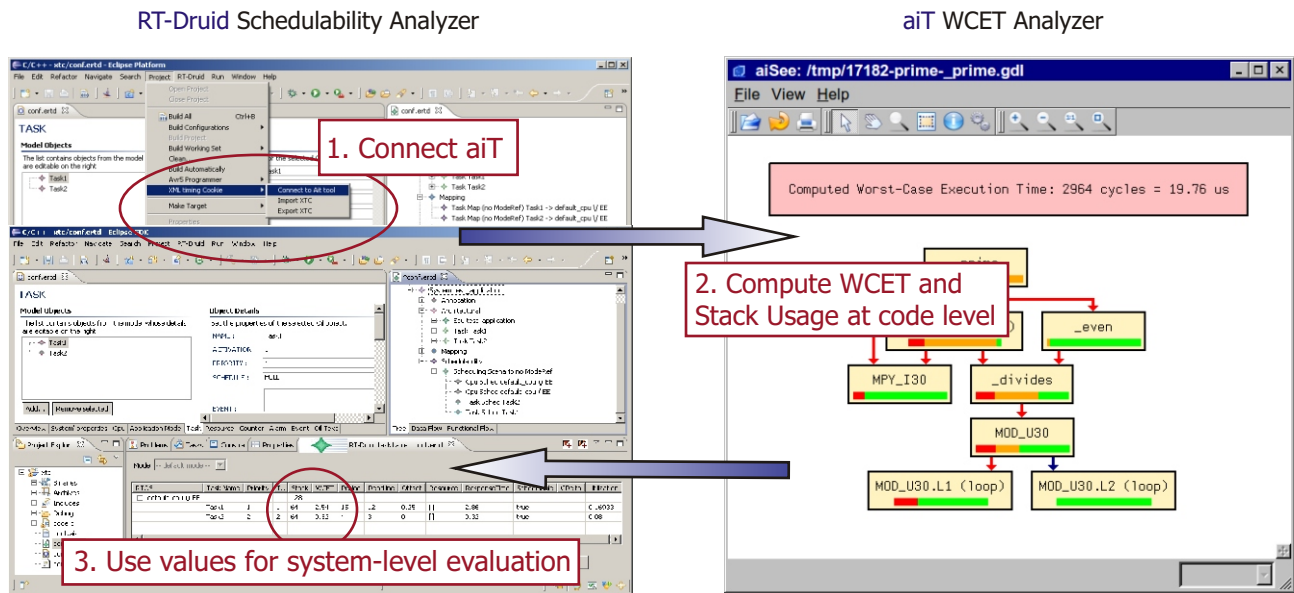


Integrating Task Response Time Analysis with Code Level Timing Analysis New RT-Druid & aiT Tool Coupling



AbsInt and Evidence have coupled their tools to provide software and system designers with an efficient way to verify **timing** and **stack usage** of multithreaded applications in the same environment used to build the system.

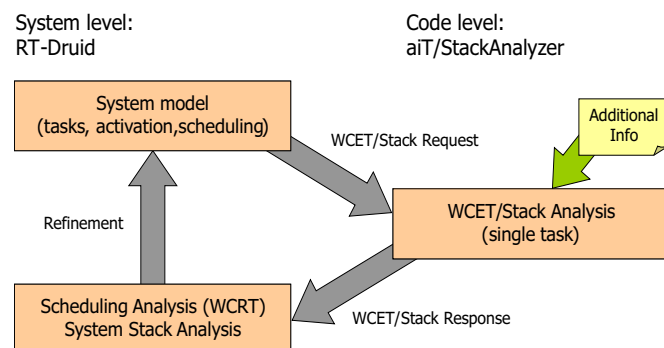
The tool coupling allows you to

- build your system inside the Eclipse environment
- describe the functional and architectural structure of your system using RT-Druid
- trigger AbsInt's stack and timing analyses at the code level from the RT-Druid GUI
- import safe analysis results from aiT into RT-Druid in a fully automatic way
- perform scheduling analysis in RT-Druid to verify deadlines
- perform stack analysis to check maximum stack utilization at system level

The open XML Timing Cookies (XTC) format provides for a user-friendly, open, and efficient tool integration.

RT-Druid communicates with aiT via XTC, sending analysis requests and receiving responses.

The tool coupling has been developed in the context of the EU-funded INTEREST project.



RT-Druid is an eclipse-based tool for the modelling and timing analysis of embedded systems.

The use of timing analysis, integrated with sensitivity analysis results, support the designer in the iteration cycles to define the correct implementation of functions on the target platform.

aiT WCET Analyzers statically compute tight bounds for the **worst-case execution time (WCET)** of tasks in **real-time systems**. They directly analyze binary executables and take the intrinsic cache and pipeline behavior into account. Results hold for all possible inputs and all execution contexts.