



## Tenova TAKRAF optimizes equipment and machinery for mining and bulk material handling with SimulationX.

Tenova TAKRAF is a most competent international partner for planning, developing, designing and delivering machinery, in particular surface mining systems and equipment as well as machinery for bulk material handling. Bulk material handling machinery by Tenova TAKRAF can be found throughout the infrastructure of ports, storage facilities, power plants, steelworks and cement mills.

Mining companies from around the world trust in the reliability – proven with SimulationX – that Tenova TAKRAF's bucket wheel excavators, stackers, crushers and tripper conveyors stand for and deliver to the backbone of their business.

SIMULATION X



»SimulationX allows us to quickly and safely calculate dynamic effects in challenging belt conveyor projects.«

Dr. Mario Dilefeld, R&D Material Handling,  
TAKRAF GmbH, Leipzig, Germany

### Challenge

#### Optimizing dynamics and efficiency

Tenova TAKRAF equipment must withstand toughest conditions while operating reliably on a highly productive and cost efficient level. The machines are subject to dynamic phenomena that must be identified already during the design phase to ensure optimal performance.

### Solution

#### Project oriented system simulation

SimulationX allows for non-linearities and dynamic effects to be modeled and simulated during the design phase. A parameter database supports quick and project-specific model parameterization and helps to organize model and parameter variants throughout the Tenova Group.

### Benefits

#### High productivity and safe technology

Quick parameter variations and a seamless exchange of models within the entire Tenova Group ensure immediate and efficient access to simulation results during the development process. Simulating emergency shutdowns or power failures under full load provides the basis for evaluations of critical scenarios and demonstrates at the bidding stage the equipment's availability and productivity.