**fe.screen**
**SIM**
planning, simulation
virtual commissioning

# TRAININGS

## BASIC TRAINING

In the **basic training course,** you will receive a practical and well-founded overview of the „basics" of fe.screen-sim. We will show you how development, testing and commissioning of your automation technology can be significantly accelerated using Virtual Commissioning. Based on your existing 3D CAD data, the real industrial control technology (NC, PLC or robot control) is virtually commissioned with the help of the „digital twin" in fe.screen-sim. This way you will quickly become a professional in 3D simulation!

### THE CONTENTS OF THE BASIC TRAINING

- **fe.screen-sim design and structure**
  - Data structure
  - Core/client
  - Function modules
  - Communication interfaces

- **Basic operation and navigation in the simulation**

- **Basic structure of simulation models**
  - Presentation of the existing object catalog
  - Combination principle and tree structures
  - Creation of a simple model with sensors and motors

- **Functional logics (behavioural models)**
  - Introduction to principle and possibilities
  - Creating C# modules
  - Creating FBD modules

- **Kinematization**
  - Introduction to the possibilities of movement
  - Applying kinematic definitions

- **CAD data import**
  - Supported formats with their advantages and disadvantages
  - Designations and properties from the data and their accessibility

- **Adjustments of 3D models**
  - Adjustments of dependencies and structures
  - Working with the Model Editor
    - Editing a 3D mesh for a model
    - Adjustment, creation and assignment of materials

- **Additional functions of fe.screen-sim**
  - CabinetTest
  - Signal recorder

- **Connecting interfaces to**
  - PLC
  - Robotics

- **Connecting signals and simulation elements**

## BASIC TRAINING – THE FACTS

| | |
|---|---|
| **Course duration:** | 2 days |
| **Max. number of participants:** | max. 3 participants |
| **Prerequisites:** | Basic knowledge of construction systems and automation technology |
| **Target group:** | Beginners who want to start creating virtual models. |
| **Location:** | At the training centre of F.EE GmbH Informatik + Systeme, via remote or at your location |
| **Price:** | On request |



## PROGRAMMER TRAINING – SDK AND API

In the **programmer training** you will become a software developer yourself! You will learn how to further expand the functionality of fe.screen-sim using the software extension interfaces „SDK (Software Development Kit)" and „API (Application Programming Interface)" and how to flexibly adapt them to your own requirements. You will also learn how the API interface can be used for the automated generation of simulation models.

### THE CONTENTS OF THE PROGRAMMER TRAINING

- API – design and structure
- Data transfer from third-party applications using the API interface
- SDK – design and structure

- Creation and integration of
  - Own scene objects
  - Own plug-ins
  - Own communication interfaces

### PROGRAMMER TRAINING – THE FACTS

| | |
|---|---|
| **Course duration:** | 2 days |
| **Max. number of participants:** | max. 3 participants |
| **Prerequisites:** | Basic training on fe.screen-sim, knowledge of C# mandatory, knowledge of .Net Framework and handling Visual Studio |
| **Target group:** | Programmers who want to extend the functionality of fe.screen-sim using SDK and API |
| **Location:** | At the training centre of F.EE GmbH Informatik + Systeme, via remote or at your location |
| **Price:** | On request |

Of course, you will receive a certificate for participation in the corresponding training.

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