

**Bentley**<sup>®</sup>  
Advancing Infrastructure

 CONNECT Edition



## OpenUtilities<sup>®</sup> Designer

Intelligent Design for Smarter Grids

OpenUtilities Designer is a robust software application that helps you design and manage your electric, gas, water, wastewater, or district energy network. The application allows you to speed the design process with precise MicroStation<sup>®</sup>-based layout features that integrate with common GIS systems. OpenUtilities Designer's estimation capabilities lower project costs by enabling designers to quickly refine their designs and calculate cost at the same time. The software allows you to use built-in workflow management capabilities to assign, track, manage work, and avoid delays on your project. Additionally, an embedded, full-featured utilities GIS maintains your network models and maps, enabling you to lower your software costs.

### Accelerate Layout with Engineering-precision Design Tools

OpenUtilities Designer speeds brownfield and greenfield layout with smart capabilities that produce precise, high-quality designs. The software enables you to leverage intelligent MicroStation-based design tools within the built-in, OpenCities<sup>®</sup> Map-based design editor. OpenUtilities Designer saves you time with smart drag-and-drop placement and editing from an interactive catalog of intelligent GIS features and compatible units, which are supported by configurable business rules and standards. Moreover, OpenUtilities Designer helps you achieve the quality that you demand without the inefficiency of traditional GIS-based drawing applications.

### Refine Designs Quickly with Dynamic Cost Estimation

OpenUtilities Designer provides real-time cost feedback on each design decision through dynamic cost estimates. The application enables you to create detailed cost breakdowns of labor, materials, and equipment at each work location. You can use the cost estimation feature to compare pricing of alternatives and determine the most cost-effective design.

### Speed Workflows with Integrated Design Management

OpenUtilities Designer's embedded and configurable workflow engine helps you avoid project delays while enabling you to create, assign, manage, and approve work orders in stand-alone mode or through a two-way standard, message-based connection to your work management system. By defining dashboards and reports, managers can better track project status and progress.



*Design assistant supports interoperability with structural analysis solution.*

### Eliminate Rework with Construction-quality Prints

OpenUtilities Designer allows you to publish high-quality construction documentation directly from the design environment, avoiding the need to redraw designs in a separate CAD application. You can ensure compliance with your construction print standards with a variety of paper sizes, printers, and plotters, as well as configurable plotting templates that include imagery, legends, north arrows, plotting to scale, and interactively defined grids and graticules.

### Improve Operations with Network Analysis

OpenUtilities Designer enables you to analyze and report leaks for an area or the entire network, as well as helps you to perform upstream/downstream and shortest/multiple/redundant path traces for flow, conduit, and cathodic protection networks. Additionally, the application's capabilities let you easily create buffers, overlays, joins, thematic maps, dynamic labels, reports, and queries.

### Lower Deployment Cost with Pre-configured Data Models

OpenUtilities Designer tailors out-of-the-box commodity-specific data models using simple metadata-based tools to create and manage data structures. You can define compatible units with material and labor costs by job type and service region. Defining design, symbology, and compatible unit rules lets you match your company standards.

### Promote Data Reuse and Integrity with Support for Leading Spatial Databases

OpenUtilities Designer helps you manage large volumes of 2D and 3D spatial data with direct query from and uploads to standard Oracle Spatial or Microsoft SQL Server Spatial databases. You can share network data across your enterprise and integrate with other operational systems using native formats.

### Empower Field Staff with Bentley Map<sup>®</sup> Mobile Support

With OpenUtilities Designer, you can enable your field staff to work more productively and improve your decision-making by publishing your utility GIS data to Bentley Map Mobile. Additionally, using Bentley Map Mobile Publisher lets you define and publish an indexed iModel that is viewable on tablet devices.

### iTwin<sup>®</sup> Enabled

By aligning your engineering data with other associated data and reality models, you can transform it into a digital twin. The iTwin-enabled software enables you to visualize and track engineering changes along project timelines, providing an accountable record of change management.

### Structural Interoperability Services (Optional Add-On)

Add integrated structural analysis workflows and connect to Neara (formerly Power Lines Pro) in one application. Accelerate your design process with a unified design environment to eliminate overdesign, reduce capital expenses, and streamline design workflows. Deliver brownfield and greenfield projects faster and experience up to a 20% reduction in design time. Extend joint use workflows for both electric and communication networks to assess communication equipment on electric poles to improve design visibility for joint-use facilities.

## System Requirements

### Processor

Intel® or AMD® processor  
3.0 GHz or greater

### Operating System

OpenUtilities CONNECT  
Edition supports  
Windows 8, Windows 8.1 and  
Windows 10 (64-bit version)  
Windows Server 2012 x64  
and Server 2016

### Memory

2 GB of RAM minimum,  
4 GB or more recommended

### Disk Space

2 GB free disk space minimum

### Graphics Card

DirectX 9.0c supported

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## OpenUtilities Designer At-A-Glance

### Time-saving Layout and Editing Tools

- Catalog-driven design editing
- Automatic, business rule driven editing
- Design templates based on past projects
- User-configurable modification of layout and editing tools

### Dynamic, Real-time Cost Estimates

- Automatic compatible unit assignment
- Instant detailed cost breakdowns
- Comprehensive unit data support
- Compatible unit data from external system
- Configurable compatible units and macro units

### Integrated Work Management

- Work request and design management
- Configurable support for complex business workflows
- User-specific work status including pending and past-due
- Tracking of project status, duration, and schedule
- Configurable dashboards for managers and executives
- Quick and easy filtering, querying, reporting
- Design preview for faster approval process

### Intelligent Industry Standard Data Models

- Electric distribution
- Gas distribution
- Water/wastewater distribution
- Support for data model adaptation and modification
- Support for data model creation from scratch

### All the Power of MicroStation

- Smart, quick drawing, and editing of utility network data
- Raster management
- AccuSnap and AccuDraw placement and editing
- Display priority and transparency

### All the Power of OpenCities Map

- XML feature modeling
- Geospatial Administrator
- Map Manager (resymbolization, analysis)
- Geographic coordinate systems tools
- GIS interoperability tools
- Integration with Safe Software's FME
- File and spatial database persistence
- Support for Bentley Map Mobile Publisher

### Consolidated Administrative Function

- Microsoft MMC implementation for admin tools
- Security Management
- Data Model and CU Rule Management
- Reports Management

### Network Tracing and Reporting

- Flow, conduit, cathodic protection networks traces
- Upstream/downstream, shortest/multiple/redundant path traces
- Individual, composite, or cumulative trace reports
- Pre-defined or user defined stop criteria
- Network trace API

### Leak Analysis and Reporting

- Leak feature association (individually or in bulk)
- Leak reports by area or entire network
- Cross-tabular reports on pipe size, material, and time
- Export of individual or aggregated results to Map Manager

### Profile Creation

- Profile path definition by trace
- Addition/Removal of features for profile creation
- Individual profile definitions storage for re-use
- Fully configurable using Profile Editor

### Utility Layout and Edit Tools

- Inference Assisted Placement
- Editor tool to modify properties
- Editor tool to modify network relations
- Smart Move/Modify utility network features
- Split/Merge utility network features
- Connect/Disconnect from flow network
- Attach/Detach from structural network

### Oracle Spatial Editing

- Fully Oracle Spatial compliant
- Two- or three-tier connection
- Long and short transaction support for safe multi-user editing
- Adherence to native Oracle Spatial feature and topology models
- Supported versions: 11g, 12c, 18c, 19c

### SQL Server Spatial Editing

- Fully SQL Server Spatial compliant
- Two-tier connection for safe multi-user editing
- Short transaction support for safe multi-user editing
- Adherence to native SQL Server Spatial feature models
- Supported versions: SQL Server 2012, 2014, 2016, 2017, Azure SQL DB version 12

### Utility Interoperability (Import/Export)

- Integration with OpenFlows™ products
- Integration with sisHYD multi-utility
- Import MACP, PACPsurvey
- Interoperability with PostGIS and ArcGIS Server

### Enterprise Application Integration

- Configurable integration with a variety of external GIS
- Configurable integration with external WMS or ERP systems
- Preconfigured integration with ProjectWise® for efficient engineering content management

### Construction-quality Prints

- WYSIWYG plot generation with user-defined templates and legends
- Publishing to intelligent PDF, PostScript, and other output formats

### Fully Configurable and Customizable

- Model Administrator and Data Loader configuration tools
- .NET language customization, including VBA