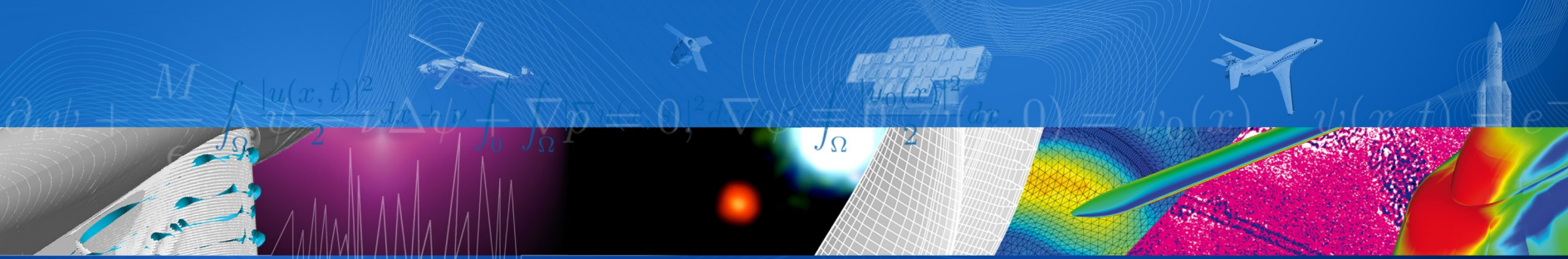

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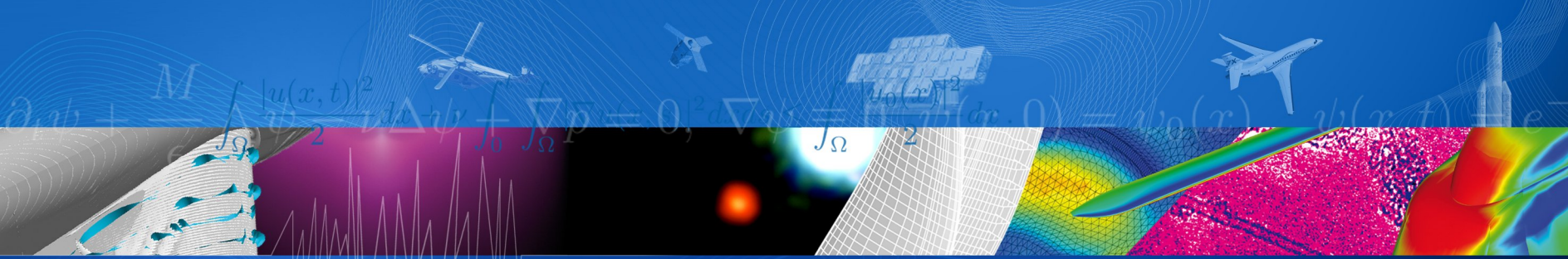

Simulation Software Ecosystem Guidelines

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Human-centered

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Human-centered

Soft real-time piloted simulation

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Human-centered

Soft real-time piloted simulation

+

Evaluations criteria :

- Simulation fidelity
- Acceptability
- Piloting performance
- Agency
- Neuroergonomy
- Sense of control
- Multi-agent / collaborative
- ...

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Human-centered

Soft real-time piloted simulation

+

Evaluations criteria :

- Simulation fidelity
- Acceptability
- Piloting performance
- Agency
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- Sense of control
- Multi-agent / collaborative
- ...

Human-oriented design theory for real-time simulation

VR

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Performance focused

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Performance focused

Performance is a critical metric

- studying the effect of various latencies on the human sense of control over an automated system (agency)
- prototyping a representative flight dynamic mode requiring regular continuous time clock and tight time resolution
- exploring the optimality of a movement produced by the human motricity system during a specific piloting task
- dealing with humans in a simulated virtual environment

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Code-less

simulation_software_ecosystem-> Guidelines

Code-less

Abstracting the hardware integration development problematics

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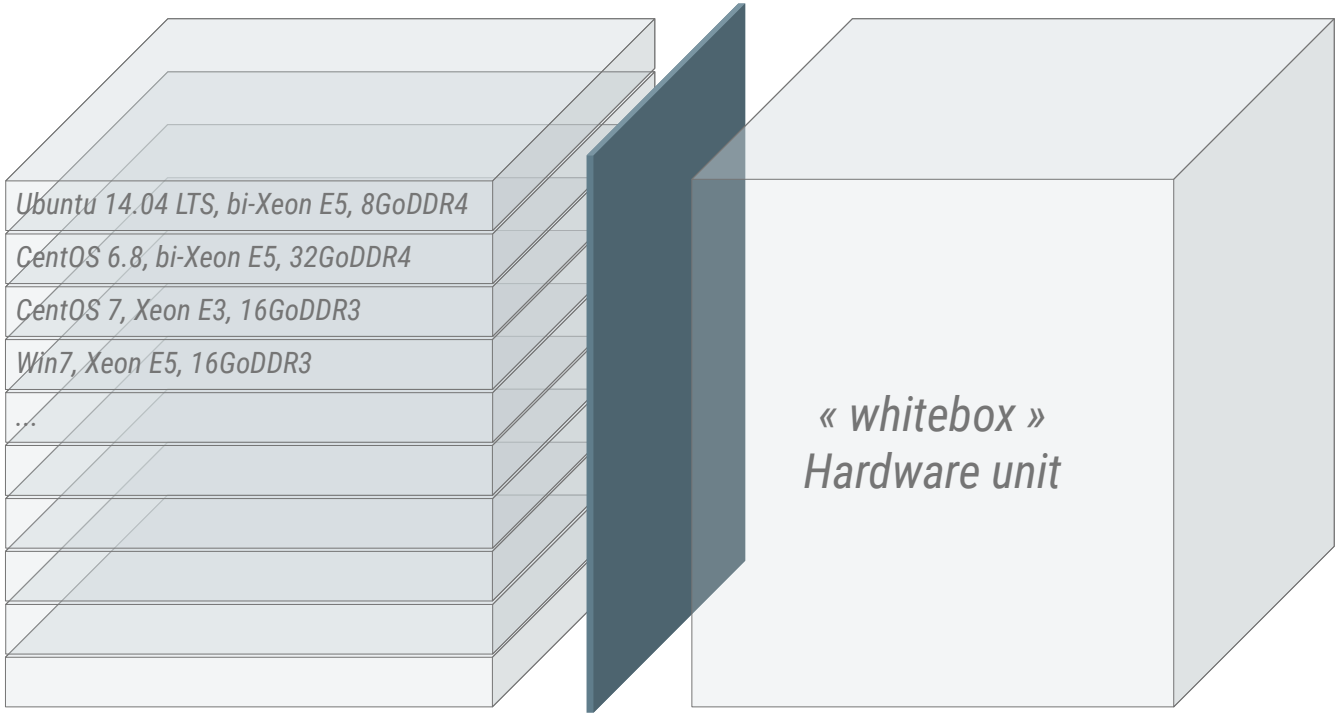
Code-less



LABSIM SAAS
(Simulation As A Service)

Abstracting the hardware integration development problematics

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Code-less

Abstracting the software development problematics

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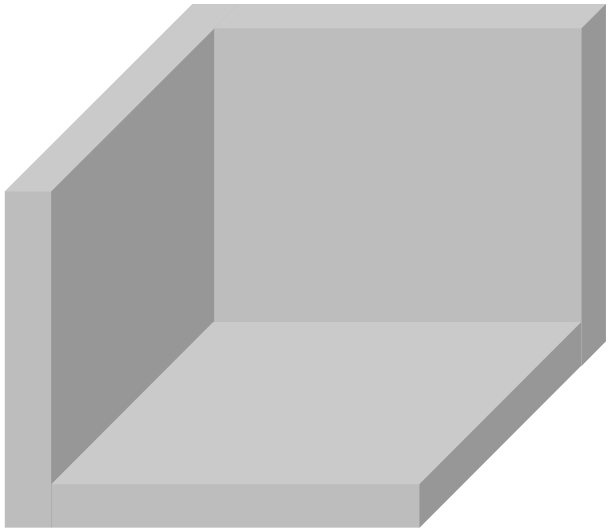
Code-less



*Generic model **API** (**A**plication **P**rogramming **I**nterface)*

Abstracting the software development problematics

simulation_software_ecosystem-> Guidelines

Code-less

A performant WYSIWYG (What You See Is What You Get) tools to setup a simulation

A DIY (Do It Yourself) pipeline shortcut through a fully XML (eXtended Markup Langage) based environment for the guru

Tooling

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Multi-disciplinar

simulation_software_ecosystem-> Guidelines

Multi-disciplinar

Integrate heterogeneous models from different scientific experts

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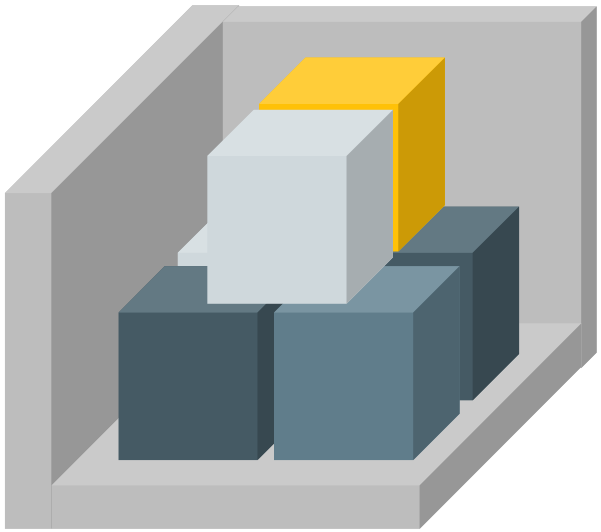
Multi-disciplinar



Integrate heterogeneous models from different scientific experts

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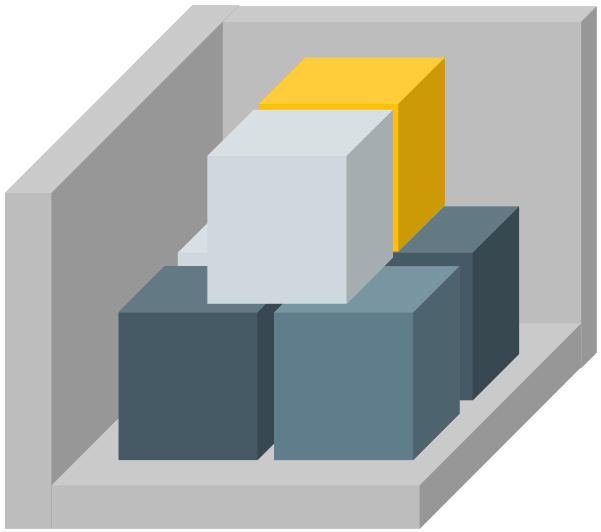
Multi-disciplinar



Human System Interface

Integrate heterogeneous models from different scientific experts

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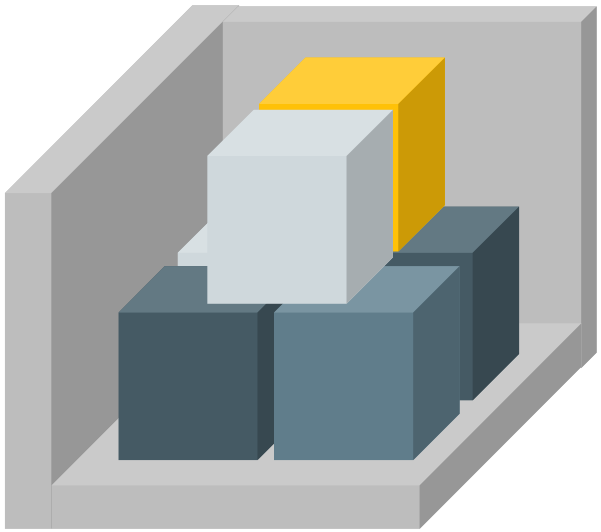

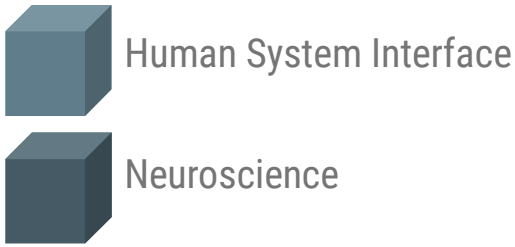

Integrate heterogeneous models from different scientific experts

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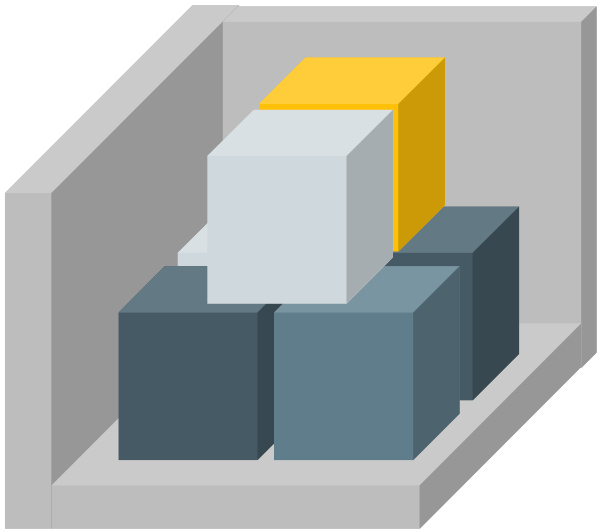
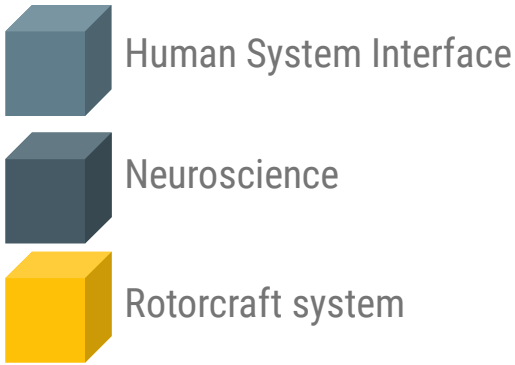
Multi-disciplinar





Integrate heterogeneous models from different scientific experts

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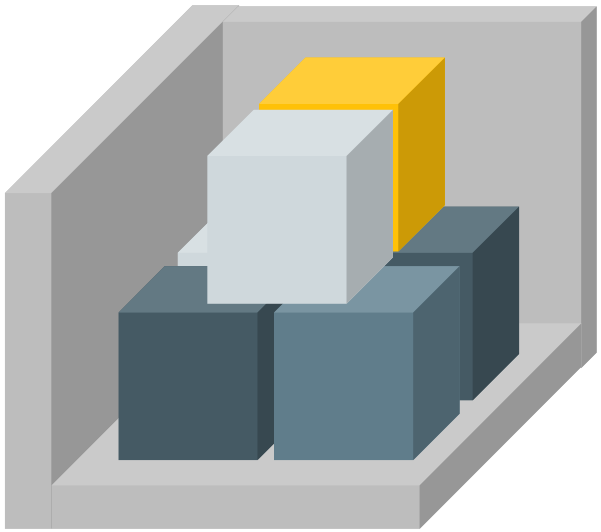
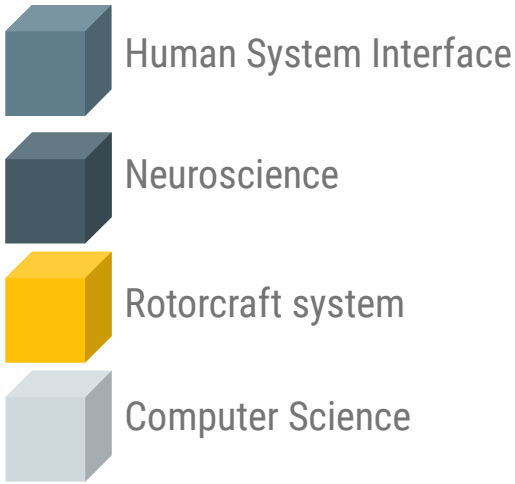
Multi-disciplinar





Integrate heterogeneous models from different scientific experts

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Modular

simulation_software_ecosystem-> Guidelines

Modular

Dynamic sim-to-sim software architecture composition

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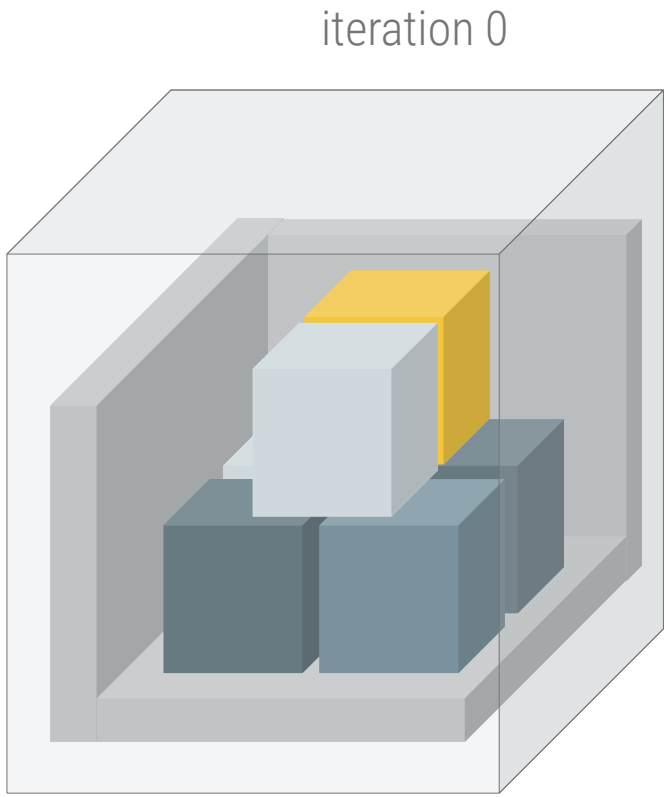
Modular



Dynamic sim-to-sim software architecture composition

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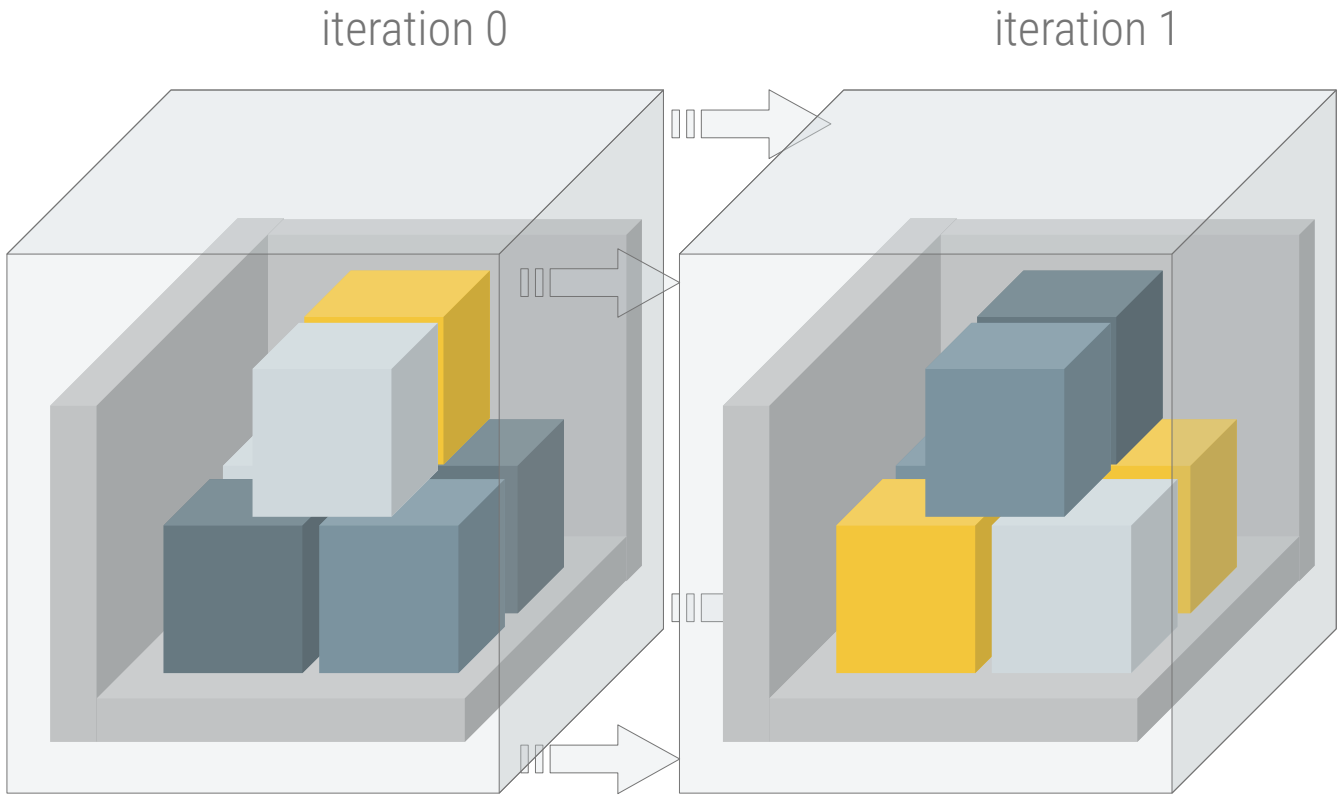
Modular



Dynamic sim-to-sim software architecture composition

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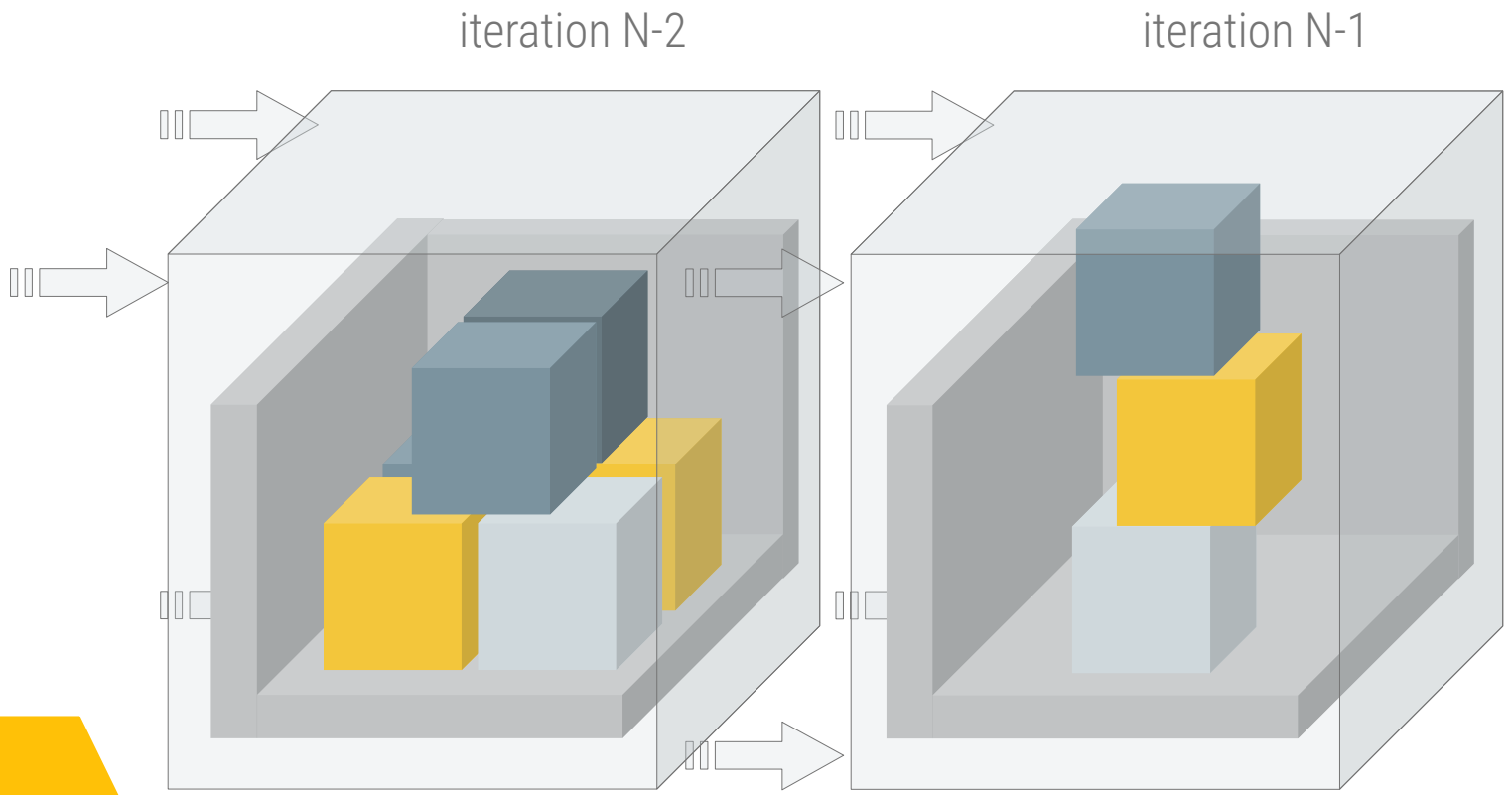

Dynamic sim-to-sim software architecture composition

Modular

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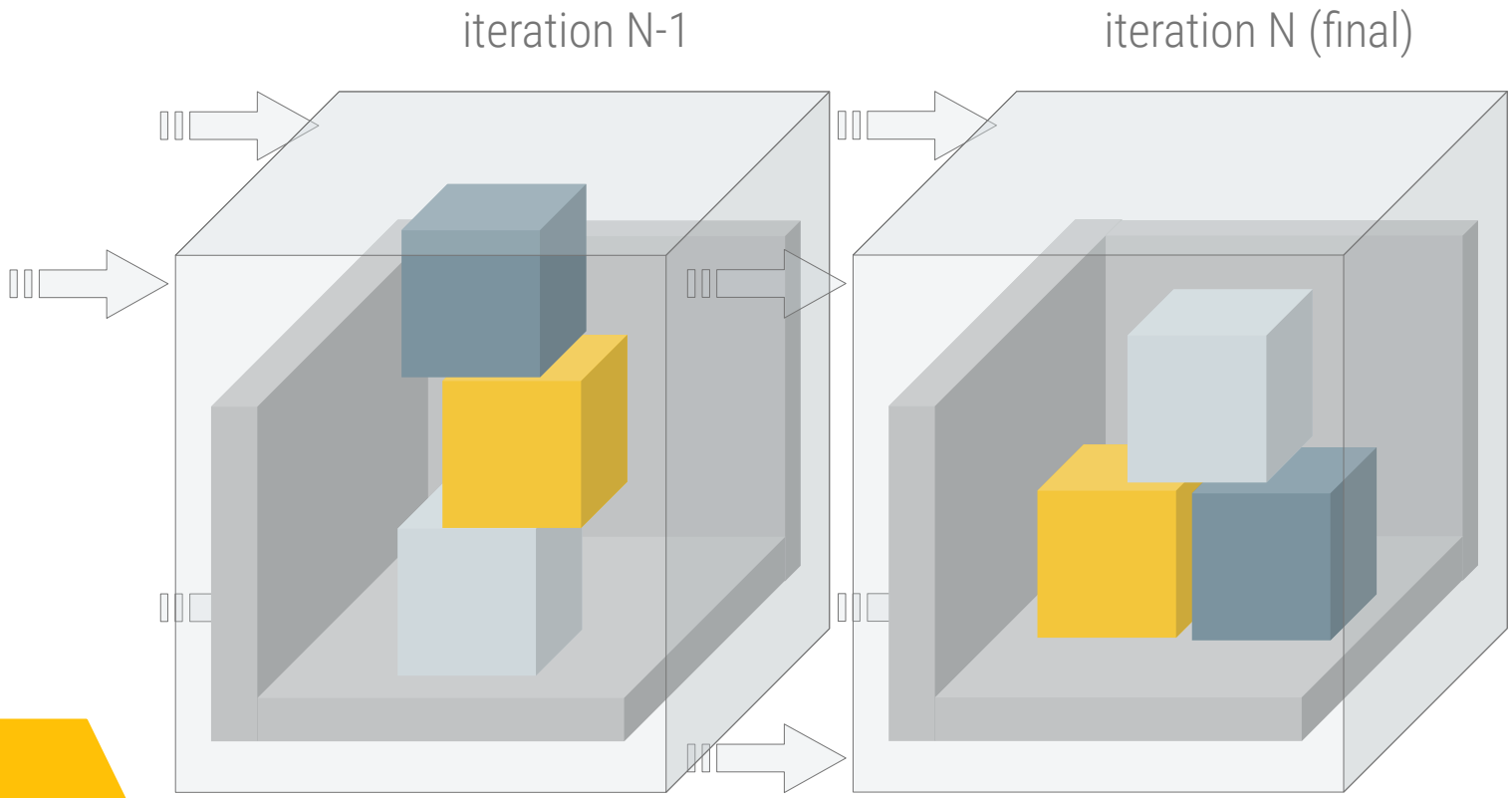

Dynamic sim-to-sim software architecture composition

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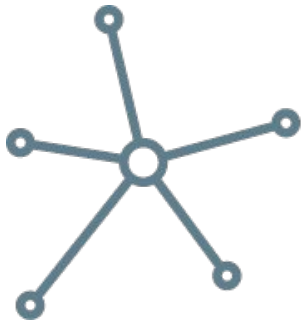

LABSIM

http://www.labsim.github.io