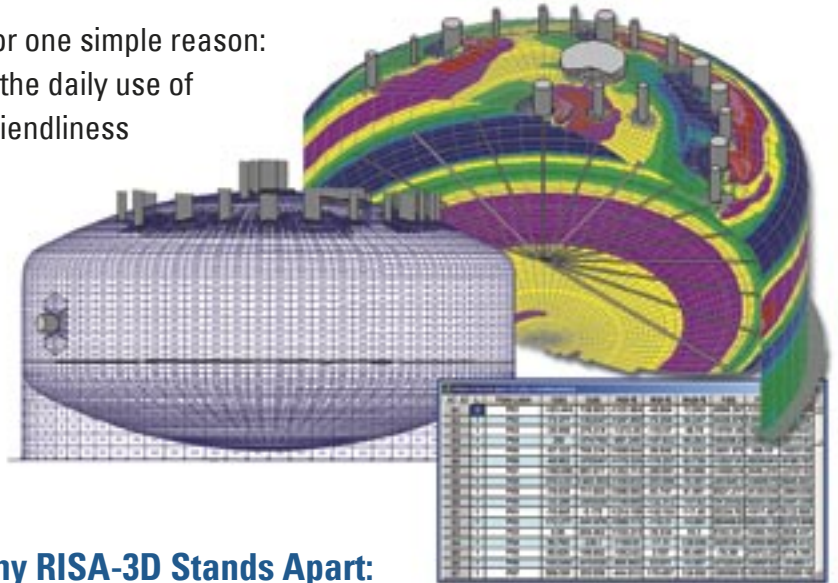




The most popular 3D structural engineering software in the U.S.

RISA-3D is so popular among structural engineers for one simple reason: ease of use. We designed our flagship product with the daily use of structural engineering professionals in mind. User friendliness is what makes this award-winning software such a powerful tool for the analysis, design and optimization of all types of structures and all common structural materials. It's a tool that no structural engineer should be without!



Why RISA-3D Stands Apart:

A State-of-the-Art Modeling Interface

Our multiple view interface, advanced selection and drawing tools, and spreadsheet features continue to be the best in the business.

Powerful Analysis and Design

With RISA-3D, you can rapidly design buildings, bridges, towers, storage tanks and everything in between.

Seamless Integration with RISAFloor and RISAFoot

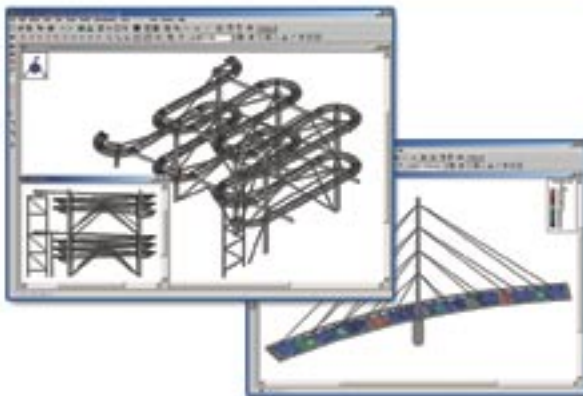
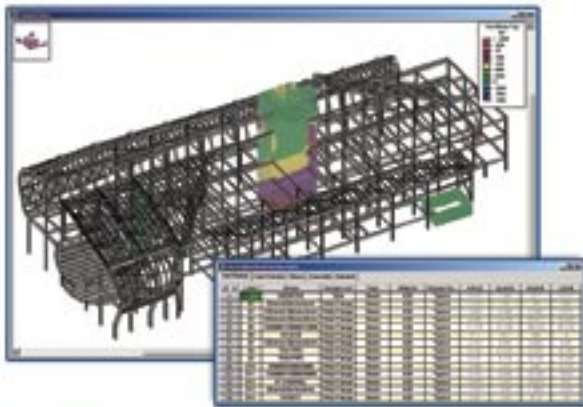
RISA-3D's full integration within the RISA Building System enables you to manage all aspects of your project within the same environment.

Top-notch Presentation of Results

Both graphical and numerical visualization capabilities let you get presentation quality results quickly and easily.

Quality & Support

The support you receive from our staff of professional engineers is second-to-none. Our clients know they can rely on RISA for the dependable software and quality support they deserve.



Take a close look at RISA-3D and discover why so many engineers agree it's the best software for today's deadline-driven projects.

Try RISA-3D today and see how good structural engineering software can be!

RISA-3D Version 5.5 Specifications

Modeling Features

- Comprehensive CAD-like graphic drawing/editing capabilities that let you draw, modify and load elements as well as snap, move, rotate, copy, mirror, scale, split, merge, mesh, delete, apply, etc.
- Versatile drawing grids (orthogonal, radial, skewed)
- Universal snaps and object snaps allow drawing without grids
- Versatile general truss generator
- Powerful graphic select/unselect tools including box, line, polygon, invert, criteria, spreadsheet selection, with locking
- Saved selections to quickly recall desired selection states
- Real spreadsheets with cut, paste, fill, math, sort, find, etc.
- Dynamic synchronization between spreadsheets and graphics
- Simultaneous view of multiple spreadsheets
- Constant in-stream error checking and data validation
- Unlimited undo/redo capability
- Generation templates for grids, disks, cylinders, cones, arcs, trusses, etc.
- Support for all units systems & conversions at any time
- Automatic interaction with RISASection libraries
- Import DXF, RISA-2D, STAAD and ProSteel 3D files
- Export DXF, SDNF and ProSteel 3D files

Analysis Features

- Static analysis and P-Delta effects
- Multiple simultaneous dynamic and response spectra analysis using Gupta, CQC or SRSS mode combinations
- Automatic inclusion of mass offset (5% or user defined) for dynamics
- True physical member modeling
- State of the art 3 or 4 node plate/shell elements
- High-end mesh generation—draw a polygon with any number of sides to create a mesh of well formed quadrilateral (NOT triangular) elements
- Accurate analysis of tapered wide flanges—web, top and bottom flanges may all taper independently
- Automatic rigid diaphragm modeling
- Area loads with one-way or two-way distributions
- Multiple simultaneous moving loads with standard AASHTO loads and custom moving loads for bridges, cranes, etc.
- Torsional warping calculations for stiffness, stress and design
- Automatic Top of Member offset modeling
- Member end releases & rigid end offsets
- Joint master-slave assignments
- Joints detachable from diaphragms
- Enforced joint displacements
- 1-way members for tension only bracing, slipping, etc.
- 1-way springs for modeling soils and other effects
- Euler members that take compression up to buckling load, then turn off
- Stress calculations on any arbitrary shape
- Inactivate members, plates, diaphragms without deleting them
- Story drift calculations provide relative drift and ratio to height
- Automatic self-weight calculations for members and plates
- Automatic subgrade soil spring generator

Graphics Features

- Unlimited simultaneous model view windows
- Extraordinary “true to scale” rendering, even when drawing
- High-speed redraw algorithm for instant refreshing
- Dynamic scrolling stops right where you want
- Plot & print virtually everything with color coding & labeling
- Rotate, zoom, pan, scroll and snap views
- Saved views to quickly restore frequent or desired views
- Rendered or wire-frame animations of deflected model and dynamics
- Animation of moving loads with speed control
- High quality customizable graphics printing

Design Features

- Designs concrete, hot rolled steel, cold formed steel and wood.
- ACI 1999/2002, BS 8110-97, CSA A23.3-94, IS456:2000, EC 2-1992 with consistent bar sizes through adjacent spans.
- Exact integration of concrete stress distributions using parabolic or rectangular stress blocks.
- Concrete beam detailing (Rectangular, T and L)
- Concrete column interaction diagrams
- Steel Design Codes: AISC ASD 9th, LRFD 2nd & 3rd, HSS Specification, CAN/CSA-S16.1-1994 & 2004, BS 5950-1-2000, IS 800-1984, Euro 3-1993 including local shape databases
- AISI 1999 cold formed steel design
- NDS 1991/1997/2001 wood design, including SCL, multi-ply and full sawn
- Automatic spectra generation for UBC 1997, IBC 2000/2003
- Generation of load combinations: ASCE, UBC, IBC, BOCA, SBC, ACI
- Unbraced lengths for physical members that recognize connecting elements and full lengths of members
- Automatic approximation of K factors
- Tapered wide flange design with either ASD or LRFD codes
- Optimization of member sizes for all materials and all design codes, controlled by standard or user-defined lists of available sizes and criteria
- Automatic calculation of custom shape properties
- Steel Shapes: AISC, HSS, CAN, ARBED, British, Euro, Indian, Chilean
- Light Gage Shapes: AISI, SSMA, Dale/Incor, Dietrich, Marino\WARE
- Wood Shapes: Complete NDS species/grade database
- Seamless integration with RISAFoot for advanced footing design/detailing
- Plate force summation tool

Results Features

- Graphic presentation of color-coded results and plotted designs
- Color contours of plate stresses and forces with quadratic smoothing; the contours may also be animated
- Spreadsheet results with sorting and filtering of: reactions, member & joint deflections, beam & plate forces/stresses, optimized sizes, code designs, concrete reinforcing, material takeoffs, frequencies and mode shapes
- Standard and user-defined reports
- Graphic member detail reports with force/stress/deflection diagrams and detailed design calculations and expanded diagrams
- Saved solutions quickly restore analysis and design results

RISAFloor Integration

RISAFloor and RISA-3D are so tightly integrated that they operate as one program on the same building model. Optimize the gravity system in RISAFloor and the lateral system in RISA-3D, with a free and complete flow of information both ways.

- Lateral models created as you define & change floors
 - Gravity loads are automatically applied & updated
 - Automatically generated wind and seismic loads including partial loadings and accidental torsion cases with detailed reports
 - View and edit all loads in RISA-3D's spreadsheets or plot & print them
- Use all the power of RISA-3D for your lateral system. Tension-only bracing, sloping columns, openings in walls, compression-only soil springs are just a few of the possibilities. Even better, the RISA-3D and RISAFloor interfaces are the same.

General Features

- Optimized for Windows 98/2000/NT/ME/XP
- Automatic timed backup
- Extensive customization options & user defaults
- Comprehensive printed reference manual & tutorials
- Encyclopedic online help with index and cross-reference
- Instant online program updates via WebUpdate