# CivilFEM

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

Geotechnics, Tunnels and Mining

"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.
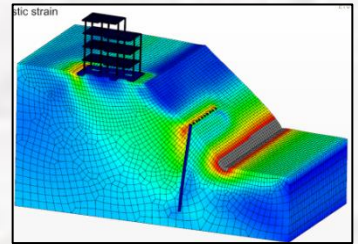
GEOTECHNICAL CAPABILITIES HIGHLIGHTS:

- **Nonlinear material behavior laws (2D and 3D Mohr-Coulomb with variable "c" and "φ", Cam-Clay, Drucker-Prager, …)**
- **Transient and Nonlinear evolutive construction process (analysis of construction staging in tunnels)**
- **Seepage (steady and transient analysis)**
- **Time dependent material properties**
- **Soil-structure interaction analysis**
- **Multibody advanced contacts (cohesion, static and sliding friction coefficients, …)**
- **Slope stability (SRF,…)**
- **Prestressed reinforced concrete (beams, shell and solids)**
- **Initial stresses**
- **Creep and Shrinkage**
- **Cracking (concrete, timber…)**
- **Heat transfer (steady and transient analysis)**
- **Thermo-structural analysis**
- **Non-linear Springs and dampers**

9 days

29 days
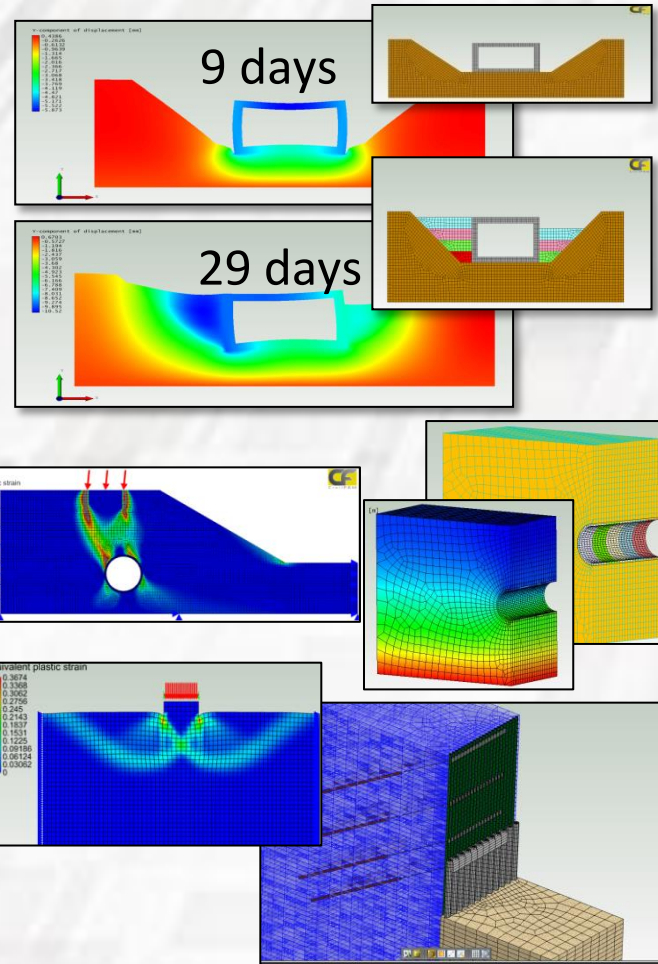
CivilFEM® powered by Marc® is a very powerful and versatile program suitable for all the types of advanced analyses performed in all construction sectors, providing a rich set of tools that streamline the creation of analysis models for Construction, Dams, Civil engineering, Tunnels, Geotechnics, Mining, 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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