Bentley®

Product data sheet

ProConcrete™

Precise concrete detailing for seamless modeling and documentation

Bentley ProConcrete allows structural engineers, designers, detailers, and fabricators to model parametric reinforced concrete objects of any shape, with any combination of reinforcing. It enables the easy creation of concrete structures for a variety of sectors, such as building, plant, civil, and bridges. ProConcrete helps you reduce documentation production time and eliminate errors and design flaws. It allows users to quickly create accurate 3D models, placement drawings, fabrication details, bar bending schedules, concrete quantity, and material reports with automatic updates to reflect model changes. As part of Bentley ProStructures™, which includes the capabilities of ProConcrete and ProSteel™ applications, you can increase your productivity and profitability.

Create accurate models with powerful 3D parametric reinforced concrete modeling

ProConcrete allows you to model any reinforced concrete shape with advanced parametric capabilities. Using intuitive reinforced concrete modeling commands, you can easily model industry-standard structural members—such as beams, columns, slabs, walls, and foundations—as well as complex reinforced concrete shapes, including curves, sloping, or non-orthogonal shapes. Added steel reinforcement is attached to concrete objects and updates automatically as the concrete shape changes.

Communicate design with high-quality documentation

ProConcrete drawings, bills of materials, and bar bending schedules are produced directly from the 3D model. Plans, sections, and details based on user-defined drawing styles can be created from any view direction and are dynamically updated following changes to the model. Bar-bending schedules and material takeoffs are easy to extract from the 3D model and are highly customizable to conform with any country or company standard. This substantially reduces the time to produce documentation and virtually eliminates errors and design flaws.

Reuse structural data with interoperability

Information modeling process is based on exchanging data among project participants to assure best quality and faster delivery. ProConcrete allows for seamless collaboration and exchange of information with other disciplines, including architectural, plant and process, HVAC, and services. Reinforcing concrete models from other solutions—such as Bentley OpenBuildings® Designer, OpenBridge Modeler®, and MicroStation®—is made easy by enabling reinforcement modeling in models attached as references. Collaboration with engineers who use third-party solutions, such as Autodesk Revit or Tekla Structures, is enabled through industry-standard formats, including Industry Foundation Class (IFC). Reinforcement models can then be transferred digitally to rebar manufacturers for fabrication and rebar placers for construction, which allows users to manage their day-to-day work with digital data and 3D models, vastly improving efficiency.

System requirements

Minimum: Intel® or AMD® processor 2.0 gigahertz or greater; Windows 10 (64-bit), Windows 8 (64-bit), Windows 8.1 (64-bit), Windows 7 (64-bit), Windows Server 2008 R2 SP1 (64-bit), Windows Server 2012 (64-bit); 4 gigabytes of RAM; 25 gigabytes of hard disk.
Recommended: 16 gigabytes of RAM recommended; Graphics card supported by DirectX 9.0c. 512 megabytes of video RAM or higher.

ProConcrete at-a-glance

Parametric reinforced concrete modeling

- Support for multiple national and international codes
- Use standard parametric and easily modified reinforced concrete objects like beams, columns, slabs, footings, and walls with their respective reinforcement
- Model openings and adjust reinforcement with intuitive modification capabilities. Specific opening reinforcement capabilities enable quick additional reinforcement modeling
- Model rebar of any shape and complexity with user reinforcement capabilities
- Update face-based rebar modeling for user reinforcement when concrete shape changes by constraining reinforcement to concrete faces and edges
- Templates and styles – Recorded settings for sharing and maintaining standards in all the dialog boxes.

Documentation

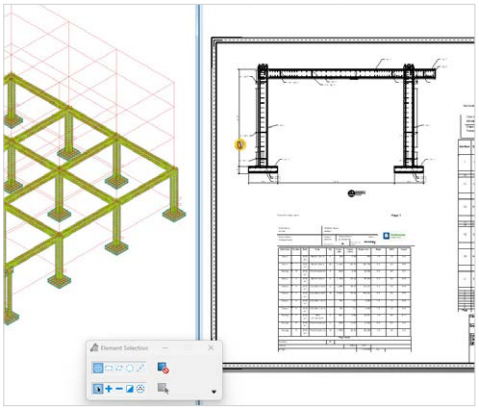
- Quickly extract fabrication, placing, and general arrangement drawings
- Automatically update drawings based on changes to the 3D model
- Customize drawing output based on user-defined detail styles and preferences
- Generate bar bending schedules and bills of material (BOM) in single or batch process.

Interoperability

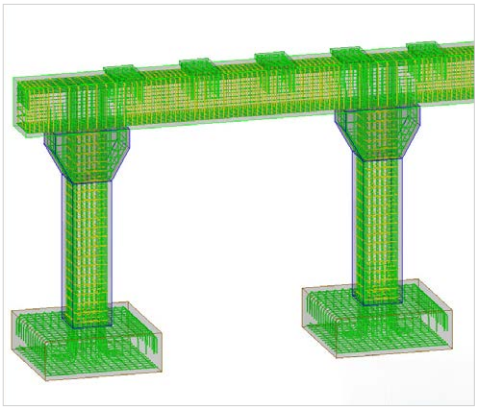
- Provide integrated capabilities, minimize duplication among various software platforms, and easily investigate alternative designs
- Reinforce existing concrete models from applications like OpenBuildings Designer, OpenBridge, and MicroStation
- Easily collaborate with other disciplines by sharing and referencing project information
- Output in many file formats, such as IFC, ISM, iModels, and 3D PDFs
- Interface to enterprise resource planning (ERP) systems.

Integrate modeling and documentation work

- Support for ProjectWise® Managed Workspaces
- Share personal files, including iModels and 3D PDFs, directly from your desktop
- Review project details and status, as well as gain visibility into project performance
- Access personalized learning, communities, and project information
- Coordinate work and share information with real-time project visibility.



ProConcrete drawing tools help generate rebar set drawings with automatic annotations and quickly add concrete and rebar quantity tables.



ProConcrete tools support using standard concrete shapes or converting 3D solids into concrete elements

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Find out more at **Bentley.com**
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