

TASTE update

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1. Feedback from previous studies

- a. Assessment by industry (Thales, M3 systems, EADS, etc.)
- b. Several case studies (automotive, aerospace, ... domains)
- c. **Show toolchain maturity**

2. Improve **end-user experience**

- a. Simplified installation procedure
- b. Ease generated application deployment
- c. Enrich existing documentation
- d. Tools availability

1. New installation procedure

- a. Specific to Linux (Debian/Ubuntu distributions)
- b. Install all dependencies
- c. Automatic environment set-up

2. Tools availability

- a. All ESA contributor can access our software
- b. Third-party software available on vendors website
- c. License issues to be discussed

1. Documentation, documentation, documentation !!!

- a. Enrich existing document (more than 120 pages now !)
- b. Tutorial available
- c. Teaching material for download

2. Ease generated application deployment

- a. Design a deployment tool
- b. No need to interface with specific tools (such as monitor)
- c. Guidance for application instrumentation (gprof, gcov)

1. Testsuite

- a. More than twenty tests dedicated to TASTE
- b. Try all existing supported components (HW & SW)
- c. Third-party tools tests (e.g.: Ocarina)

2. Automated builds

- a. Nightly basis
- b. Ensure tool availabilities
- c. Speed up problem report

1. Integration with external interfaces

- a. Ease description of third-party protocols
- b. Interface with embedded (low-level) devices
- c. Communication with heterogeneous systems

2. Specify application behavior

- a. Rely on SDL formalism
- b. Investigation for AADL behavior annex support

External interfaces integration



1. Use of ACN to **automatically adapt application data**

- a. Interface with low-level devices
- b. Communication with external protocols
- c. Collaboration with ESA robotics section

2. Joint project with NASA for the ISS station

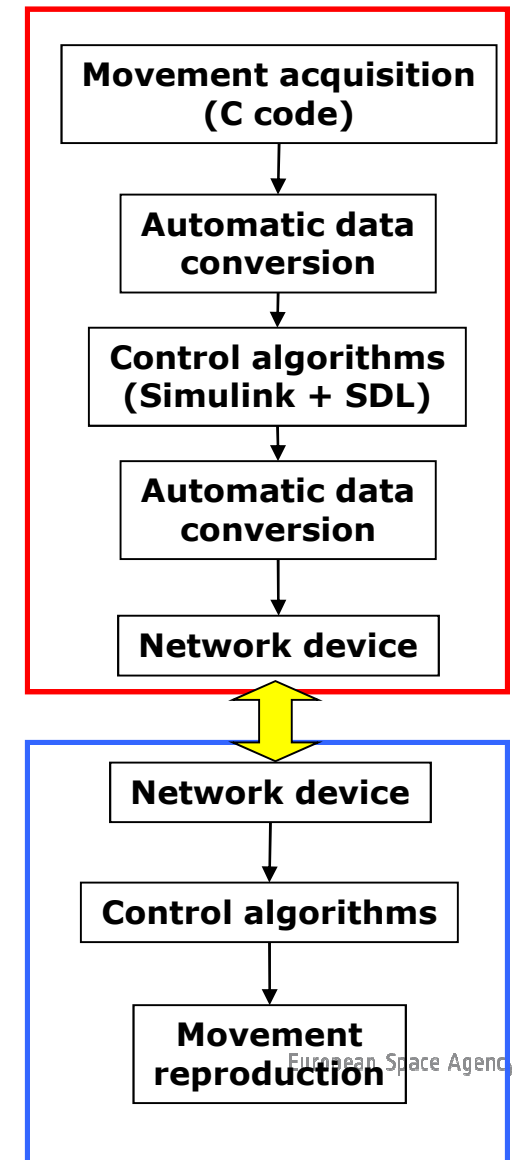
- a. Robots to be placed in various environments
- b. Ground/ISS or ISS/atmosphere communication



Movement acquisition



Movement reproduction

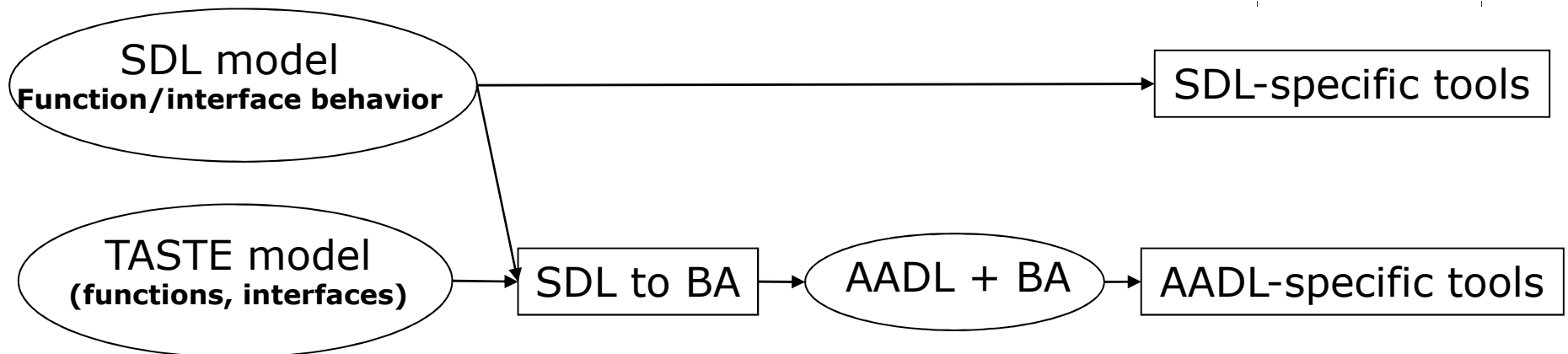
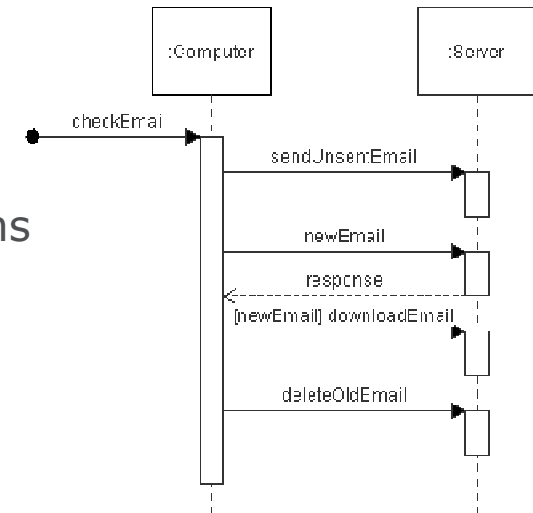


System behavior specification



1. Associate **SDL models** in **TASTE models**
 - a. Rely on existing SDL toolsets (RTDS, etc.)
 - b. Analyze/validate/verify system components
 - c. Simulate system behavior using MSC diagrams

2. Potential export to **AADL behavior annex (BA)**
 - a. Exploit potential analysis tools



1. New website: <http://assert-project.net/taste>

- a. Special download section (no special request required !)
- b. Demonstration, documentation and tutorial

2. Teaching materials (course + lab sessions)

- a. Cover AADL, SDL, Scade and TASTE-specific languages and tools
- b. Free-of-charge use for the academia community

3. Publications

- a. Journal article (see the new *Open-Silicium* french journal)
- b. Newsletter (available through TASTE website)

1. User's experience help !

- a. Toolchain improvements
- b. Easier installation, better integration

2. Ongoing projects to **build in-space systems**

- a. Collaboration with ESA robotics section
- b. Integration in projects joint with NASA

3. **Dissemination of the technology**, increase users' community

- a. New website
- b. New publications

Questions ?

Visit <http://assert-project.net/taste>

