

# SIGNON SUITE

Simulation of electrical transportation systems.




Our program for entering and managing simulation models. It serves as the central hub for project work involving the modeling of direct and alternating current railways and studies of electromagnetic fields.



Analysis program for railway simulation and network calculation data.



Program for calculating operating impedances and the magnetic and electric field distributions of overhead contact line and overhead power line systems.



Simulation program for DC railways in local and long-distance service.

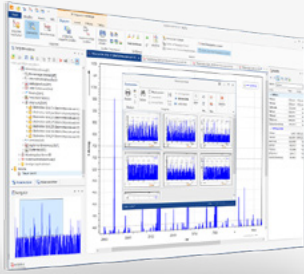


Simulation program for AC railways in local and long-distance service.

## Optimal support for modeling, calculation, and analysis

With our software, you can efficiently manage data, model networks, and handle a wide range of variants. Whether for train trip simulations alone or in combination with electrical network calculations, the SIGNON SUITE software handles both DC and AC railways equally well.

## Possible Applications



- Train trip simulation and electrical network calculation
- Failure scenarios
- Comparison of alternatives
- Component sizing
- System optimization
- Timetable design and timetable verification
- Travel time calculation
- Energy storage (stationary and mobile)
- Energy demand assessment
- Braking energy recovery
- Short-circuit and voltage drop calculations
- Protection settings
- EMC reports

## Features

- **Locomotives**  
Operating condition, tractive force, braking force, speed, acceleration, current, power
- **Substations**  
Total current, busbar voltage, power, line tap currents, power losses
- **Overhead contact line**  
Minimum voltages, maximum currents over time and distance, temperature
- **Entire network**  
Energy balance, network losses, specific energy consumption of the lines
- **Charging stations**  
Number, distribution, connection type, electrical sizing
- **Battery**  
Energy capacity and power—discharge and charge, charging strategy, load profile
- Load distribution, voltages, power factors, and transmission losses in the upstream three-phase power grid
- Current distributions in overhead line systems
- Magnetic fields around overhead line systems
- Induced longitudinal voltages

## Licensee

- ALSTOM (France, Brazil, India)
- DB Energie GmbH
- Colas Rail (France)
- Rail Power Systems
- Meiden Singapore Pte Ltd.
- Land Transport Authority (Singapore)
- China Railway Design Corporation (CRDC) u. v. a.