

Development toolset: Demonstrator



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HIPEAC, Vienna, January 2014

Toolset Objectives

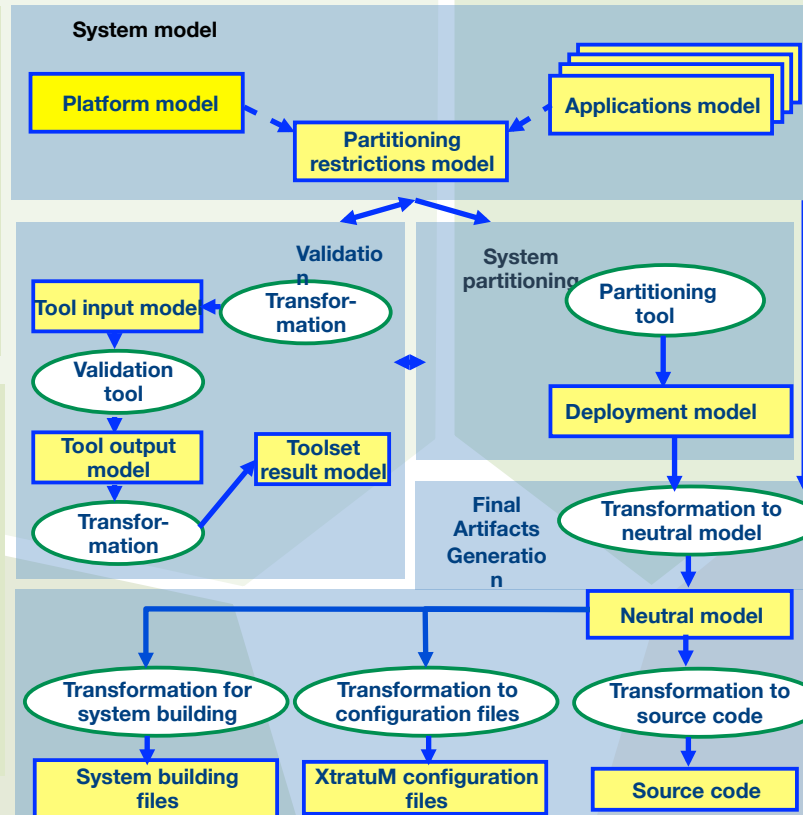
- Support for system partitioning
- Non-functional requirements: real-time, security, safety
- Applications & platforms reuse
- System validation
- Generation of artefacts

Development Steps

1. System modelling: NFR annotations
2. System partitioning
3. System Validation
4. Generation of final artefacts
5. Integrate source code
6. System execution

Toolset Implementation

- Model-Driven Engineering
- UML2 + metamodels (Ecore)
- Implemented Eclipse – EMF
- UML2 GUI: Other tools (RSA)



Demo Description

- Show current state of the toolset
- Validate the architecture
- Exercise with a WP7 case study
- Exercise ORK+ porting to XtratuM



WP7 – aerospace UPMSat2: Satellite by UPM

Demo Description

- Subsystem: Attitude control.
- Two communicated partitions:
 - Control algorithm
 - I/O operations
- Spacecraft simulator on a PC
- Satellite: FPGA with LEON3 CPU
- XtratuM & ORK+

