

Stood 5.2

Mission Critical
Software Development Environment
with AADL



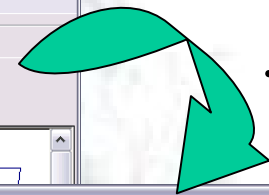
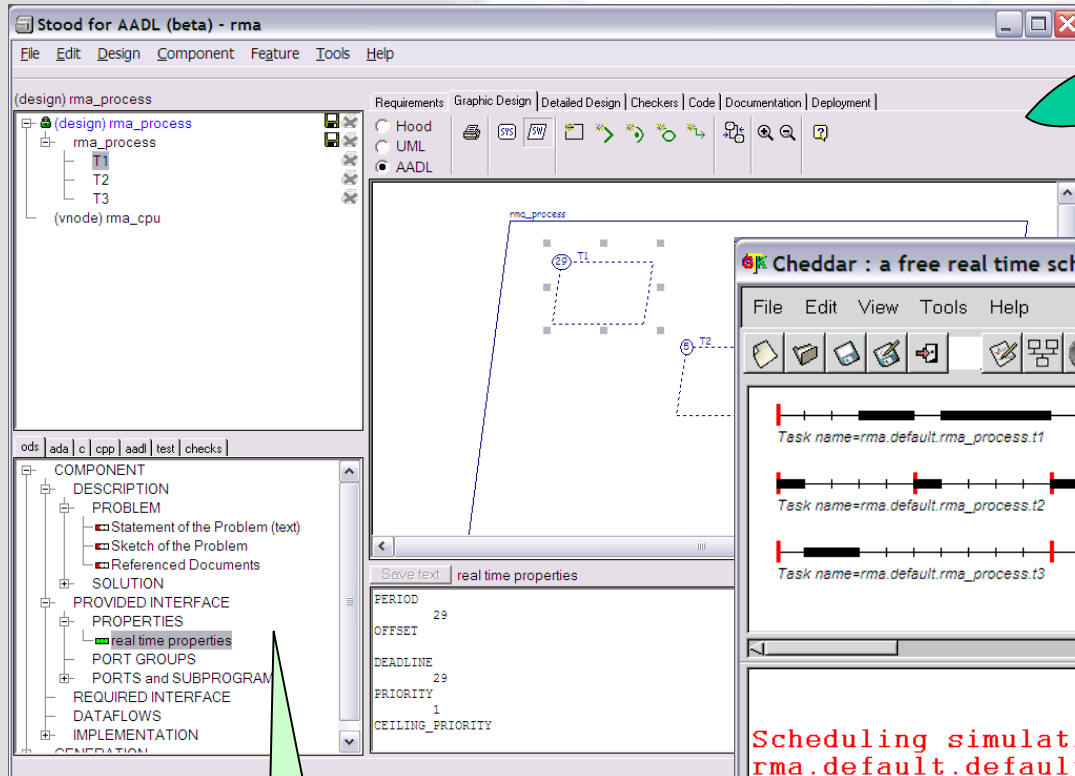
code and document generators

AADL graphical editor

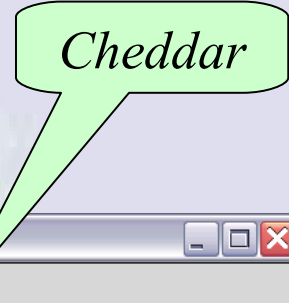
project structure

component structure

Stood & Cheddar



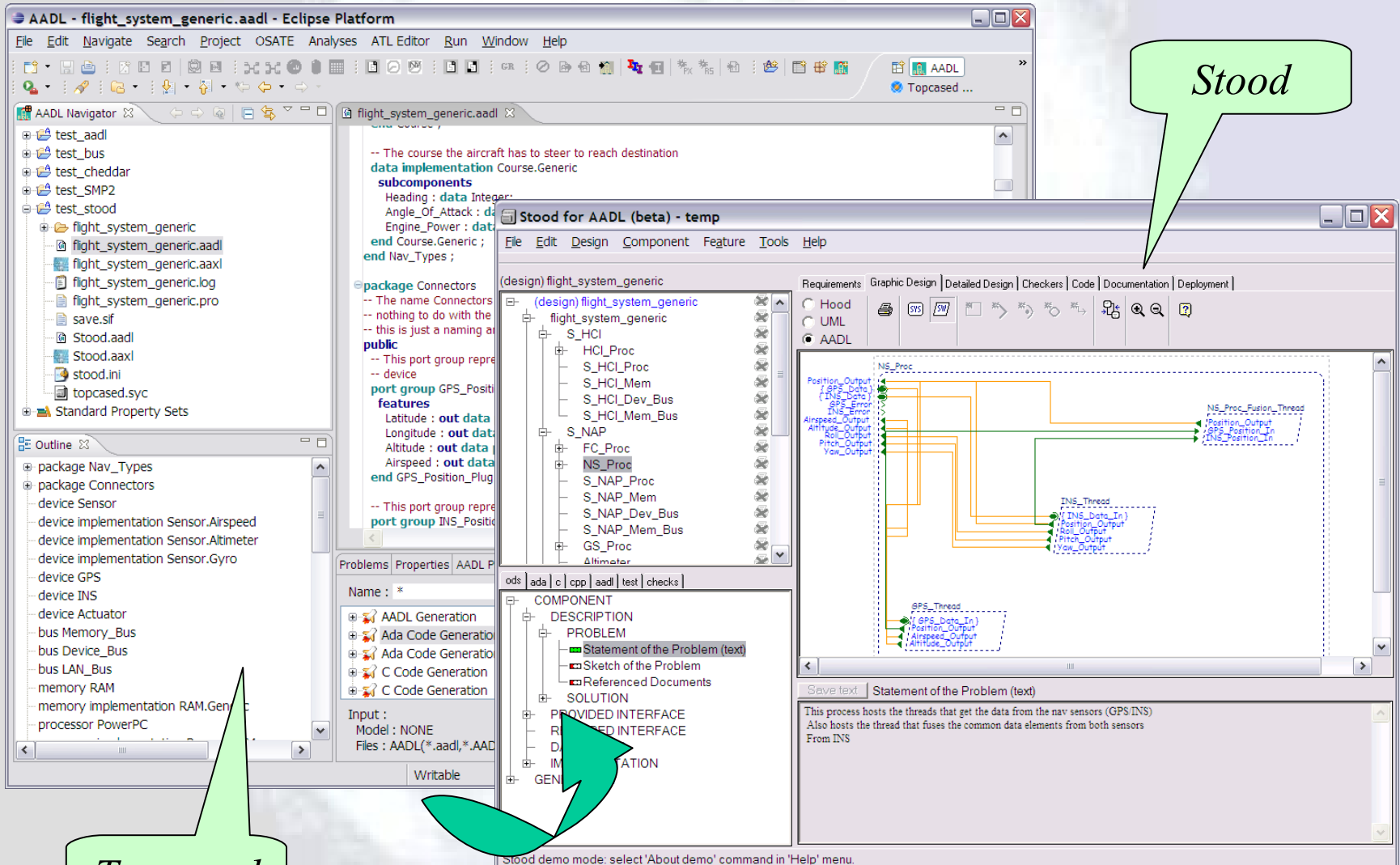
.aadl file



Scheduling simulation, Processor
rma.default.default_processor :

- Number of context switches : 103
- Number of preemptions : 20
- Task response time computed from simulation :
 - rma.default.rma_process.t1 => 14/worst
 - rma.default.rma_process.t2 => 1/worst
 - rma.default.rma_process.t3 => 3/worst
- No deadline missed in the computed scheduling : the task set seems to be schedulable.

Stood & Topcased



The screenshot displays the Eclipse IDE with the following components:

- Project Browser (Left):** Shows the project structure for 'flight_system_generic.aadl', including sub-projects like 'test_aadl', 'test_bus', and 'test_stood'.
- Code Editor (Top Center):** Contains AADL code for 'flight_system_generic.aadl', including comments and data implementation sections.
- Component Tree (Middle Left):** Lists components such as 'S_HCI', 'S_HCI_Proc', 'S_HCI_Mem', 'S_HCI_Dev_Bus', 'S_HCI_Mem_Bus', 'S_NAP', 'FC_Proc', 'NS_Proc', 'S_NAP_Proc', 'S_NAP_Mem', 'S_NAP_Dev_Bus', 'S_NAP_Mem_Bus', 'GS_Proc', and 'Altimeter'.
- Design View (Middle Right):** Shows a graphical representation of the system architecture with interconnected components.
- Thread Diagram (Bottom Right):** A detailed view of threads including 'NS_Proc', 'INS_Thread', 'GPS_Thread', and 'NS_Proc_Fusion_Thread', showing data flow between them.
- Properties View (Bottom Left):** Shows properties for the selected component, including 'Name', 'Input', and 'Files'.
- Problems View (Bottom Center):** Displays a list of generated code files and their associated actions.

Annotations:

- A green callout bubble labeled **Stood** points to the design view.
- A green arrow labeled **.aadl file** points to the code editor.
- A green callout bubble labeled **Topcased** points to the project browser.

Topcased

.aadl file