



# POLYCHRONY

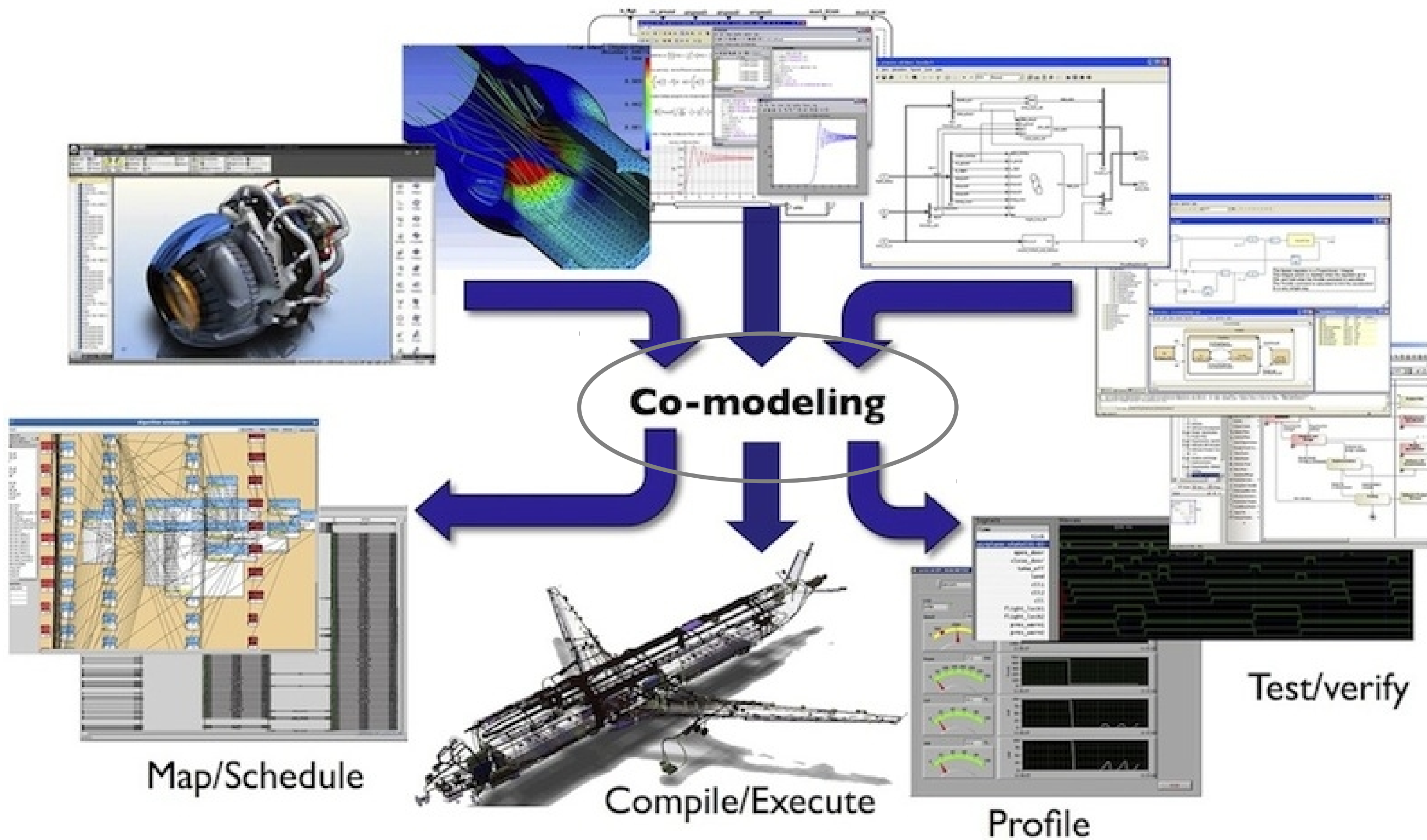


<http://www.irisa.fr/espresso/polychrony>

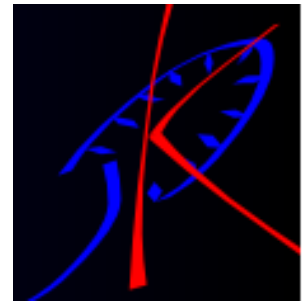
a toolset for the integrated development  
of embedded applications based on  
polychronous formal model

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# Polychrony Toolset



*Signal: a polychronous language  
Textual/GUI*

*AADL  
Geneauto*

*Proving the transformations*

Signal Eclipse

SSME

Fiacre

Signal ToolBox

Signal

SynDEX  
Sigali  
Lustre  
Dot

C  
C++  
Java

**Set of functionalities**

Simulation

Formal verification

Embedded code

Architecture simulation

Hardware specification

...

# Technological Breakthrough

Polychrony provides a formal framework :

- to refine descriptions in a top-down approach
- to abstract properties needed for black-box composition
- to assemble predefined components
- to validate an application at different levels

## Potential application fields :

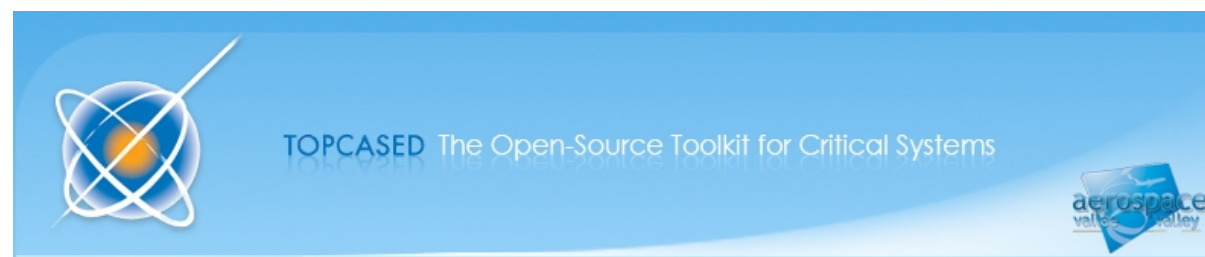
Process control, Signal processing systems, Avionics, Automotive control, Vehicle control systems, Nuclear power control systems, Defense systems, Radar systems...

**Platforms :** TopCased, CESAR, Polarsys.

**Coding and Operating System :** C, C++, Java.  
Linux, Solaris, MacOS, Windows.

**Licensing :** open-source GPL v2, EPL

**Pre-Qualified DO330 (VT3) (OPEES/CS company)**



# CONCLUSION

- For a demo, EclipseCon Stand (INRIA) tomorrow
- Waiting for mentors