

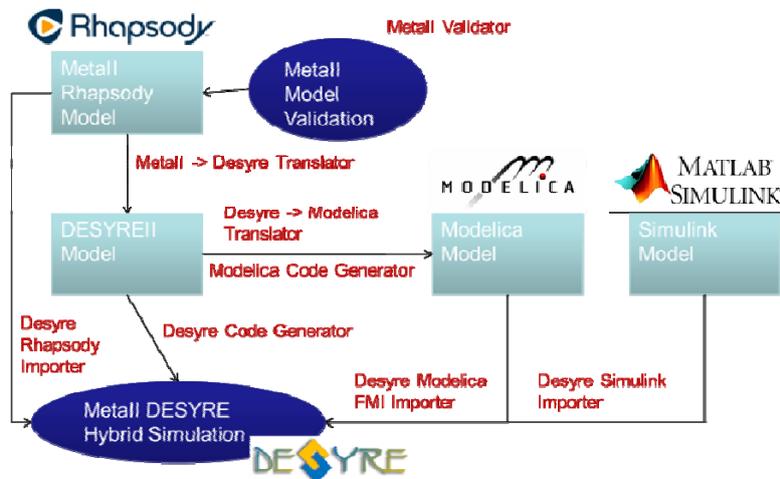
IBM META Tools

IBM tools packages in META consist of three parts:

- Hybrid Simulation package – built by ALES and based on their DESYRE simulator.
- Rhapsody wrapper for DESYRE – a tool enabling use of Rhapsody functional models in DESYRE environment.
- Rhapsody plug-in for Concise Modeling

Hybrid simulation package

The following diagram summarizes the packages (in red) developed by ALES to enable META hybrid simulation.



Also included in the package is a META language Rhapsody profile for modeling heterogeneous systems.

Rhapsody wrapper for DESYRE

The wrapper developed in IBM is used to adapt a Rhapsody component with behavior defined in a statechart for use in DESYRE simulation environment. The goal is achieved by wrapping the component in code that implements a predefined DESYRE-Rhapsody API and generating a .dll file accordingly.

Concise Plug-in and Profile

The SysML Concise profile contains stereotypes that enable modeling using the Concise Modeling approach. The plug-in is an integral part of the profile and it works in several phases:

- Concise model structure extraction and interchange tables creation
- Generation of an optimization program (partially complete)
- Expansion (back-annotation) of the resulting architecture (or architectures) back into the modeling environment
- Run additional verification processes, evaluate their output and modify optimization constraints if needed (specific use case only)

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