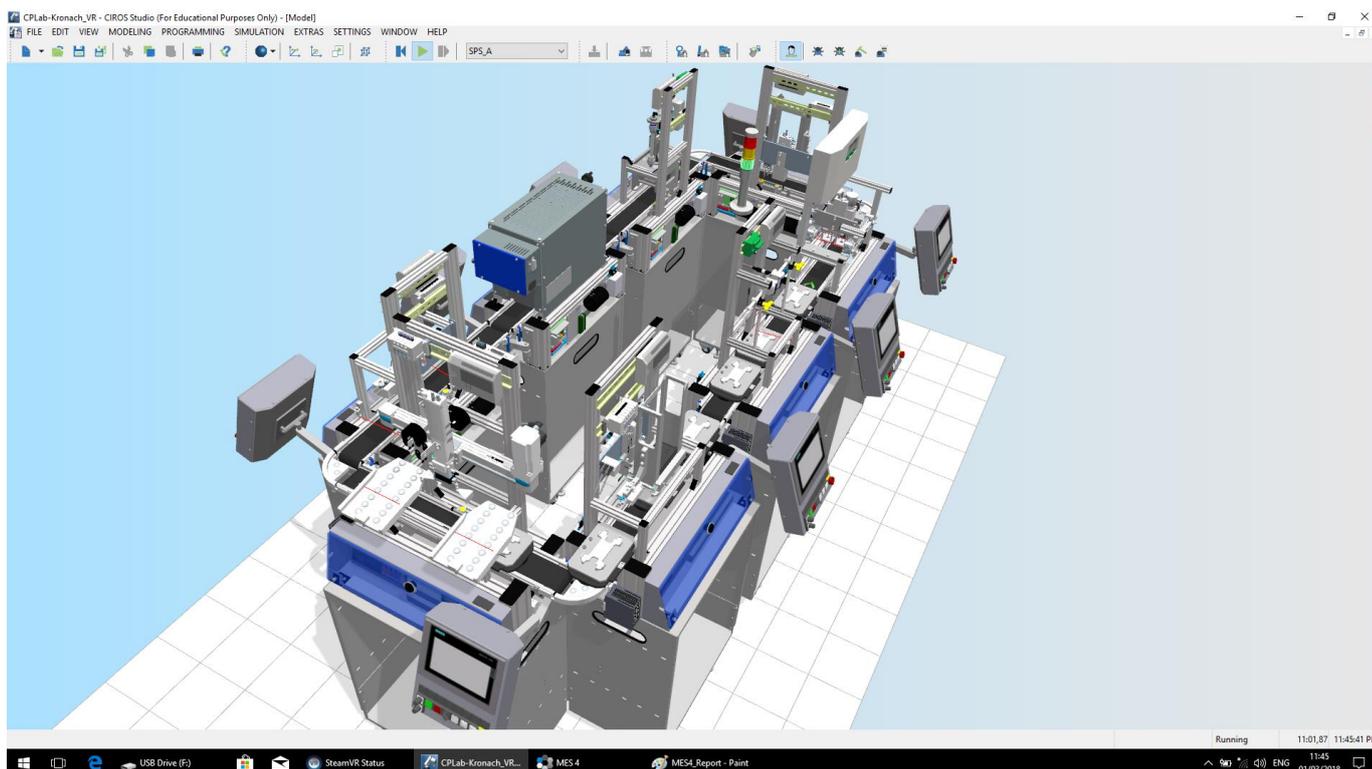


# Festo Training and Consulting

## From industry – for industry



DT241

### Simulation of CP Factory/CP Lab – an Introduction to CIROS®

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[www.festo-tac.com](http://www.festo-tac.com)  
[tac.global@festo.com](mailto:tac.global@festo.com)

Simulation has become an important production and product-development tool for quick and cost-effective analysis of new solutions, methods, and processes. Today's technology allows realistic, 3D simulations, even for the most complex automation systems. But simulation and virtual training are equally important when it comes to qualification. CIROS®, the universal, 3D, virtual commissioning software program for factory automation and robotics can be used to complement actual lab equipment, or as a stand-alone product for completely virtual training. For example, our cyber-physical systems, CP Factory and CP Lab, can be comprehensively explored using virtual reality.

This training provides a general introduction to CIROS®, focusing on the simulation of the CP Factory/CP Lab. CIROS® functionality, and the typical steps to create a CIROS® model, are also explored. Through numerous exercises in CIROS®, the participants learn to develop and simulate their own CP Factories/CP Labs. In addition, the interaction of CIROS® with the Festo MES4 our MES for our smart factories, is examined.

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## Simulation of CP Factory/CP Lab – an Introduction to CIROS®

### Training content

- Structure of CIROS®, menu design, shortcut keys, help menu, ...
- Typical steps for model creation and simulation
- Differences between standard- and MES mode
- Options for visualization and models
- Connecting CIROS® to the MES4
- Data inputs and outputs, “Logging”
- PLC connection
- Identifying malfunctions and simulating failures

### Training outcomes

After completing this training course, the participants:

- know the basic functions of CIROS®
- can develop and simulate a CP Factory/CP Lab on their own and connect CIROS® to MES4 and (virtual) PLCs to CIROS®
- know how to implement failure scenarios into CIROS® models, analyze the scenarios and apply them in own trainings

### Target group

Vocational teachers and users of CIROS® as simulation tool in automation and IT departments

### Duration

2 days



All Festo Didactic training courses offer the following additional benefits:

- Post-tests can additionally be used to monitor the training effectiveness
- Our trainings can be customized and carried out worldwide (on demand)
- Trainings take place with real industrial components, used in a safe environment
- Our trainers are certified according to our internal trainer qualification „Festo Certified Training Professional” and have many years of industrial experience