

**-CivilFEM makes the difference-**  
 Multidisciplinary Advanced Non-linear FEM Analysis Software

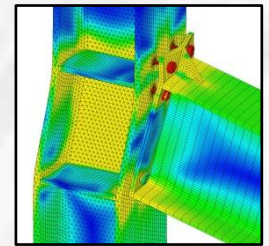
# FORENSIC STRUCTURAL ANALYSIS

“CivilFEM® works in the same way as you build”:

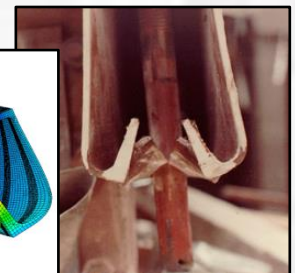
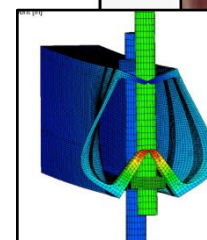
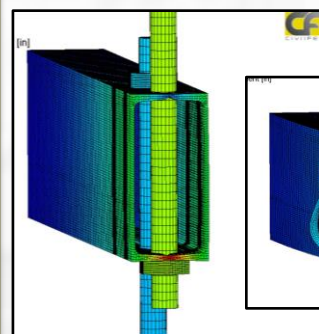
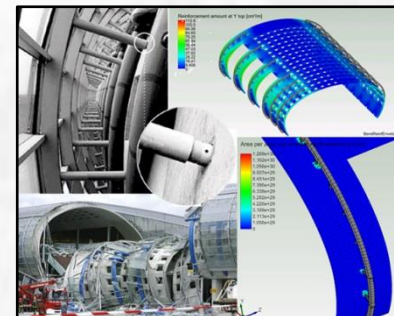
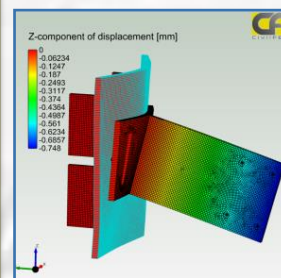
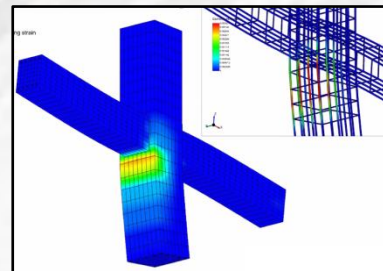
Analyze the entire construction process in a single model:

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.



- FORENSIC ANALYSIS CAPABILITIES HIGHLIGHTS:**
- Transient and nonlinear evolutive construction process (total and partial collapse of structures)
  - Time dependent material properties
  - Soil-structure interaction analysis
  - Soil behavior law models: Drucker-Prager, Mohr-Coulomb y Cam-Clay (cohesion and variable angle of friction)
  - Nonlinear Multibody Advanced Contacts
  - Seepage (transient & steady analysis)
  - Seismic and earthquake engineering (response spectrum or nonlinear time history)
  - Orthotropic material properties
  - Hardening laws (kinematic, isotropic and combined)
  - Heat transfer (steady and transient analysis)
  - Thermo-Structural analysis
  - Concrete Creep and Shrinkage
  - Cracking (concrete, timber...)
  - Prestressed reinforced concrete (beams, shell and solids)



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

[www.civilfem.com](http://www.civilfem.com)