



THE FACTS AT A GLANCE

SUMMARY DATA SHEET

WHAT IS fe.screen-sim?

fe.screen-sim is a software solution for virtual commissioning and system simulation. You can use it to create a digital model of your systems and machines – a so-called “digital twin” that behaves in exactly the same way as the real-life system/machine.

Its **impressive performance** capabilities will enable you to implement large and complex projects. For example, **more than 20 PLCs** with **more than 20 robots**, **700 drives** and **over 150,000 inputs/outputs** can be deployed in a single simulation.

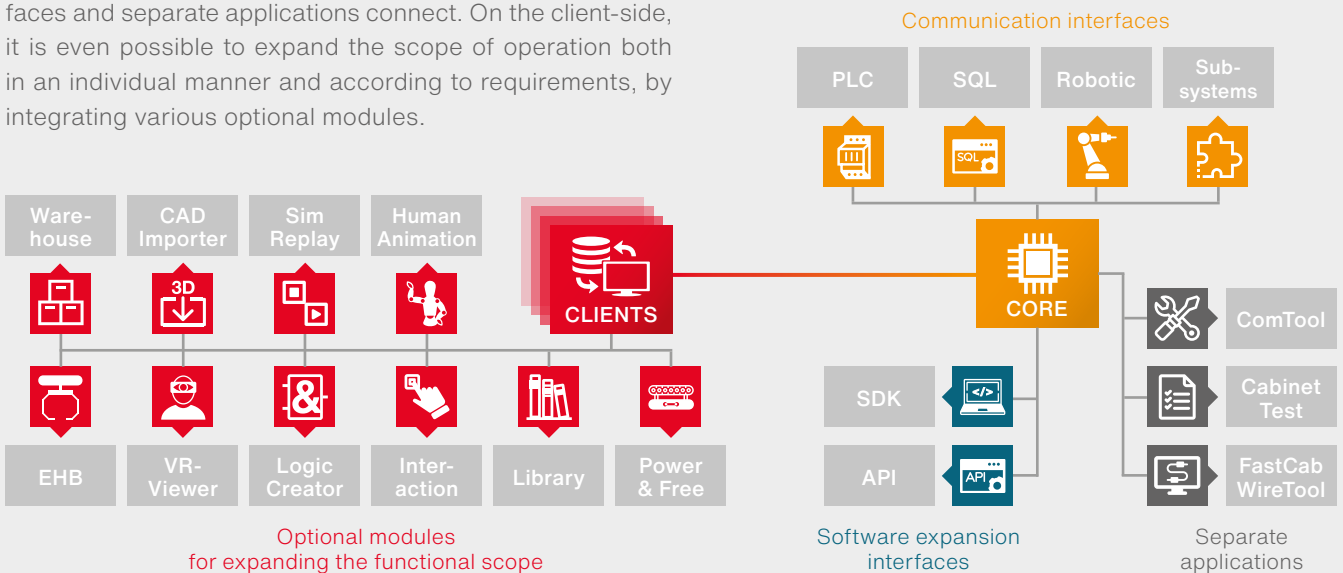
SCOPE OF APPLICATION AND SCENARIOS

fe.screen-sim can be used in its entirety for applications **in any industry**. Currently the software is used in the plant and mechanical engineering sector, logistics, materials handling technology sector, the automotive industry as well as in automation and robotics sector with great success.

Typical **application scenarios** are:
Virtual commissioning | Process optimisation | Collision checks | Functional inspections | Training scenarios | Feasibility analyses | HMI operating concept testing | Ergonomics assessments.

THE STRUCTURE OF THE SOFTWARE

From the outset, it was deemed very important that fe.screen-sim have a **modular structure** so as to ensure **maximum flexibility**. The beating heart of this is the so-called “Core”, to which all clients, communication and extension interfaces and separate applications connect. On the client-side, it is even possible to expand the scope of operation both in an individual manner and according to requirements, by integrating various optional modules.



SYSTEM REQUIREMENTS

The ideal system configuration when using fe.screen-sim is as follows:

CPU: Intel I7-, 7700 or AMD 2700X
Graphics card: Geforce RTX 2080 | **RAM:** 16 GB

Of course the software can be used in connection with other hardware components that may already be in place. We are happy to advise you in this regard.

THE LICENSED VERSION

The fe.screen-sim licensing concept has a **modular structure** based on **floating licenses**. While communication interfaces are licensed once at the “Core”, clients have the opportunity to acquire optional modules, software extension interfaces and separate applications. This licensing model creates maximum transparency and means that our customers are not faced with unnecessary costs.

CONNECTION OF THIRD-PARTY SYSTEMS AND DATA IMPORTS

Our software solution provides interfaces for virtually all systems and data sources commonly found on the market, such as

- **Controllers:** Siemens S7 (series: 200, 300, 400, 1200, 1500) and compatible controllers (e. g. VIPA), Allen Bradley, Rockwell, Beckhoff (TwinCAT 3), Fanuc, WAGO, PLCSIM Advanced, Simulation Unit.
- **Robotics:** KUKA, ABB, Fanuc, Yaskawa, Stäubli and Universal Robots (others on request).
- **Subsystems:** E. g. MATLAB®/Simulink®, WinMOD® etc.
- **CAD import:** SolidWorks, Step, JT, OBJ, AML, PTC, Inventor, CATIA, Process Simulate and many more.
- **SQL, XML and Excel.**

HOW YOU WILL BENEFIT FROM USING OUR 3D SIMULATION SOFTWARE

You and your company will benefit from using fe.screen-sim in a number of different ways.

These include:

- Comprehensive **testing in advance.**
- **Error control.**
- Straightforward **optimisation options.**
- **Improvement in software quality.**
- **Efficient use of resources.**
- **Increase in customer satisfaction.**
- **Shortening of innovation cycles.**
- **Minimisation of risk.**
- Increase in **employee satisfaction.**

OTHER FUNCTIONS AT A GLANCE

- **Multi-user capability:** Several users work together on a simulation project.
- **Integrated user and group management.**
- **Integrated library functions** of behavioural and CAD models - also for own extension.
- **Ability to create logic** in FUP, C# and FMU/FMI.
- **Graphic Assign:** Straightforward, automated assignment of connections, e. g. between the variable and simulation element.
- **Innovative editors** that allow you to subsequently edit materials, models and physical properties.
- **Simple model transfer in VR technology.**
- **Automated signal assignment** of I/Os from the PLC to the model using Expressions Editor.
- **Integrated signal recorder.**
- **Bi-directional exchange** from CAD to simulation.
- **Programming interface API and Software Development Kit (SDK)** for implementing your own functions and interfaces.
- **Integrated physical calculation** of friction, speed etc.
- **Coupling of various communication partners** in a simulation project (e. g. controllers and robots).
- **No need to switch** between model creation and simulation.
- **Comprehensive range of services provided by F.EE and a partner network** - e. g. creation of function logics, simulation models, VIBN support, development of customised modules and functions.

TRIED, TESTED AND TRUSTED ON THE MARKET - REFERENCES FROM SATISFIED USERS OF fe.screen-sim



fe.screen-sim is used in many **universities** and **vocational training institutions** - e. g. the Technical University of Deggendorf (Technology Campus Cham). In addition, the software is used in the "BayernLabs" for digital knowledge creation and in the **Innovation Hub Bergisches RheinLand** for research purposes.

F.EE GmbH | Business division Software + Systems

Industriestraße 6 | 92431 Neunburg vorm Wald | Germany

phone: +49 9672 506-0 | e-mail: fescreen-sim@fee.de | www.fescreen-sim.com

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