Voith Paper excels at making high-quality paper machines by using SimulationX.

With over 39,000 employees and a sales volume of € 5.3 billion during the fiscal year 2013/2014, the Voith Group is one of the largest family-owned companies in Europe. The Voith Paper Group Division is a pioneer in the paper industry offering new and customized paper production lines, rebuilds, single products and services.

Through constant innovations, Voith Paper optimizes the paper manufacturing process focusing on the development of resource-friendly products to reduce energy and water consumption and the demand for fiber. A large proportion of the world’s paper is produced with machines made by Voith Paper.

“SimulationX is a real asset to our development team as it enables us to continuously analyze and boost the performance of our machines and processes in order to pursue our idea of ‘Engineered Reliability’ – a fact that is well appreciated by our customers worldwide.”

Dr. Jochen Niemann, Senior Manager Technical Calculation, Voith Paper GmbH & Co. KG

Challenge
Controller optimization
In order to live up to their reputation of developing and manufacturing high performance paper machines with minimal vibrations, Voith’s engineers needed a system simulation tool to efficiently model, analyze and optimize controller layouts and parameters for the overall machine.

Solution
SimulationX Professional Edition
Ready-made model elements from a wide range of SimulationX libraries, such as 1D mechanics, hydraulics, thermodynamics and controllers, allow for quick and reliable calculations of multi-physics interactions between a paper machine’s many functionalities during translatory and rotatory movements.

Benefits
Higher productivity
With SimulationX, engineers can optimize controllers for smoother operations of components, such as rolls, even at higher speeds. As the tool comes into play early on in the development process and delivers highly reliable simulation results, Voith’s paper machines can fully meet customer expectations in terms of high productivity and little maintenance effort.