

# Release Notes for RISA-3D Version 7.0

## Version 7.0.1 Enhancements / Corrections

### *Enhanced Loading Features*

- Added ASCE-7 2005 Load Combinations to the Load Combination Generator
- Corrected an error with the attribution of Member Area Loads that was eliminating the load associated with Rigid End Offsets

### *Enhanced Analysis Features*

- Added a Sparse Solver to speed up solution times and reduce memory requirements
- Added an 8-node Solid Element

### *Enhanced Steel Design Features*

- Added AISC 13th Edition Steel Code
  - Ability to use  $1.6 \cdot P$ -Delta effect for ASD Design
  - Ability to reduce flexural stiffness for certain members of lateral resisting system based on the axial load in the members (this is done on a LC by LC basis)
  - Ability to reduce axial stiffness for certain members of the lateral resisting system
- Changed the BS steel code to distinguish between H and I sections when choosing which strut curve to use

### *Enhanced Wood Design Features*

- Added NDS 2005 Wood Code
- Corrected a bug in the 2001 wood database that was using a lower  $F_c$  value for DFL #2 Post and Timbers

### *Miscellaneous Enhancements / Corrections*

- Corrected a bug with the Block Fill command that was only allowing the first 3 cells of the block to be filled
- Corrected a bug with the internal force summation tool that could cause a crash for models with triangular plate elements
- Corrected a bug where changing the Member Type of a concrete member did not clear the stiffness matrix

## Version 7.0.1 Enhancements / Corrections

### *Enhanced Loading Features*

- Added ASCE 2005/ IBC 2006 Wind Loading Code
- Added ASCE 2005/ IBC 2006 Seismic Loading Code
- Added ASCE 2005/ IBC 2006 Response Spectra
- Added Mexican Seismic Loading Code
- Added Mexican Response Spectra
- Negative Base Elevations for Calculation of Wind and Seismic Forces are Now Allowed
- Seismic Load Associated with the Base of the Structure is Now Displayed

- Added Ability to Ignore Base Weight in Calculation of Seismic Loads

### ***Enhanced Analysis Features***

- Added Submeshing of Solid Elements
- Added Plate Moment Releases
- Increased Program Limits for Joints, Plates, and Solids to 100,000 Each

### ***Enhanced Steel Design Features***

- Correction to the AISC 'Cb' Calculation when Using the "Segment" Code
- Correction to EC3 Steel Code Check for Columns with Bending and Tension

### ***Enhanced Concrete Design Features***

- Added Mexican Concrete Design Code

### ***Interaction With Other Programs***

- Added Integration Capability with RISATower Program
- Added Member Detailing Information to be Used with Upcoming CIS/2 Translator

### ***Miscellaneous Enhancements***

- Added Graphical Filtering for Shape Optimization
- Double Wheel Click Now Calls Up a Full Screen View
- Render Button Is Now a 3-Way Toggle Between Wire Frame - Color Coded - Rendered
- Added INI Only Option to Turn off the Dynamic Mouse Graphics Features
- Enhanced Handling of Instabilities in the Sparse Solver so They Are Locked and the Solution Continues

### ***Miscellaneous Corrections***

- Corrected a Bug with the Mouse Wheel Pan / Zoom that Resulted In Numerous Crashes when Color Coding Legends Were Present
- Correction to the Units Conversion of Saved Drawing Grid Data
- Correction to the Units Conversion for Parametric Concrete Shapes
- Correction to the Area Load Attribution for Members with Partial Area Loads and Rigid End Offsets