„Open Automation“ White Paper Overview

Please note that all white papers are only available with registration!

Title: **Open Automation: Modular. Flexible. Vendor-Independent. (full version)**

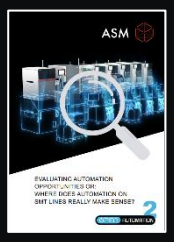
Description: This white paper serves as a comprehensive guide for your automation plans and projects. The individual chapters will provide valuable suggestions and information on how you can transition to an optimally automated and thus more productive SMT factory.

Link: https://www.asm-smt.com/en/competence-network/white-paper/open-automation/

Title: **#1: The 80/20 rule, or why the right ratio matters also in automation**

Description: In this interesting Open Automation white paper the author refutes the idea that having more automation will always reduce unit costs and make any production more efficient. As it turns out, partial automation and hybrid processes affect the bottom line more positively in most cases. This means that automation concepts must remain open and allow for customer-specific variation.

Link: https://www.asm-smt.com/en/competence-network/white-paper/open-automation-1/



Title: **#2: Evaluating automation opportunities, where does automation on SMT lines really make sense?**

Description: To examine the possibilities for automation, this white paper uses the example of a typical modern SMT line with a realistic high-volume/medium-mix scenario. Each line segment is analyzed with a critical eye and it’s determined what automation potential can be achieved.

Link: https://www.asm-smt.com/en/competence-network/white-paper/open-automation-2/

Title: **#3: Less floor space – but more room to move**

Description: Mobile robots and AIVs are core components for flexible automation in electronics production. In this White paper, Johannes Lettenbauer provides an overview of how their use affects topologies and layouts in electronics factories, and which important points need to be considered.

Link: https://www.asm-smt.com/en/competence-network/white-paper/open-automation-3/

Title: **#4: Simulation eliminates errors and saves time on the shop floor**

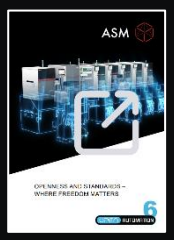
Description: This interesting white paper shows how much progress simulation technologies have made in recent years. Today, simulations and digital twins are already being used in many areas of electronics manufacturing, and the trend continues to accelerate. For the author, simulations are an essential element for Open Automation, particularly when they are combined with AI technologies.

Link: https://www.asm-smt.com/en/competence-network/white-paper/open-automation-4/

Title: **#5: Step-by-step from measuring and alarm triggering to autonomous process optimization with open automation, using the ASM ProcessExpert as an example**

Description: The ability to retrofit systems with automation is the promise that makes Open Automation so special. Electronics manufacturers should be able to leave their options open and automate when it becomes possible and/or makes sense for them. The author believes that the ASM ProcessExpert provides an excellent example of what retrofittability might look like in the area of process optimization.

Link: https://www.asm-smt.com/en/competence-network/white-paper/open-automation-5/



Title: **#6: Openness and standards – where freedom matters**

Description: Open and standardized interfaces such as IPC Hermes and IPC-CFX offer investment protection and reduce costs because they enable machines to become centrally controllable and exchange data in a non-proprietary manner. Without such interfaces, automation can only be implemented within a very narrow range, and never across the entire line.

Link: https://www.asm-smt.com/en/competence-network/white-paper/open-automation-6/

Title: **#7: If everything is connected, it must also be synchronized**

Description: Machines and mobile robots are the new coworkers in electronics factories. But how do you determine who does what? ASM expert Oliver Kraus explains what's needed for the seamless synchronization of all future players on the factory floor and shows that solutions available today which allow for the flexible division of labor in accordance with the Open Automation concept.

Link: https://www.asm-smt.com/en/competence-network/white-paper/open-automation-7/

Link to all white paper request forms:
https://www.asm-smt.com/en/competence-network/white-paper/