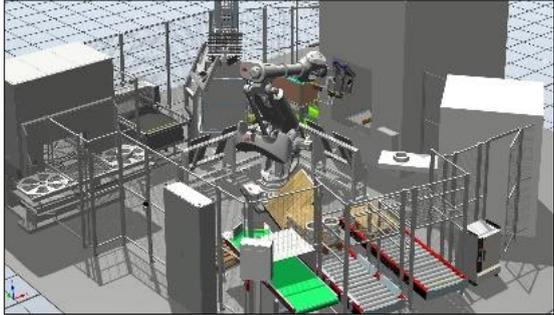




REAL VIRTUAL COMMISSIONING



Challenges: Increasing complexity in production processes and shorter production line lifecycles require frontloading through digitalisation.

Approach: By creating a Real Digital Twin, on Signal level, Software can be verified in parallel to constructions – Reducing risk of delays.

Outcome: With Real Virtual Commissioning Ramp-Up times can be decreased drastically, due to parallel workflows on Hard and software

Challenge for the industry today

Producing today's consumer products becomes more and more challenging as both volume and variants increase. This trend requires production lines to be highly efficient and flexible. Increasing complexity in production processes can easily lead to delays, and uncertainties. To mitigate the risk of a delayed market launch, frontloading of verification for production automatization systems is required.

Service and Approach

By working with a Real Digital Twin from an early stage, AFRY offers early system testing on both hardware and software level, with virtual and physical components.

The signals of the planned production unit are emulated to 100% allowing software engineers to stress test the system before any hardware has been ordered. This is possible through a powerful software framework, powered by Siemens Software, to allow emulation of any actor in the digital control system.

With this Real Digital Twin other parallel, workflows add additional value:

Virtual Factory Acceptance Test, Virtual System Integration Test against MES, MOM, or ERP Systems, as well as Virtual Operator Training to get a head start on staff input for improvement.

Expected Outcome

Using AFRY's Real Virtual Commissioning, Production setup times can be decreased and uncertainties handled earlier compared to traditional commissioning. RVC allows to optimize production units early on, in order to reduce working capital and increase Overall Equipment Efficiency.

The Real Digital Twin enables further digitalization of the operations in order to increase efficiency.



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