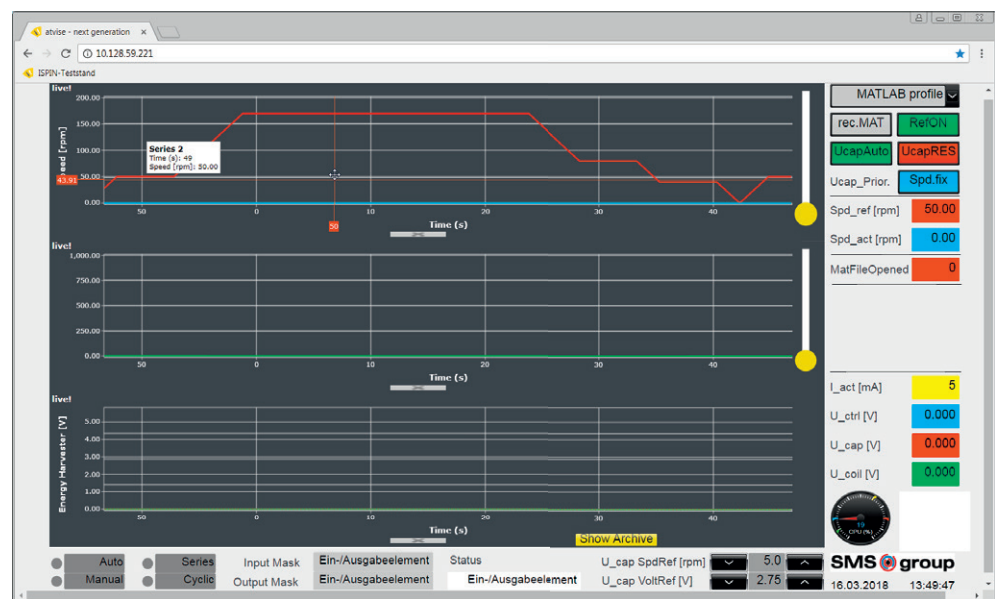


CAN WE HAVE MORE?

Churning out solutions –

M1 as a multi-talent in the laboratory and in development

The SMS group uses the wide range of possibilities already offered by the basic configuration of the M1 system for a rotation test stand at its Hilchenbach plant. In this environment, the M1 also demonstrated its qualities as a platform for plant simulation.



▲ The web-based visualization for controlling the test stand with webMI-Pro allows access with any web clients.

» We are constantly on the lookout for new solutions in order to provide plant operators with a competitive edge. «

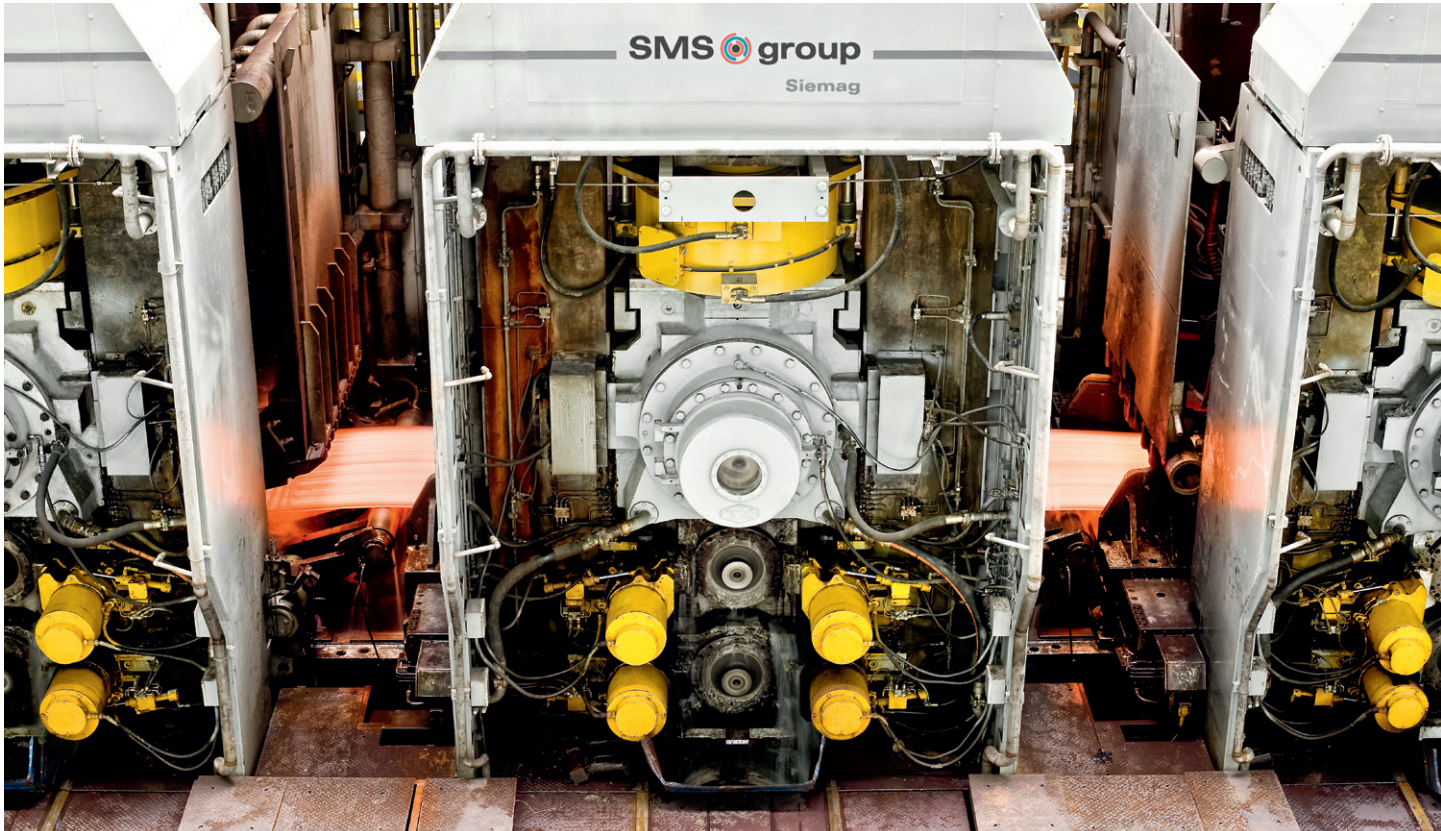
Dr. Matthias Krüger,
Mechatronic systems
at the SMS group

»When we first used the Bachmann M1 system at the Hilchenbach plant, we were just working on a development project for a rotation test stand with some demanding automation requirements and a very tight schedule,« Thorsten Huge explains: »However, even a basic system of the M1, consisting of the MC210 controller with the flexible GIO212 I/O module provided us with all the options required for a functional and on schedule implementation.«

And even the key requirements are not few in number: Programming the controller in C and

MATLAB®/Simulink® of the MC210 with cycle times in the 200µs-1ms range, file IO and data archiving with SCOPE3, flexible linking of digital and analog signals with the freely configurable GIO212 module, web-based visualization with webMI-Pro, drive connection via EtherCAT, Ethernet network via FTP.

The flexibility and capability of the MC210 controller finally made it possible to reach the important development aim of »automated continuous testing« by reading in the plots of speed reference values with the simultaneous



▲ An SMS hot rolling mill in operation.

» The system requirements of our development are highly complex and the deadline is always tight. The powerful M1 system in combination with the competent application support were the key to our success. «

Thorsten Hüge,
Model development and control technology
at the SMS group

SMS group

The SMS group has been family owned for four generations under the SMS Holding GmbH, and consists of a group of companies that specialize internationally in plant construction and mechanical engineering for the processing of steel and nonferrous metals. Through natural growth and acquisitions of other reputable companies, the SMS group has grown to become the leading complete supplier in the field of metal forming.

With offices in Western and Eastern Europe, the Middle East, Asia as well as North and South America, the SMS group cooperates with its customers worldwide. The annual turnover is around 3 billion euros. Around 13,000 employees work for the SMS group.

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output of process status values. »The complex possibilities of the M1 were naturally still new to us when we started with the project, but Bachmann helped us here with intensive training and application support to set up the first running system within a few weeks. Since then, we have been continually further expanding the system.«

The M1 system also showed in this project its ability to be used for plant simulation. This particularly required a high CPU performance and detailed diagnostic capabilities in model-based development with Simulink®.

»Bachmann has particularly impressed us with the M-Target for Simulink® application, but also with the robustness and openness with regard to programming languages as well as the fast cycle speed.

These features of the M1 controller have already proven their worth for the SMS group in the field in other product areas like bright steel and rolled steel,« Dr. Krüger sums up: »For us, Bachmann is a competent partner, offering uncomplicated support in tight development schedules with fast response times.«