ProSteel™

Smarter steel detailing for precise, fabrication-ready designs

ProSteel provides structural engineers, detailers, and fabricators with the ability to efficiently and accurately develop models and documentation for steel structures. ProSteel delivers an intuitive 3D modeling system that is perfectly suited to lay out complex steel structures and extract engineering, fabrication, and erection drawings with automatic updates whenever the 3D model is changed.

Additionally, in-drawing and external reports and bills of material can be generated and updated.

Create accurate models with industry-leading structural steel modeling

ProSteel provides an array of easy-to-master capabilities to create and modify structural steel objects. They also include parametric connections and behaviors that allow more complicated steel assemblies to be developed quickly and accurately. The template and style features enhance user productivity while sharing and maintaining standards.

The large selection of modification features allows you to manage and maintain changes to elements while the provided view and classification capabilities allow you to change the way the model is displayed.

Another powerful part of ProSteel is a mature API/SDK that allows users to write their own custom applications, which can range from simple to very complex based on the users' specific needs.

Deliver high-quality documentation with world-class steel fabrication drawings

A variety of accurate 2D documents can be automatically generated from the 3D model. This increases efficiency and minimizes errors through a streamlined process to generate such documents as general arrangement and fabrication drawings, bills of material, and numerical control (NC) data. All drawings and bills of material are directly linked to the 3D model to maintain their fidelity and accuracy.

Documents are driven by integrated user-customizable rules, such as the powerful form generator for bills of material and the Detailstyle wizard for all types of 2D drawing.

Reuse structural steel data with interoperability

Data duplication is eliminated through the accurate sharing of structural data across the entire project team by integrating seamlessly with other facets of the engineering design chain. This helps project teams streamline workflows, enhance collaboration, and maximize productivity. You can easily exchange the structural model with the structural analysis and design software application and share accurate and up-to-date 3D structural models with the entire project team. ProSteel integrates seamlessly with other Bentley products, as well as the most common third-party structural products.

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.

ProSteel at-a-glance

Industry-leading structural steel modeling

- Standard parametric connections are included and easily modified. Some of the connections include: end plate, base plate, web angle, shear plate, splice joint, haunch, stiffener, and purlin connection
- Element modification capabilities, such as drill holes, bolts, notches, polycuts, and diagonal cuts
- Structural parametric objects for quick modeling, including: staircase towers, handrails, ladders, bracing, portal frames, wall claddings, purlin systems, truss/lattice girders, platforms round and rectangular, and walkways
- Templates and styles – Recorded settings for sharing and maintaining standards in all the dialog boxes
- Intuitive capabilities for plate construction that are applied to many sectors, including mining.

World-class steel documentation

- Quickly extract fabrication, erection, 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 parts lists and bills of material (BOM) in single or batch process.

Interoperability

- Provide integrated capabilities, minimize duplication between various software platforms, and easily investigate alternative designs
- Easily collaborate with other disciplines by sharing and referencing project information
- Output in many file formats, such as IFC, ISM, iModels, and 3D PDF
- Integrate with Bentley and third-party software: STAAD®, RAM®, SDNF 2/SDNF 3, CIS/2 (CIMSTEEL), SCIA ESA-PT, Dlubal RSTAB, KISS, DSTV-NC, and DSTV-PPS
- Detail output to CNC machines automates the steel fabrication process
- Interface with 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.
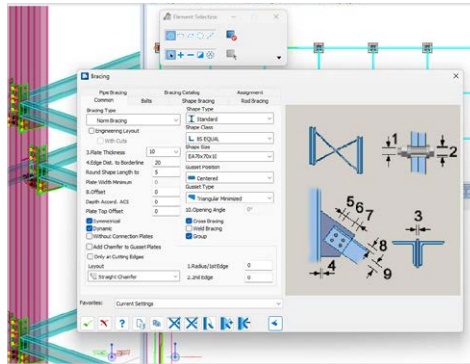
ProSteel tools enable the use and modification of the delivered steel shapes and connection nodes, as well as the creation of custom shapes and connection nodes.
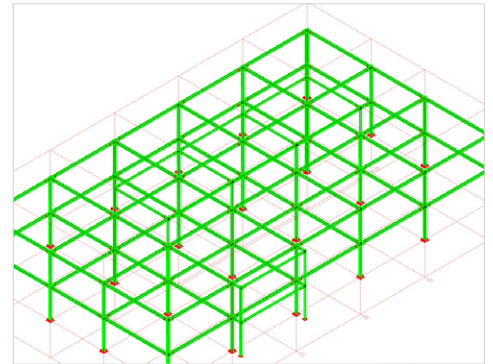
ProSteel Detail Center automates drawing processes with automatically calculated quantity tables.