



STAAD.Pro

Powerful Structural Analysis
and Design Software

DESAIN & ANALISA STRUKTUR

STAAD.Pro adalah aplikasi analisis dan desain struktur berbasis metode elemen hingga (Finite Element Analysis/FEA) yang powerful dan terintegrasi. STAAD.Pro dilengkapi dengan kemampuan visualisasi, antarmuka pengguna yang sederhana, serta berbagai standar dan kode desain yang luas. Anda dapat menganalisis berbagai jenis struktur yang menerima beban statis, dinamis, angin, gempa, termal, maupun beban bergerak. STAAD.Pro menyediakan kemampuan analisis dan desain struktur untuk berbagai jenis proyek, termasuk gedung, gorong-gorong (culvert), fasilitas industri (plant), jembatan, stadion, hingga struktur lepas pantai/marine.

Metode analisis standar STAAD.Pro memberikan dasar yang kuat dalam memahami kebutuhan struktur dan analisis untuk berbagai jenis proyek. Ketika diperlukan kemampuan analisis yang lebih canggih, Anda dapat meningkatkan kemampuan dengan menggunakan STAAD.Pro Advanced.

STAAD.Pro mengurangi waktu dan sumber daya yang diperlukan untuk menentukan pembebanan struktur secara tepat dengan mengotomatisasi perhitungan gaya yang disebabkan oleh gravitasi, angin, gempa bumi, salju, maupun kendaraan. STAAD.Pro juga dapat dengan mudah mengakomodasi berbagai kebutuhan desain dan pembebanan, termasuk kode dan standar desain Amerika Serikat, Eropa, India, Tiongkok, dan Jepang. Dengan program quality assurance yang unggul, arsitektur terbuka yang memungkinkan kustomisasi, serta rekam jejak selama lebih dari 25 tahun, semakin banyak perusahaan konsultan dan firma desain yang memilih STAAD.Pro sebagai solusi untuk analisis dan desain struktur.

PERMODELAN YANG SANGAT FLEKSIBEL

STAAD.Pro dirancang agar mudah dipelajari dan digunakan. Selain menyediakan video tutorial, aplikasi ini juga dilengkapi dengan bantuan online (online help) serta puluhan contoh yang menjelaskan solusi untuk berbagai permasalahan umum dalam pemodelan, analisis, dan desain struktur. Bahkan, 80% pengguna baru dapat mempelajari dan menggunakan STAAD.Pro secara efisien dalam waktu kurang dari dua jam.

SUPPORT BERBAGAI KODE DESAIN INTERNASIONAL

Manfaatkan berbagai kode desain baja dan beton dari seluruh dunia, termasuk beragam versi kode standar yang pernah digunakan sebelumnya. Luasnya pilihan kode desain yang tersedia di dalam program, baik standar terkini maupun historis, membuat STAAD.Pro sangat fleksibel untuk digunakan, mulai dari pekerjaan konstruksi lokal berskala kecil hingga proyek internasional berskala besar. Material lainnya juga dapat digunakan dalam proses analisis. Selain itu, tersedia pula pemeriksaan desain dasar untuk material tersebut. Dengan demikian, STAAD.Pro dapat berkembang mengikuti pertumbuhan bisnis Anda.

INTEROPERABILITAS DAN SISTEM TERBUKA

STAAD.Pro bukan sekadar software untuk analisis dan desain struktur. STAAD.Pro hadir sebagai bagian penting dari ekosistem solusi struktur yang memungkinkan Anda bekerja lebih cepat, terintegrasi, dan fleksibel. Mulai dari mengimpor model CAD dengan mudah, membuat koneksi khusus, hingga mengembangkan aplikasi pihak ketiga, STAAD.Pro memberikan kebebasan untuk menyesuaikan alur kerja sesuai kebutuhan proyek dan bisnis Anda.

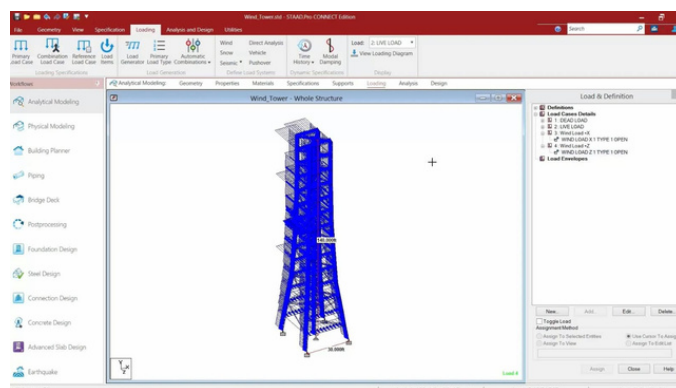
Dengan integrasi ProjectWise®, model STAAD.Pro dapat dikelola secara lebih efisien dalam sistem kolaborasi proyek, membantu tim bekerja dengan data yang lebih terorganisir dan terkoordinasi. Lebih jauh lagi, melalui integrasi iTwin® Analytical Synchronizer, model STAAD® dapat menjadi bagian dari workflow BIM terintegrasi bersama berbagai platform seperti ProStructures, OpenBuildings® Designer, Revit, dan Tekla. Hubungkan data. Integrasikan workflow. Tingkatkan produktivitas.

QUALITY ASSURANCE

Pengembangan STAAD.Pro melalui proses pengujian dan kontrol kualitas yang sangat ketat untuk memastikan keandalan dan kualitas software dalam mendukung kebutuhan analisis dan desain struktur.

Prosedur pengembangan STAAD.Pro mengikuti persyaratan 10CFR Part 50 Appendix B, 10CFR Part 21, dan ASME NQA-1. Standar dan prosedur tersebut memungkinkan STAAD.Pro digunakan untuk mendukung desain fasilitas pembangkit listrik tenaga nuklir.

Dengan proses pengembangan dan pengujian yang memenuhi standar tinggi, STAAD.Pro memberikan tingkat kepercayaan dan keandalan yang dibutuhkan untuk proyek-proyek struktur dengan tuntutan keselamatan dan kualitas yang sangat tinggi.





STAAD.Pro at a Glance

USER INTERFACE

- Structural grids
- Tooltips to highlight data
- Frame generators
- Structure wizard for simple analytical models, or with the physical model to aid with an integrated solution
- Simple wire frames for speed, accuracy, and ease of use
- Fully rendered 3D models for clear mass distribution and presentation
- Advanced IDE style editor with IntelliSense, database integration, and context-sensitive help
- Triangular or quadrilateral meshes created from zones within defined models or imported from DXF files
- Meshes automatically refined to account for loading and changes in geometry when part of a physical model
- Load generators, including seismic UBC, IBC, ASME wind and snow
- Steel detailing and concrete modeling capabilities when used with a subscription program

OBJECTS

- Standard linear, curved, and physical beams, compression/tension only, with databases of sections from around the world
- 3- or 4-noded 2D plates and surface objects with holes
- Solid 3D bricks from 4- to 8-noded
- Supports, including foundation and multilinear springs
- Full range of loads for static and dynamic analysis that can be defined explicitly or calculated using the wide range of load generators
- Nodal controls and dependencies, and floor diaphragms to capture real-world behavioral relationships
- Nonstructural loading panels and reference lines to associate spatial loads to the model

ANALYSIS

- Traditional first-order elastic analysis, including iterative one-way analysis
- Both large and small P-Delta analysis, including stress-stiffening effects
- Account for imperfections in structural geometry
- Direct analysis as per AISC 360
- Buckling analysis using either eigen (requires STAAD.Pro Advanced) or iterative methods
- Geometric nonlinear analysis (requires STAAD.Pro Advanced)
- Dynamic modal analysis, including stress-stiffening eigen solution and steady-state options, time history, and response spectrums
- Section wizard to calculate properties of built-up sections, drawn freehand, parametrically defined, or imported from a CAD drawing
- Bentley servers to perform cloud-based analysis directly from a desktop to free local resources and use the results for a comparative solution analysis

DESIGN AND DOCUMENTATION

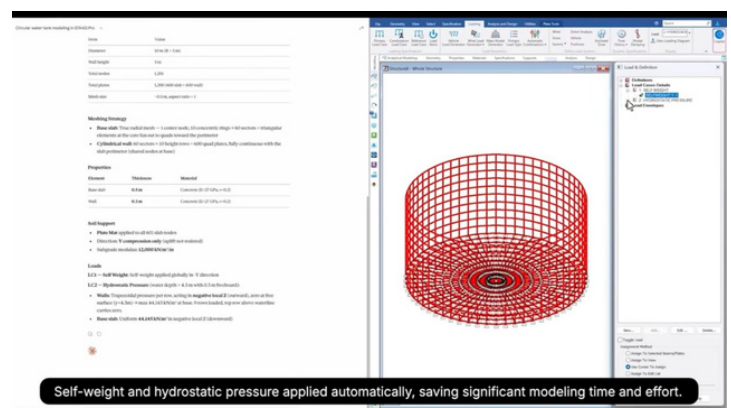
- Choose from 50 steel design codes from around the world
- Integrated steel drawing production using Steel Autodrafter (requires subscription program)
- Integrated concrete design, detailing, and drawing production (requires STAAD.Pro Advanced, Structural WorkSuite, or STAAD Advanced Concrete Design license)

POST PROCESSING

- The STAAD.Pro interface is configured to suit the model to ease access to the required data
- Interactive graphics, with linked tables and windows to receive direct feedback from one item in related windows
- Output files with simple, clear information to verify the analysis
- Create high-quality documents
- Create contoured stress plots using automatic or user-configured scales, colors, and limits
- Animations for viewing displacements, stress contours, or mode shapes dynamically

INTRAOOPERABILITY

- RAM® Connection enables joints defined in the model with the forces calculated from the analysis to be passed into the leading connection design application
- Pass the STAAD.Pro structural steel frame into AutoPIPE® to correctly account for the pipe support stiffnesses and import pipe engineer support reactions back into the model for design accuracy
- Import the STAAD.Pro support reactions and positions into STAAD Foundation Advanced to design the structure foundations
- Floor slabs can be identified and linked to RAM Concept for conventionally reinforced and/or post-tensioned concrete design and detailing in an innovative application
- Two-way link to support creating models in ProStructures and OpenBuildings Designer 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
- Use OpenSTAAD to drive the creation of STAAD.Pro models, run the analysis, and view the results with your own interface
- Use CAD models in .DXF files as the base wire frame, structural grid, or outline of a complex deck that needs to be meshed
- Exchange CIS/2 data with other steel design packages
- Export models to ADINA (Finite Element Advance Analysis Software) to solve complex nonlinear problems



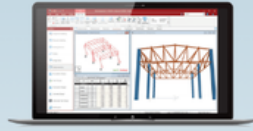
The Claude LLM AI Agent interacts with STAAD.Pro through the MPC Server



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**PILIH TIER STAAD YANG SESUAI
DENGAN KEBUTUHAN PROJECT
ANDA & HUBUNGI KAMI**

Bentley
STAAD.Pro



	Choose Your Need	STAAD.Pro	STAAD.Pro Advance	Structural Worksuite
Standar Analysis & Design	Analyze & design structures of all type, including integrated concrete and steel	●	●	●
	Design loads & load combination including automatic wind & seismic requirements	●	●	●
	Analysis FEM, linear static elastic, P-Delta, dynamic, AISC direct analysis	●	●	●
	Design basic foundation type including spread footings	●	●	●
	Design basic structural steel connections	●	●	●
	Produce Automated steel drawing directly from the STAAD model	●	●	●
	Design basic reinforced concrete elements	●	●	●
Modeling	Section libraries tailored for different industries	●	●	●
	Physical modeling for concrete & steel BIM workflows	●	●	●
	Calculate section properties & retrieve stress value with Shape Editor & Section Wizard	●	●	●
	Create models quickly using the STAAD Structure Wizard	●	●	●
Interoperability	Interoperable with OpenBuildings, AutoPIPE, Revit, etc	●	●	●
	Use STAAD data to create advanced analysis solutions with ADINA (Advanced FEM Analysis)	●	●	●
	Create Macros using the OpenSTAAD API to integrate with Excel or in house programs	●	●	●
Advance Analysis	Linier iterative buckling analysis	●	●	●
	Geometric nonlinierity & cable analysis		●	●
	Eigen buckling analysis with buckling mode evaluation		●	●
	Steady state dynamic performance for vibration design		●	●
	Linier or nonlinier time history analysis (with ADINA)			●
	General pushover analysis (with ADINA)			●
	Material & advanced geometric nonlinierity (with ADINA)			●
	Nonlinier buckling analysis (with ADINA)			●
Integrated Design	Advanced concrete design, drawing, & documentation		●	●
	Foundation design including settlement analysis using STAAD Foundation Advanced			●
	Automated connection design using RAM Connection			●
RAM Specialized analysis, design, & documentation	Utilize building specific applications for structural steel & reinforced concrete structures			●
	Model & design various buildings using all common materials			●
	Design & detail reinforced and post tensioned floor slabs			●
	Structural steel connection design including anchorage into concrete			●



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