# CivilFEM

-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.
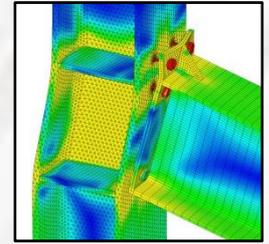
FORENSIC ANALYSIS CAPABILITIES HIGHLIGHTS

- Transient and non-linear 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 (cohesion and variable angle of friction) and Cam-Clay (initial tensile stress)
- Non-linear multibody advanced contacts
- Seepage (transient & steady analysis)
- Seismic and earthquake engineering (response spectrum or non-linear 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)
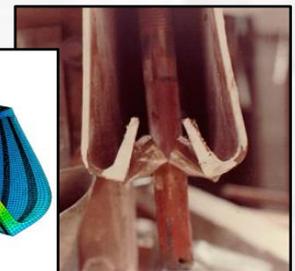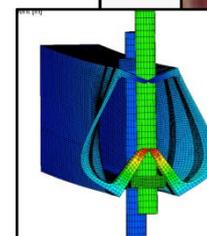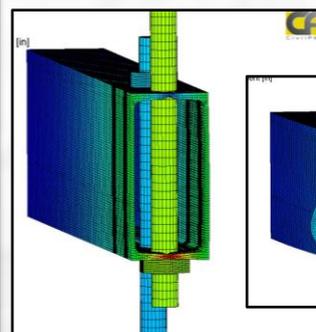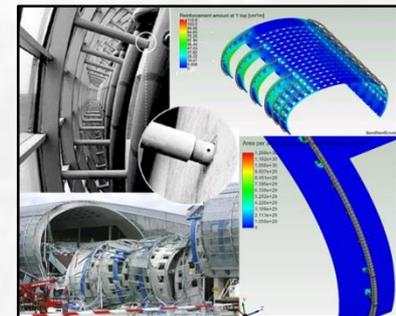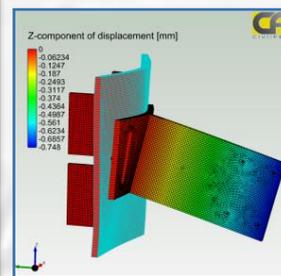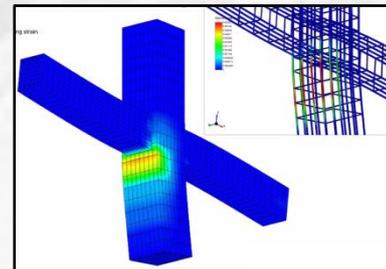
CivilFEM® powered by Marc® is a very powerful and versatile program suitable for all the types of advanced analyses performed in all construction sectors, providing a rich set of tools that streamline the creation of analysis models for Construction, Dams, Civil engineering, Tunnels, Geotechnics, Mining, 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

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