

BENTLEY® MXURBAN™



Road design software for cities and suburbs

Bentley MXURBAN is parametric design software for the development of roads in cities and urban areas with dense concentrations of population, utilities, and services. It offers an easy-to-use menu that steps you through the road design project workflow. From road overlays within existing curb lines, to full reconstruction of roads and associated sidewalks and cityscapes, Bentley MXURBAN lets you work better and faster to achieve real-world road designs in minimal time. It speeds the process of design iteration and refinement to ensure the optimal design solution.

At its core, MXURBAN uses 3D string modeling technology—a powerful yet concise method of creating 3D surfaces. An interoperable database allows engineers to create and annotate 3D project models in the most popular AEC platforms or in Windows. This means that you can work on the project within one environment, save it, and open it seamlessly in another environment with no loss of data. This promotes maximum productivity of trained staff.

Parametric Road Design

Bentley MXURBAN is unique in that you can design roadways from the edges in. You define the constraints, minimums and maximums, and other limits, and MXURBAN fits the design parametrically to help you work quickly. This allows you to effectively work from the outside of the roadway towards the center; a different approach to the traditional centerline outwards method used elsewhere.

Total Process Management

Bentley MXURBAN provides the tools to manage the entire urban design process, from survey data import into the constraint-driven design iteration phase, to final working drawings and on to high quality contract drawings.

Easy Project Visualization

With this 3D design tool, you have the flexibility to view and evaluate design changes in plan, profile, section, and isometric views. The graphical display lets you move elements interactively, so it's easy to visualize and understand the impact of design changes. For example, with one change of a vertical PI, you can see how drainage is affected by your design changes.

Reduce Design Time While Maintaining Accuracy

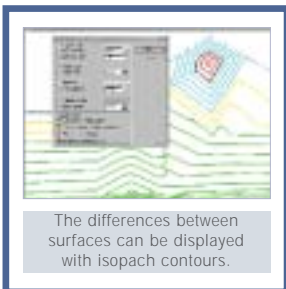
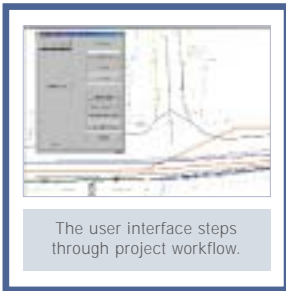
Bentley MXURBAN takes into account drainage, street fixtures, sub-surface piping and cabling, building threshold levels and varying pavement designs. The “set and forget” design controls notify you when minimum and maximum design values are exceeded.

A Graphical Interface That Puts You in Control

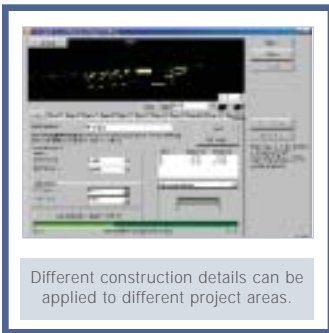
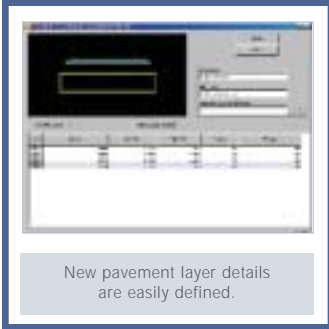
As you change the design, you instantly see the effects in plan, profile, section, and isometric views. Annotation is automatically range-checked and color-coded to highlight problem areas. Unlimited undo and redo let you explore “what if” scenarios.

Minimize Project Costs and Maximize Quality

Bentley MXURBAN helps you achieve the best design in terms of material use, ride quality, and drainage characteristics. Automatic calculation of quantities enables easy cost analysis including regulation and milling. The software includes the ability to model sidewalks and curb construction types.



BENTLEY MXURBAN AT-A-GLANCE



BENTLEY MXURBAN SYSTEM REQUIREMENTS

- *Software: MicroStation® V8 or higher, AutoCAD® 2000 or higher
- Processor: Intel® Pentium® 500MHz minimum, Intel Pentium 900Hz recommended
- Operating System: Microsoft Windows 2000 SP2, Microsoft Windows XP
- Memory: 128 MB minimum, 256 MB recommended
- Disk Space: 450 MB
- Input Device: Mouse

*For the MXURBAN in Windows standalone version, no CAD software is required. All other requirements apply.

Data Interoperability

- Seamless integration between CAD platforms, including the most popular AEC platforms
- Data can be imported from almost any source

Alignment Design

- Dynamic and advanced tools for interactive alignment creation
- Variety of spiral types to international standards
- Comprehensive geometric reporting, including on-the-fly volumetrics allowing optimization of cut/fill percentages
- Ability to snap to existing terrain features with clearance checking
- Parallel alignment creation

Project Setup

- Use road centerline, flow line, or another line as reference for all design features
- Ongoing design control through nomination of highway boundaries, project limits, and constraints
- Ability to take street fixtures, services, and building thresholds into consideration during the design

Parametric Fitting

- Dynamic, graphical display for evaluating the effect of design changes instantly in plan, profile, section, and isometric views
- Automatic creation of Best Fit profile through a user-defined envelope, offering significant time savings
- Ability to link/relate design features so that any changes applied to individual features will effect all linked features

Pavement Layer Construction

- Comprehensive tools for storage of different pavement construction styles
- Ability to design pavement layers in 3D and optimize their interaction with existing surface
- Automatic calculation of quantities including regulation and milling enables easy analysis of suitability and cost

Interactive Design Editing and Analysis

- 3D design data editing via sections at individual stations or over a range of stations
- Design changes with on-the-fly surface analysis for instant, visual support of design decisions
- Depth band and contouring allow early identification of potential problem areas

Reports

- Access via dynamic reports to a wide range of reporting options from an expanding toolbar
- User- definable Horizontal and Vertical Alignment Geometry reports
- Ability to create reports from Volumetric Analysis tool for calculating cut/fill areas and volumes

Earthworks

- Drag and drop styles to define cut/fill strategies
- Library of simple, multiple and combination slopes
- Generation of single interface string, regardless of the cut/fill condition or separate strings for cut and fill
- Creation of custom earthworks styles specific to current design or local design rules

LandXML Support

- Support of industry-standards, such as LandXML
- Export of existing and design surfaces to other systems via XML

Integration with Bentley Content Management and Publishing Solutions

- Tight integration with Bentley content management and publishing solutions to bring collaborative design data to the entire project team in a secure environment
- Integration of Digital InterPlot at the production end, enabling automated plot set generation and Web-based access to plot archives

CALL TODAY FOR MORE INFORMATION

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.

Visit us on the Web for more information about Bentley solutions and services. www.bentley.com

Bentley North American Headquarters

Bentley Systems, Incorporated
685 Stockton Drive
Exton, PA 19341 USA
Phone: +1 800 BENTLEY (+1 800 236 8539)
Outside the US +1 610 458 5000
Fax: +1 610 458 1060

Bentley International Headquarters

Bentley Systems Europe B.V.
Wegalaan 2
2132 JC Hoofddorp
THE NETHERLANDS
Phone: +31 23 556 0560
Fax: +31 23 556 0565

To find a local Bentley office, please visit www.bentley.com/corporate/contacts.

