

# -CivilFEM makes the difference-

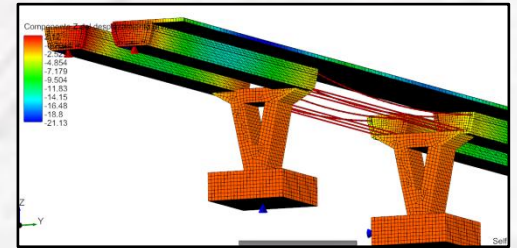
Multidisciplinary Advanced Non-linear FEM Analysis Software

## BRIDGE CALCULATION

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

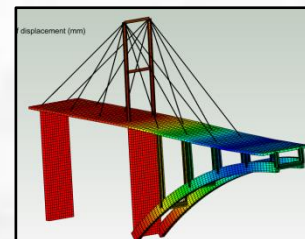
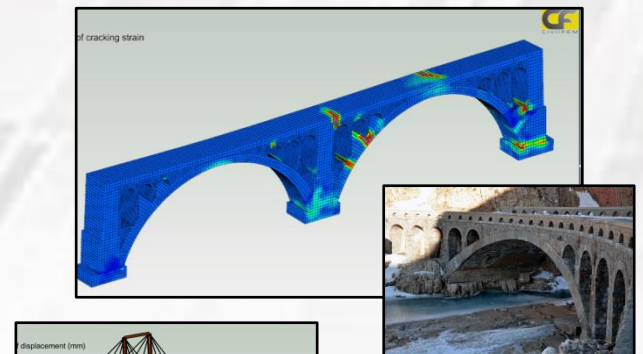
Analyze the entire construction process in a single model:

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.



### BRIDGE ANALYSIS CAPABILITIES HIGHLIGHTS:

- Nonlinear evolutive construction processes
- Creep and Shrinkage
- Prestressed reinforced concrete in beams, shells and solids (short and long-term losses)
- Special Loads (moving loads, distributed loads...)
- Concrete time-dependent properties
- Soil-structure interaction analysis
- Desing code and standards (AASHTO, EC...)
- Nonlinear Multibody Advanced Contacts: breaking, glue, cohesion, friction
- Strain-hardening plastic material: Buyukozturk, isotropic material plastic,...
- Cracking (concrete, timber...)
- Full nonlinear transient analysis
- Heat Transfer (steady and transient analysis)
- Thermo-structural analysis
- Seepage (steady and transient analysis)
- Orthotropic material



**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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