# CivilFEM

-CivilFEM makes the difference-

Multidisciplinary Advanced Non-linear FEM Analysis Software

SEISMIC ANALYSIS

"CivilFEM® works in the same way as you build":

Analyze the entire construction process in a single model: CivilFEM facilitates the virtual simulation of all the non-linear construction processes in a straightforward sequential way by means of its tools, time-dependent properties and activation and deactivation of materials.
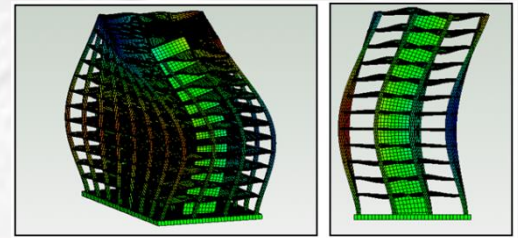
SEISMIC ANALYSIS CAPABILITIES HIGHLIGHTS:

- **Transient and nonlinear evolutive construction process (total and partial collapse of structures)**
- **Time dependent material properties**
- **Soil-structure interaction analysis**
- **Nonlinear Soil behavior laws: Drucker-Prager, Mohr-Coulomb (cohesion and variable angle of friction) and Cam-Clay (Initial tensile stress)**
- **Nonlinear Multibody Advanced Contacts**
- **Seismic and earthquake engineering (response spectrum or nonlinear time history)**
- **Hydrodynamic Masses (modal, spectral & transient)**
- **Heat transfer & Thermo-Structural analysis**
- **Full nonlinear transient analysis**
- **Cracking (concrete, timber…)**
- **Nonlinear spring and dumpers**
- **Nonlinear buckling**
- **Slope stability & Seepage analysis**
- **Parametrization & Programming with Python**
- **Followers forces. Large deflection**
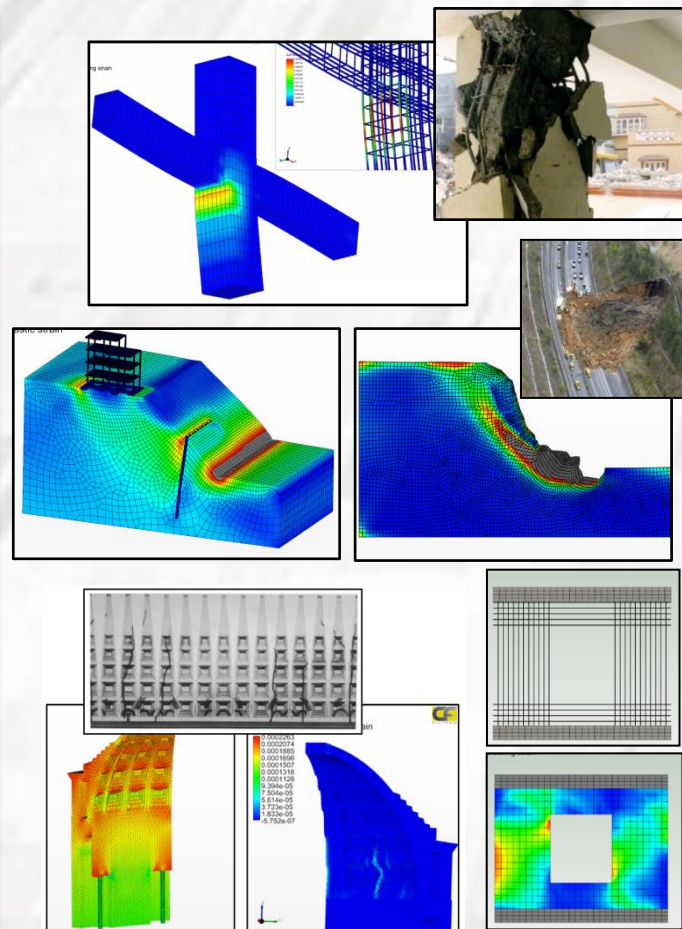
CivilFEM® powered by Marc® is a very powerful and versatile program suitable for all the types of advanced analyses performed in all construction sectors, providing a rich set of tools that streamline the creation of analysis models for Construction, Dams, Civil engineering, Tunnels, Geotechnics, Mining, Energy, Oil&Gas, Precast, etc.

With its intuitive user friendly interface and pre/post features, it is very easy to learn. The powerful (included) **Marc® from MSC® Software** non-linear solver aids to solve the most demanding and complex advanced analyses.   ®Trademark property of their respective owners

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