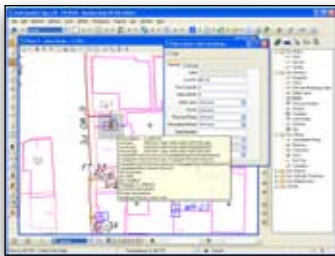




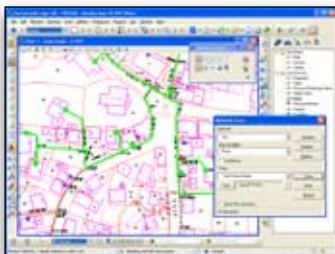
BENTLEY® GAS

EFFICIENT GIS FOR GAS UTILITIES

Bentley Gas combines the best of GIS and CAD with an intelligent data model to address facility management issues with optimum efficiency. The unique approach allows you to focus on simple workflows while performing complex modeling and maintenance operations on the network. Advanced features such as Network Tracing, Leak Analysis, a Bentley® sisHYD interface, and seamless integration with Bentley® Expert Designer Gas increase your return on investment.



Efficiently layout and document the network with simple workflows.



Bentley Gas network tracing is flexible and configurable.



Analyze, report and visualize leaks in the network.

Industry Standard Data Model

Bentley Gas includes a robust data model based on gas utility industry best practices. The data model encapsulates properties, connectivity, relationships, and the rules that maintain integrity of the data. The standard data model allows the utility to install the product and see immediate productivity gains; however, the data model independence in Bentley Gas also allows for modification or complete replacement of the data model.

Feature Placements

Placing an intelligent gas feature according to the Bentley Gas model is as simple as placing any other feature. You are free to use efficient drafting workflows to layout facilities rather than being bound by system constraints. The Bentley Gas advanced inference engine operates behind the scenes using rules to automatically establish network relationships as the user lays out facilities in the GIS.

Feature Edits

Edit feature graphics with common MicroStation® tools. The feature editor provides precise control to modify properties and connectivity relationships while maintaining data integrity.

Network Tracing

The Bentley Gas network engine supports parameter-based network tracing. Trace definition parameters can be created or modified to support user-specific analysis.

Leak Analysis

Augment your pipe replacement program with the Bentley Gas leak analysis utility. Produce simple tabular or more complex cross-tabular reports based on pipe size, material, or any other user-defined attribute over any period of time.

Choice of Data Store

Bentley Gas supports many persistence models including DGN, DGN/RDBMS, and Oracle Spatial. When configured with Bentley® Geospatial Server or Bentley® Expert Designer, it works with persistent datastores supported by GE Energy (Smallworld), ESRI, and others. Your choice of data store allows you to store and access data as best suits your needs and IT infrastructure. Interoperability with many industry data formats for GIS, imagery, and other information makes it easy to share data. Bentley Gas provides the same simple and powerful user interface regardless of your choice of datastore.

Extensive Configurability and Customization

A preconfigured data model provides immediate productivity, yet Bentley Gas's data model allows for re-configuration and customization to meet specific user needs.

Hydraulic Network Analysis Interface

Bentley Gas allows for direct creation of Bentley sisHYD hydraulic analysis models. No redundant data administration is necessary.

Other Bentley Utility GIS Products

Seamless integration with Bentley® Electric, Bentley® Water, and Bentley® Wastewater allows users to leverage skills across disciplines. And, tight integration with Bentley Expert Designer Gas adds powerful new capabilities, including on-the-fly design cost estimation, design cost comparison, automatic compatible unit assignment, configurable work flows, and support for work management and asset management solutions.

SYSTEM REQUIREMENTS

Processor

Intel Pentium-based or AMD, Athlon-based PC or workstation

Operating System

Microsoft Windows XP professional SP2 or higher recommended, MicroStation V8 XM Edition

Memory

1GB Memory or more

Hard Disk

200 MB minimum free disk space

Input Device

Mouse or digitizing tablet

Output Device

Most industry-standard Windows compatible devices are supported

Video

Hardware assisted Direct X Graphics Card with at least 128 MB

ABOUT BENTLEY

Bentley Systems, Incorporated is the global leader dedicated to providing comprehensive software solutions for sustaining infrastructure. Architects, engineers, constructors, and owner-operators are indispensable in improving our world and our quality of life; the company's mission is to improve the performance of their projects and of the assets they design, build, and operate. Bentley sustains the infrastructure professions by helping to leverage information technology, learning, best practices, and global collaboration – and by promoting careers devoted to this crucial work.

For more information, visit www.bentley.com

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BENTLEY GAS AT-A-GLANCE

Comprehensive Gas Utilities Platform

- Gas utilities asset management and mapping platform
- Multiple display and locate options
- Oracle Spatial support for enhanced enterprise integration
- Complete network connectivity and tracing
- Presentation and visualization
- Easy configuration and flexible customization
- Work print generation
- Seamless integration with Bentley Expert Designer Gas

Intelligent Industry Standard Data Model

- Industry standard data models for gas distribution
 - » Defines pipes, devices, cathodic protection, and maintenance features
 - » Comprehensive properties for each feature
 - » Network definitions and behaviors
 - » Business rules
 - » Placement rules
 - » Annotation rules
- Gas flow and cathodic protection network model
- Connectivity consisting of nodes and edges with direct associations to Bentley Gas features
- Place and edit commands enforce connectivity rules
- Flexible rules allow free form placement of features
- Logical connectivity model maintained in a relational database or in the DGN
- Choice of data stores for the network and associated information in Oracle Spatial, RDBMS/DGN, and traditional GIS

Facility Layout and Documentation

- Leverages MicroStation and Bentley geospatial technologies for placement and edit
- Inference Engine automatically builds network connectivity and relationships
- Property-based annotations and symbology
- Feature Editor
 - » Edit and review pipe and device properties
 - » Property Validation
 - » Maintain Network connectivity and relationships
- Automatic and semi-automatic validation and cleanup tools
- Features reference support documents in a managed environment with ProjectWise® links

Network Tracing

- Parameter-based network trace capabilities
- Trace gas flow and cathodic protection, connected (radial), upstream (to source), downstream (away from source) and shortest path from two gas features
- Default predefined stop criteria
- User definable stop criteria
- Customizable with VBA

Leak Analysis

- Associate leak features to pipes individually on placement or post placement
- Associate leak features to pipes in bulk
- Generate reports by areas or the entire network
- Generate complex cross-tabular reports based on user defined criteria including pipe size, material, and time

Other Advanced Features

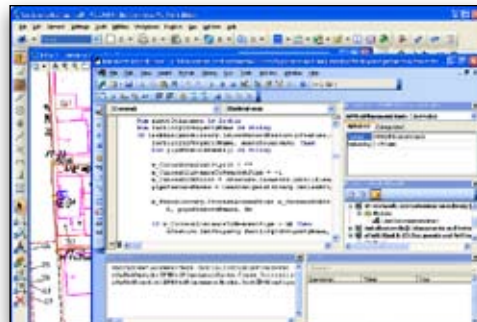
- Seamless Integration with Bentley Expert Designer Gas to add
 - » On-the-fly design cost estimation
 - » Design cost comparison
 - » Automatic compatible unit assignment
 - » Configurable work flows
 - » Support for work management and asset management solutions
- Interface to Bentley sysHYD
 - » Adds hydraulic network analysis capabilities
 - » Export of native Bentley Gas features to Bentley sisHYD

Presentation/Visualization

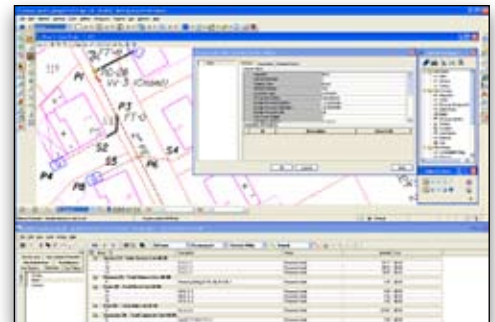
- Powerful raster tools for imagery
- Thematic representation
- Generate buffer zones for analysis
- Measurement tools for distance and area calculations
- Leak Analysis reports
- Add grids and title blocks to mapping data
- High-resolution output to printers and plotters
- Publish gas network information to a web browser via Bentley® Geo Web Publisher™

Configurable and Customizable

- Configurable industry standard data model
- Data model independence allows complete replacement or integration with existing GIS
- Configure with the Model Administrator
- Comprehensive customization model
- Built-in Visual Basic for Applications (VBA)



Configure with the Model Administrator and Customize with VBA.



Bentley Gas and Bentley Expert Designer Gas work seamlessly to maximize efficiency of design workflows.