

Pilots



Assistive Mobile Manipulation (PAL Robotics)

Modular Educational Robot (COMAU)



Human-Robot Collaboration for Assembly (CEA)



Flexible Assembly Cell (Siemens)



Intralogistics Industry 4.0 Robot Fleet (THU)

www.robmosys.eu/application/

Let's connect!



@RobMoSys



RobMoSys Project



@RobMoSys



THU Technische Hochschule Ulm
University of Applied Sciences

SIEMENS



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WHERE
MODELS MEET
ROBOTS



RobMoSys

- ▶ Reduce the complexity of your software development
- ▶ Increase the predictability of your system behavior
- ▶ Stay flexible and save costs

www.robmosys.eu

What is RobMoSys?

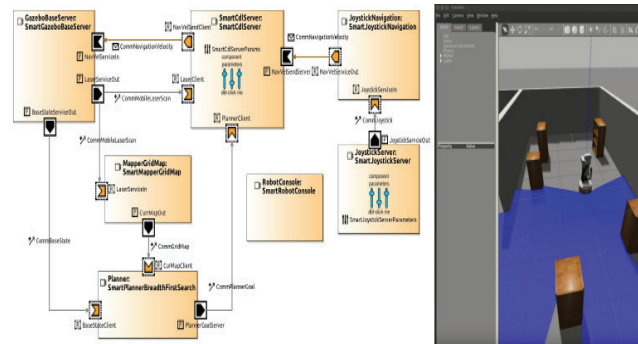
RobMoSys is a robotics development approach that coordinates the whole community's best efforts to realize a step-change towards an industry-grade software development European ecosystem. To accomplish our approach we have two General Principles:

- **Separation of Roles and Concerns** allows you to focus on your development workflow and expertise. Roles work autonomously and excel their performance.
- **Composability** is the property that makes components become building blocks. This increases the predictability of your robotic systems.

The models follow a general composition-oriented approach where systems can be constructed out of reusable software components (building blocks) with explicated properties. Thus, you are able to exchange software components from different systems while saving software development costs.



SmartMDSD



SmartMDSD Toolchain is an Integrated Development Environment (IDE) for robotics software development. **SmartMDSD** supports the different roles that act around the development of robotics systems with the model-driven approach of RobMoSys.

Robotics Solution Providers can use SmartMDSD to **develop software components**. Robotics System Builders can use SmartMDSD to **compose systems from developed software components**. For both of them, users **gain the benefit of 20 years of best-practices** in robotics component and system development.

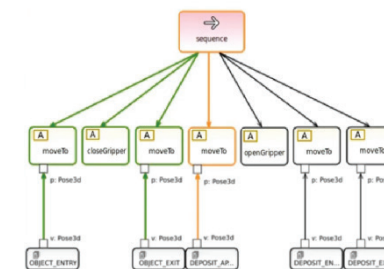
Scan me to learn about SmartMDSD:



Papyrus for Robotics

Papyrus for Robotics Toolchain is an Integrated Development Environment (IDE) for robotics software development. This tool features a modeling front-end which conforms to RobMoSys' foundational principles of separation of roles and concerns.

Papyrus for Robotics **supports Safety Analysis** to perform dysfunctional analysis on system architecture's components, **Performance Analysis** with a focus on the timing properties of software component architectures, and **Code-Generation** that transform models of software component architectures, platform descriptions and deployment specifications into code.



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