

# -CivilFEM makes the difference-

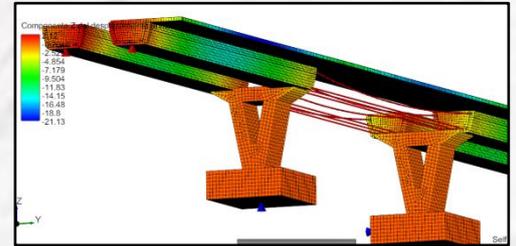
Multidisciplinary Advanced Non-linear FEM Analysis Software

## Bridge Calculation

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

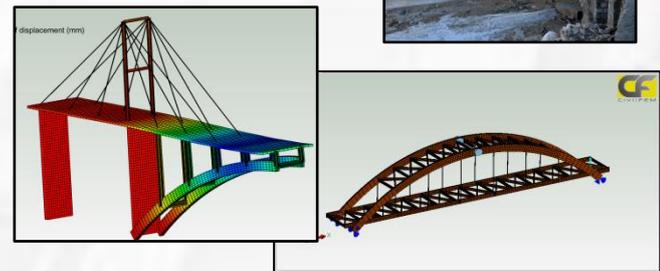
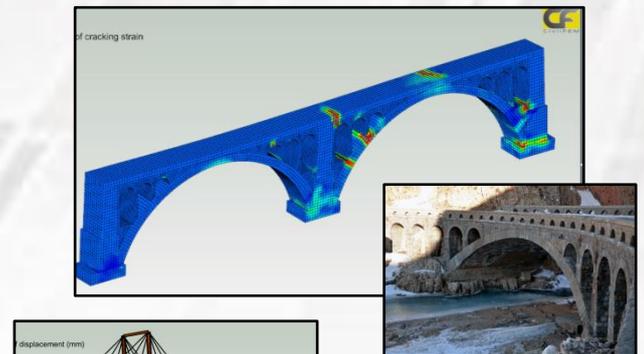
Analyze the entire construction process in a single model:

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

- Non-linear 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
- Design code and standards (AASHTO, EC...)
- Non-linear multibody advanced contacts: breaking, glue, cohesion, friction
- Strain-hardening plastic material: Buyukozturk, isotropic material plastic,...
- Cracking (concrete, timber...)
- Full non-linear 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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