Bentley®
Sustaining Infrastructure

Key Components

- gINT Logs
- gINT Professional
- gINT Professional Plus

gINT V8*i*

Geotechnical and Geoenvironmental Data Management

Bentley's gINT software provides centralized data management and reporting for geotechnical subsurface projects of all types. The software automates many repetitive tasks, eliminates redundant data entry, and dramatically increases productivity. gINT allows users to streamline processes, provides accessible, interoperable data, and enhances subsurface reporting for soils, borelogs, lab tests, and more while increasing productivity and supporting better decision making.

Subsurface Data Management and Reporting Software

gINT provides centralized data management and reporting for subsurface projects of all types. Data is entered into gINT once, and then can be used to generate multiple reports from the same data set. The software allows users to streamline processes, provides accessible, interoperable data, and enhances subsurface reporting while increasing productivity and supporting engineering knowledge and judgment.

Flexible, Powerful Data Management

gINT's flexible, central database enables consolidation of all types of subsurface data including environmental, geophysical, petroleum, mining, and more. With all subsurface data in one central location, users can quickly create any type of subsurface report from the same data: logs, fences, and more. gINT V8*i* is designed for interoperability with MicroStation and ProjectWise, as well as Bentley civil engineering design applications. gINT V8*i* exports logs, fences, and other reports into MicroStation DGN format, as well as stores all gINT data (project files, libraries, scripts, and more) in ProjectWise for simplified project collaboration.

Comprehensive, Customizable Reporting

With gINT's advanced reporting tools users can create virtually any type of subsurface report for field, laboratory, and interpreted data. gINT includes customizable report templates that allow unlimited depth, layers, symbols, samples, and images. Advanced report design tools such as conditional formatting, data manipulation, and decision-making save time and help ensure consistent, standardized reporting. Free gINT report templates are also available for various countries, agencies, and organizations and readily available for download from the Bentley Be Communities website. In addition, Bentley Professional Services can help create custom reports to user's exact specifications.

Interoperability Supports Data Reuse and Efficient Workflows

gINT's open database and numerous import and export formats support data reuse, as well as provide interoperability with other software used in the project lifecycle such as CAD, GIS, civil, and other database applications. gINT shares data with design, modeling, and analysis software; supports import and export for industry standard formats; and presents subsurface data spatially using Bentley Geo Web Publisher, Google Earth, and ArcGIS (gINT Professional and gINT Professional Plus).
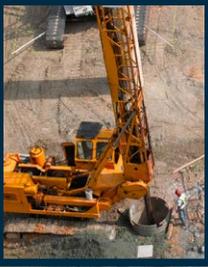
From boring and well logs to complete subsurface data management and reporting with Microsoft SQL Server, there is a gINT product to suit every need.

- *gINT Logs support boring and well log data management and reporting.*
- *gINT Professional offers expanded reporting and enhanced interoperability for logs, fences, lab testing, and more.*
- *gINT Professional Plus enables powerful multi-project reporting and data management with support for Microsoft SQL Server.*
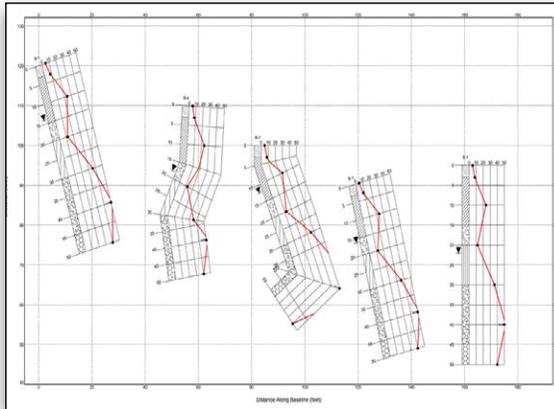
Create virtually any type of subsurface report for field, laboratory, and interpreted data.

gINT Logs

From borehole and well logs, to CPT and geophysical logs, gINT Logs can report all types of subsurface data in almost any way. gINT log reports can be customized in almost any way, with the inclusion of graphics, photos, bar charts, plots, site maps, legends, and more.

gINT Logs offers high-end boring and well logs at an affordable price, especially well suited for industry professionals who "just want the logs." Logs can include virtually any type of subsurface – geotechnical, environmental, geophysical, petroleum, mining, and more.

View Subsurface Data from Google Earth

Publish boreholes directly from gINT to Google Earth including descriptions, photos, and links to log reports and other data. Users can specify icons, labels, and colors for the borehole and provide descriptions (including links to PDFs of boring logs) that appear in Google Earth.

Publish Data in a Web-based GIS

Geotechnical and geoenvironmental engineers and geologists generate subsurface data, but other professionals and disciplines need to access this data for analysis and design purposes. As a result, gINT integrates with Bentley Geo Web Publisher enabling users to publish subsurface data in a web-based GIS. Bentley Geo Web Publisher's integrated vector and image server engines publish hybrid vector and raster datasets and a wide range of formats, making it easy to incorporate drawings, maps, models, aerial photography, and images within custom browser presentations.

gINT Professional

gINT Professional builds on the data management and reporting capabilities of gINT Logs, providing enhanced interoperability and expanded report options for boring and well logs. Users can utilize the same data to create fence diagrams, graphs, tables, and virtually any other imaginable report.

Create Custom Fence Diagrams

gINT fence diagrams present data for multiple boreholes on a single report. Any information that can be shown on a borehole log can be displayed on a fence diagram: water levels, well information, lab data, and more. gINT fences can also display site maps, surfaces, alignments, deviated boreholes, and "drapes" with graphics that depict features in elevation along an alignment on 2D fence report. gINT performs the appropriate projection calculations for accurate display. Fence drapes can be used to display interpreted layered geometry, seismic tests results (for example, shear wave velocities), and existing features along an alignment (rivers, bridges, buildings, roads, and more.)

### Ensure Consistency with Advanced Reporting

gINT's "smart" reports allow multiple report variants to be combined, so that only one report is needed to handle diverse data conditions, simplifying reporting maintenance and ensuring reporting consistency. For example, log reports can have columns for well or water level data that only display when that data is available. Environmental reports can present data using different colors depending on such values as not tested, passed, failed, and more. Advanced report design tools such as conditional formatting, data manipulation and decision-making save time, and help ensure consistent, standardized reports.

Visualize Subsurface Data in ArcGIS

gINT allows users to view subsurface data directly from ArcGIS providing easy access to logs reports, legacy PDF reports, lab data, reports, photographs, and more. The gINT for ArcGIS extension allows users to add the dimension of subsurface data to ArcGIS. Users can then create gINT reports and query subsurface data direct from ArcMap.

Supports Association of Geotechnical and Geoenvironmental Specialists Formats

gINT supports the data interchange formats from the U.K.'s Association of Geotechnical and Geoenvironmental Specialists (AGS). To make working with AGS data easier, gINT provides a starting database
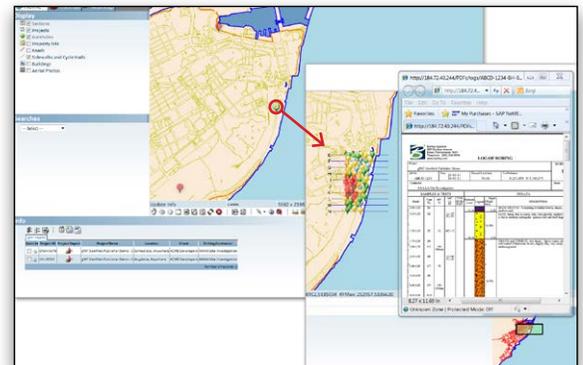
gINT and Bentley Geo Web Publisher offer an interactive map environment.

and reports for AGS data; however, gINT's flexibility allows users to modify their database while allowing full AGS compatibility via correspondence files.

Users can import, export, and validate AGS data, as well as edit AGS data directly in Microsoft Excel. gINT AGS validation goes beyond simply detecting file errors. gINT finds conditions that could compromise data quality as well as unnecessary, redundant, or missing, non-critical, descriptive data. Users can easily generate data statistics for their AGS files such as the number of records in each file, hole counts by type, total drilling length, and sample type.

Support for Design, Modeling, and Analysis Software

DGN and DXF export capabilities enable users to effortlessly export gINT reports (logs, fences, graphs, and more) into MicroStation or AutoCAD. Users can share gINT point surface data – X, Y, Z data such as top of bedrock, bottom of fill, top of aquifer– with Bentley's InRoads, GEOPAK, MXROAD, PowerCivil products, and Bentley Rail Track, as well as with contouring and modeling software for conversion into grids and TINs. Grid surfaces can then be imported back into gINT and displayed onto fence diagrams.

gINT Professional Plus

gINT Professional Plus builds on the reporting and data management capabilities of gINT Professional, adding Microsoft SQL Server support for efficient, centralized data management and powerful multi-project reporting. gINT Professional Plus enables users to:

- Report and query subsurface data from an unlimited number of projects
- Standardize company methods for entering, importing, storing, and reporting data
- Share data with related software programs (including CAD, GIS, Civil and contouring and modeling applications)
- Visualize gINT data using gINT for ArcGIS
- Convert projects so that all use the same geo-coordinate system

## Integrated Geotechnical Lab Testing and Reporting

With gINT Professional and gINT Professional Plus users can quickly integrate lab testing results with other subsurface data. From raw lab data, gINT can perform calculations for any of 13 different lab tests provided with the gINT installation. Once raw lab data is entered into gINT, the resulting calculations can be used on any type of report: logs, fences, tables and more. gINT California Bearing Ratio (CBR) and Concrete Testing are free applications available for download from the Bentley Be Communities website.
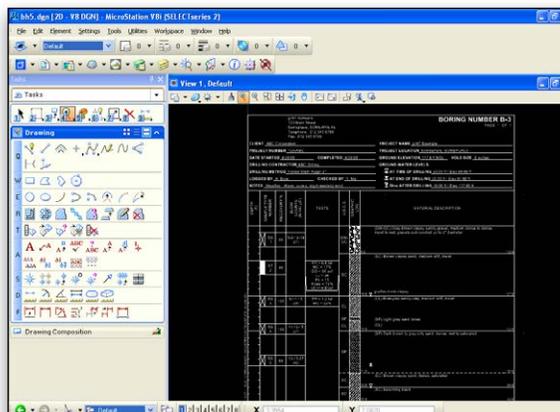
Export gINT reports, including logs, fences, graphs, and more, and edit in MicroStation.

Proven Subsurface Data Management and Reporting

The industry leader for over 25 years, gINT software is designed by experienced engineers who fully understand the standards and requirements that facilitate high-quality geotechnical and geoenvironmental data management and reporting. gINT delivers a full spectrum of data with flexible options to define and customize reports to best suit user preferences.
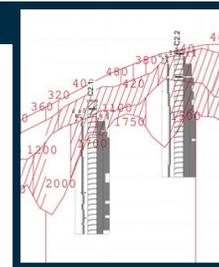
FEATURED SPOTLIGHT

Jan De Nul Panama Canal Expansion

When the cost of dredging 20 million cubic meters is calculated on type and volume of materials – and on whether it is above or below sea level – you need accuracy you can rely on. Jan De Nul used Bentley's geotechnical software to store and analyze geological data on the $5.5 billion Panama Canal project. Using MXROAD and gINT, they not only calculated accurate material volumes and cost estimates to achieve the lowest bids, but also completed the excavation works 4.5 months ahead of schedule.

Which gINT is right for you?

	gINT Logs V8*i*	gINT Professional V8*i*	gINT Professional Plus V8*i*
Borehole and well log reports	✓	✓	✓
ProjectWise integration	✓	✓	✓
Export to MicroStation, Microsoft Excel, databases, and DXF	✓	✓	✓
Import from Microsoft Excel and databases	✓	✓	✓
Google Earth support	✓	✓	✓
Fence reports, graphs, summary tables, site maps, and more		✓	✓
Import AGS and CSV		✓	✓
Export to AGS, CSV, GEOPAK, Bentley MXROAD, InRoads, PowerCivil, and Bentley Rail Track*		✓	✓
Geotechnical lab test reports		✓	✓
gINT civil tools		✓	✓
gINT for ArcGIS add-in		✓	✓
Built-in CAD-based drawing application		✓	✓
gINT Rules programming interface		✓	✓
Multi-project database using Microsoft SQL Server**			✓
Geo-coordinate conversion tools			✓

*gINT exports to GEOPAK CVS and GTD formats. For Bentley MXROAD and InRoads, gINT exports point data text files with
 XYZ coordinates. This data can be used for mapping surfaces such as bottom of fill, top of bedrock, top of aquifer, and more.
**Microsoft SQL Server licenses are not included with gINT Professional Plus.

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