

KUKA.Sim Tech 2.2 Description

Function

KUKA.Sim Tech 2.2 comprises not only the functionalities of KUKA.SimLayout 2.2, but also a very extensive application programming interface (API). This API enables other application programs (e.g. VBA or C++) to trigger and influence the simulation software in different ways (e.g. starting and controlling). KUKA.Sim Tech 2.2 cannot be used to calculate cycle times or create KRL programs.

Functional Principle

Smart components

The KUKA.Sim product family provides a wide variety of functions for using and combining smart components.

Smart components make it possible to assign diverse functions and intelligent behavior to different geometries.

This means that conveyors, grippers, light barriers, etc. can be created not only with the required geometry but also with additional functions, parameters, signals or a defined behavior.

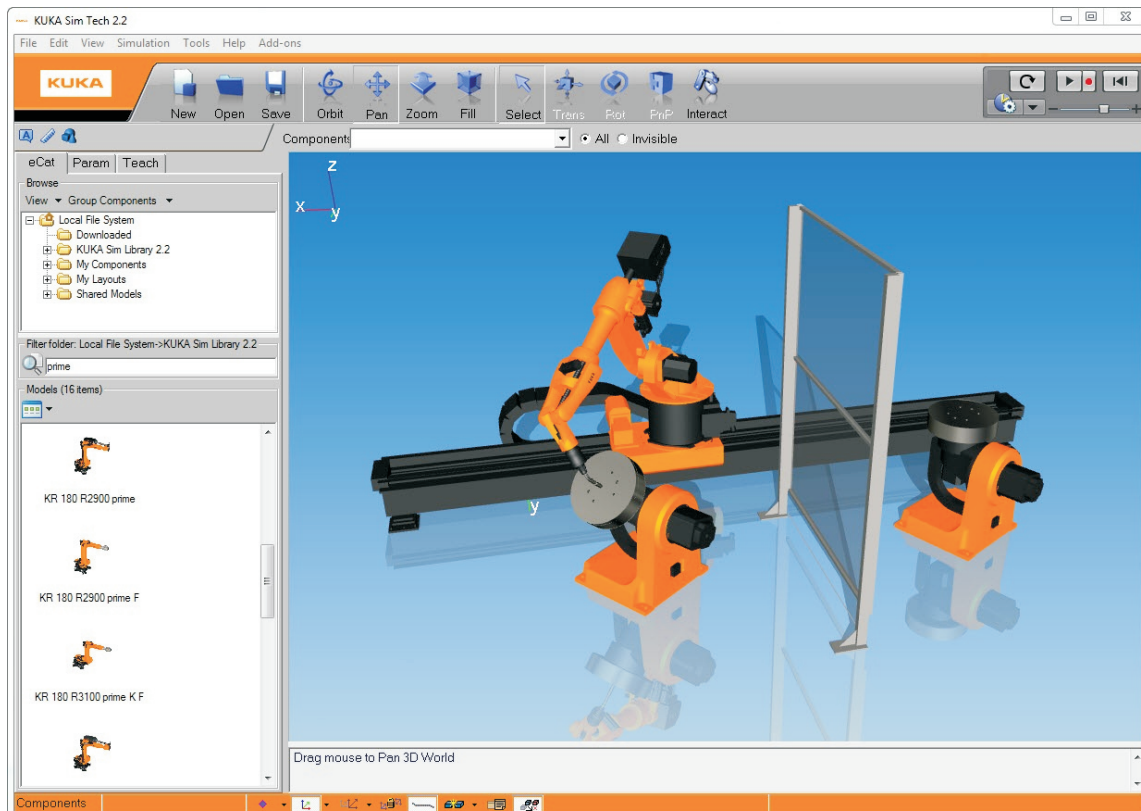
A wide range of such smart components are available to the user in the supplied KUKA.Sim Library for use in simulations.

The extensive KUKA.Sim Library is also available online as a web catalog with KUKA.Sim 2.2.

Smart components can be created using KUKA.Sim Pro, but can also be used in KUKA.Sim Tech or KUKA.Sim Layout.

The KUKA.Sim products are the ideal simulation tool for creating 3D layouts for production systems with KUKA robots and other motion sequences.

Different layouts, concepts and robot tasks can be created quickly and easily and compared with each other.



Simulation with KUKA.SimTech

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3D PDF function

The KUKA.Sim 2.2 product family offers a new, animated 3D PDF function. This makes it easy to export the created simulations in PDF format. The created 3D PDF file can be viewed with an Adobe® Acrobat® Reader and is a very simple way of presenting your simulations or concept study with an animated sequence.



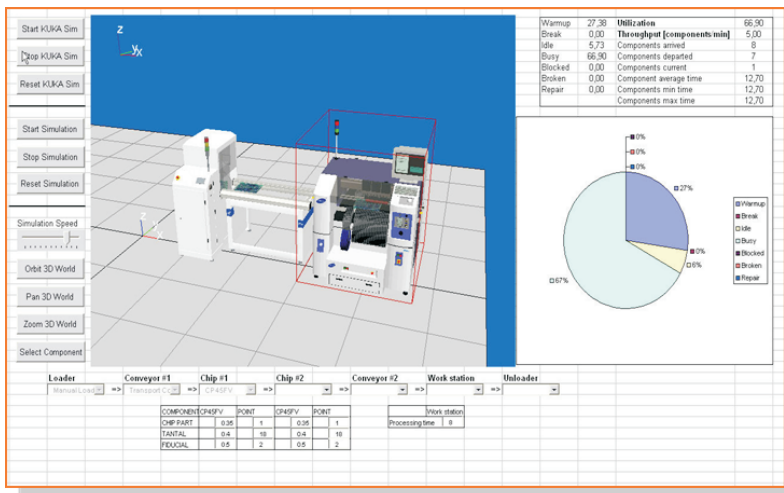
3D PDF export

Application Programming Interface (API) and CAD Import

Via the API, KUKA.Sim Tech 2.2 can also be used with a specially developed plug-in or a customized application.

KUKA.Sim Tech 2.2 can also be integrated directly into the customer's own application.

Furthermore, a wide range of optional CAD imports can be used with KUKA.Sim Tech 2.2.



API example: KUKA.Sim Tech in VBA Excel

Integrated CAD imports (optional)

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Additional Features

A range of helpful functions is available to the user with the products of the KUKA.Sim product family:

- Electronic catalog (eCat) with components for the simulations. The catalog contains all the KUKA robots, together with grippers, conveyors, safety fences, and much more.
- Drag&Drop and Snap functions; these functions enable fast creation of layouts by dragging components from the electronic catalog and linking them using logic operations.
Simple 3D import formats (3ds, stl, rf, vrmf) are available as standard for the CAD data import.
Google SketchUp files (*.skp) can also be imported.
KUKA.Sim also provides the 3D formats (3ds, stl, rf) as export functions.
- Parametric modeling of the components from the electronic catalog. Many components from the electronic catalog are already defined parametrically. This makes it easy to change the size, distances and position.
Remodeling with a CAD program is thus no longer necessary.
- Visualization of the robot motion, i.e. motion sequences can be programmed graphically without knowledge of KRL syntax; wait times, gripper commands and other instructions can be used in order to create a motion simulation.
- Collision detection and reachability checks make it possible to validate and optimize the different system layouts.

Restrictions

The following functions are not available in KUKA.Sim Tech 2.2:

- Signal connections between smart components
- Cycle time calculation
- Creation of smart components

These functions are available with the product KUKA.Sim Pro 2.2.

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Area of Use

- 3D layout and concept creation
- Accessibility and reach investigation
- Use of KUKA.Sim plug-ins
- Plug-in development for KUKA.Sim Tech 2.2
- Integration of applications (COM)

If offline robot programming with KRL syntax or cycle time analysis is required, then KUKA.Sim Pro must be used (see *KUKA.Sim Pro*).

Availability

The KUKA.Sim 2.2 product family can be used for simulations for the following controller generations:

- KR C2
- KR C2sr (Small Robots)
- KR C4

System Requirements

- WIN XP SP3 or WIN7 SP1 (32/64-bit)
- At least 2 GB RAM
- OpenGL-capable graphics card with at least 512 MB RAM

KUKA.Sim Tech cannot be run on a KUKA robot controller (KRC)!

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KUKA.Sim Tech 2.2 Order Data

Scope of Supply

MediaKit DVD

- DVD with
 - KUKA.Sim Tech 2.2
 - KUKA Sim Library 2.2
- License request form
- License server software

Please note:
Windows XP or Windows 7 are not included in the scope of supply.

CAD reader

A separate product key is required for each CAD reader.
The product key is delivered by e-mail.
The CAD readers should be ordered directly from the KUKA Simulation team, stating the required article no.:

Fax: +49 (0)821 797 2123
simulation@kuka-roboter.de

Please note:
A CAD reader can only be used together with the KUKA.Sim Tech 2.2 (or KUKA.Sim Pro 2.2) products listed here.

KUKA.Sim Tech 2.2 is available with an individual PC license (N = Node locked license) or with a server license (F = Floating license).
Upgrades are available for older versions (U = Upgrade, Number = specification of the older version; e.g. U 2.0 means an upgrade from version 2.0 to the current version 2.2).
Important: The license number of the version in use is a prerequisite for purchasing the upgrade products. Orders are only accepted and confirmed if the existing license number is quoted.

Article	Art. No.	
KUKA.Sim Tech 2.2, N, MK DVD	00-205-150	●
KUKA.Sim Tech 2.2, N U2.1, MK DVD	00-205-437	●
KUKA.Sim Tech 2.2, N U2.0, MK DVD	00-205-435	●
KUKA.Sim Tech 2.2, F, MK DVD	00-205-149	●
KUKA.Sim Tech 2.2, F U2.1, MK DVD	00-205-431	●
KUKA.Sim Tech 2.2, F U2.0, MK DVD	00-205-429	●

● Option, selection required when ordering

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KUKA.Sim Tech 2.2 Order Data

Optional CAD imports, only available with a server license (F = Floating license).
Please order from the Simulation team, Fax: +49 (0)821 797 2123, simulation@kuka-roboter.de.

Article	Art. No.	
CAD reader CATIA V5, F	00-202-253	●
CAD reader CATIA V4, F	00-202-240	●
CAD reader Siemens NX, F	00-202-254	●
CAD reader ProEngineer, F	00-202-242	●
CAD reader SolidWorks, F	00-202-268	●
CAD reader IDEAS, F	00-202-259	●
CAD reader Parasolid, F	00-202-241	●
CAD reader ACIS, F	00-202-228	●
CAD reader JT, F	00-202-232	●
CAD reader Step, F	00-202-262	●
CAD reader IGES, F	00-202-256	●

● Option, selection required when ordering