RobMoSys - Composable Models and Software for Robotics Systems – kicked off

Paris-Saclay, April 20th
RobMoSys, an EU Horizon 2020 funded project, aims at coordinating the whole community's best and consorted effort to build an open and sustainable, agile and multi-domain European robotics software ecosystem. This shall increase the scalability and quality of robotics software development, help to commoditize base functionality, such as motion control or navigation, software components of certifiable quality and achieve predictable system integration. RobMoSys (Composable Models and Software for Robotics) is an € 8 million Innovation Action involving 9 partners from 5 countries and will be carried out over four years.
In order to turn community involvement into active support for an ecosystem of professional quality and scope, RobMoSys enables third party participation via two open calls with cascaded funding. At the first public RobMoSys workshop, held at the European Robotics Forum in Edinburgh on Wednesday 22rd of March, the robotics community and potential end users have had the opportunity to learn more about RobMoSys and its funding opportunities.

Imagine you have developed a software to localize a robot in the environment and you are interested in making it available in robotics.
Imagine you as an integrator are willing to develop an application which needs a localization module and you are interested in integrating the third-party localization software on your intralogistics mobile platform.

Thanks to RobMoSys' results, you will be able to

- increase of the quality of developed components thanks to the use of formal models and validation of functional and non-functional properties supported by industry-grade tools
- distribute robotics software with a description and information about its quality, maturity and usage constraints
- as an integrator or end-user, integrate a localization module that was developed in a given environment (e.g. ROS, Yarp, SmartSoft, MOOS, Orocos, Reflexxes, MoveIT,...), in your own proprietary environment thanks to proper bridges between the platform-independent model and the target platform
- increase the quality of integration thanks to formal techniques implemented in industry-grade tools

RobMoSys – an integral part of a European Digital Industrial Platform for Robotics

The RobMoSys project started in January 2017 with the goal of establishing a common methodology based on the use of composable software models. RobMoSys puts great importance in turning community involvement into active support for an open and sustainable European robotics software ecosystem. It envisions an integrated approach to robotic platforms by applying model-driven methods and tools on existing technologies for further use and improvement. The aim is to establish a composition-oriented approach to system-of-system integration that manages, maintains and ensures system-level properties on model-level while preserving modularity and independence of existing robotics frameworks and code bases, yet can build on top of them.

Two Open Calls with cascaded funding, which make 50% of the project's budget available, will provide important concretizations for many of the common robot functionalities. Several workshops will be organized during the project, to stay tuned to the EU recommendations and requirements (see RobMoSys' website).

ERF Workshop March 22nd

"RobMoSys: the next level of a Model Driven Robotic Software Ecosystem"

On March 22nd, RobMoSys' first workshop introduced the project's goals to more than 50 participants. Fruitful exchanges took parts with open discussions in small groups.

Compact information:

RobMoSys

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Funding: This project receives funding from the European Horizon 2020 research and innovation programme under grant agreements No 732410

Website: www.robmosys.eu

Project partners: Commissariat à l'énergie atomique et aux énergies alternatives (France, coordinator), COMAU (Italy), Eclipse Foundation Europe (Germany), EUnited AISBL (Belgium), Hochschule Ulm (Germany), KU Leuven (Belgium), PAL ROBOTICS (Spain), SIEMENS (Germany), Technical University of Munich (Germany)

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Image:

RobMoSys (Source: Dennis Stampfer, Hochschule Ulm)
Caption: RobMoSys will enable the composition of robotics applications with managed, assured, and maintained system-level properties via model-driven techniques.