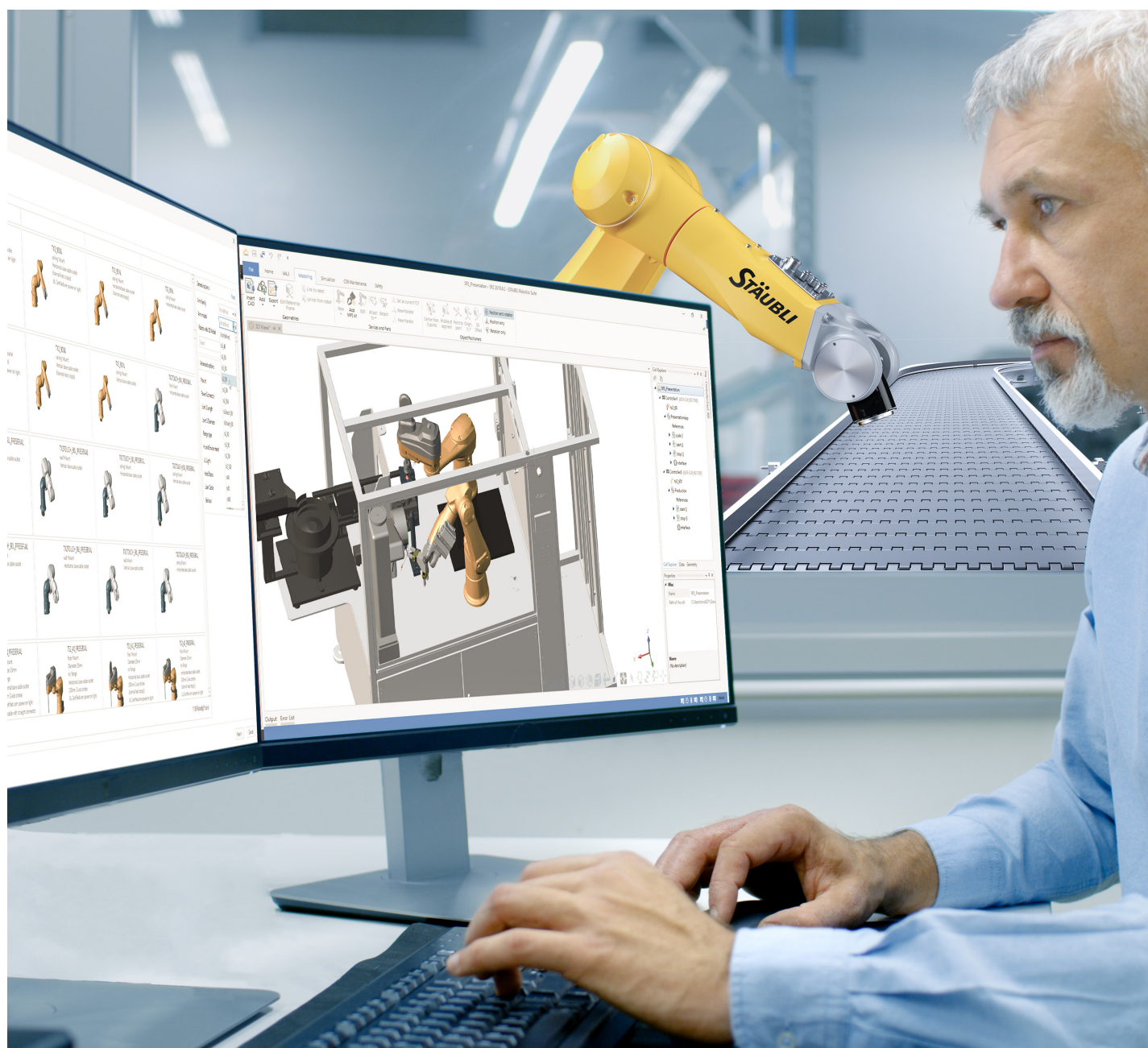


FAST MOVING TECHNOLOGY

STÄUBLI

Stäubli Robotics Suite

Robotics | Experts in Man and Machine



STÄUBLI VISION

Experts in Man and Machine



“Today, our robots work both for, and with, people. They have to be fast and precise, collaborative and agile, user-friendly and highly mobile. In all kinds of industries, they redefine performance. Even in the most sensitive environments, they make production smarter. Providing smart data, in an easily connected world, where we share our expertise. A world of solutions.”

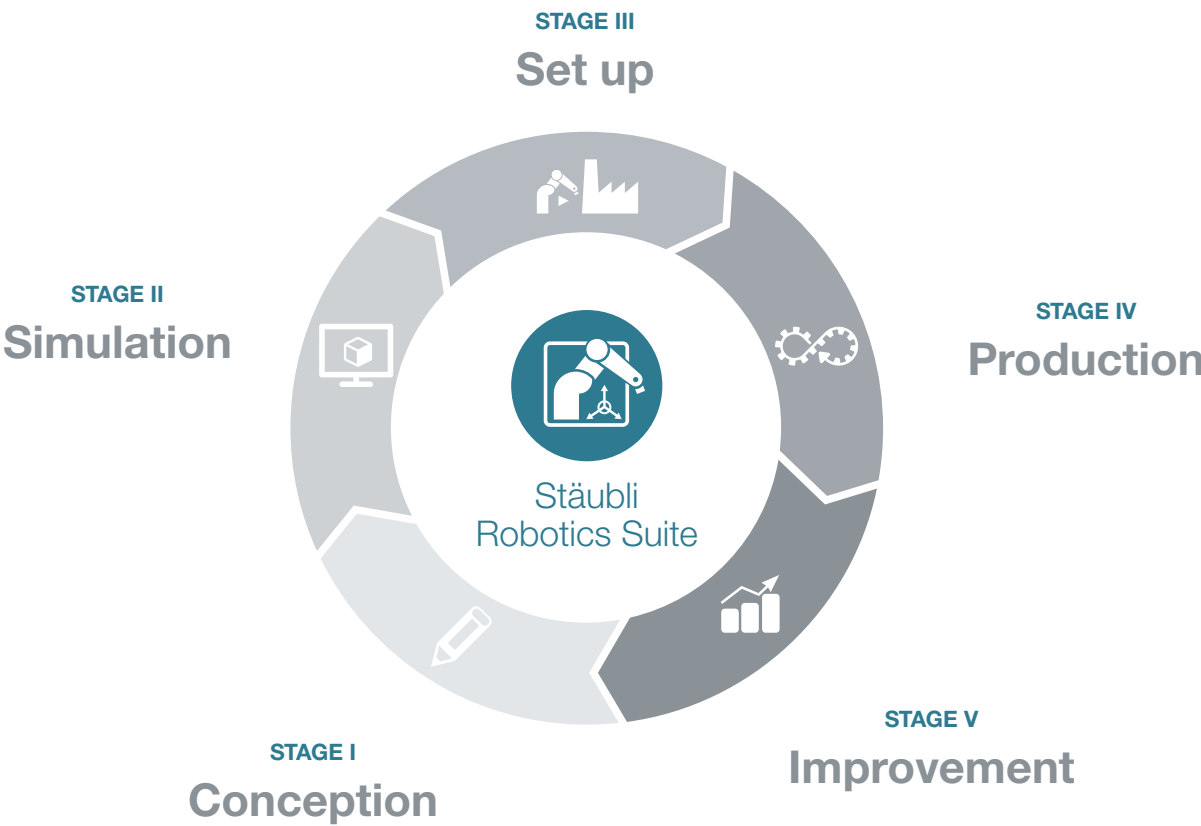
People drive change, robots accelerate the pace.

Christophe Coulongeat,
Group Division Manager Robotics

STÄUBLI ROBOTICS SUITE 2019

A powerful PC environment for today's smart production

Stäubli Robotics Suite is a broad PC software environment which simplifies managing your robot system. Starting from conception and simulation over setup to production, it also enables easily a permanent improvement of your robot applications. It guides you clearly through the process of simulating, developing and debugging your robot programs all the way to the final validation and transfer of any system data. Due to its versatility of applications it is the ideal smart production tool offering multi-screen support running on windows operating system.



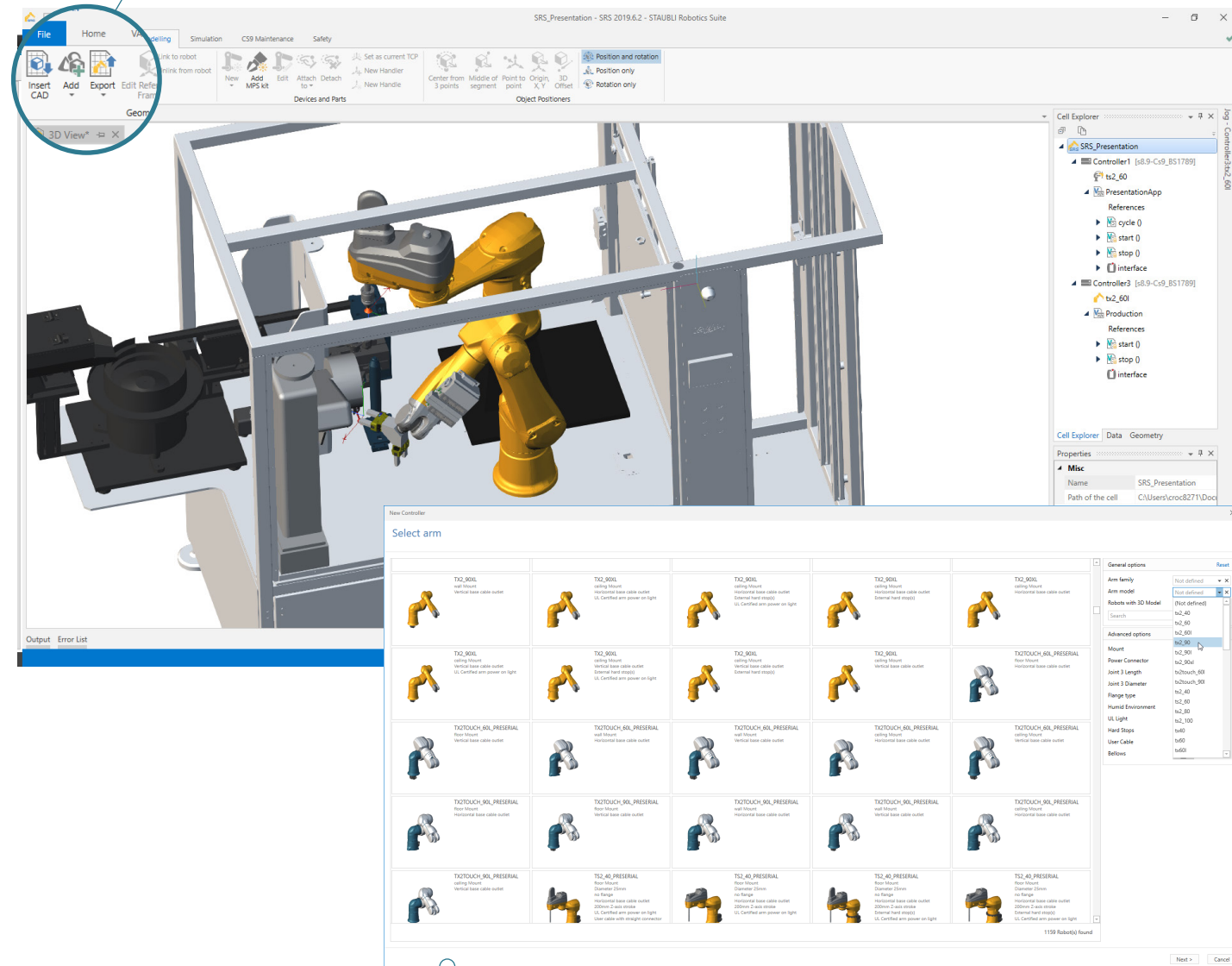
STAGE I: CONCEPTION

Providing a quick overview of the robot feasibilities

Stäubli Robotics Suite is enabling anybody to evaluate automation concepts easily in a 3D environment, even without robot programming experience.

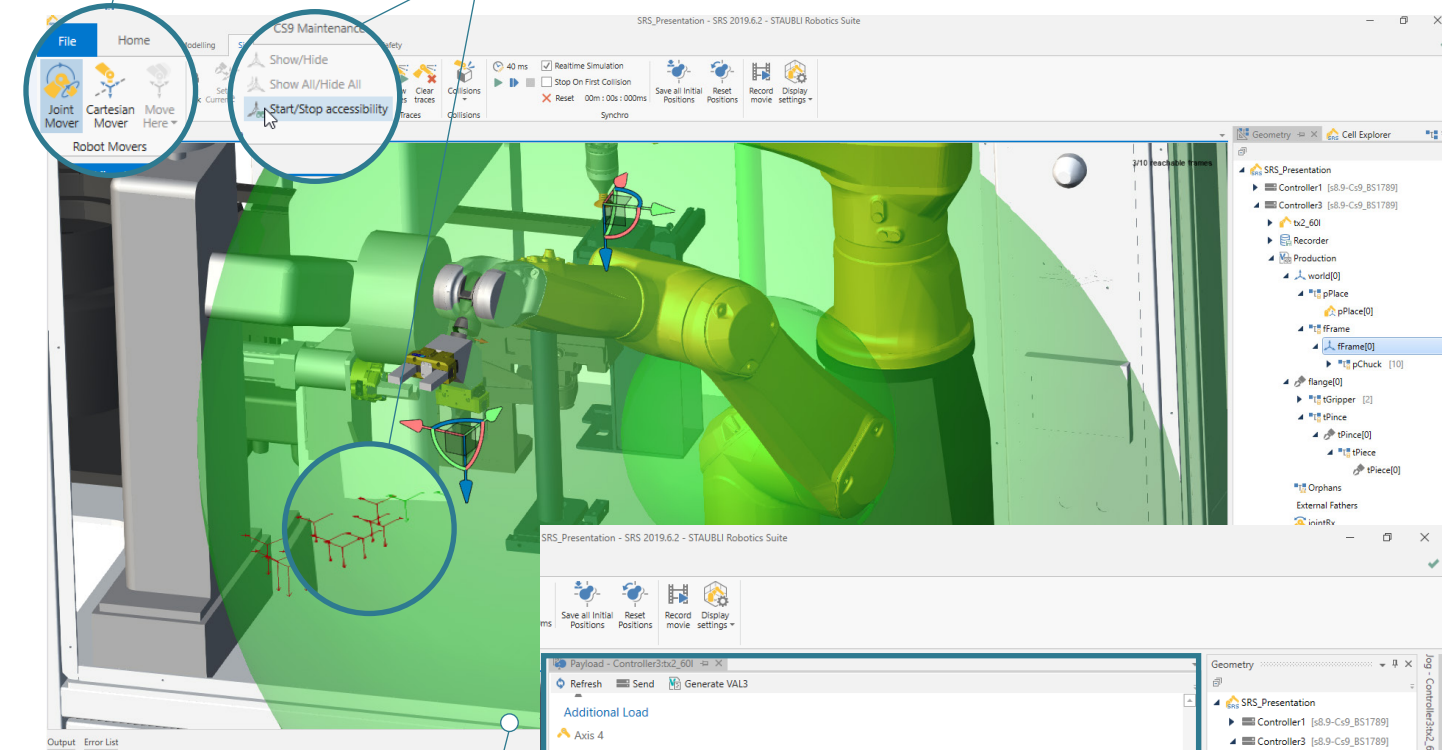
Quick and easy concept validation due to the following Stäubli Robotics Suite capabilities:

3D file import for individual cell and gripper concepts

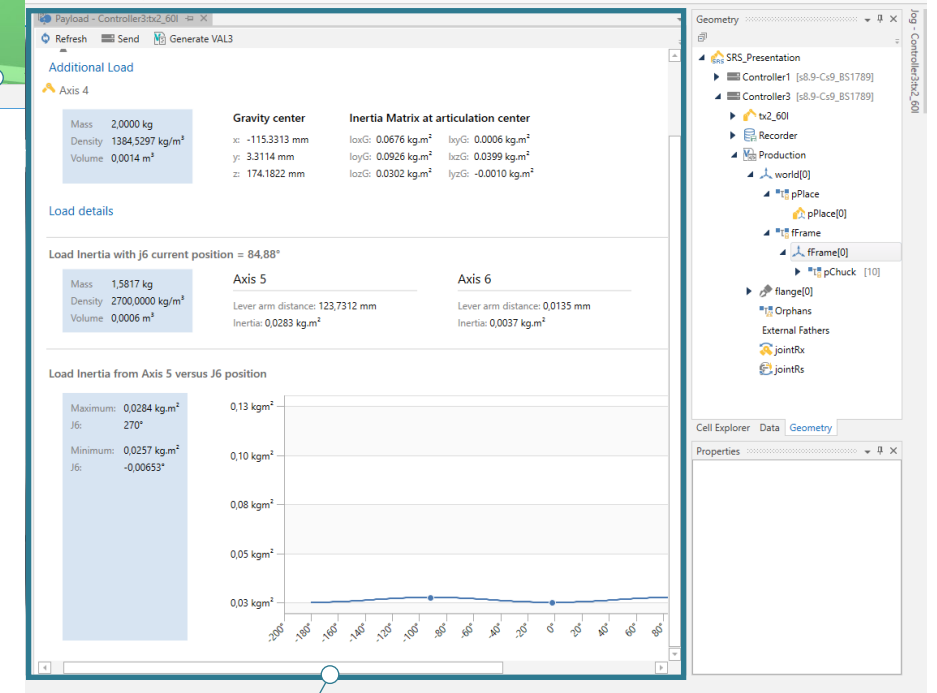


Joint mover / cartesian mover visualization for manual robot motion control

Easy reachability and accessibility check



Working envelope and cell volume validation



Payload and inertia evaluation

Robot and robot options import from Stäubli Robot Library

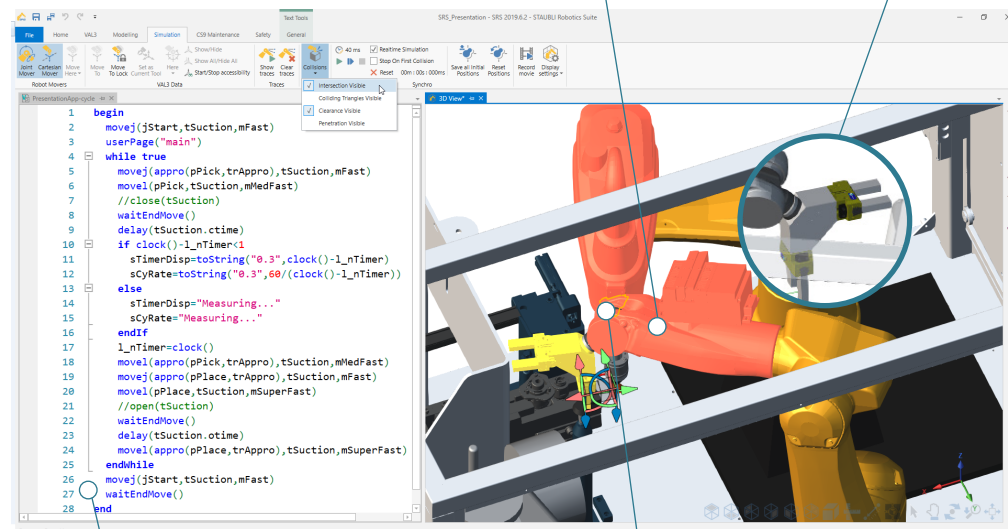
STAGE II: SIMULATION

Comfortable visualization and validation of your cell concept or digital twin

During the stage of simulation Stäubli Robotics Suite allows even more realizing functionalities.

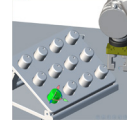
Based on your concept evaluation, Stäubli Robotics Suite enables a simple completion with detailed robot, cell, tool and part simulation features:

Multi-robot support for individual application simulation



VAL 3 code basics for setup phase

Creation of 3D objects: static and moveable (parts)



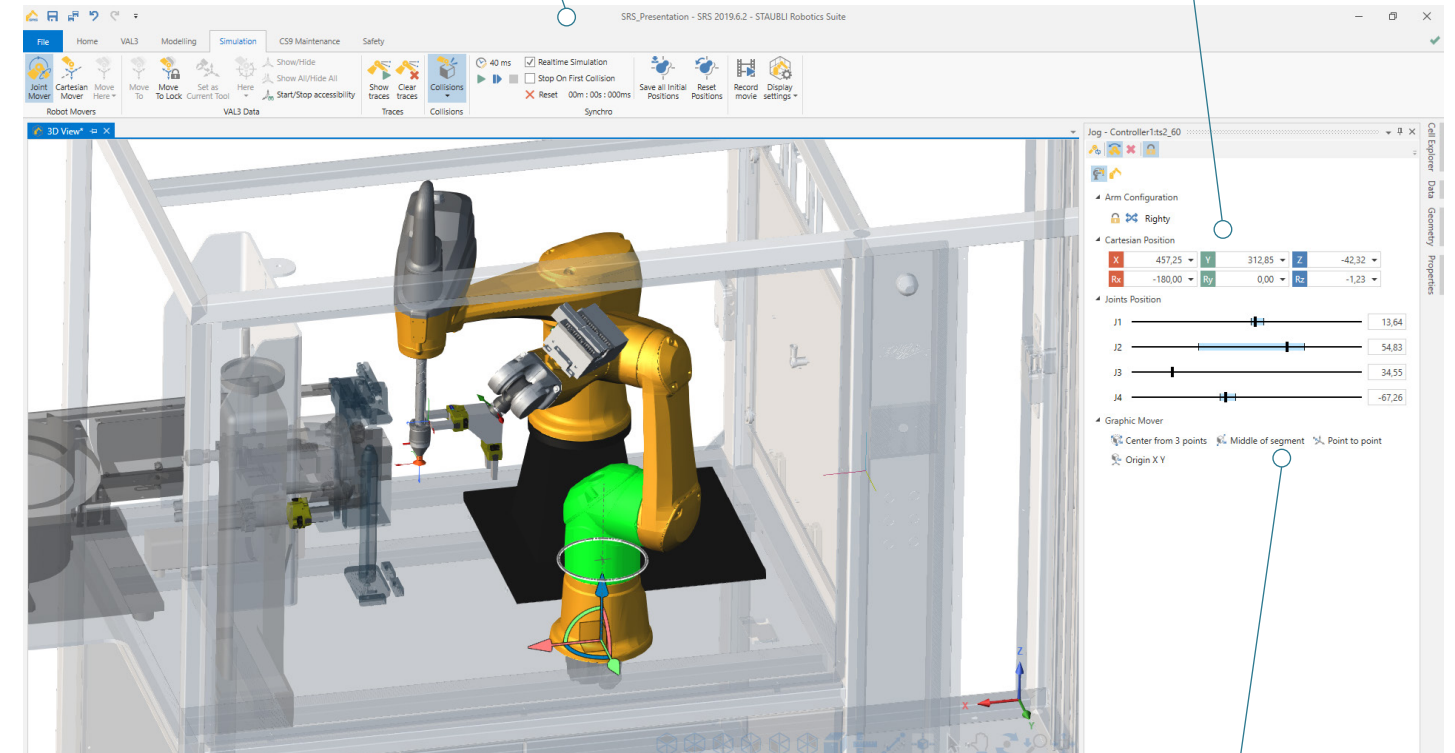
Implemented collision detection with any 3D object
Usage of Stäubli emulator offering realistic system behavior

Prearrangement of I/O mapping with physical I/O editor

Physical I/Os	Description	Physical Link	Format	Logical Name
Digital Inputs				
%I0	Bit_Byte_0_Bit_0	F86855A6-E431-4840-B6C8-B080636A026C		io_TcpMQTT : dPartAvailable[0]
%I1	Bit_Byte_0_Bit_1	D9917C78-B2C3-4CFB-A661-41D6FB84ED46		
%I2	Bit_Byte_0_Bit_2	358FCB27-10EE-4E30-A7D0-75B2B85A0C99		
%I3	Bit_Byte_0_Bit_3	F4A4FA3-FF34-4A3A-BE84-AF846A0D8AE		
%I4	Bit_Byte_0_Bit_4	03F368A8-AD16-4A54-AC64-D24087625F4		
%I5	Bit_Byte_0_Bit_5	96C72775-56D2-446D-A584-DFDB82A58EE4		
%I6	Bit_Byte_0_Bit_6	1AF11898-76AC-4F64-BA54-3F4AF9C0454C		
%I7	Bit_Byte_0_Bit_7	749CD28F-4777-438D-BAE9-D8527EBAF548		
Digital Outputs				
%Q0	Bits_Byte_0_Bit_0	DFF9EE14-A41E-4058-A874-DE70912BA986		io_TcpMQTT : doPartOK[0]
%Q1	Bits_Byte_0_Bit_1	F33F5F14-9FD2-4F54-A06D-B2F0EF10A867		
%Q2	Bits_Byte_0_Bit_2	80F64D5E-0E58-4C45-861F-AF04618EA1AD		
%Q3	Bits_Byte_0_Bit_3	8A023A38-6F64-42ED-B2F7-0BFD1C211FF1		
%Q4	Bits_Byte_0_Bit_4	D0781ECF-8DA6-4561-9C50-E78EF7DA2193		
%Q5	Bits_Byte_0_Bit_5	6F154F2B-1C8A-4140-AF6F-909D3D1CF7D2		
%Q6	Bits_Byte_0_Bit_6	4890B1B5-F21A-4289-A0F9-663C08596636		
%Q7	Bits_Byte_0_Bit_7	004177D0-F371-45FB-98C6-CF21386F983E		
Analogue Inputs				
Analogue Outputs				
CpuIO	CPU			

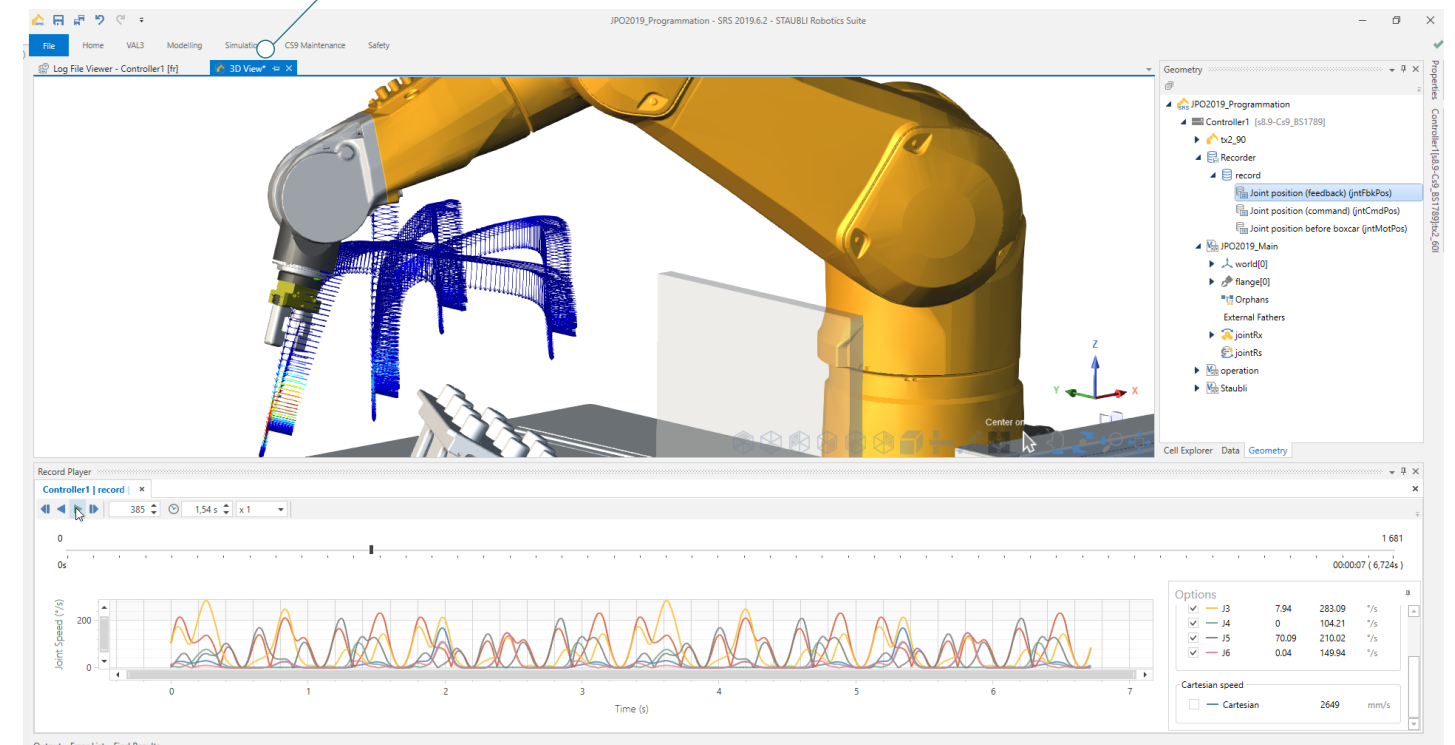
Full realistic motion control and cycle time like on a real Stäubli system

Arm configuration lock, cartesian and joint positioning for more efficient manual jogging in 3D environment



Visualization of required joint range for evaluation of effective joint range limitation

Simulated recording via emulator and record player in a 3D environment



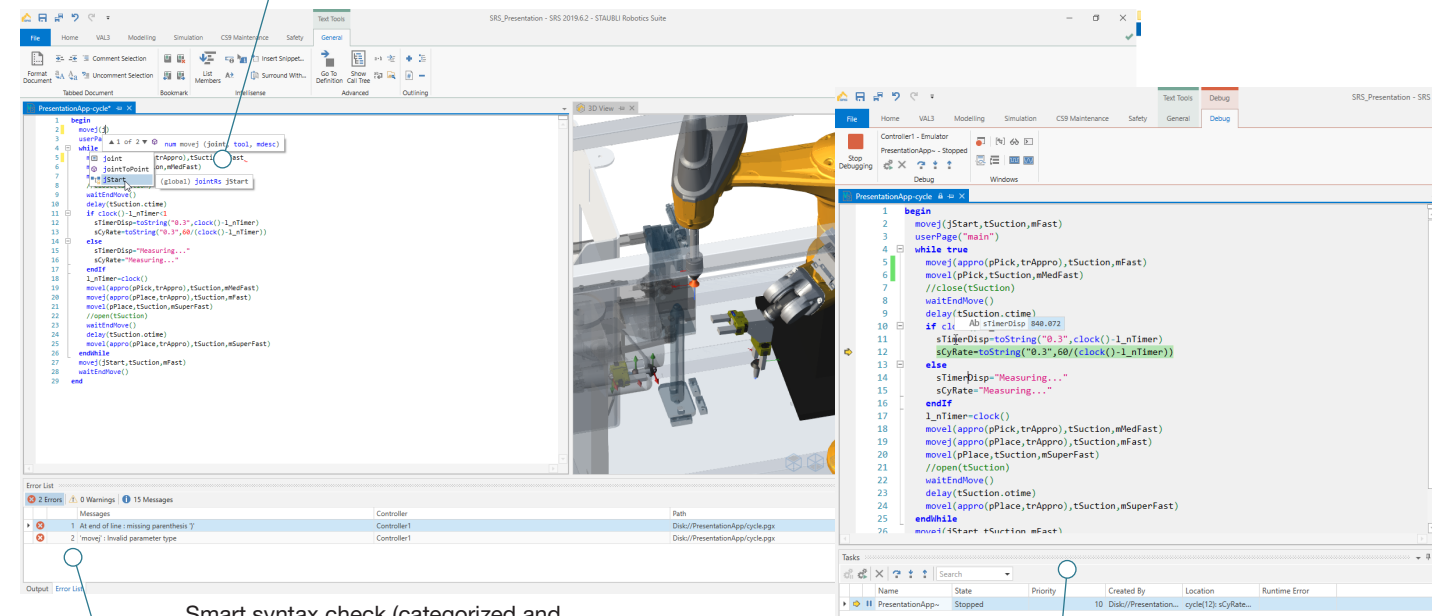
STAGE III: SETUP

Entire realization of individual customer needs

Stäubli Robotics Suite is your key to fully manage any Stäubli robot system and giving access to all the powerful controller functionalities of Stäubli Robotics

Controls including safety. An easy-going implementation is guaranteed by various functionalities:

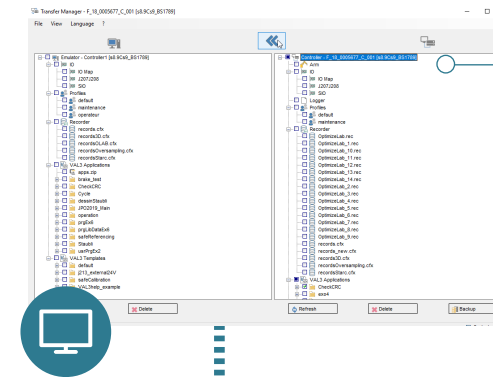
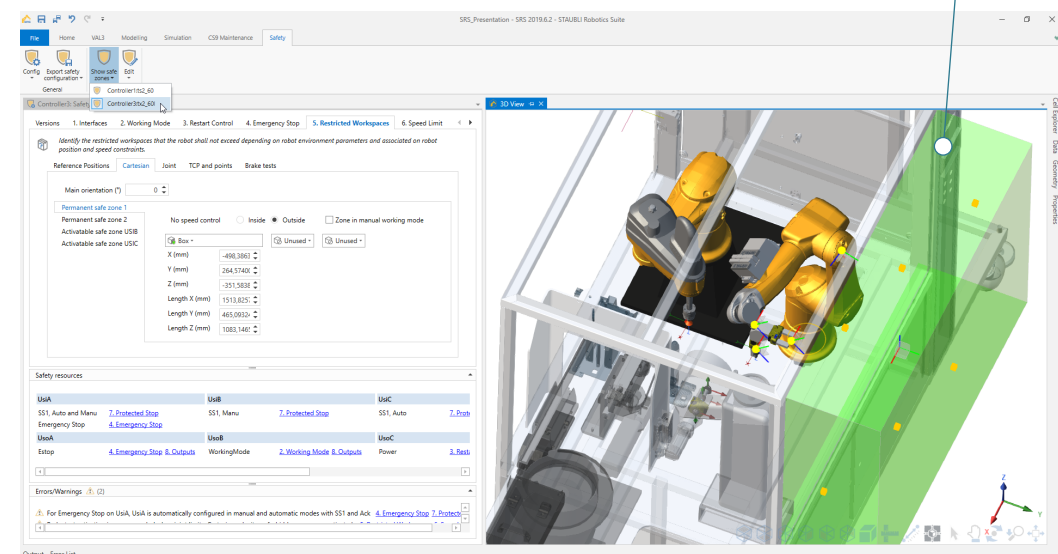
Integrated VAL 3 development environment with auto-completion, collapse and expand function of code, automated code inspection, call tree visualization and many more



Smart syntax check (categorized and directly linked to the issue)

Wide range of online debugging functionalities

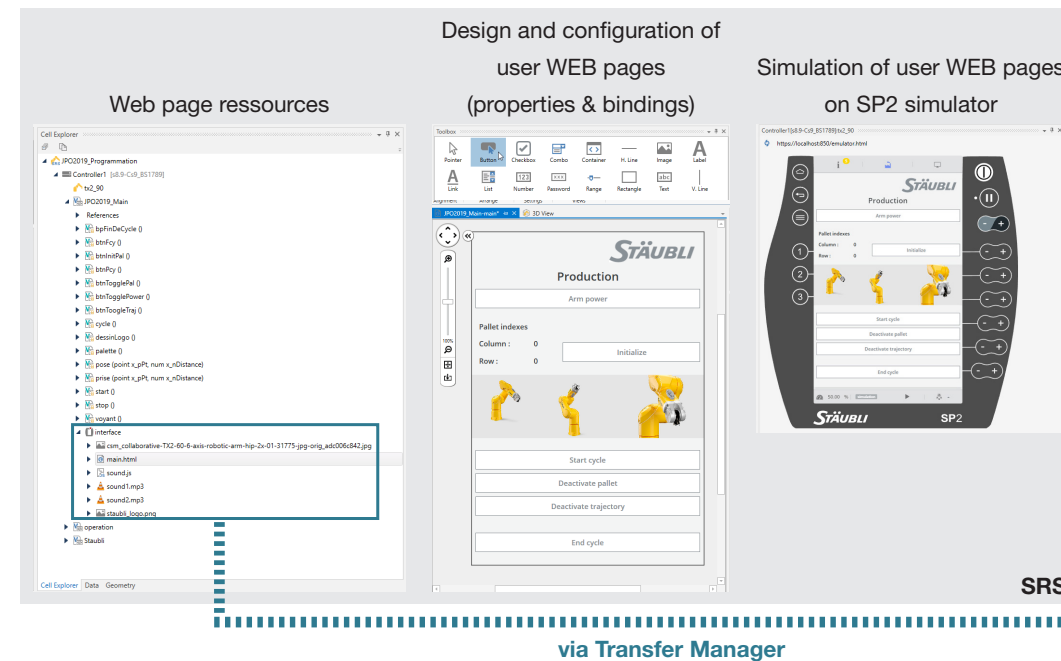
Safety configuration from industrial up to collaborative applications



Data transfer management of any data between Stäubli Robotics Suite and the related robot controller (Stäubli Robotics Controls)

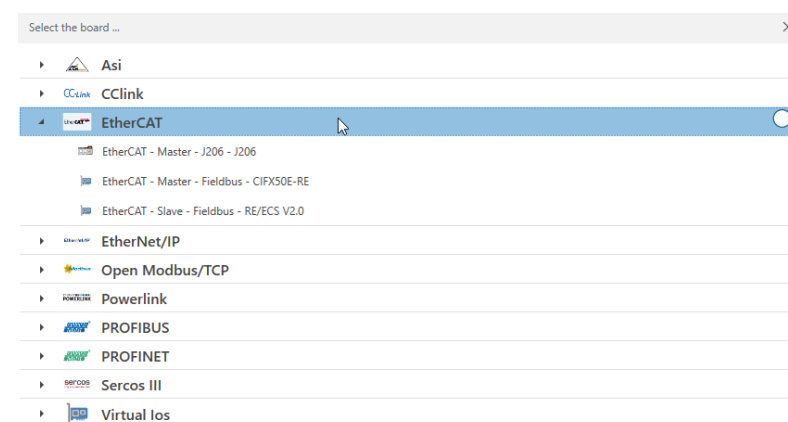


Data exchange even with USB stick



via Transfer Manager

Graphical user interfaces on any WEB based device (including SP2) due to embedded CS9 WEB server technology



One centralized software tool for configuration of all fieldbus I/Os

STAGE IV: PRODUCTION

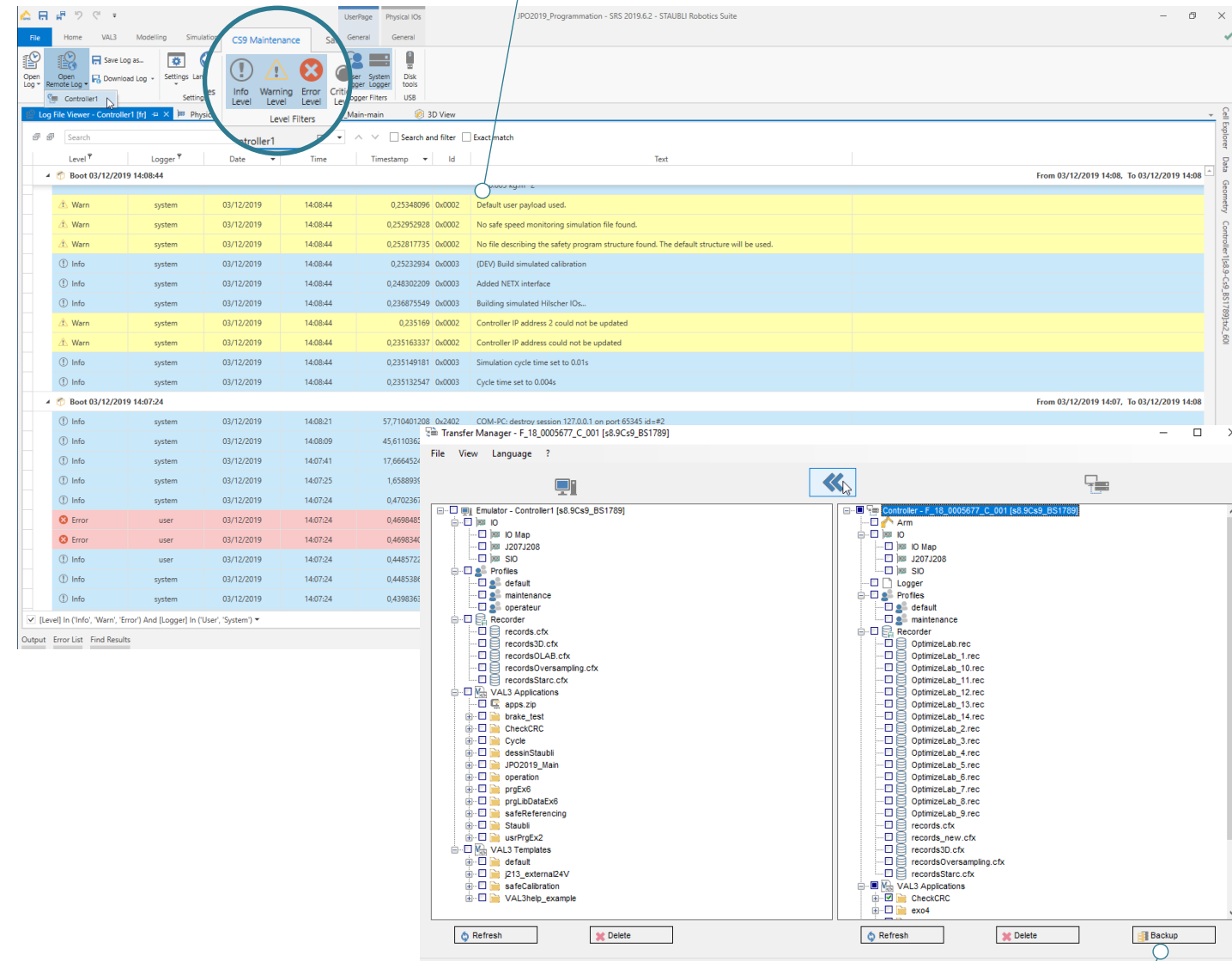
Keeping your production connected and efficient



Even after setting up your production process, Stäubli Robotics Suite stays by your side in order to secure your engineering investment. Stäubli Robotics Suite helps

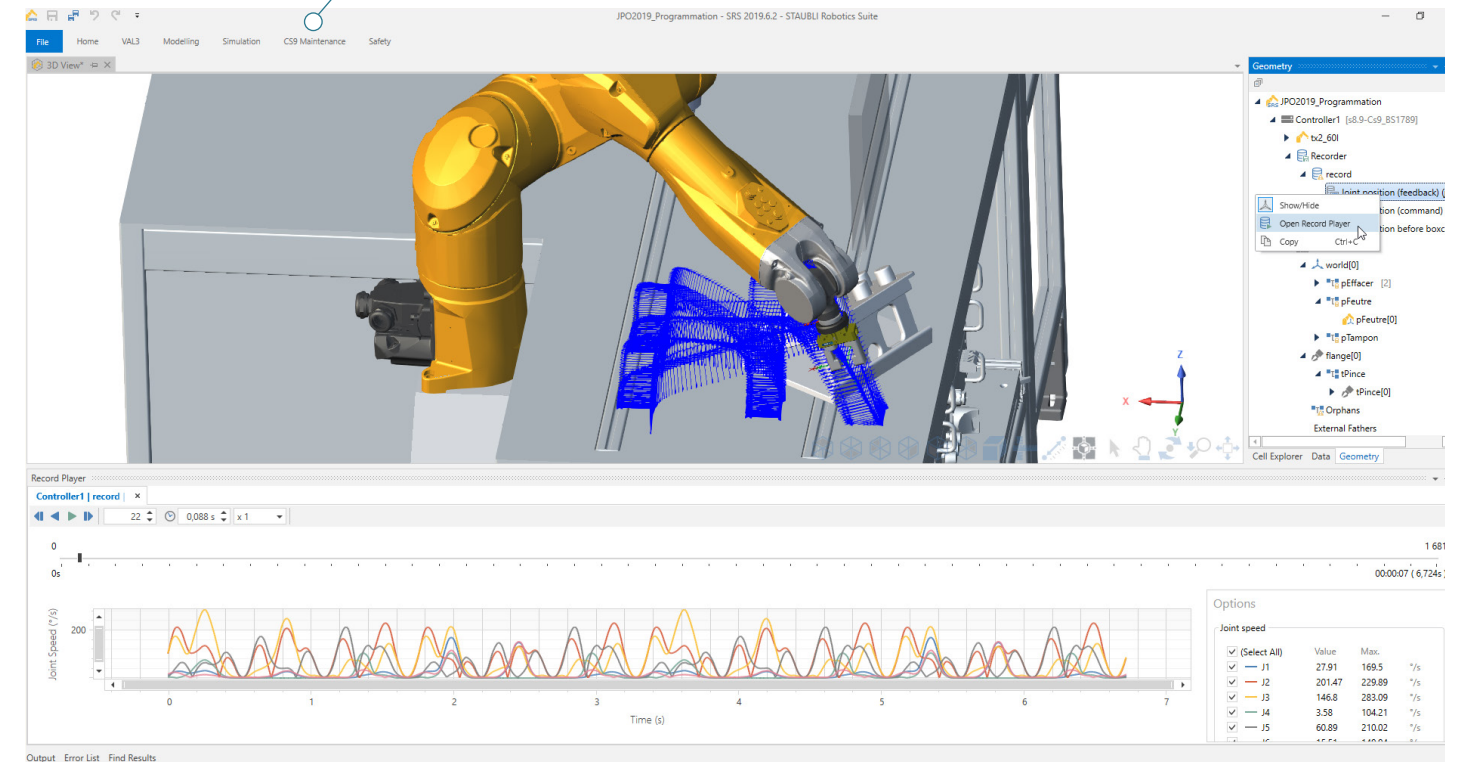
you manage your valuable process and keeps control of your constantly generated data thanks to the following capabilities:

Smart log viewer: chronological, clustered (user or system), categorized (urgency) and integrated on-the-fly language switch

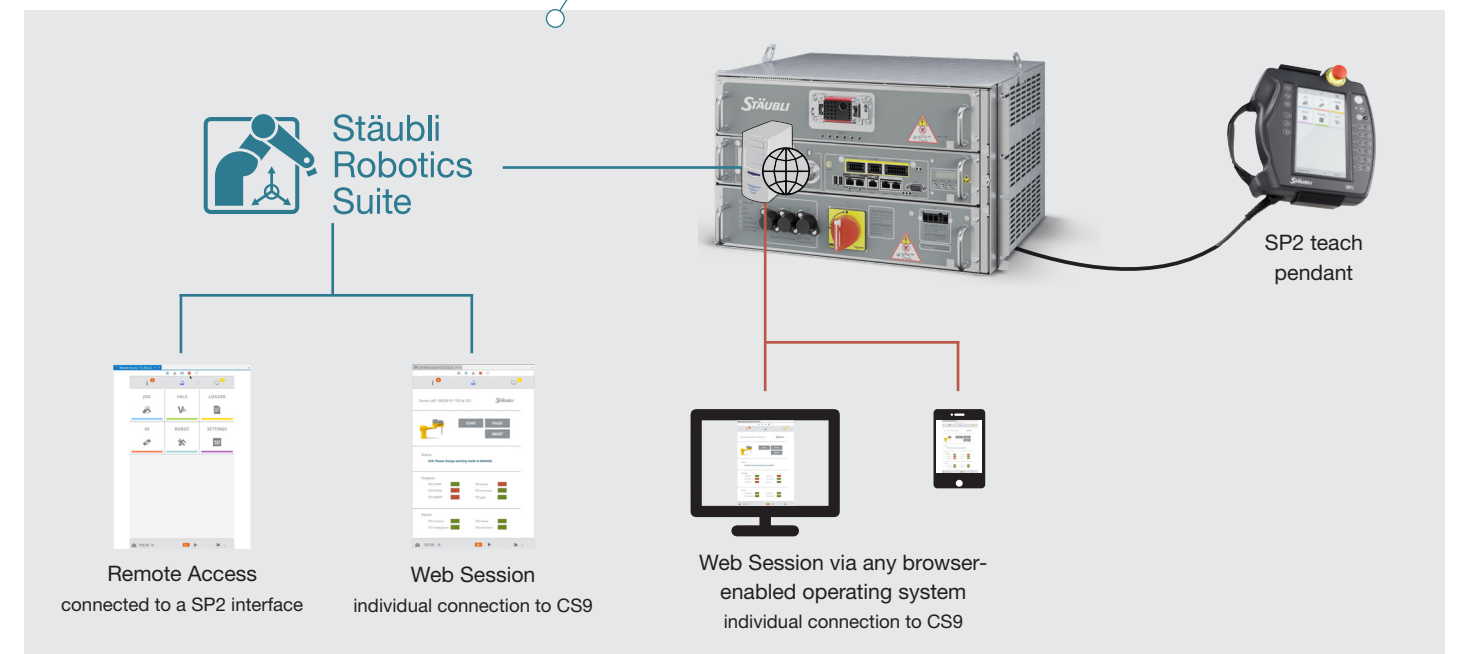


Embedded backup functionality securing your know-how

Recording visualization to ensure process sustainability



Remote connection via embedded CS9 web server technology



STAGE V: IMPROVEMENT

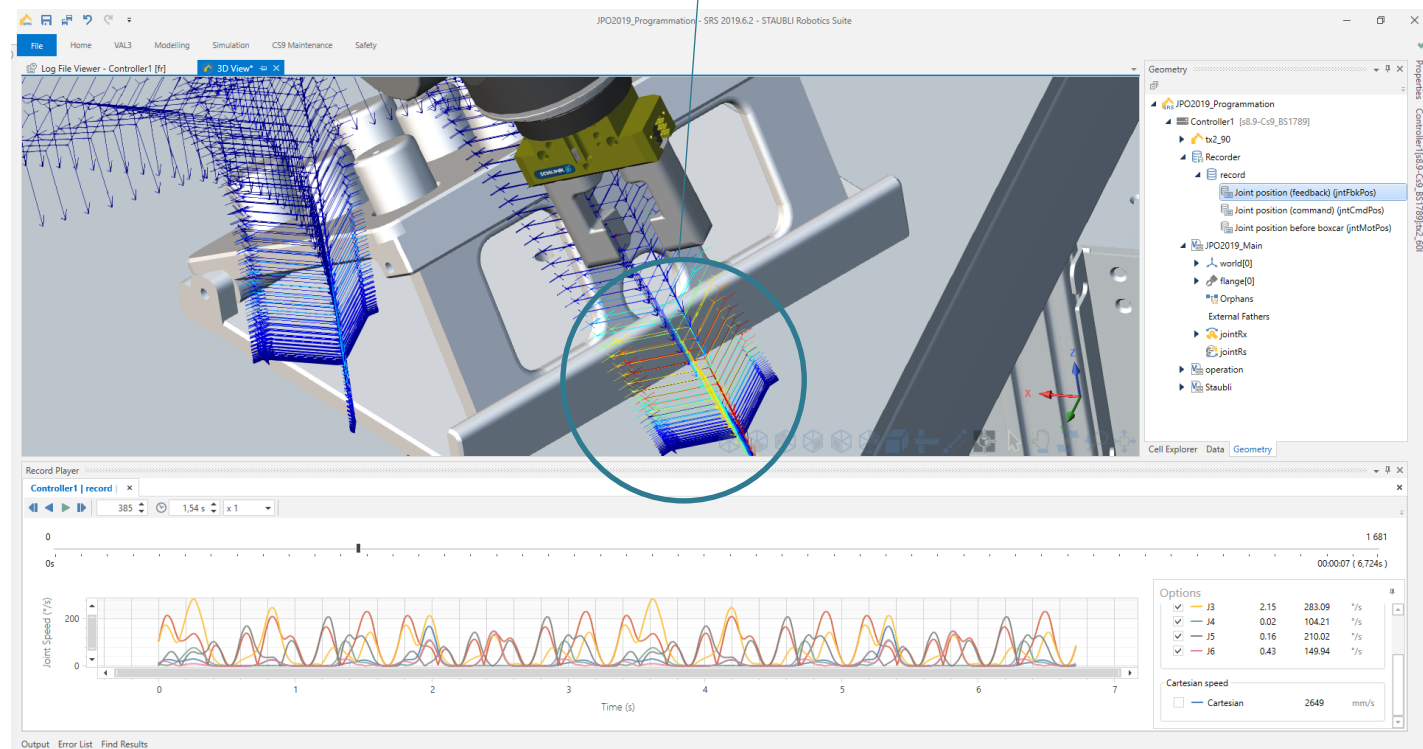
OEE* increase through smart robot optimization possibilities



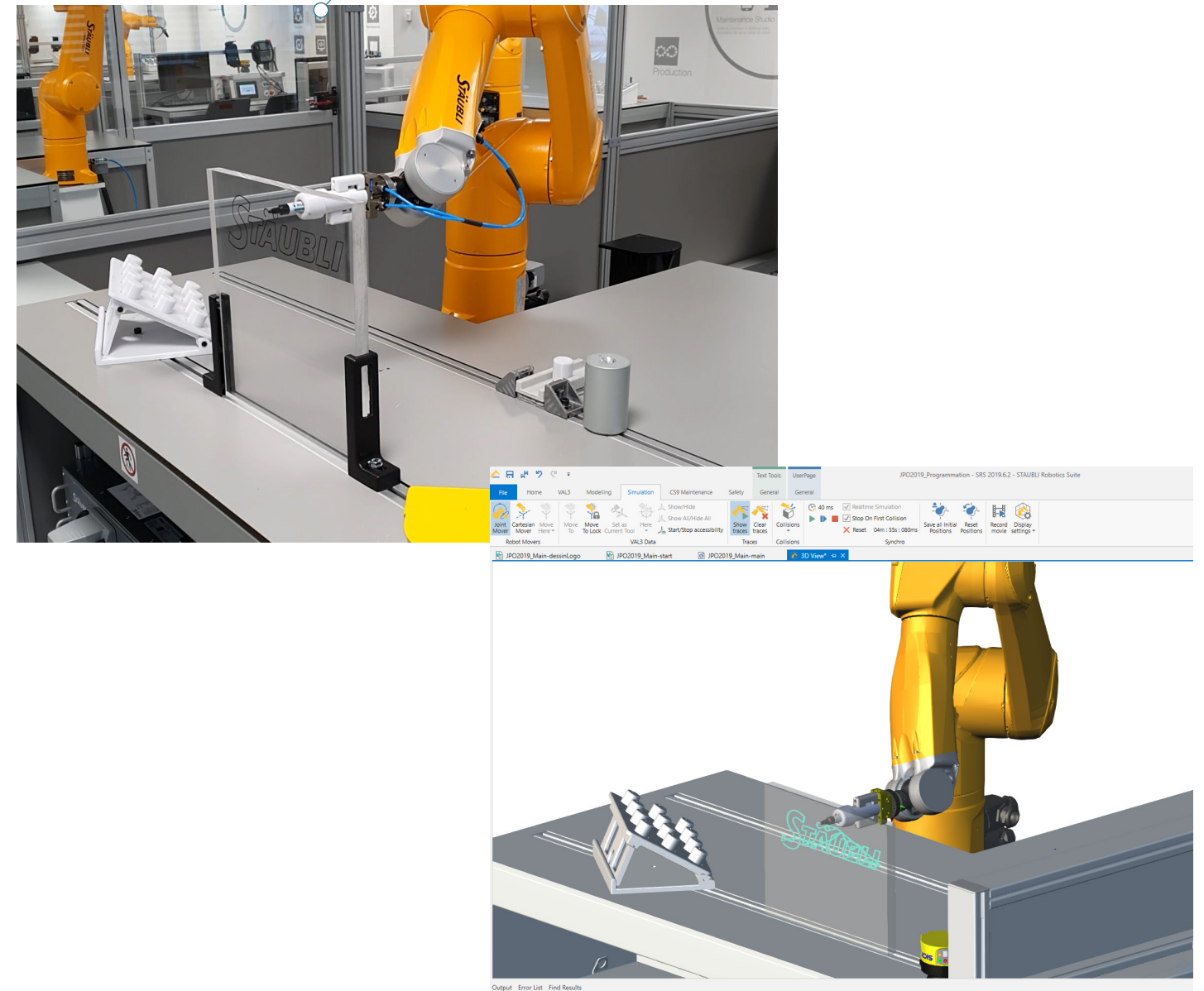
Stäubli Robotics Suite supports you with increasing your *Overall Equipment Efficiency for existing production lines and further concepts or digital twins. Stäubli Robotics Suite enables you to improve your current and future robot processes by the optimization of :

- robot motion
 - cycle time
 - robot stress
 - robot lifetime
- through record player and colored load visualization.

Now the recording is colored based on the stress level of the robot. Coming from our Optimize Lab software solution



3D remote connection to a real application environment for faster and more efficient troubleshooting on distant or difficult to access systems



LICENSES

Stäubli Robotics Suite
adds value for any usage
or engineering stage

Depending on your needs you can choose between two independent license models to get access to the variety of functions of Stäubli Robotics Suite.



Development Studio license

This license activates the necessary functionalities to perform realistic simulations (3D layout development, collision detection, parts handling, realistic cycle time estimation, application development, etc.).



Maintenance Studio license

This license activates all the functionalities required to connect and maintain remotely a real robot cell (remote access to the manual control pendant, loading a 3D robot cell to visualize the real robots trajectories, etc.). The licenses can be used separately or combined for full access.

The free trial allows you to examine all functions with only less limitations.

All licenses are available as Local or Network USB dongles.

For further development and analysis, an additional Stäubli product is available:

- Optimize Lab for robot performance and load analysis

In addition to Stäubli Robotics Suite, please keep our Brake Distance Calculator (BDC) in mind to validate your robot stopping performance during the phase of risk assessment (phase 2).



	Function	Development Studio	Maintenance Studio	Demo mode*
	Save Stäubli Robotics Suite project	✓		
	3D-file import	✓		
	Robot (options) library	✓	✓	✓
	Reachability and accessibility check	✓		✓
	Payload and inertia evaluation	✓		
	Improved jog interface (arm config, Switch and lock, ...)	✓	✓	✓
	Creation of 3D objects	✓	✓	✓
	Simulation of motion, cycle time and system behavior	✓	✓	✓
	OPC UA on CS9 emulators (and CS8C, SRC ≥ 7.11)	✓	✓	✓
	Safety configuration (3D visualization of safety zones,...)	✓		✓
	Visualization of safety configuration	✓	✓	
	Collision detection	✓		
	Multi-robot support (interaction)	✓		✓
	Designer for customized graphical user page (CS9)	✓		✓
	Integrated VAL 3 development environment	✓		
	Syntax check	✓		
	Find Code Issues	✓		✓
	Configuration of all fieldbus I/Os	✓		✓
	Online debugging	✓		
	Display variable values through mouse over	✓		✓
	Watch function also for single array elements, calculations and boolean expressions	✓		✓
	Smart log viewer		✓	
	Recording visualization		✓	
	Embedded backup functionality		✓	
	Remote access		✓	
	Show colored visualization of Optimize Lab robot stress result	✓		
	Record player in 3D environment	✓		

*With the demo mode, Stäubli is offering you the possibility to validate our software functionalities according to your needs. Project saving is not available.



● Stäubli Units ○ Representatives/Agents

Global presence of the Stäubli Group

www.staubli.com