fe.screen SIM
planning, simulation
virtual commissioning

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. The multi-user capability for simultaneously editing the model by several users is very advantageous here.

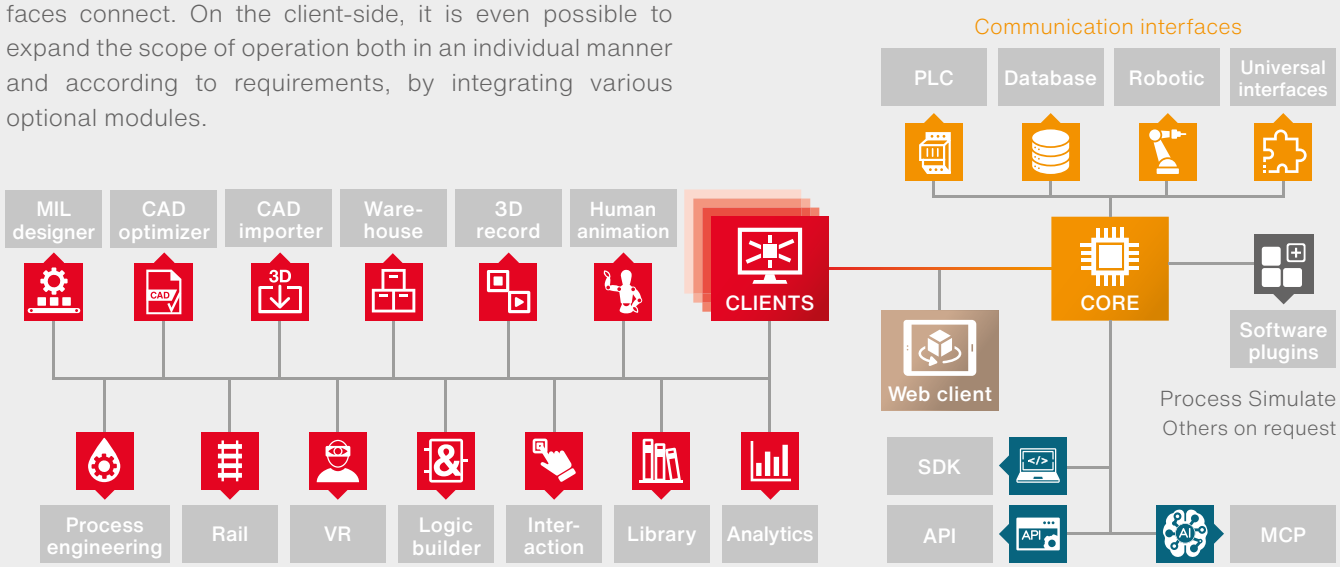
SCOPE OF APPLICATION AND SCENARIOS

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.

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 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

For ideal use of the fe.screen-sim software, the system configuration should be based on the current hardware standards. Of course, the software can also be used in conjunction with other, possibly already existing hardware components, depending on the complexity of the virtual model.

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 and software extension interfaces. 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, Rockwell, B&R, Beckhoff, Bosch, CODESYS Simulation Interface (Add-on, Preview), Fanuc, Kawasaki, Logix Echo Network Interface and Mitsubishi.
- **Robotics:** ABB, Epson, ESTUN, Fanuc, isel, KUKA, Mitsubishi, NACHI, RoboDK, Stäubli, Universal Robots und Yaskawa (others on request).
- **Subsystems:** E. g. MATLAB®/Simulink®, ABITRON, Siemens Process Simulate, control systems, etc.
- **CAD import:** Use of more than 30 CAD formats incl. native support of the most common CAD systems – such as SolidWorks, AUTODESK, Siemens, etc.
- **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.**

ESTABLISHED IN PRACTICE - AN EXCERPT OF THE SATISFIED USERS of fe.screen-sim

ATTEC Automation GmbH | AUTOMATION baumann | BMW GROUP
FELSOMAT | GROB GROB-WERKE GmbH & Co. KG | KLOTZ
KUKA | Schaeffler Special Machinery | thyssenkrupp

OTHER FUNCTIONS AT A GLANCE

- **Multi-user capability:** Several users can work on the same model simultaneously without switching between editing and simulation mode. fe.screen-sim thus brings genuine multi-user functions to the simulation.
- **Integrated user** and **group management.**
- **Integrated library functions** of behavioural and CAD models - also for own extension.
- **Ability to create logic** in FUP and C#.
- **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.
- **Support** for **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.
- „**CAD Optimizer**“ for fast preparation and optimization of CAD data.
- **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 (e. g. controllers and robots).
- „**emulation box**“ for simple emulation of up to 700 fieldbus devices.
- **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.

fe.screen-sim – THE HIGHLIGHTS OF VERSION 5 AT A GLANCE

V5 GIVE ME

- MCP interface: Direct connection to AI systems, LLMs and workflow tools
- Web client: Simulation in the browser
- MIL designer: The “navigation system” for conveyor systems
- Analytics: Effective data and cycle time analysis on the digital twin
- New benchmark in performance and photorealistic visualization
- New time control
- More robots, maximum synergy

All further details under: **www.fescreen-sim.com**

F.EE GmbH | **Business division Software + Systems**
Industriestraße 6 | 92431 Neunburg vorm Wald | Germany
+49 9672 506-0 | softwarevertrieb@fee.de
www.fescreen-sim.com

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