

DIGITAL TWIN

REQUIREMENTS FOR VIRTUAL ENGINEERING

EFFICIENT PROJECT MANAGEMENT THROUGH DIGITAL TWIN

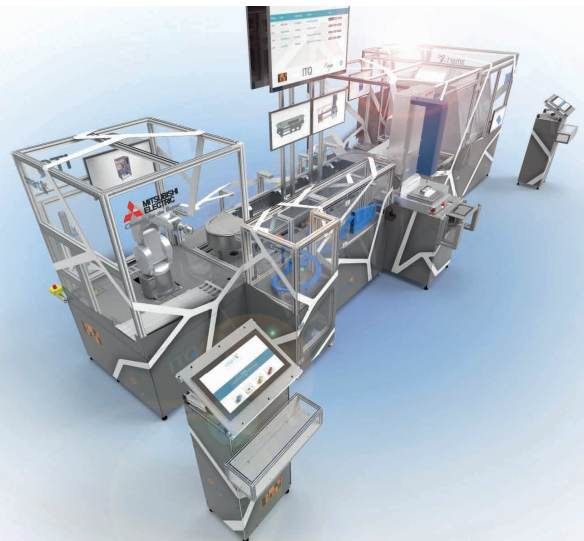
Modern simulation systems have become an important part of virtual commissioning. In other stages of the development process, simulation is still in its infancy. But the early project phases are the time when the tracks are laid for successful and cost-effective project implementation.

Simulate right from the start

Now in the age of digitalization, it is generally recognized that the use of a digital twin can dramatically reduce commissioning times for machines and systems.

If you implement the concept of full digitalization in the development process of a machine right from the start, completely new engineering opportunities will appear. Through the use of virtual engineering, development can be carried out at different locations at the same time, different variants of machines can be compared inexpensively and development times and costs can be reduced.

Therefore, simulation tools should be used in early project phases to ensure the quality of the created solution. Today's simulation kits and a good process integration contribute significantly to this.



Designing processes more efficiently together!

Selection: We support you in selecting the best simulation tool that suits your requirements. Our broad experience from a large number of projects implemented on different platforms as well as a good market overview ensure a well-founded decision.

Model construction: We are also happy to work on the construction of the corresponding models or library modules and at the same time train your employees on within projects.

Introduction: One of the key is the introduction and fixation in all engineering disciplines and in the development process. For that, a far-sighted process concept and sensitivity in dealing with people are required.



APPROACH

Simulate innovations in a tangible way

In the simulation tool, we reproduce the individual components of your machine exactly as a mechatronic module concept. This means that customer-specific machine and system concepts can be created with little effort during project planning. By using a functional demonstrator,

- new operating principles are created and tested quickly and prototypically

- different concepts are easily compared and optimizations carried out
- disciplines can be coordinated in early phases, also directly with the end customer

Then, the model serves as an interdisciplinary coordination tool in development and as the core element for the digital twin of the real machine throughout the entire life cycle.



"Digital twins accompany the entire development cycle and enable concept, function and quality to be assessed at an early stage."

Jonas Fischer
Simulation Specialist

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BENEFITS

What are the advantages of a simulation for you?

- Simulation enables interactive development in mechatronic teams
- Shorter order processing times
- Higher quality of your engineering documents
- The complexity of the systems can be displayed and controlled
- Early verification of the sustainability of new concepts
- Lower risk of expensive undesirable developments
- Faster and cheaper test execution
- Independence from the availability of real machines and systems
- Basis for the introduction of new technologies such as augmented reality

SERVICES

Virtual Engineering throughout the entire life cycle

- Analysis of your requirements for the functionality of a simulation system
- Support in the selection of a simulation system
- Introduction and fixation of the simulation method in the development process
- Construction of simulation models and a component library
- Integration into your development process
- Training and attending your employees
- Conceptual design and construction of HiL laboratory environments