

# BENTLEY® POWER SURVEY™



## A full-function survey data management solution

Bentley® PowerSurvey™ is a full-function survey data management solution built on Bentley PowerDraft. It provides surveying professionals with a complete set of survey-specific tools for both Bentley® InRoads® and Bentley® GEOPAK®—with a built-in drafting engine. PowerSurvey directly processes the data from your field-surveying device and automatically displays the resulting graphics onscreen. You can then manipulate the data using PowerSurvey editing, reduction, and adjustment tools.



Create drawings automatically after reading survey data.

### Communication with All Major Data Collectors

Bentley PowerSurvey communicates with all industry-leading data collectors. Connect your data collector directly to a personal computer, laptop, or tablet PC and use PowerSurvey to manage the survey data. PowerSurvey can also upload GEOPAK or InRoads data to the data collector for field stakeout procedures.



Calculate adjustments using a host of industry-standard methods.

### Customizable Feature-driven Processing

Bentley PowerSurvey supports extensive feature databases that detail the representation of each survey shot or feature, including symbolization, labeling, DTM control, and more. The feature database is completely user-definable and ensures standardization from the field surveyor to designer. As you process data, the software draws points and features in accordance with the feature table specified. With this powerful capability, you can generate drawings onsite—immediately after the survey has been collected—for in-field verification.

### Survey Data Adjustments

Editing and adjusting your survey data is an intuitive process when you use Bentley PowerSurvey. The software employs industry-standard routines to make those adjustments that are necessary to finalize your data. PowerSurvey includes Least squares, Compass rule, and Transit rule adjustments. You can visually inspect the adjusted data and complete the topographic drawing in both DGN and DWG formats. The data can then be shared with the members of the project team that are using either GEOPAK or InRoads.



Interactively edit raw survey data and verify results onscreen.

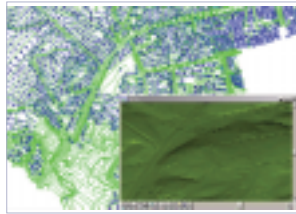
### Interactive Coordinate Geometry

Bentley PowerSurvey includes integrated coordinate geometry (COGO) tools. This valuable toolset enables you to perform offset commands, intersections, traverse, and many other geometry commands. Additionally, you can leverage the data generated with other modules of the InRoads and GEOPAK families of products.



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[www.bentley.com](http://www.bentley.com)

## BENTLEY POWERSURVEY AT-A-GLANCE



Digital terrain modeling and visualization of surface models are included.



Map features according to custom definitions and easily review using built-in display contents.

### BENTLEY POWERSURVEY SYSTEM REQUIREMENTS

- Processor: Intel® Pentium®-based or AMD Athlon™-based PC
- Operating System: Microsoft® Windows® 2000, Windows XP Professional, Windows XP Home Edition, Windows Me, Windows NT® 4 (SP6 recommended) or Windows 98 (Second Edition recommended)
- CD drive or access to the Internet required for product installation
- Memory: 256 MB
- Disk Space: 225MB minimum free disk space for PowerSurvey for InRoads; 350MB for PowerSurvey for GEOPAK
- Input Device: Mouse or digitizing tablet (digitizing tablet requires vendor-supplied WINTAB driver or Bentley's Digitizer Tablet Interface—the latter is included with the MicroStation installation)
- Output device: A host of 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 and Windows 2000.

### Direct Connection to Survey Equipment

- Data read directly from collection devices, such as:
  - TOPCON
  - Nikon
  - SOKKIA
  - SDMS
  - KORK
  - SMI
  - LISCAD
  - WILD
  - ZIESS
  - TDS
  - GEODIMETER

### Feature Code Editing

- Easy identification of incorrect feature codes and other errors on screen
- Flexible and intuitive editing process for easy manipulation of field data with on-screen visual verification

### Adjustments

- Calculation of adjustments of raw survey data using several methods, including:
  - Compass rule
  - Transit rule
  - Level
  - Least squares
- Viewing of the adjusted traverse on-screen

### Digital Terrain Modeling

- Ability to view triangles and contours, save off surfaces and prepare DTM data for use with other civil modules
- Profile generation from surface models
- DTM/TIN Edit
- DTM Volumes

### Interactive Coordinate Geometry

- COGO module support of point generation and interactive graphical tools
- Powerful point-and-click tools providing graphic feedback for immediate verification

### Construction Stake-out

- Uploading of road and site design data to a data collector for use in the project stake out
- Export of points, surfaces, alignments, and cross sections to major brands of survey equipment

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Bentley Systems, Incorporated, is a global provider of collaborative software solutions that enable our users to create, manage and publish architectural, engineering and construction (AEC) content. As a part of those solutions, Bentley provides professional services including implementation, integration, customization and training.

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### DGN & DWG Support

- Support for MicroStation/J® and Microstation® V8 DGN formats
- Support for DXF and DWG data from version 2.6 to 2002

### Design History

- Commit changes made to DGN files and their references with design history
- Review of design content changes made by other team members
- Ability to roll back/forward changes to DGN files

### References

- Powerful file referencing capability for intelligent plan composition regardless of drawing file format
- Nesting capability to enable hierarchical referencing sets
- Ability to reference DXF and DWG without translation

### Models

- Ability to assemble multiple design and plot files in one DGN file
- Ability to directly use AutoCAD® model and paperspace components
- Creation of either 2D or 3D models

### Digital Protection

- Secure protection of DGN data via industry-standard methods of cryptology via Digital Signatures
- Utilization of Digital Rights to protect data and also dictate the recipient's rights to that data

### Standards

- Ability to impose leveling standards as well as text and dimensioning standards from within the DGN file format
- Unlimited level generation

### Raster Manager™

- Ability to attach raster references
- Support for all standard raster formats

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