ABB uses SimulationX for the optimization and virtual commissioning of drive systems and automation solutions for mining equipment and bulk material handling machinery.

The ABB Group based in Zurich, Switzerland, is a global leader for energy and automation technologies with about 145,000 employees in 100 countries. Within the ABB Group, ABB Automation GmbH in Cottbus, Germany, functions as main technology center for material handling.

ABB Automation in Cottbus is an experienced and reliable partner for electric as well as automation related systems and uses SimulationX for both new developments and retro-fitting projects of extraction machinery and belt conveyors for international markets.

»SimulationX allows us to systematically analyze loads on and optimize capacities of electromechanical machinery.«

Uwe Heuer
Project Management
ABB Automation GmbH, Cottbus, Germany

Challenge

Designing high-performance drive systems

Powertrains of high-performance mining machines and belt conveyors are very complex, subject to alternating work conditions and consist of non-linearities, such as varying rope lengths and cantilevers as well as backlash in the transmission.

Solution

Virtual optimization and commissioning

For the ideal design and fast commissioning, drive systems and controller layouts are analyzed with SimulationX early on for their behaviors under operating conditions. This involves optimized, machine specific simulation models during the development process.

Benefits

Increasing availability and efficiency

Fast commissioning and thus fast deployment in combination with lower maintenance requirements guarantee an increased availability of equipment. This higher productivity can already be demonstrated through appropriate simulation results at the bidding stage. Specific costs can be reduced, while efficiency is increased.

ESI ITI GmbH | Schweriner Straße 1 | 01067 Dresden, Germany | T +49 (0) 351.260 50 - 0 | F +49 (0) 351.260 50 -155 | info.iti@esi-group.com

version: 03/2013