



# Structural WorkSuite

## Structural Engineering Analysis and Design Software

Structural WorkSuite is a trusted, comprehensive portfolio of structural analysis and design applications. The software gives engineers access to virtually all of Bentley's structural analysis software, including the specialty, purpose-built applications that comprise the STAAD® and RAM® product lines.

### APPLICATIONS YOU CAN COUNT ON

Structural WorkSuite is a special software license that consolidates numerous individually priced applications into a single package. Structural WorkSuite allows organizations to simplify their software portfolio and leverage Bentley's multi-product interoperability capabilities at the same time. By combining the strengths of multiple products included in the Structural WorkSuite, organizations on tight budgets can take advantage of complete design workflows rather than remaining stuck using partial workflows caused by limitations or inefficiencies that might affect any single application.

### ALL THE CAPABILITIES A STRUCTURAL DESIGNER NEEDS

Structural WorkSuite allows organizations to design in virtually any infrastructure sector. Examples of project types that are well-suited for Structural WorkSuite include:

- ◆ Industrial structures and facilities
- ◆ Multistory concrete or steel buildings
- ◆ Pre-engineered metal buildings
- ◆ Water, wastewater, and environmental structures

Whether your project consists of multiple materials, such as a mix of steel, concrete, and masonry components, or requires an advanced analysis method, such as a nonlinear time history analysis or comprehensive long-term concrete deflection analysis, Structural WorkSuite offers a solution.

Structural WorkSuite also includes access to the high-powered design and optimization features that are available through Bentley's Analytical Cloud Services. STAAD's Scenario Services allows users to compare the performance of different design alternatives built in different models and validate results in a given model using multiple versions of STAAD.Pro®. RAM Concept PT Optimization saves post-tensioned concrete designers hours of engineering time using intelligent search algorithms that converge to an optimal design that satisfies design criteria and minimizes material and labor costs.

### SIMPLIFIED ACCESS TO SOFTWARE

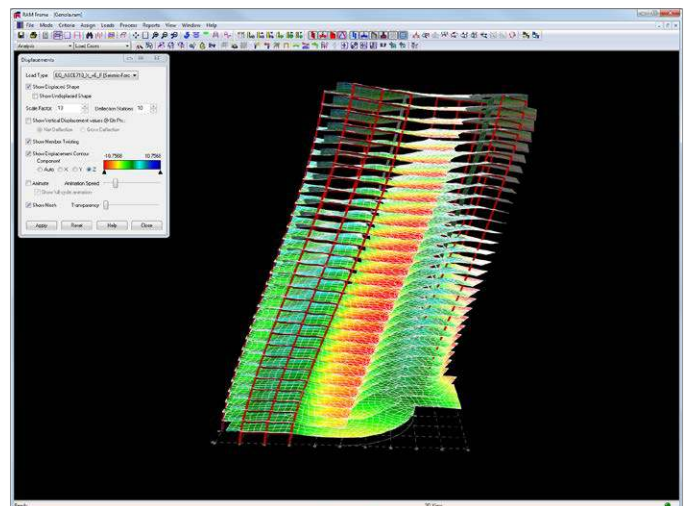
Structural WorkSuite helps eliminate concerns about product-by-product license availability. Each Structural WorkSuite user can employ all applications within the software package, including multiple instances of applications. There are no extra fees or licenses required for sharing data between

Bentley's structural products. Using Structural WorkSuite, designers can create custom design workflows by selecting specific applications that are best suited for a specific project, design responsibility, and user skill set or preference.

The Structural WorkSuite Hub application provides an easy way for users to install, update, and launch all of the products included in Structural WorkSuite. This ensures users are always using the latest released versions of each product and are taking full advantage of Structural WorkSuite.

### VALUE IN MULTIDISCIPLINE DESIGN

The value of Structural WorkSuite extends beyond the structural design team. Through Bentley's iTwin® Analytical Synchronizer, designers can transfer data among Structural WorkSuite applications, integrate with modeling applications, such as OpenBuildings® Designer, Revit, and Tekla, and even link with other industry applications, such as AutoPIPE® for pipe stress and SACS for offshore design. The Analytical iTwin framework also gives users the ability to compare, merge, and revert to previous model iterations over the course of the project.



Analyze for drift control and construction sequence in RAM Structural System.

## SYSTEM REQUIREMENTS

**MINIMUM:** Windows 8.1 64-bit, Intel or AMD processor 2.0 GHz, 1 GB Memory, 2 GB free hard disk space, GPU with 256 MB RAM

**RECOMMENDED:** Windows 10 64-bit, Intel processor (highest affordable processor speed), 8 GB memory or higher, Discrete GPU with 128-bit bus and 1 GB RAM, 4k monitors not supported

**BROWSER COMPATIBILITY:** Microsoft Edge, Google Chrome, Firefox

# Structural WorkSuite At-A-Glance

## BUSINESS BENEFITS

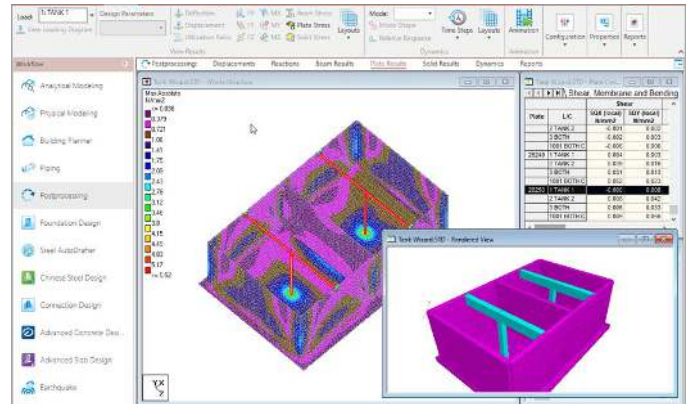
- ♦ Access to virtually all STAAD and RAM applications
- ♦ Complete design workflows, including multidiscipline solutions
- ♦ Improve interoperability to streamline efficiency
- ♦ Simplified billing
- ♦ Unlimited product access for each user
- ♦ Access to Bentley's Analytical Cloud Services

## ANALYSIS AND DESIGN FEATURES

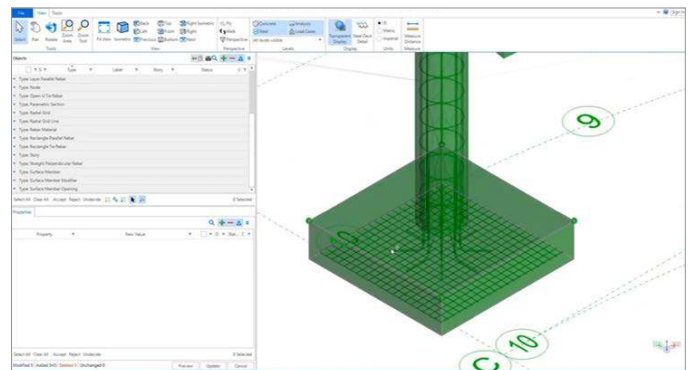
- ♦ Exhaustive design code fulfillment for virtually all types of structures, materials, and national standards
- ♦ Advanced analysis capabilities: response spectrum, time history, pushover, construction stage analysis, buckling, and more

- ♦ Specialty analysis capabilities: nonlinear cable analysis, drift control for building structures, long-term load history deflection of concrete floors, vibration of steel and concrete floors
- ♦ Design of steel, concrete, timber, masonry, and cold-formed steel structures
- ♦ Design and detailing of steel connections
- ♦ Design and detailing of specialty concrete components, such as water tanks, concrete stairs, and tilt-up concrete walls
- ♦ Detailed analysis and design reports
- ♦ Exported CAD drawings of framing plans, elevations, and schedules
- ♦ Compatible with the Bentley iTwin platform
- ♦ Compatible with OpenBuildings Designer, Revit, Tekla, AutoPIPE, SACS, and others
- ♦ Access to Bentley's Analytical Cloud Services: STAAD Scenario Services and RAM Concept PT Optimization

Included Product	Structural Engineering Application
STAAD.Pro Advanced	Steel, concrete, cold-formed steel, timber, and aluminum structures for a variety of project types (plant, water/wastewater, transportation, civil, and more)
STAAD Advanced Concrete	Design, detailing, and material takeoff of reinforced concrete components
STAAD Foundation Advanced	Concrete footings, pile caps, and mat foundations
RAM Structural System	Steel and concrete building structures (low-rise to high-rise)
RAM Concept	Conventionally reinforced and post-tensioned concrete floors and mat foundations
RAM Connection	Steel connections (shear, moment, brace, truss, and base plate)
RAM Elements	Steel, concrete, masonry cold-formed steel, and wood components using toolkit modules
Microstran.Advanced	Steel and cold-formed steel structures
iTwin Analytical Synchronizer	Exchange structural model, analysis, and design data among applications and track/manage project changes



Design water tank structures using STAAD.Pro and STAAD Advanced Concrete Design.



Transfer reinforcement between applications using iTwin Analytical Synchronizer.