PRODUCT DATA SHEET

Bentley
Advancing Infrastructure

CONNECT Edition

STAAD.Pro®

Comprehensive Structural Analysis and Design Software

STAAD.Pro is a comprehensive and integrated finite element analysis and design offering that includes a state-of-the-art user interface, visualization capabilities, and international design codes. The application is capable of analyzing any structure exposed to static, dynamic, wind, earthquake, thermal, and moving loads. STAAD.Pro provides structural analysis and design for any type of project, including towers, buildings, culverts, plants, bridges, stadiums, and marine structures.

The CONNECT Edition

The SELECT® CONNECT Edition includes SELECT CONNECT *services*, new Azure-based services that provide comprehensive **learning, mobility,** and **collaboration** benefits to every Bentley application subscriber. *Adaptive Learning Services* helps users master use of Bentley applications through CONNECT Advisor, a new in-application service that provides contextual and personalized learning. *Personal Mobility Services* provides unlimited access to Bentley apps, ensuring users have access to the right project information when and where they need it. *ProjectWise® Connection Services* allow users to securely share application and project information, to manage and resolve issues, and to create, send, and receive transmittals, submittals, and RFIs.

Analysis and Design

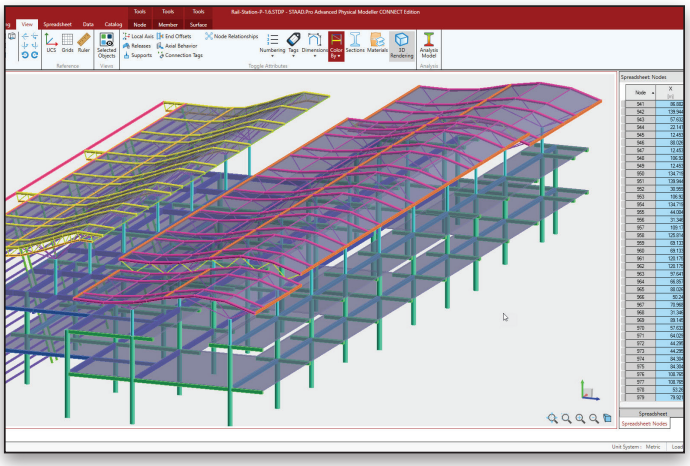
The standard STAAD.Pro analysis methods provide you with a grounding in structural and analysis requirements for an array of projects. When more advanced capabilities are required, you can extend to STAAD.Pro Advanced.

STAAD.Pro reduces the resource hours required to properly load your structure by automating the forces caused by wind, earthquakes, snow, or vehicles. No matter what material you use or in what country you design your structure, STAAD.Pro can easily accommodate your design and loading requirements, including U.S., European (including the Eurocodes), Nordic, Indian, and Asian codes. Even special codes are accommodated at no extra cost.

With an unparalleled quality-assurance program, open architecture for customization, and a 25-year track record – including such projects as the MCI Stadium in Washington D.C., Wimbledon Court No.1 in London, and the tallest transmission tower in Asia – STAAD.Pro is a suitable application for your design firm.

Extremely Flexible Modeling Environment

The power of STAAD.Pro is in an interface based on the latest programming technology. Along with our tutorial movies, we include online help and dozens of examples to illustrate solutions to commonly raised modeling, analysis, and design issues. Eighty percent of new users learn to use STAAD.Pro efficiently in under two hours.



Physical modeling capabilities enable engineers to better participate in BIM workflows, automatically generating the analysis models for both simple and complex structural analysis.

Broad Spectra of Design Codes

Steel, concrete, timber, and aluminum design codes from all around the world, including historical codes, mean you can take STAAD.Pro to wherever your company works.

Interoperability and Open Architecture

STAAD.Pro is more than an analysis and design application. From simple importing of CAD models to creating custom links and developing third-party applications, STAAD.Pro can be the heart of your structural solution. When integrated with ProjectWise, your STAAD.Pro models can be efficiently managed with the leading project collaboration system. By using the ISM integration, STAAD® models become part of an integrated BIM workflow with products such as ProStructures, OpenBuildings™ Designer, Revit, and Tekla.

Quality Assurance

STAAD.Pro undergoes the most demanding quality and testing program. Our procedures follow the requirements of 10CFR Part 50 Appendix B, 10CFR Part 21 and ASME NQA-1, which means STAAD.Pro has been approved for use on the design of nuclear power installations.

System Requirements

Processor:
Intel® Pentium or AMD processor 2.0 GHz or greater

Operating system:
Windows 10 or 8/8.1 64 bit OS

System memory:
1 GB minimum, 2 GB recommended.

Additional memory potentially improves performance, particularly when working with larger models. 4 GB or more can help speed up solutions for very large complex models with large numbers of load cases.

Disk space:
Requirements will vary depending on the modules you are installing. A typical minimum is 500 MB free space.

Display:
Graphics card and monitor with 1280x1024 resolution, 256 color display (16-bit high color recommended)

A sound card and speakers are needed for the tutorial movies and slide shows.

Find out about Bentley at: www.bentley.com

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Outside the US +1 610-458-5000

Global Office Listings
www.bentley.com/contact

STAAD.Pro At-A-Glance

User Interface
- Graphical capabilities. Models can be created quickly and accurately using structural grids, tooltips to highlight data, frame generators, and a structure wizard for standard structural frames
- Visualization. From simple wire frames for speed, accuracy, and ease of use to fully rendered 3D models for clear mass distribution and presentation
- All new advanced IDE style Editor with IntelliSense, Database Integration, and context sensitive help
- Meshing capabilities. Triangular or quadrilateral meshes created from zones within defined models or imported from DXF files
- Load generators. Seismic UBC, IBC, ASME wind and snow, bridge loading BEAVA
- Steel detailing and concrete modeling capabilities when used with a subscription program

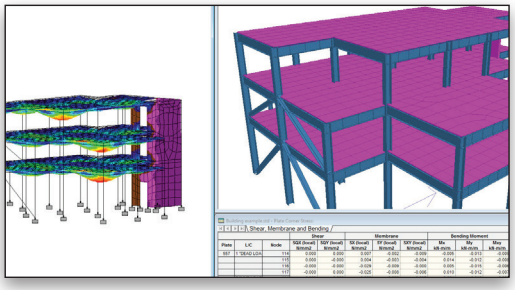
Objects
- Beams. Standard linear, curved and physical beams, compression/tension only, with databases of sections from around the world
- Plates. 3- or 4-noded 2D plates and surface objects with holes
- Solid. Solid 3D bricks from 4- to 8-noded
- Supports. Foundation and multilinear springs
- Loads. Full range of loads for static and dynamic analysis that can be defined explicitly or calculated using the wide range of load generators

Analysis
- Elastic. Traditional first-order including iterative one-way analysis
- P-Delta. Both large and small P-Delta including stress-stiffening effects
- Imperfection. Account for imperfections in structural geometry
- Direct analysis as per AISC 360
- Geometric nonlinear analysis (requires STAAD.Pro Advanced)
- Dynamic. Modal analysis including stress-stiffening eigen solution and steady-state options, time history, and response spectrums
- The standard solver, the staple of STAAD for over 20 years is now complemented by an advanced solver that can be up to 1,000 times faster
- Section Wizard. Calculate properties of built-up sections, drawn freehand, parametrically defined, or imported from a CAD drawing

Post Processing
- The STAAD.Pro interface is configured to suit the model to ease access to the required data
- Interactive graphics. Linked tables and windows to get direct feedback from one item in related windows
- Output file. Simple clear information to verify the analysis
- User report. Create high-quality documents
- Contoured stress plots. Using automatic or user-configured scales, colors, and limits
- Animations. View displacements, stress contours, or mode shapes dynamically

Intraoperability
- Bentley CONNECT provides unparalleled project management to your engineering workflow
- RAM® Connection. Joints defined in the model with the forces calculated from the analysis can be passed into the leading connection design application
- Bentley AutoPIPE®. Pass the STAAD.Pro structural steelframe into AutoPIPE to correctly account for the pipe support stiffnesses and import the pipe engineers support reactions back into the model for an accurate design in a fraction of the time of traditional methods
- STAAD Foundation Advanced. Import the STAAD.Pro support reactions and positions directly to design the structure foundations
- RAM Concept. Floor slabs can be identified and linked to RAM Concept for full RC and PT design and detailing in a state-of-the-art application
- ProStructures and OpenBuildings Designer. Two-way link to support creating models with design and construction documents
- OpenSTAAD™ is an API from which STAAD data can be extracted directly into custom programs or applications such as Microsoft Word or Excel. You can even use OpenSTAAD to drive the creation of STAAD.Pro models, run the analysis, and view the results with your own interface
- CAD, DXF. Use CAD models as the base wire frame, structural grid, or outline of a complex deck that needs to be meshed
- CIS/2. Exchange data with other steel design packages

Design and Documentation
- Steel Design. Choose from 50 codes from around the world
- Integrated steel drawing production using Steel Autodrafter (requires SELECT or ELS)
- Concrete Design. Select from 40 design codes, either in batch processing or the interactive Concrete Design Mode
- Advanced Concrete Design. Integrated concrete design, detailing, and drawing production (requires STAAD.Pro Advanced)
- Timber. Support four design codes
- Aluminum design
- Shear wall designs for U.S., Indian, and British codes



Generate analytical models directly from the engineer's physical model with STAAD.

Need a more comprehensive structural portfolio of trusted analysis and design applications?
Check out Structural Enterprise. Design in any infrastructure sector, with multiple materials, using any analysis method that is appropriate for the job. Learn more by visiting, **www.bentley.com/StructuralEnterprise**

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