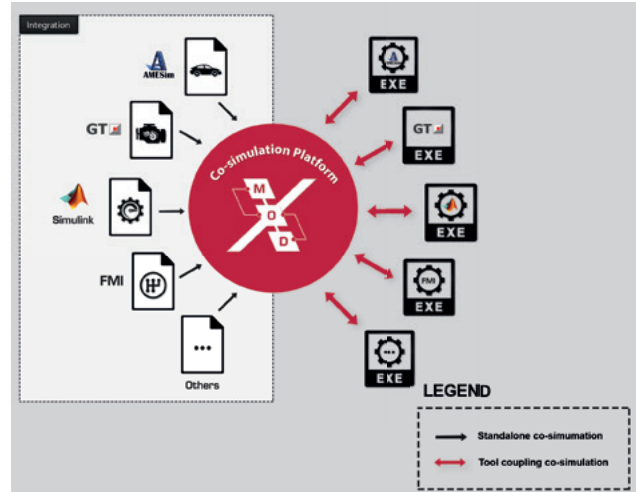


# xMOD - Multi-model Integration & Virtual experimentation platform

SIMULATION

## » MULTI-MODEL INTEGRATION & VIRTUAL EXPERIMENTATION PLATFORM



xMOD co-simulation platform

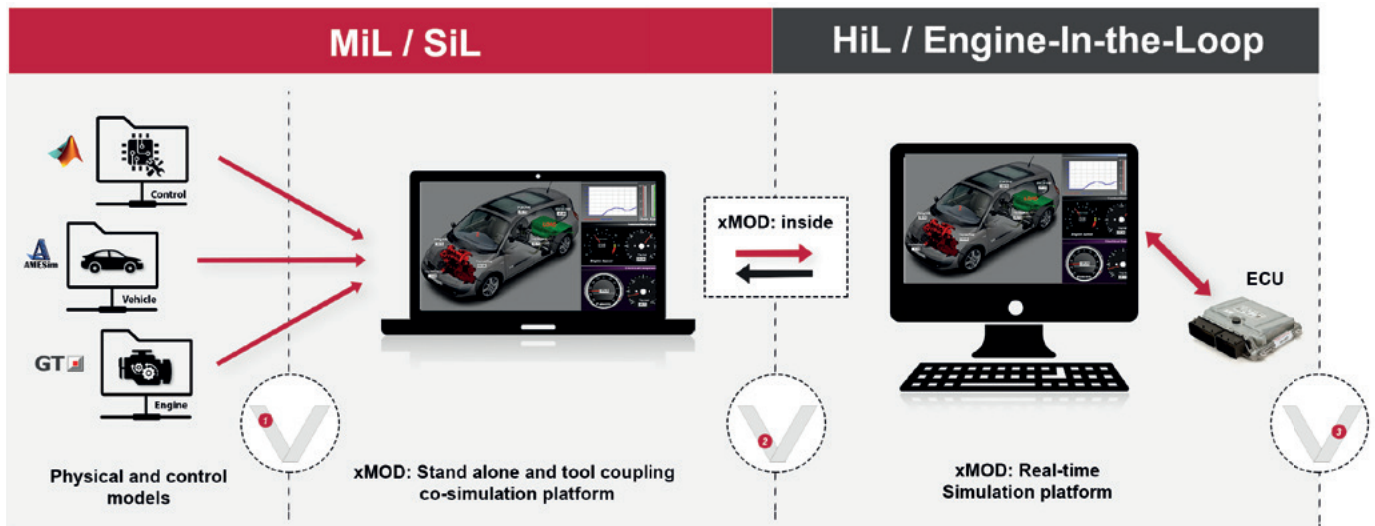
xMOD™ is a co-simulation and virtual experimentation platform. It allows to:

- Mix models stand-alone execution and tool coupling
- Optimize complex model execution by: models distribution over multi-core and intelligent multi-solver and multi-step computation
- Extend simulation use to non-experts thanks to user-friendly interfaces
- Ensure continuity from MiL (Model-In-the-Loop) and HiL (Hardware-In-the-Loop) up to EiL (Engine-In-the-Loop)

### Benefits

- Flexible: Each engineering field can keep its most efficient simulation tool
  - Powerful: Multi-core and multi-solver executions boost the performance
  - Economic: Real-Time models exploitation does not need third party licenses
  - Extended: Real-Time compatibility allows connection to the MORPHEE or third party automation system
- xMOD increases your simulation performances and at the same time reduces costs

# xMOD - Versatile stand-alone & tool coupling co-simulation: use the most efficient tool for each modeling task



## Technical Data

Operating system	Windows 7- 32 bit and 64 bit (1)
GUI language	English, French
Models execution	Multi-threads, multi-cores, multi-steps, multi-solvers, as fast as possible, real-time, dilated or compressed time
Import compatible formats	xMOD proprietary format via SimulinkCoder(2), FMI(3) 1.0, FMI(3) 2.0, GT-Suite(5) (.dat), AMESim (5) (.ame)
Compatible software	Matlab/Simulink®, AMESim®, GT-Suite®, SimulationX®, Dymola®, OpenModelica®, Flowmaster®, MapleSim®, C/C++, FMI compatible tools
Drivers	Ethernet Real-Time, CAN, VMIC PCI-5565, XCP, Joystick
Solvers for FMUs(4)	Fixed step (Euler, Runge-Kutta), variable step (CVODE, LSODAR, DASL)
Results file format	ASCII
Dashboards	Custom dashboards, instruments library

- (1) xMOD HiL requires Windows 32 bit
- (2) SimulinkCoder (formerly RTW): Real-Time Workshop developed by the company MathWorks®
- (3) FMI: Functional Mock-up Interface
- (4) FMU : Functional Mock-up Unit: FMI format file
- (5) Via tool coupling co-simulation

xMOD is co-developed with IPFEN

Technical specifications may be modified without prior notice.