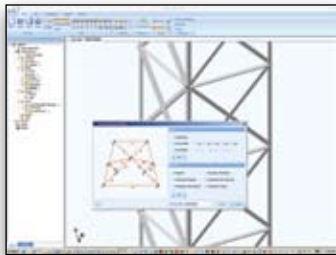




STAAD(X).TOWER

STRUCTURAL MODELING, ANALYSIS AND DESIGN SOLUTION FOR COMMUNICATION TOWERS

STAAD(X).Tower provides comprehensive analysis and design of monopoles, self-supporting and guyed communication towers through physical modeling and parametric tools.



Handle bracing patterns in a smarter way

Comprehensive Analysis and Design Tools

STAAD(X).Tower easily allows engineers to generate self-supporting towers, guyed towers and monopoles using its parametric setup wizards. And STAAD(X).Tower offers bi-directional interoperability with other STAAD(X) products like STAAD(X) and STAAD.foundation to provide additional analysis and design of your structure.

Engineers now have the flexibility to design physical members as per TIA-222-F and TIA-222-G codes. The design capability includes both trusses as well as frame member types. For each physical member the user can explicitly define the design parameters following the desired standard and can browse the detail design calculation with all allowable and actual values.



Construct parametric physical tower model

With STAAD(X).Tower, external components like antennas, appurtenances, and platforms can easily be attached and can generate wind, ice, seismic loads following the TIA codes along with other standard reference loads. The robust analysis and design engine (as per TIA-222-F & TIA-222-G codes) helps to minimize efforts to obtain the analysis and design results.

STAAD(X).Tower provides easy drag & drop features for inserting non-structural components like dish antennas, appurtenances, and platform mounts for monopoles. It also allows the user to browse and maintain the catalogs for such components. Additionally, users can adjust the mounting patterns and reorient tilt and azimuth angles for these components as required.

Increased Modeling Efficiency with Standards and Wizards

Engineers can now model faster than ever using our physical model generation utilities thorough parametric wizards. This includes automatic and intuitive formation of physical members with appropriate orientations. It also



Get detailed in-sight of analysis results

handles the insertion and editing of bracing systems in a smarter way. Through easy parametric changes, the overall tower geometry including slope changes can be achieved.

STAAD(X).Tower provides a comprehensive in-built library of standard bracing patterns with an extended facility to create and store user defined bracing patterns for future use. It also allows the user to treat a set of analytical members as a group. It automatically considers the set of individual analytical members of the tower legs and bracings as single physical members based on certain criteria.

Automatic Calculation of Wind, Ice, and Seismic Loads

Users will enjoy maximum productivity with our impressive group of features that automatically generates wind, ice, and seismic loads, following the TIA-222-F and TIA-222-G standards. Based on user specified state and county information, it extracts wind speed, ice thickness and spectral acceleration values and automatically calculates height dependant gust factors, velocity pressures, effective projected areas, and distributes the forces on the overall structure. STAAD(X).Tower automatically readjusts loads in the event of changes in overall geometry, assigned sections, and external attachments.

Powerful Results and Diagrams

STAAD(X).Tower provides an exhaustive set of post-processing features that includes results and diagrams. It renders leg compression curves, deflection, tilts, twists, axial forces, moments, torsion, and stress diagrams along with dynamic browsing facility for member forces and member stresses at any point of the cross-section on any member at any location for any analysis load case. It displays tables for member end forces, joint displacements, and support reactions. Customizable and user-friendly report generation facility is also provided.

SYSTEM REQUIREMENTS

Processor:

Intel Pentium or AMD AthlonT

Operating System:

Windows Vista, XP, and 2000

RAM:

512MB minimum,
1GB recommended

Available Languages:

English

Complementary Products:

STAAD(X),FEM

ABOUT BENTLEY

Bentley Systems, Incorporated is the global leader dedicated to providing comprehensive software solutions for sustaining infrastructure. Architects, engineers, constructors, and owner-operators are indispensable in improving our world and our quality of life; the company's mission is to improve the performance of their projects and of the assets they design, build, and operate. Bentley sustains the infrastructure professions by helping to leverage information technology, learning, best practices, and global collaboration – and by promoting careers devoted to this crucial work.

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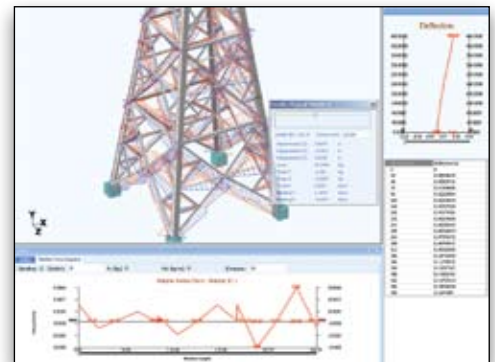
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STAAD TOWER AT-A-GLANCE

- Wizard driven parametric physical model generation for square and triangular self-supporting and guyed towers, and monopoles
 - » Enhances productivity through faster model generation wizards
 - » Saves time on overall parametric editing of the physical model
- In-built library of standard bracing patterns with facilities to create user-defined ones
 - » Provides smooth automatic generation of analytical structure for any user defined physical model
 - » Increases productivity by providing a library of reusable bracing patterns
- Extensive parametric editing facilities to incorporate changes in tower's overall shape and slope, panel dimensions and panel face configurations
- Intuitive physical member creation with appropriate orientation
- Easy to use drag & drop features for inserting non-structural components from built-in database like dish antennas, appurtenances, and platforms with facilities to adjust mounting pattern, location, tilt and azimuth angles
 - » Enhances overall profitability by allowing the user to use and maintain component catalogs.
- Automatic generation of wind, ice, and seismic load cases for tower structures and external attachments as per TIA-222-F and TIA-222-G standards
 - » Saves time and allows investigation of "what-if" scenarios.
- Analysis- Linear static analysis and second-order analysis
- Post-Processing features includes joint displacements, member forces, stresses, support reactions, leg compression, deflection, tilt, and twist results in terms of diagrams and tables
 - » Enables the user to have a detailed in sight of the analysis results.
 - » Helps to plot multiple post-processing diagrams for a selective set of physical members for complex structures.
- Design of physical members as per TIA-222-F and TIA-222-G standards
 - » Reduces errors due to complex calculations.
- Customizable, user-friendly exhaustive Report generation facility
 - » Create all exhaustive complete report straight from the software and avoid manual report compilation activities.
 - » Establish dynamic update links and save time in regenerating the desired report.
- Bi-directional interoperability with other STAAD(X) family products
 - » Avoid duplication of efforts in case you need to transfer the model to other family of products.
 - » Save time in generating a composite structure that involves both STAAD(X) and STAAD(X).Tower.



Drag and drop built-in external components



Render post-processing diagrams and graphs