LSAT: Logistics Specification and Analysis Tool

Model-driven engineering of flexible manufacturing systems

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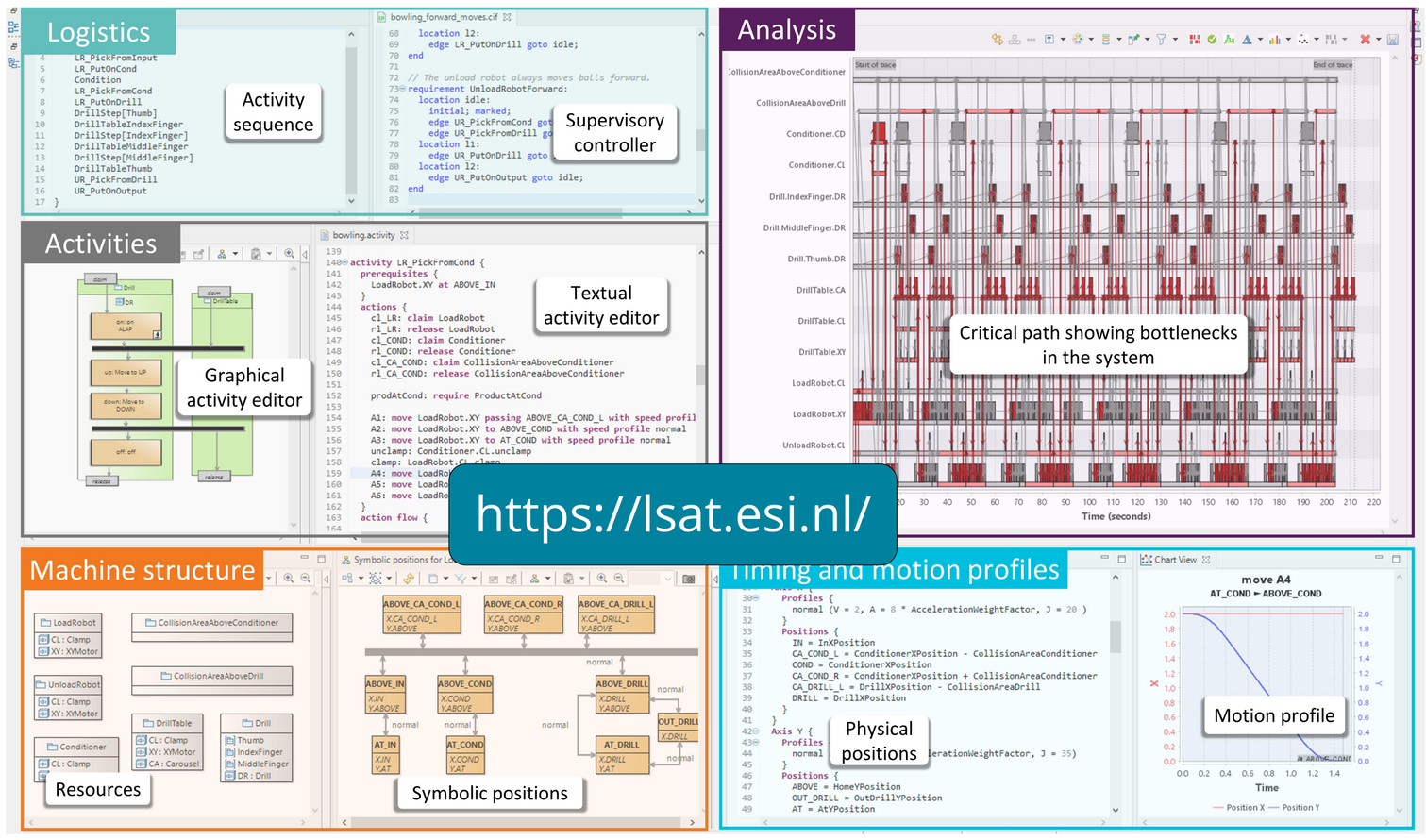

- ✓ Light-weight **executable domain modeling** of the platform structure and product routing
- ✓ **Automated performance analysis** to analyze timing behavior and identify bottlenecks

LSAT community meetings: last get together on September 3rd

We organize **LSAT community meetings** to share the latest developments within the LSAT ecosystem.

Last time there were presentations by TNO-ESI, TU/e, ITEC, Capgemini Engineering & ICT Group on fundamental research results, developments from the WLSAT NextGen project, custom developments by users and opportunities for maintenance support.

Let us know if you want to be on the mailing list!

Ongoing research & development on LSAT: WLSAT NextGen project (2025-2027)

Extend the current LSAT tool with additional capabilities to achieve the following objectives:

Key objectives

- Model and analyze multiple interacting **logistics scenarios**, handling multiple recipes
- Balance throughput with **other system qualities like thermal management and defectivity**
- Introduce **configuration management** and enable **design-space exploration**
- Reason on the impact of **stochastic effects**
- **Connect** LSAT outputs **to downstream software design activities**

Project partners

ASML VDL

Research directions

Analyze multiple scenarios

How can LSAT be enhanced to model and analyze multiple interacting system scenarios, including exceptional conditions like maintenance and errors?

Throughput, thermal impact, and defectivity analysis

How can productivity analyses incorporate other system qualities, such as thermal impacts and defectivity?

Design-space exploration

What approaches can enable efficient exploration of different mechanical layouts or system designs?

Stochastic aspects

How can we manage and account for stochastics in thermal, defectivity, and timing aspects by incorporating stochastic methods in LSAT?

Workflow embedding

How can analysis results serve as specifications for downstream software development?