

UNLOCKING ENHANCED PLANNING AND AI SOLUTIONS WITH AUTOSCHED SIMULATION

Samantha Duchscherer¹, and Madhu Mamillapalli¹

¹Applied Materials, Inc., Santa Clara, CA, USA

ABSTRACT

The SmartFactory Simulation AutoSched product has earned a strong reputation as a highly accurate and efficient discrete event simulator in the semiconductor industry for more than three decades. Applied is dedicated to evolving this core technology, starting with the implementation of a tactical planning solution called Production Control. By leveraging AutoSched simulation, Production Control is able to make accurate predictions about lot completion times and validate factory planning output, leading to detailed capacity planning, faster order updates, improved machine utilization, and streamlined WIP management. Additionally, AutoSched plays a crucial role in driving AI initiatives. The integration of AutoSched simulation models with our SmartFactory AI Platform enables customers to develop the necessary training data for building advanced AI models. Through customer use case stories and illustrated examples, discover how the integration of AutoSched into planning and AI solutions has the potential to revolutionize manufacturing operations and drive efficiency.