editing	Yes	No	No
Point-cloud Geometry Extraction	Yes	No	No
Point-cloud Line Draping	Yes	No	No
Section Manager and Tools	Yes	No	No
Smart Snap	Yes	No	No
Support of LAS Latitude/Longitude	Yes	No	No
Visual Explorer	Yes	No	No
Advanced Raster Viewing, Editing, and Processing			
3D Texture Editing (e.g. 3D building texture)	Yes	No	No
Advanced Raster Transformation (warping, register)	Yes	No	No
Basic Raster Transformation	Yes	Yes	Yes
Color Raster Editing	Yes	No	No
Image Draping on Surface	Yes	Yes (A)	No
Image Filtering (Contrast Stretch, Density Slicing, Blur, Sharpen, Smooth, Detail, Edge Enhance, Find Edges, etc.)	Yes	No	No
On-the-fly Coordinate System Transformation	Yes	Yes	Yes
Oracle Textures Support	Yes	Yes	Yes
Persistent Coordinate System Transformation	Yes	No	No
Raster Geo-referencing	Yes	No	No
Raster Mosaic Creation	Yes	No	No
Raster Scene Creation (merge tool)	Yes	No	No

(A) Requires a layered MicroStation installation. | (B) Requires a Bentley Geospatial Server client license. | (C) Only applies to direct data access (DDA) graphical source connections (e.g. Oracle Spatial, SQL Server, WFS, etc.) | (D) For Bentley Map PowerView only a single map model is allowed per design file. | (E) Support for R/O connections. | (F) Requires Bentley Map Enterprise or Bentley Map stand alone installation and customer-provided Bing Maps license key. | (G) Requires installation of the Bentley Map FME Extension and Safe Software FME Desktop.

Functionality	Bentley Map Enterprise V8i (SELECTseries 4)	Bentley Map V8i (SELECTseries 4)	Bentley Map PowerView V8i (SELECTseries 4)
Raster Text to Vector Text Conversion	Yes	No	No
Raster to Vector Text Conversion and Vector to Raster Text Conversion	Yes	No	No
Snap on Raster Content	Yes	No	No
View Raster (Images, WMS, Imager Server Feed, PDF)	Yes	Yes	Yes
Viewing Oracle Spatial GeoRaster	Yes	No	No
Viewing Raster DEM and applying filter on Raster DEM	Yes	No	No
Advanced Terrain Viewing, Modeling, and Processing			
Create Scalable Terrain Model (STM)	Yes	No	No
Display Scalable Terrain Model (STM)	Yes	No	No
Drape Element	Yes	No	No
Extract Contours	Yes	No	No
Extract Raster Grid	Yes	No	No
Extract TM Element	Yes	No	No
High-resolution Image Draping on STM	Yes	No	No
STM Dynamic Reprojection	Yes	No	No
Viewshed Analysis	Yes	No	No
Cadastral Mapping Configuration			
Dynamic Topology Editing	Yes	Yes	No
Import/Export LandXML Files	Yes	Yes	No
Import Survey Data	Yes	Yes	No
Integrated Coordinate Geometry (COGO) Editor	Yes	Yes	No
Linear Adjustment	Yes	Yes	No
Multiple Topology Layer Support	Yes	Yes	No
Parcel Split and Merge (with behavior adapted to the cadastre rules)	Yes	Yes	No
Sample Cadastral XML Schemas and Data	Yes	Yes	No
Cartographic Styles			
Cartographic Style Editor	Yes	Yes	No
Cartographic Style Manager	Yes	Yes	Yes
Data Analysis and Reporting			
Automatic Thematic Class Generation	Yes	Yes	Yes
Business Property Review and Navigation (Data Browser)	Yes	Yes	Yes
Business Property Review and Navigation (Property Navigator)	Yes	Yes	Yes
Direct Data Access (DDA) provides high-performance access to large data sources	Yes	Yes	Yes
Export to CSV, XML, HTML via XSLT, Windows Clipboard	Yes	Yes	Yes
Feature Joins	Yes	Yes	Yes

(A) Requires a layered MicroStation installation. | (B) Requires a Bentley Geospatial Server client license. | (C) Only applies to direct data access (DDA) graphical source connections (e.g. Oracle Spatial, SQL Server, WFS, etc.) | (D) For Bentley Map PowerView only a single map model is allowed per design file. | (E) Support for R/O connections. | (F) Requires Bentley Map Enterprise or Bentley Map stand alone installation and customer-provided Bing Maps license key. | (G) Requires installation of the Bentley Map FME Extension and Safe Software FME Desktop.

Functionality	Bentley Map Enterprise V8i (SELECTseries 4)	Bentley Map V8i (SELECTseries 4)	Bentley Map PowerView V8i (SELECTseries 4)
Geo-locate Feature Instances Automatically	Yes	Yes	Yes
Network Analysis Operations (Trace Connected, Find Shortest Path, etc.)	Yes	Yes	No
Scripting	Yes	Yes	No
Search/Query - Non-RDBMS Business Properties	Yes	Yes	Yes
Search/Query - RDBMS Business Properties	Yes	Yes	Yes
Solar/Shadow Analysis	Yes	Yes (A)	No
Spatial Analysis Operations (Buffer, Intersect, Union, etc.)	Yes	Yes	No
Spatial Overlay Reporting	Yes	Yes	Yes
Thematic Resymbolization (Dynamic)	Yes	Yes	Yes
Visual SQL Query Builder	Yes	Yes	Yes
Data Capture and Maintenance			
3D Geometry Cleanup	Yes	Yes (A)	No
3D Smart Editing	Yes	Yes (A)	No
Automatic Geometric Properties (Length, Area, and Perimeter)	Yes	Yes	Yes
Business Property Bulk Editing (Data Browser)	Yes	Yes	Yes
Create Annotation (from Dynamic Labels)	Yes	Yes	No
Create Polygon Parallel	Yes	Yes	Yes
Digital Terrain Model (DTM) Support	Yes	Yes	No
Dynamic Domain Lists	Yes	Yes	Yes
Edit 2D DGN/XFM Feature Instances	Yes	Yes	Yes
Edit 3D DGN/XFM Feature Instances	Yes	Yes	Yes
Geometric Properties Bulk Editing (Length, Area, and Perimeter)	Yes	Yes	No
High-end 3D Modeling (Push-pull, Surface Manipulation, etc.)	Yes	Yes (A)	No
Persistent Topology	Yes	Yes	Yes
Polygon Split/Merge Commands	Yes	Yes	No
Promote Feature Command	Yes	Yes	Yes
RDBMS Business Property Editing	Yes	Yes	Yes
Redlining and Markup Tools	No	No	Yes
Scalable Terrain Model (STM) Support	Yes	No	No
Topology Cleanup Tools (Segmentation, Thinning, Duplicate Removal, etc.)	Yes	Yes	No
Topology Creation Tools (Shape and Centroid Creation, etc.)	Yes	Yes	No
Data Modeling			
Bentley Geospatial Administrator (Map Index Creation)	Yes	Yes	Yes
Bentley Geospatial Administrator (Schema and Workspace Creation)	Yes	Yes	Yes

(A) Requires a layered MicroStation installation. | (B) Requires a Bentley Geospatial Server client license. | (C) Only applies to direct data access (DDA) graphical source connections (e.g. Oracle Spatial, SQL Server, WFS, etc.) | (D) For Bentley Map PowerView only a single map model is allowed per design file. | (E) Support for R/O connections. | (F) Requires Bentley Map Enterprise or Bentley Map stand alone installation and customer-provided Bing Maps license key. | (G) Requires installation of the Bentley Map FME Extension and Safe Software FME Desktop.

Functionality	Bentley Map Enterprise V8i (SELECTseries 4)	Bentley Map V8i (SELECTseries 4)	Bentley Map PowerView V8i (SELECTseries 4)
Geographic Coordinate Systems			
Create Custom Datum and Ellipsoid Definitions	Yes	Yes	No
Create Custom Grid and Graticule Definitions	Yes	Yes	No
Dynamically Updated Grid and Graticule Elements	Yes	Yes	No
Integrated Alternate Coordinate System (ACS) Input and Readout	Yes	Yes	No
Interoperability			
Bing Maps Support	Yes (F)	Yes (F)	No
Composite (Multiple Columns) Primary Key Support	Yes	Yes	Yes
Direct Reference Attach GIS Data Formats (Microsoft SQL Server Spatial)	Yes	Yes	Yes
Direct Reference Attach GIS Data Formats (Oracle Spatial)	Yes	Yes	Yes
Direct Reference Attach GIS Data Formats (SHP, MID/MIF, TAB)	Yes	Yes	Yes
Esri File Geodatabase (FileGDB) Support	Yes	Yes	Yes (E)
Export 2D/3D GIS Data Formats	Yes	Yes	No
Export CityGML with Textures	Yes	Yes	No
FME Extension	Yes	Yes	No
GML 3.2.1 Support	Yes	Yes	Yes
Import 2D/3D GIS Data Formats (SHP, MID/MIF, TAB)	Yes	Yes	Yes
Import CityGML with Textures	Yes (G)	Yes (G)	No
Import Geography Markup Language (GML 3.2.1) formats	Yes	Yes	Yes
Import Geography Markup Language (GML) formats	Yes	Yes	Yes
Import Microsoft SQL Server Spatial Database	Yes	Yes	Yes
Import Oracle Spatial Database	Yes	Yes	Yes
Microsoft SQL Server Spatial - Partial Posting Support	Yes	Yes	No
Microsoft SQL Server Spatial - Read (Query) Access	Yes	Yes	Yes
Microsoft SQL Server Spatial - Write (Lock/Unlock, Edit, Discard, Post) Access	Yes	Yes	No
Non-top View Spatial Queries of 3D Data	Yes	Yes	Yes
Oracle Spatial - Bulk Data Loading Tool (DGN2SDO)	Yes	Yes	No
Oracle Spatial - Long Transaction and Time Component Support	Yes	Yes (B)	No
Oracle Spatial - Partial Posting Support	Yes	Yes	No
Oracle Spatial - Read (Query) Access	Yes	Yes	Yes
Oracle Spatial - Topology Support	Yes	Yes	No
Oracle Spatial - Write (Lock/Unlock, Edit, Discard, Post) Access	Yes	Yes	No
ProjectWise Integration applies only to design file open or reference attach operations	Yes	Yes	Yes
Publish Bentley i-model Files (Export)	Yes	Yes	No

(A) Requires a layered MicroStation installation. | (B) Requires a Bentley Geospatial Server client license. | (C) Only applies to direct data access (DDA) graphical source connections (e.g. Oracle Spatial, SQL Server, WFS, etc.) | (D) For Bentley Map PowerView only a single map model is allowed per design file. | (E) Support for R/O connections. | (F) Requires Bentley Map Enterprise or Bentley Map stand alone installation and customer-provided Bing Maps license key. | (G) Requires installation of the Bentley Map FME Extension and Safe Software FME Desktop.

Functionality	Bentley Map Enterprise V8i (SELECTseries 4)	Bentley Map V8i (SELECTseries 4)	Bentley Map PowerView V8i (SELECTseries 4)
Publish Bentley i-model Files with RDBMS Properties (Export)	Yes	Yes	No
Spatial Data Streaming	Yes	Yes	Yes
Support B-spline Curves and Non-circular Arcs	Yes	Yes	Yes
Support of FME 2013/2014	Yes	Yes	No
Use of Views as Sub-features	Yes	Yes	Yes
Web Feature Service (WFS 2.0) Client - Read (Query) Access	Yes	Yes	Yes
WFS 2.0.0 Support	Yes	Yes	Yes
WMS Support	Yes	Yes	Yes
Map Finishing			
Color Separation	Yes	Yes	No
Flexible On-screen Element Ordering	Yes	Yes	No
Flexible Text Placement and Masking	Yes	Yes	No
Graduated Linear and Radial Fills (elements and text)	Yes	Yes	No
Halo Effects (elements and text)	Yes	Yes	No
Map Indexing	Yes	Yes	No
Postscript/PDF Output	Yes	Yes	No
WYSIWYG Printing	Yes	Yes	No
Map Management			
Automatically Create Thematic Map from Template	Yes	Yes	Yes
Cartographic Style Intersections Manager	Yes	Yes	No
Create Map Model in Active Model	Yes	Yes	Yes (D)
Define Bridge Representation Possibility	Yes	Yes	No
Define Cartographic Styles Representation	Yes	Yes	No
Display Bridges	Yes	Yes	Yes
Display Cartographic Styles	Yes	Yes	Yes
Display Multiple Feature Representations	Yes	Yes	Yes
Display Scale Overrides Possibility	Yes	Yes	Yes
Dynamic Feature Labels	Yes	Yes	Yes
Export Layers to MicroStation Elements	Yes	Yes	No
Fixed Size Text/Cell Display Fixed Size Text/Cell Display	Yes	Yes	Yes
Independent Root and Sub-feature Resymbolization Possibility to re-symbolize the sub-features independently of its root feature	Yes	Yes	Yes
Layer Display Ordering (Z Depth)	Yes	Yes	Yes
Layer Groups	Yes	Yes	Yes
Layer Legend	Yes	Yes	Yes

(A) Requires a layered MicroStation installation. | (B) Requires a Bentley Geospatial Server client license. | (C) Only applies to direct data access (DDA) graphical source connections (e.g. Oracle Spatial, SQL Server, WFS, etc.) | (D) For Bentley Map PowerView only a single map model is allowed per design file. | (E) Support for R/O connections. | (F) Requires Bentley Map Enterprise or Bentley Map stand alone installation and customer-provided Bing Maps license key. | (G) Requires installation of the Bentley Map FME Extension and Safe Software FME Desktop.

Functionality	Bentley Map Enterprise V8i (SELECTseries 4)	Bentley Map V8i (SELECTseries 4)	Bentley Map PowerView V8i (SELECTseries 4)
Map Model Creation	Yes	Yes	Yes
Map Model Viewing	Yes	Yes	Yes
Root and Sub-feature Display On/Off Toggles Display of sub-feature in the Map Manager Possibility to toggle each feature, class or sub-feature independently in the Map Manager	Yes	Yes	Yes
Scale Sensitive Feature Display	Yes	Yes	Yes
Scaled-based Multiple Sub-feature Representations possible to define multiple representation of the same sub-feature based on the display scale	Yes	Yes	No
Seamless Map Attachments/Map Indexing	Yes	Yes	Yes
Visualization Enable/Disable Per View possible to select the view where the Map Manager options are applied	Yes	Yes	Yes
Zoom Scale by View Option to set a specific zoom scale in a view	Yes	Yes	Yes
Map Management			
Animation and Rendering Support	Yes	Yes (A)	No
GPS Support and Tools (Place Point, Center View, Track, Trail, etc.)	Yes	Yes	Yes
Point-cloud Viewing	Yes	Yes	Yes
Raster Viewing	Yes	Yes	Yes
View 2D/3D DGN/XFM Feature Instances	Yes	Yes	Yes
Product Configuration, Customization, and Application Development			
MDL, C/C++, .NET, and VBA Development	Yes	Yes	Yes
Run MicroStation, third-party, or customer-developed VBA applications	Yes	Yes	Yes
SDK and API documentation included application development for Bentley PowerMap and Bentley PowerMap Field requires installation of Bentley Map (pre-V8i, MicroStation GeoGraphics), MicroStation, and the MicroStation SDK. For Bentley Map Enterprise V8i and Bentley Map PowerView V8i, the VBA documentation is included. A layered installation of Bentley Map V8i is required for MDL (native C/C++) and .NET API documentation.	No	Yes	No

(A) Requires a layered MicroStation installation. | (B) Requires a Bentley Geospatial Server client license. | (C) Only applies to direct data access (DDA) graphical source connections (e.g. Oracle Spatial, SQL Server, WFS, etc.) | (D) For Bentley Map PowerView only a single map model is allowed per design file. | (E) Support for R/O connections. | (F) Requires Bentley Map Enterprise or Bentley Map stand alone installation and customer-provided Bing Maps license key. | (G) Requires installation of the Bentley Map FME Extension and Safe Software FME Desktop.