

## Seismosoft in brief

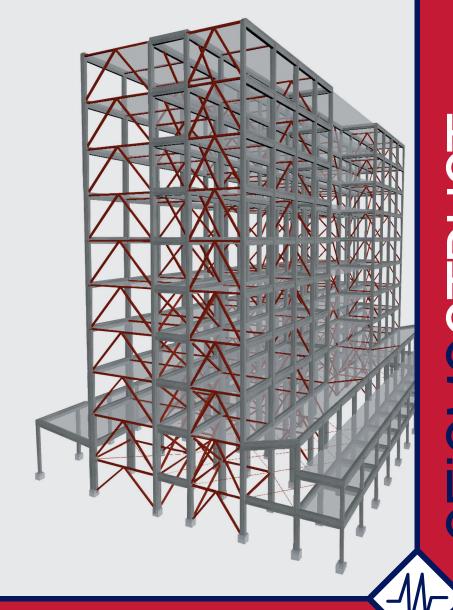
Founded in 2002, Seismosoft provides the earthquake engineering community with access to powerful and state-of-the-art analytical tools, such as SeismoBuild, SeismoStruct, SeismoSignal, SeismoSelect, SeismoMatch, SeismoArtif, SeismoSpect and FRP Designer.

With more than 1000 software license requests per month, and users in thousands of international academic/research institutions and practicing companies in more than 110 countries worldwide, Seismosoft is now recognised as a leading enterprise in this field.

Seismosoft provides the full spectrum of earthquake engineering stakeholders, tools and methods that feature not only technical excellence but also efficiency and user-friendliness.

Ultimately, we hope to somehow contribute, even if modestly, to the continuous search for higher mitigation of the risks that earthquakes pose to humankind.





**How to Contact** 

Up to date Seismosoft contact details are always available on our website at

www.seismosoft.com



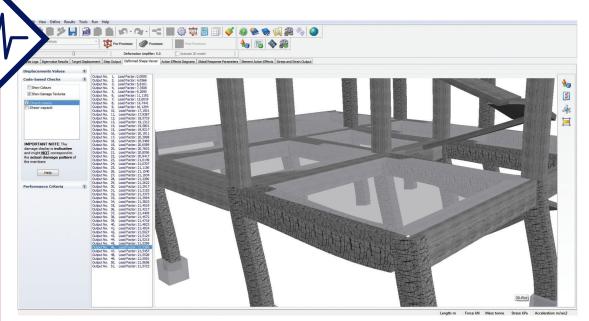


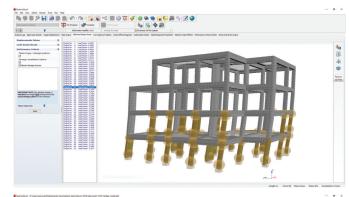


https://seismosoft.com/blog/

Nonlinear analysis and assessment of structures

SeismoStruct is an awardwinning Finite Element package capable of predicting the large displacement behaviour of space frames under static or dynamic loading, taking into account both geometric nonlinearities and material inelasticity. Concrete, steel. masonry, FRP & superelastic shape-memory alloy material models are available, together with a large library of 3D elements that may be used with a wide variety of pre-defined steel, concrete and composite section configurations. The nonlinear analysis solver of SeismoStruct. which features a fibre modelling approach and accounts for both geometric nonlinearities and material inelasticity, has been extensively used and quality-checked by thousands of users for more than ten years. As described in its Verification Report. its accuracy is very well demonstrated by its numerous successes in recent Blind Test Prediction Exercises.

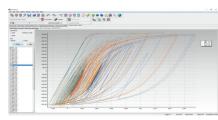












- ✓ Dynamic and static time-history analysis. Conventional and adaptive pushover analysis. Incremental dynamic analysis.
- Eigenvalue analysis. Non-variable static loading. Response Spectrum Analysis. Buckling Analysis. Tsunami Analysis
- ✓ Completely visual interface
- ✓ Very smooth learning curve
- ✓ Easy CAD-based input with the floor's plan view as background
- ✓ Easy definition of materials, sections and reinforcement
- ✓ Large library with more than 72 reinforced concrete, steel, composite and masonry sections
- ✓ Large library of existing FRP materials
- Numerical stability and accuracy at very high strain levels. Smart subdivision of the loading increment, whenever convergence problems arise
- ✓ Capacity checks, according to Eurocode 8 and the Eurocodes framework, the American Code for Seismic Evaluation and Retrofit of Existing Buildings ASCE 41, NTC-18 (Italian National Seismic Code), KANEPE (Greek Seismic Interventions Code) and TBDY (Turkish Seismic Evaluation Building Code) and for all the limit states
- ✓ Performance criteria checks for frame and non-frame elements
- ✓ Automatic calculation of the target displacement
- ✓ Advanced post-processing facilities. AVI movie files for the illustration of the sequence of structural deformation and damage
- ✓ Checks presented on a table and on the 3D plot with different colours