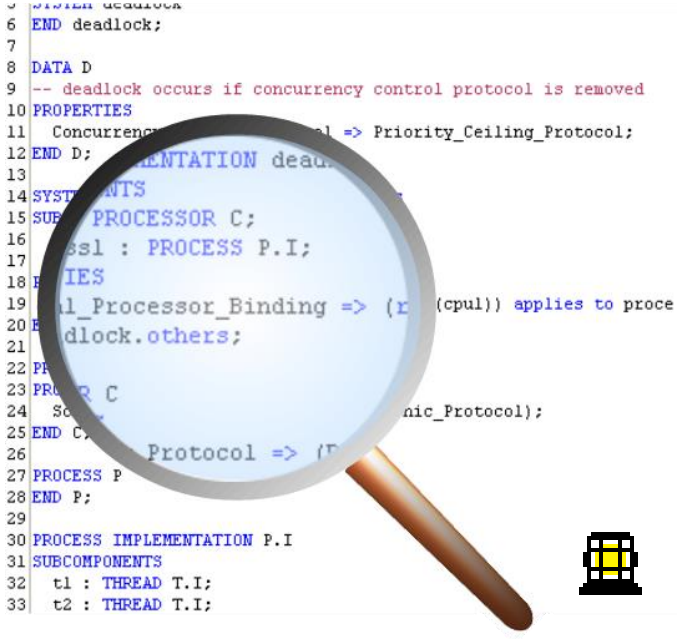
AADL Inspector 1.8
Quick Start Guide



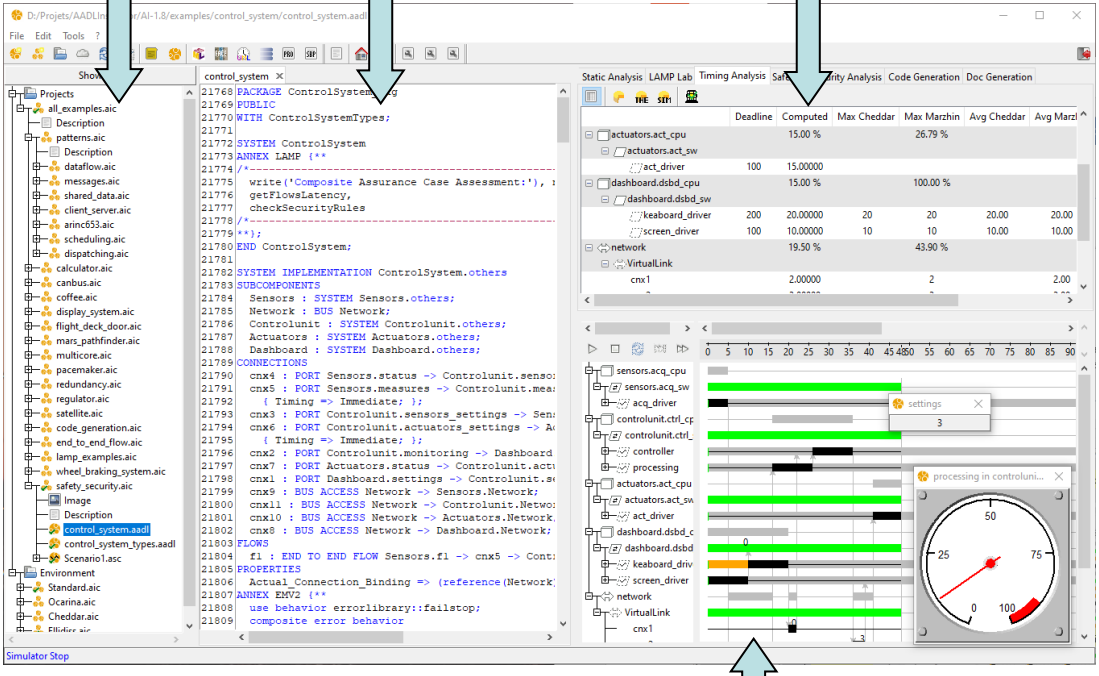
Ellidiss Technologies

Overview

Project Browser

AADL Textual Editor

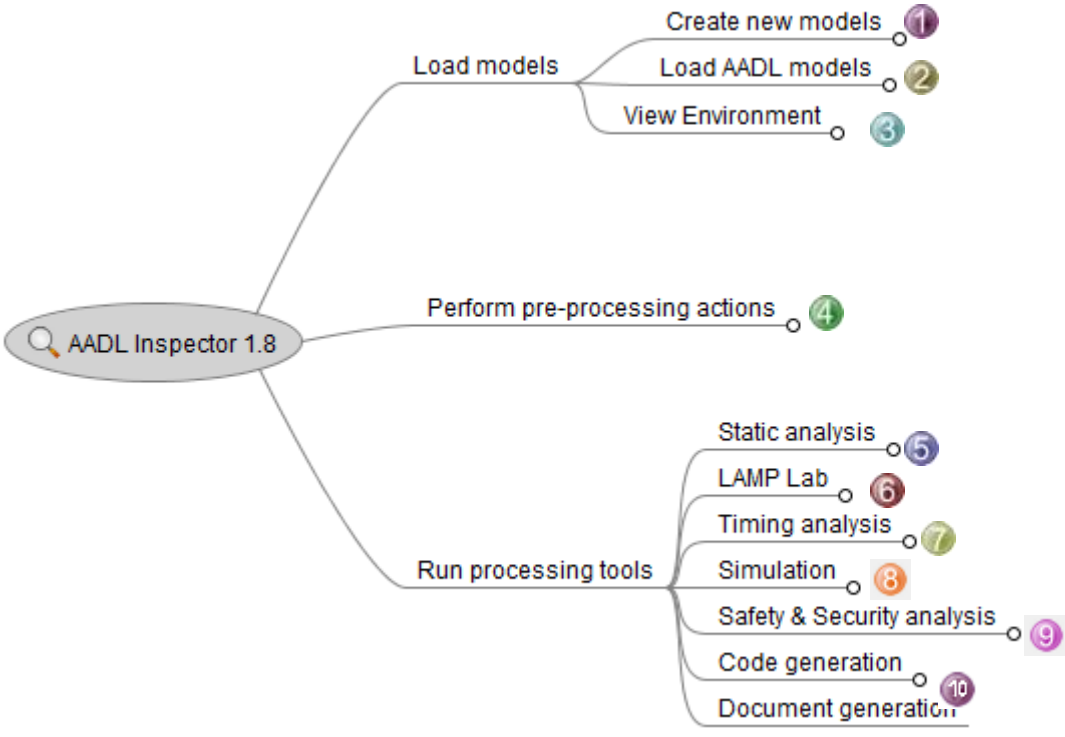
Analysis Tools



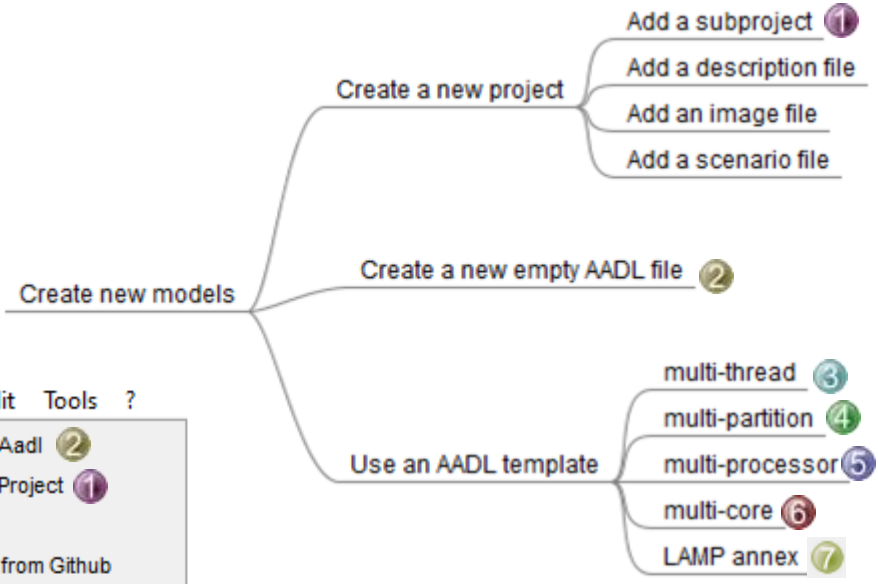
Simulator

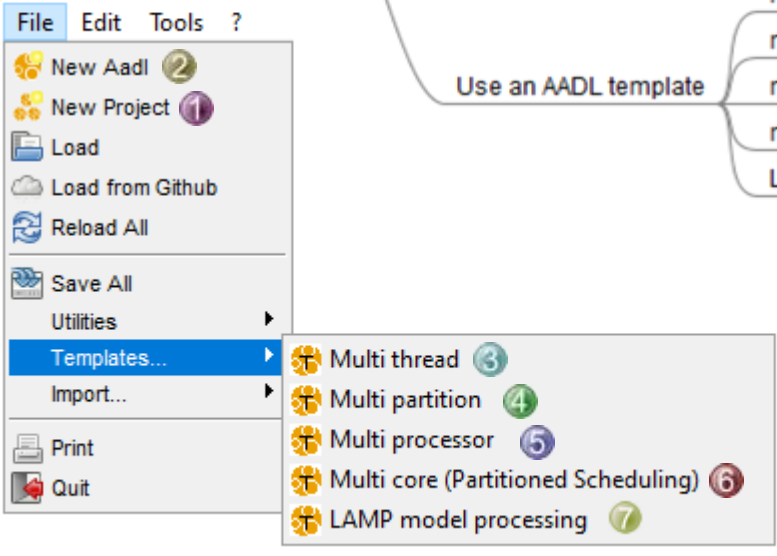
Ellidiss Technologies

Overview

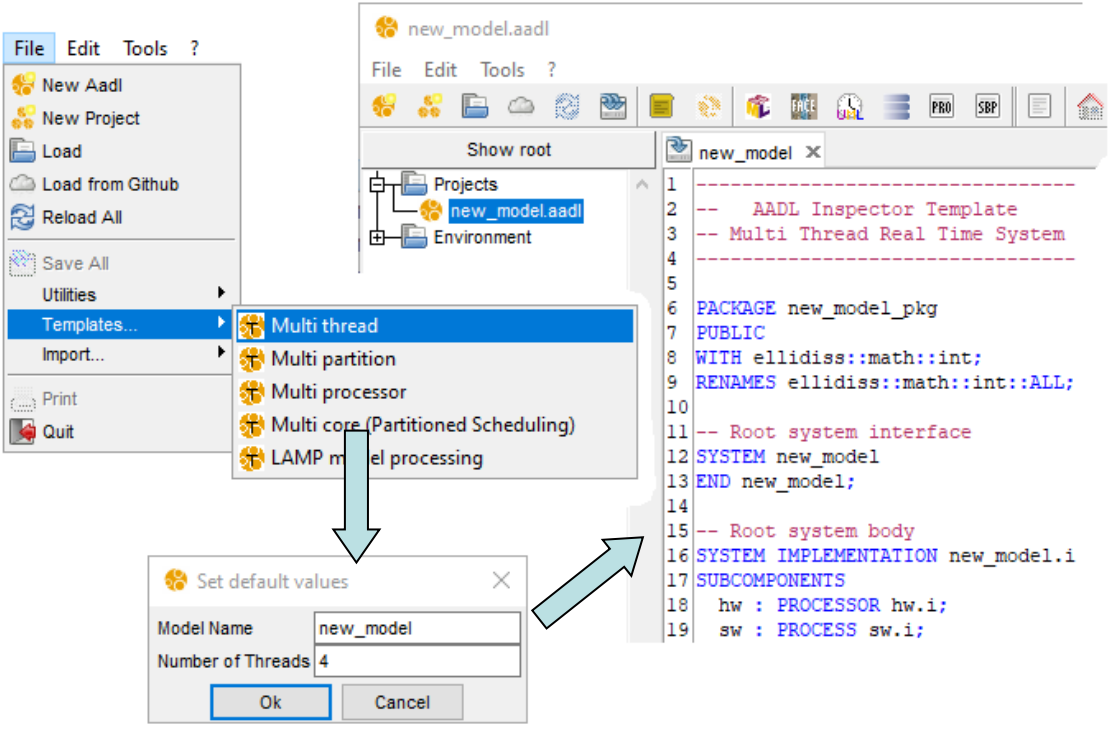

AADL Inspector 1.8
Load models
Create new models
1
Load AADL models
2
View Environment
3
Perform pre-processing actions
4
Run processing tools
Static analysis
5
LAMP Lab
6
Timing analysis
7
Simulation
8
Safety & Security analysis
9
Code generation
10
Document generation

1. Create New Models

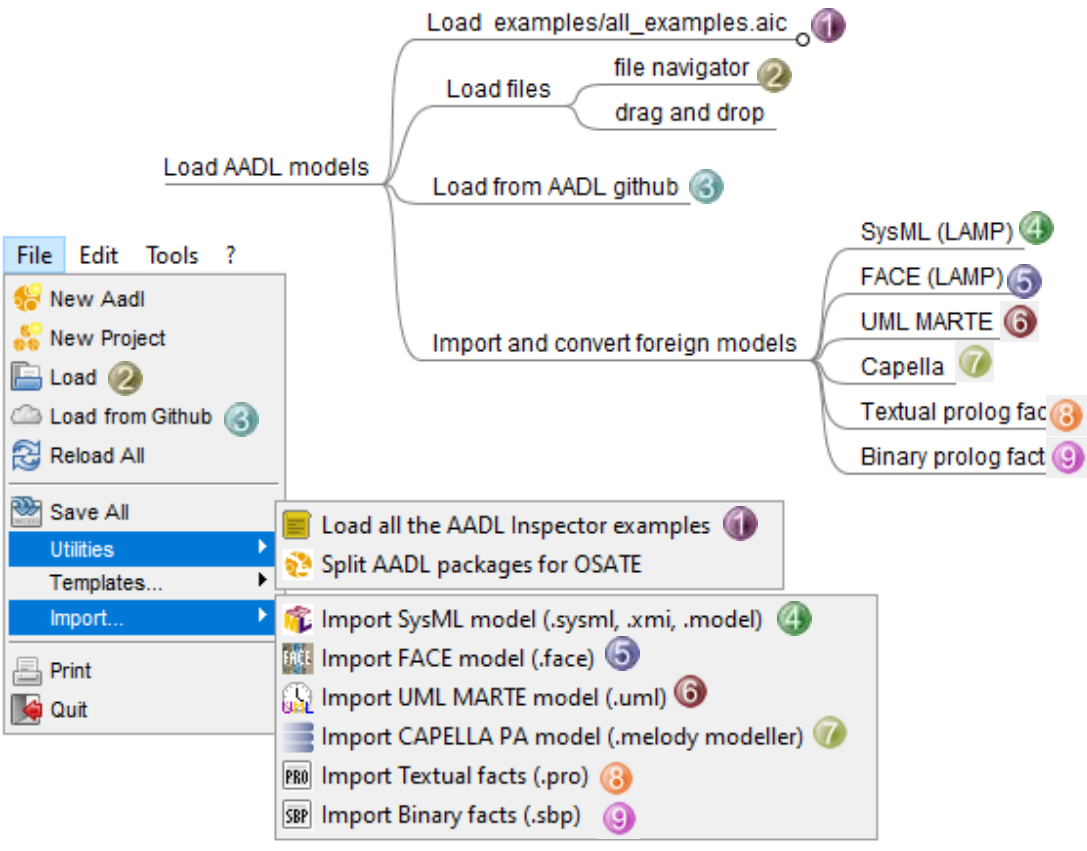




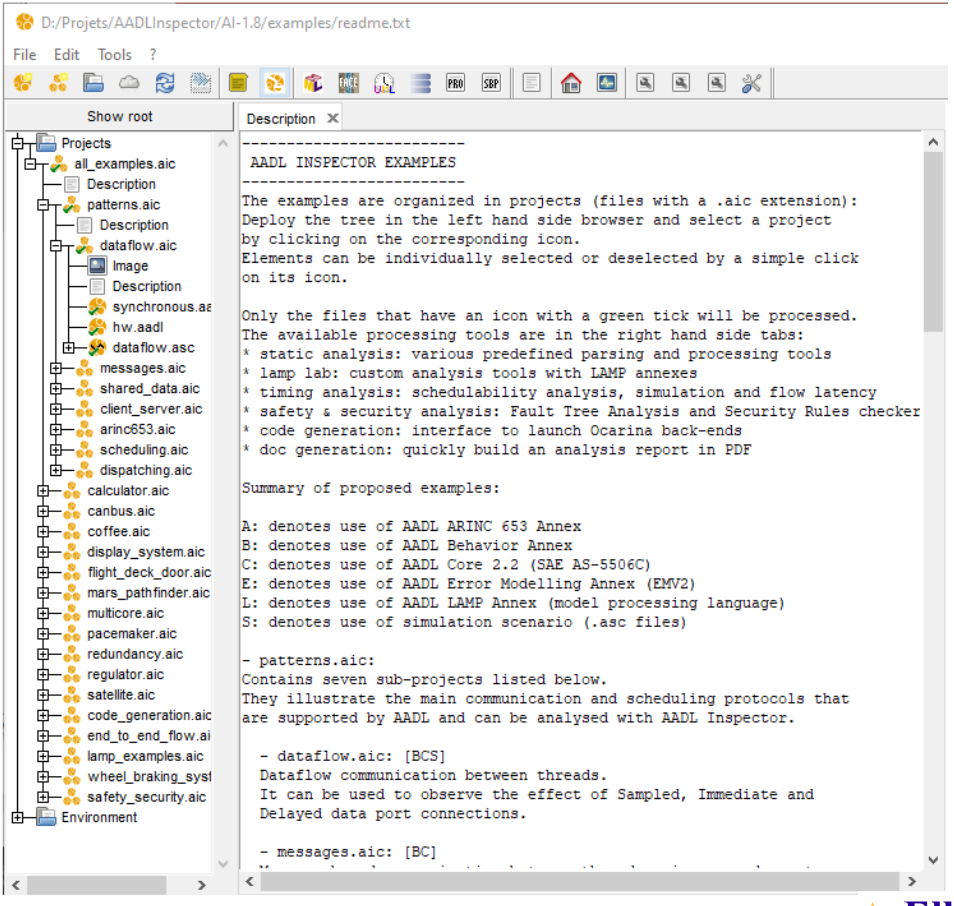
1. Create New Models
example



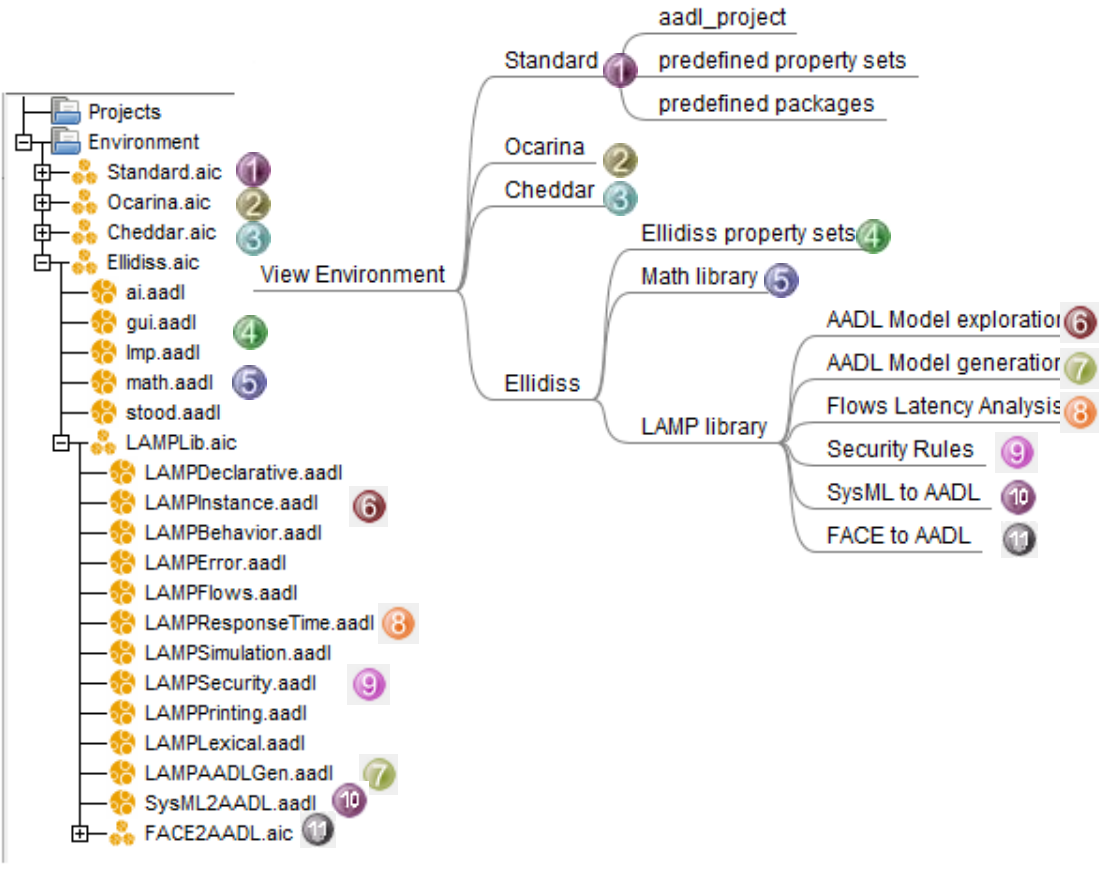
2. Load Existing Models



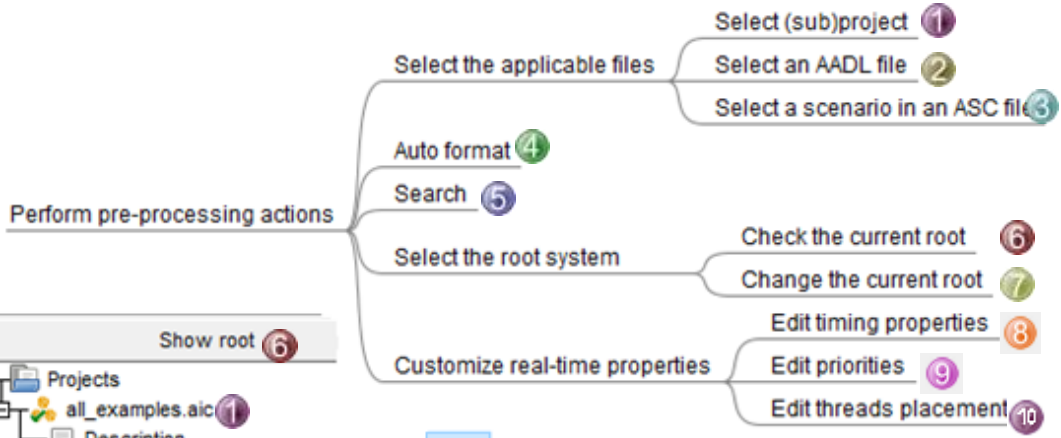
2. Load Existing Models
example

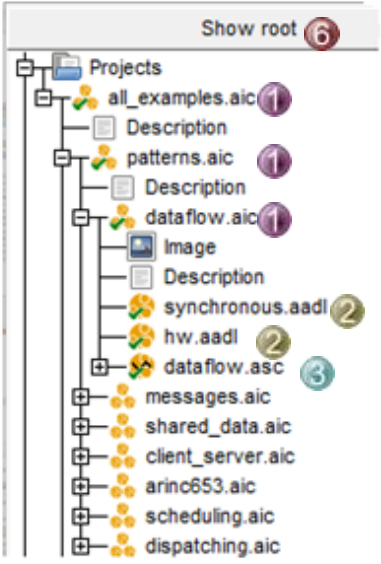


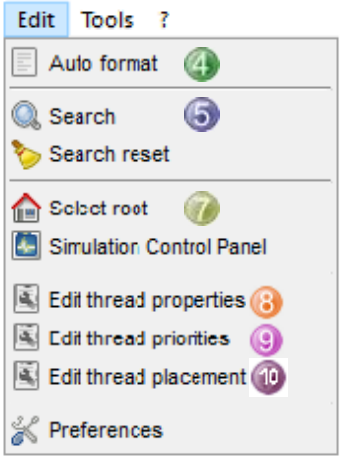
3. View environment



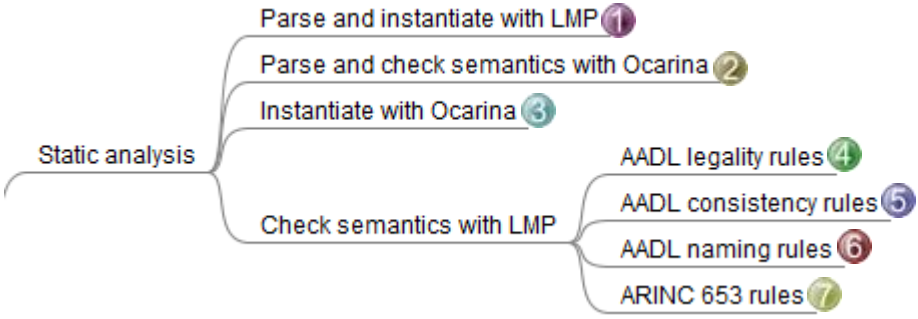
4. Pre-Processing

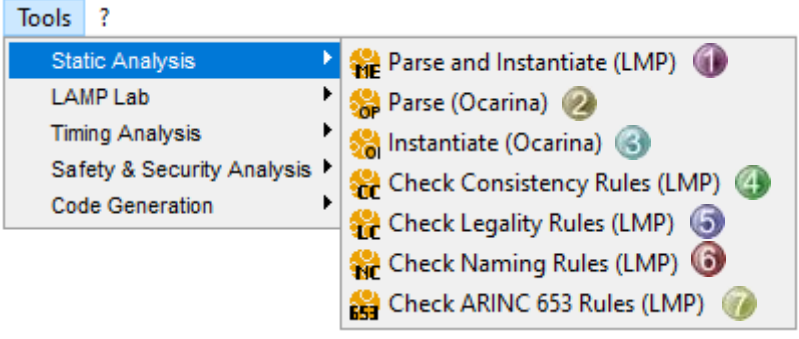




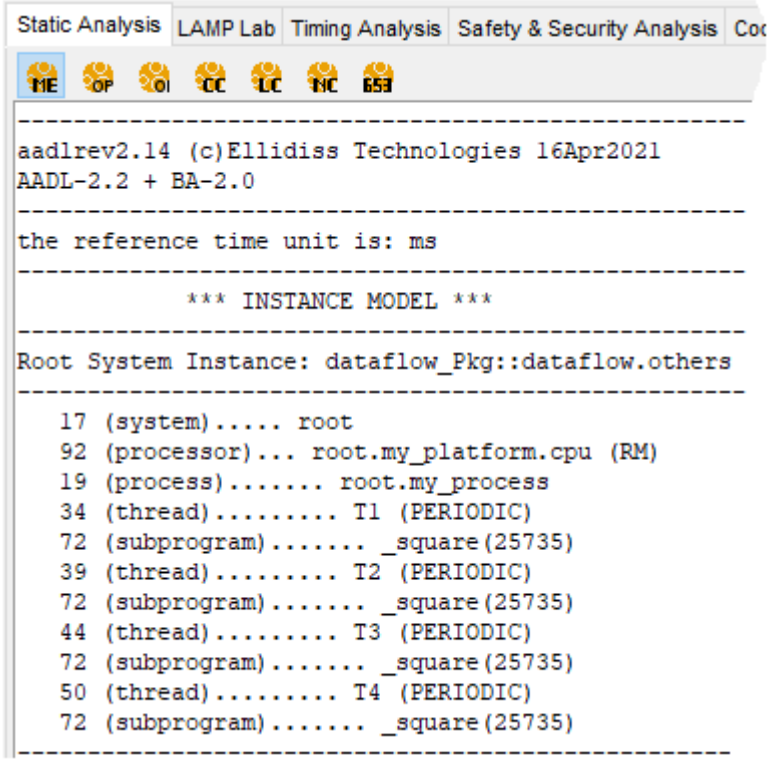


5. Static Analysis

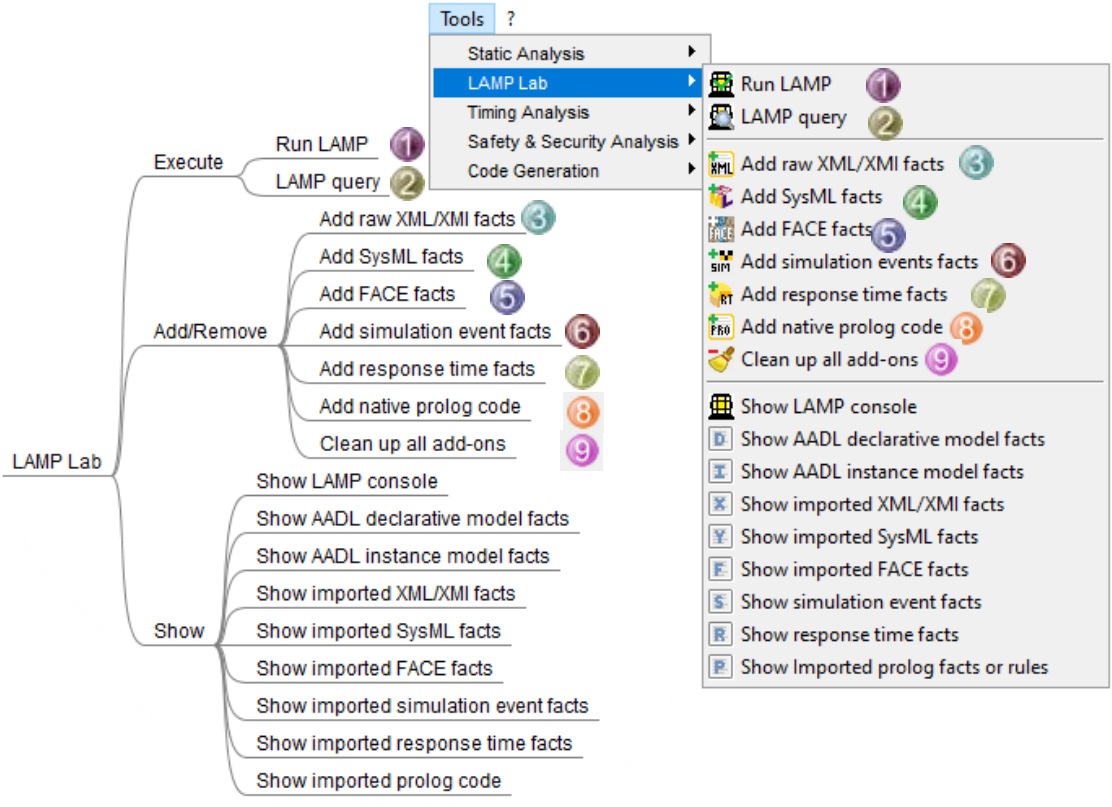




5. Static Analysis
example

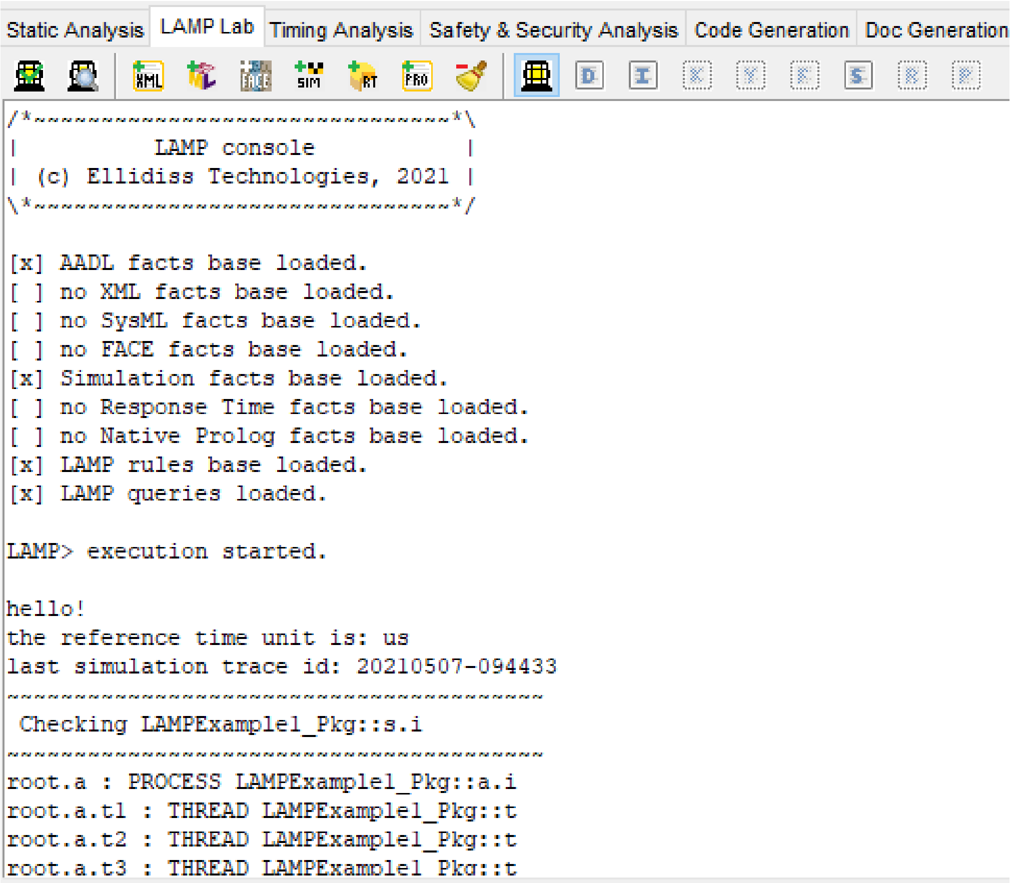


6. LAMP Lab

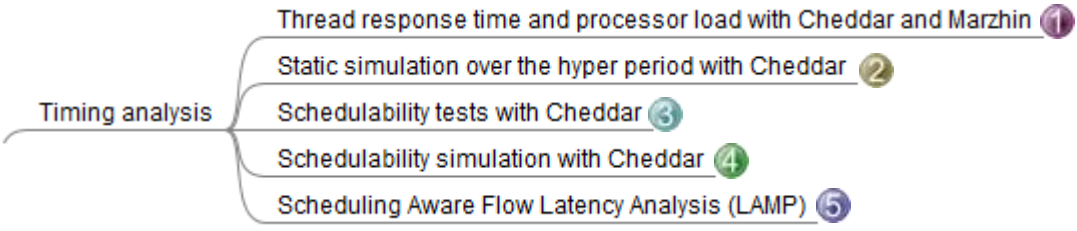

Tools
?
Static Analysis
LAMP Lab
Timing Analysis
Safety & Security Analysis
Code Generation
Run LAMP
LAMP query
Add raw XML/XMI facts
Add SysML facts
Add FACE facts
Add simulation events facts
Add response time facts
Add native prolog code
Clean up all add-ons
Show LAMP console
Show AADL declarative model facts
Show AADL instance model facts
Show imported XML/XMI facts
Show imported SysML facts
Show imported FACE facts
Show simulation event facts
Show response time facts
Show Imported prolog facts or rules
LAMP Lab
Execute
Run LAMP
LAMP query
Add/Remove
Add raw XML/XMI facts
Add SysML facts
Add FACE facts
Add simulation event facts
Add response time facts
Add native prolog code
Clean up all add-ons
Show
Show LAMP console
Show AADL declarative model facts
Show AADL instance model facts
Show imported XML/XMI facts
Show imported SysML facts
Show imported FACE facts
Show imported simulation event facts
Show imported response time facts
Show imported prolog code

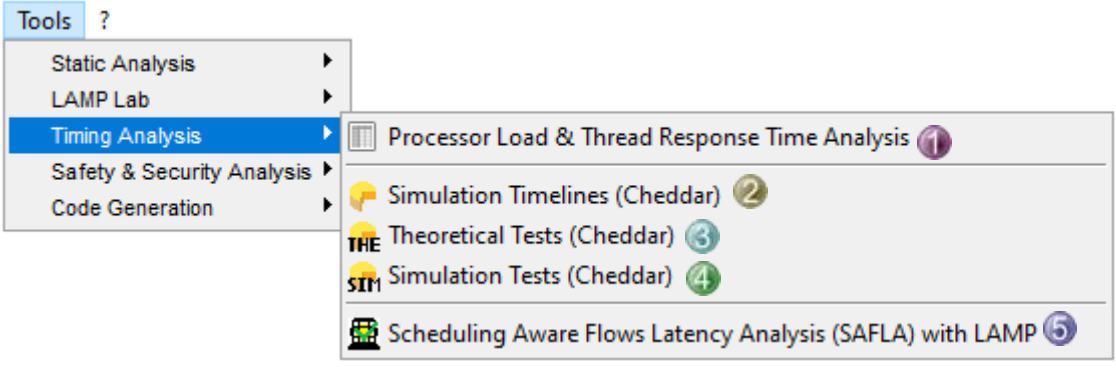
6. LAMP Lab

example



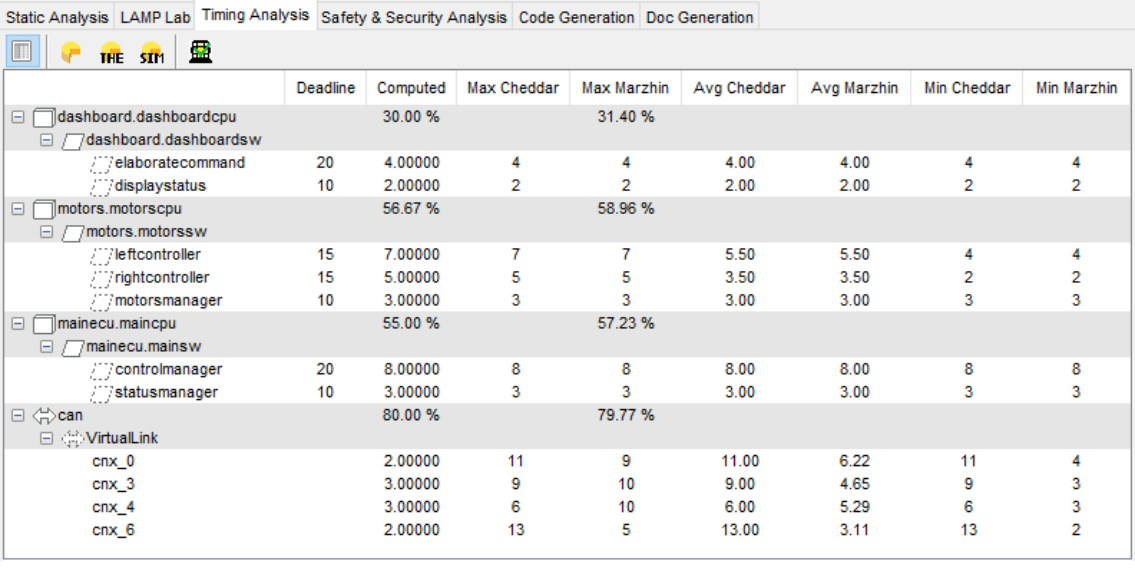
7. Timing Analysis





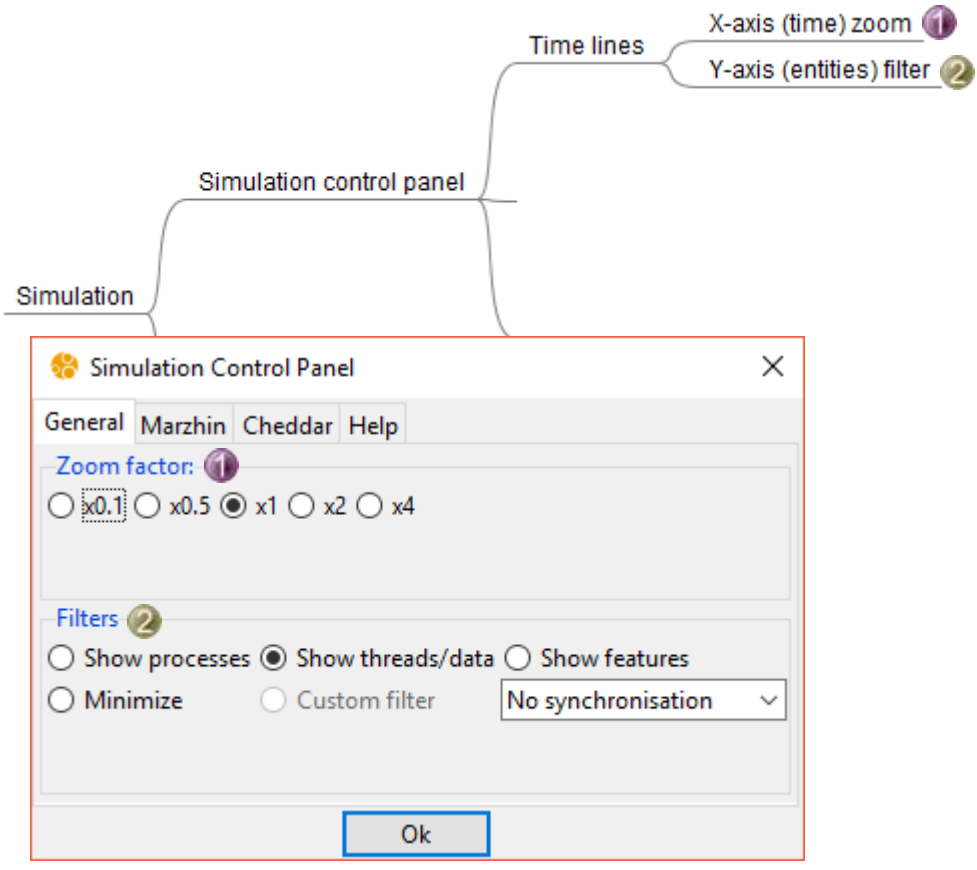
http://beru.univ-brest.fr/cheddar/

7. Timing Analysis
example

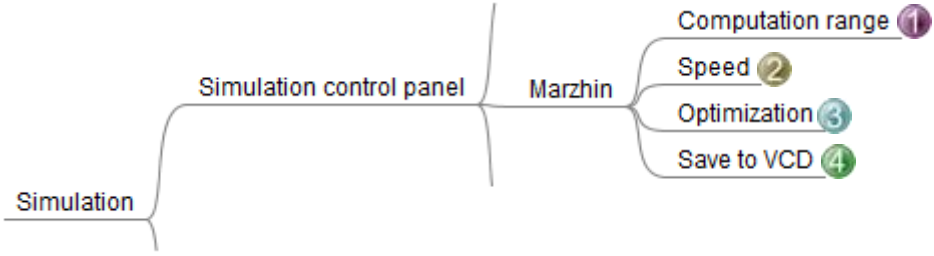


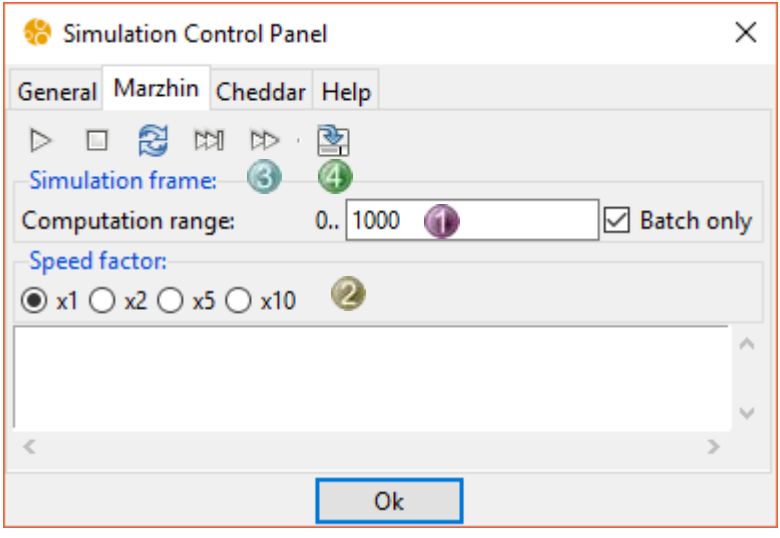
	Deadline	Computed	Max Cheddar	Max Marzhin	Avg Cheddar	Avg Marzhin	Min Cheddar	Min Marzhin
dashboard.dashboardcpu		30.00 %		31.40 %				
dashboard.dashboardsw								
elaboratecommand	20	4.00000	4	4	4.00	4.00	4	4
displaystatus	10	2.00000	2	2	2.00	2.00	2	2
motors.motorscpu		56.67 %		58.96 %				
motors.motorssw								
leftcontroller	15	7.00000	7	7	5.50	5.50	4	4
rightcontroller	15	5.00000	5	5	3.50	3.50	2	2
motorsmanager	10	3.00000	3	3	3.00	3.00	3	3
mainecu.maincpu		55.00 %		57.23 %				
mainecu.mainsw								
controlmanager	20	8.00000	8	8	8.00	8.00	8	8
statusmanager	10	3.00000	3	3	3.00	3.00	3	3
can		80.00 %		79.77 %				
VirtualLink								
cnx_0		2.00000	11	9	11.00	6.22	11	4
cnx_3		3.00000	9	10	9.00	4.65	9	3
cnx_4		3.00000	6	10	6.00	5.29	6	3
cnx_6		2.00000	13	5	13.00	3.11	13	2

8. Simulation
timelines preferences

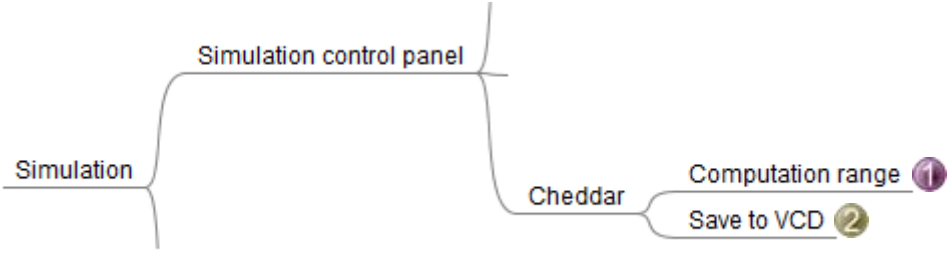


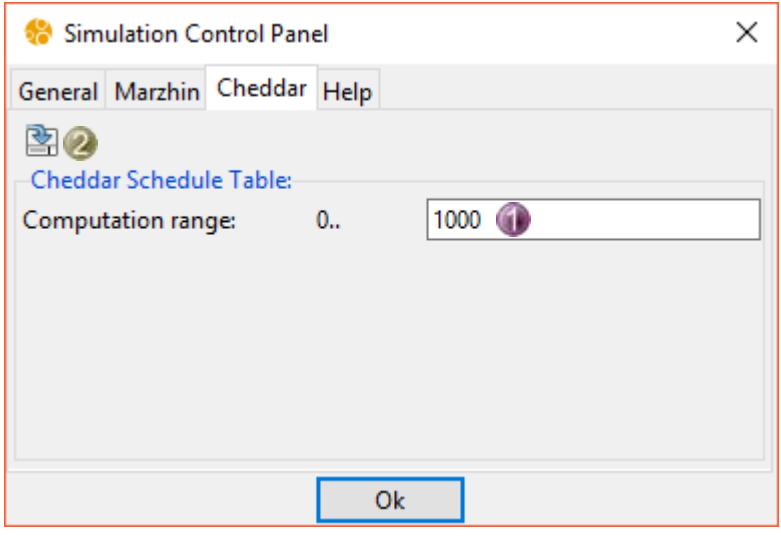
8. Simulation
Marzhin preferences



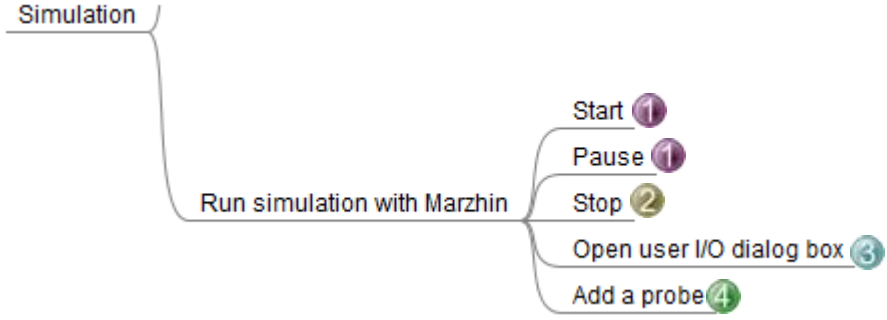


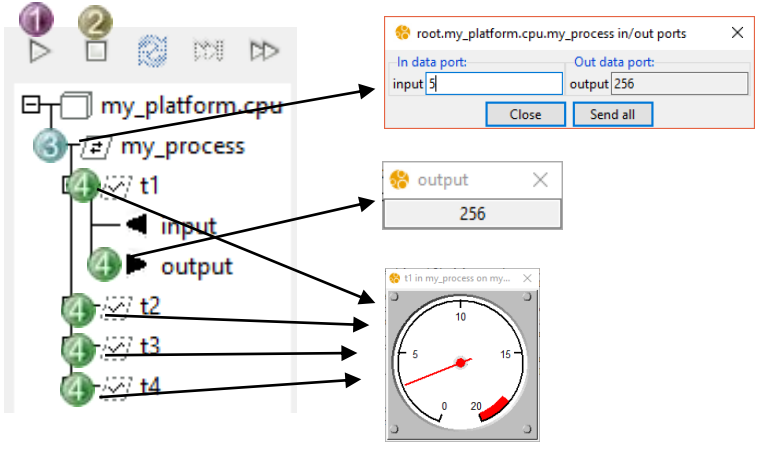
8. Simulation
Cheddar preferences



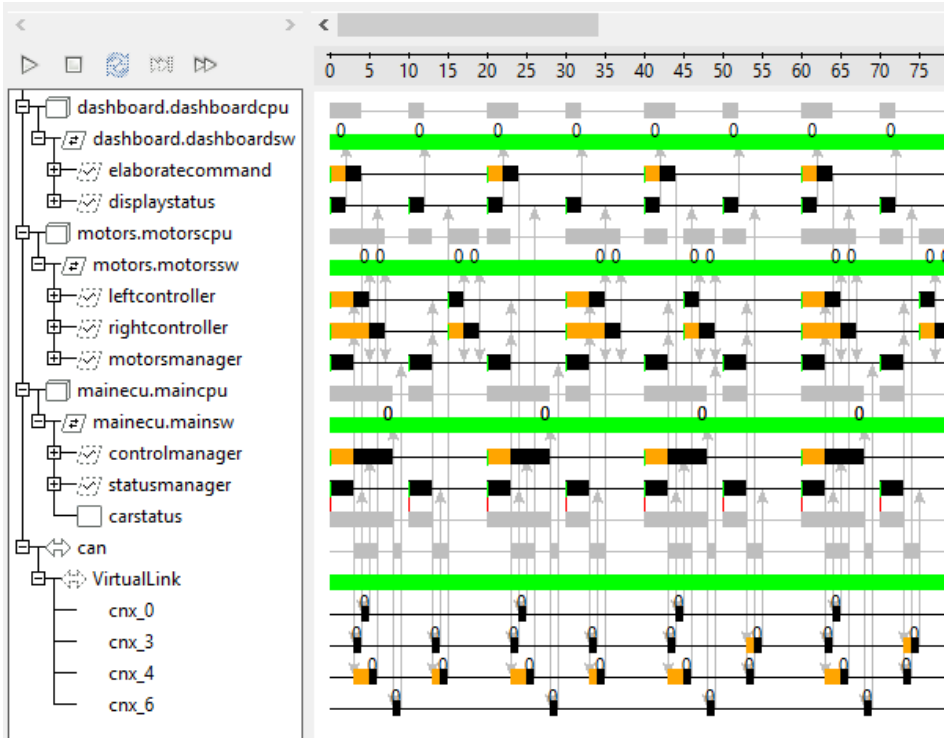


8. Simulation dashbord

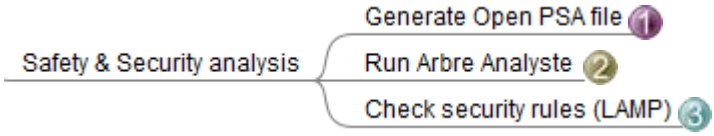


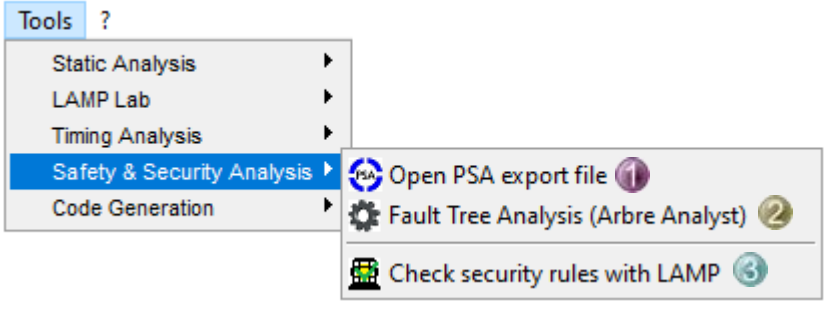


8. Simulation
example

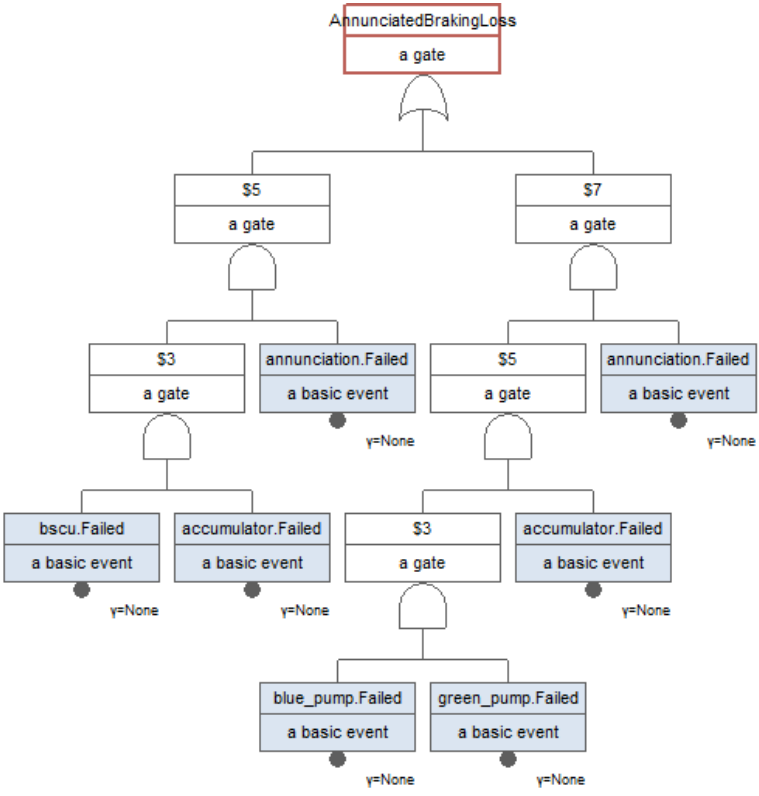


9. Safety & Security Analysis





9. Safety & Security Analysis
Fault Tree Analysis



https://www.arbre-analyste.fr/en.html

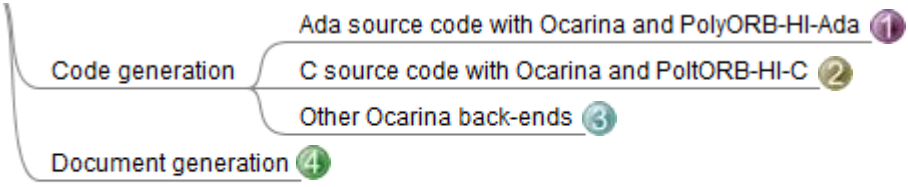
9. Safety & Security Analysis

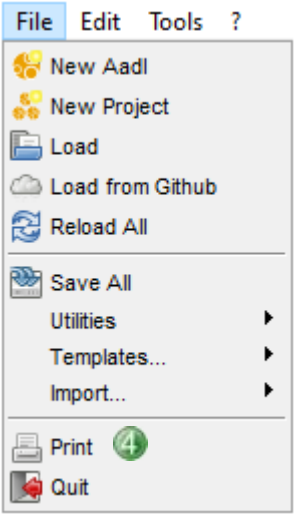
Security Rules

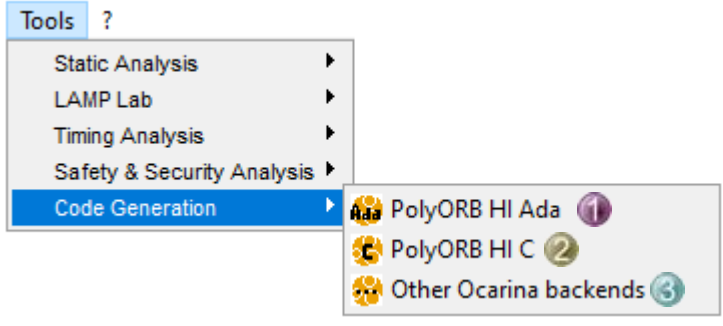
Static Analysis | LAMP Lab | Timing Analysis | Safety & Security Analysis | Code Generation | Doc Generation

```
/*~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~*\
|          LAMP console            |
| (c) Ellidiss Technologies, 2021 |
\*~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~*/

[x] AADL facts base loaded.
[ ] no XML facts base loaded.
[ ] no SysML facts base loaded.
[ ] no FACE facts base loaded.
[x] Simulation facts base loaded.
[ ] no Response Time facts base loaded.
[ ] no Native Prolog facts base loaded.
[x] LAMPLib rules base loaded.

LAMP> execution started.
Information: Security rules can be customized in file:
  environment/Ellidiss/LAMPLib/LAMPSecurity.aadl

SECURITY ANALYSIS

/!\ Security rule R1 (ERROR) : end to end flow root.f1
    has several several security levels: 3 5 2

/!\ Security rule R2 (INFORMATION) : component root.sensors
    is at security level: 5
/!\ Security rule R2 (INFORMATION) : component root.sensors.acq_sw
    is at security level: 5
/!\ Security rule R2 (INFORMATION) : component root.sensors.acq_sw.acq_driver
    is at security level: 5
```

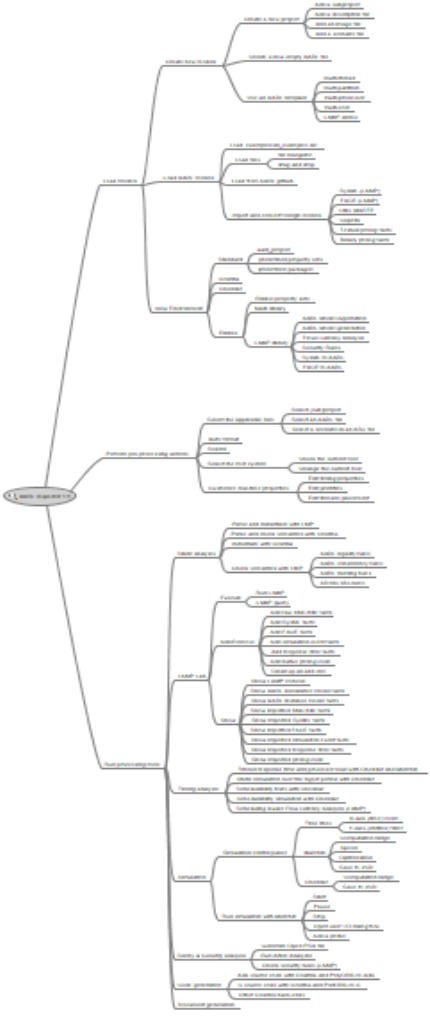
10. Code & Document Generation



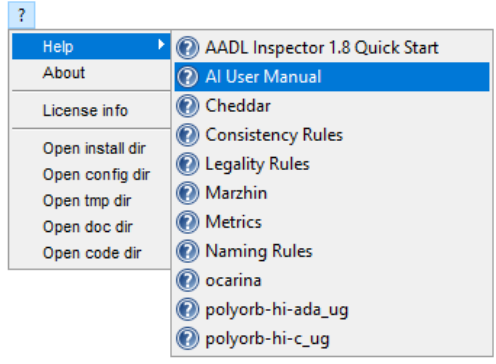




http://www.openaadl.org/ocarina.html



More Information



http://www.ellidiss.com

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