

WRENCH: A Simulation Workbench for Scientific Workflow Users, Developers, and Researchers

<https://wrench-project.org>



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MĀNOA



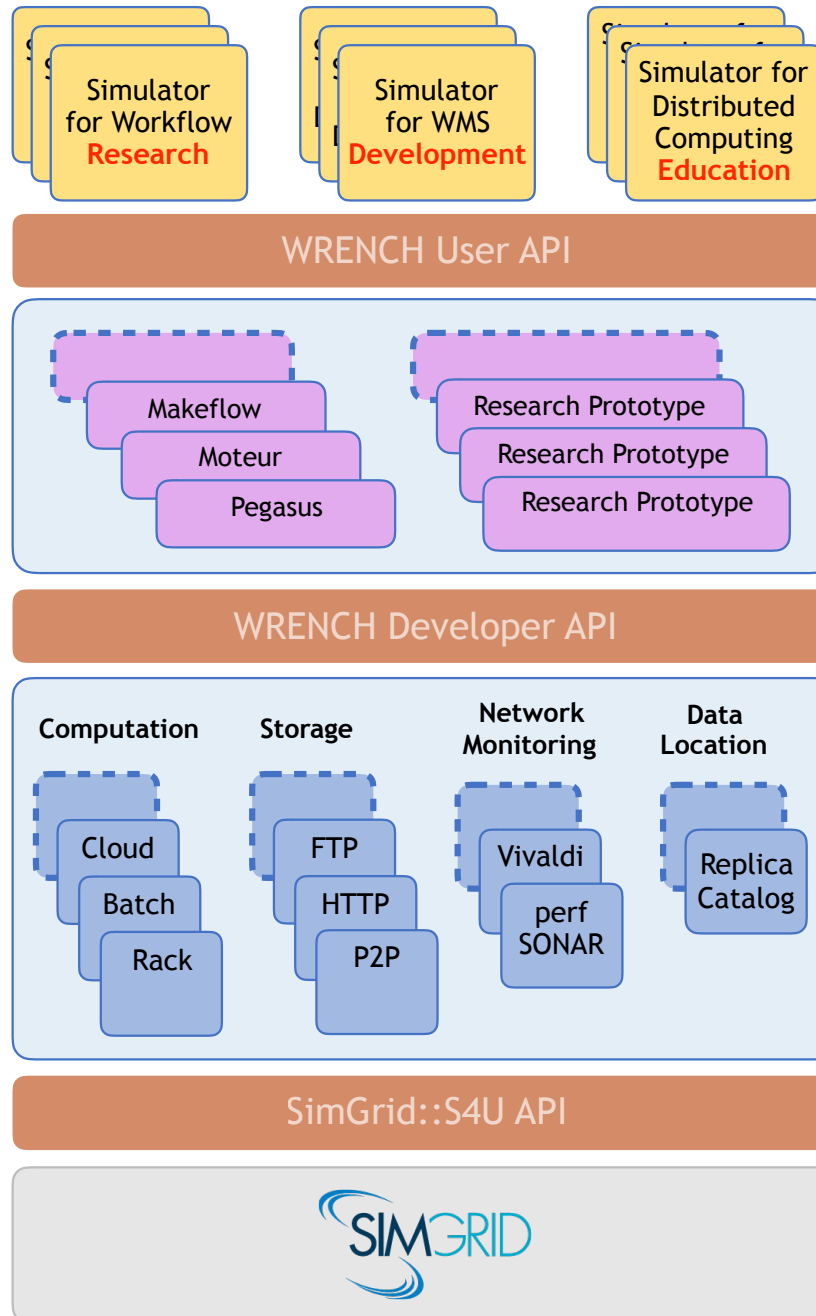
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MOTIVATION

- ◆ **Scientific Workflow** applications are important
- ◆ But applications, software infrastructures, hardware platforms are complex
- ◆ We need a solid **experimental science** approach to understand all this
- ◆ Yet real-world experiments have limited scope

OBJECTIVE

- ◆ Realize workflow execution **simulation** that is **accurate, fast, and scalable**
- ◆ Useful to
 - ◆ Domain (workflow) scientists
 - ◆ Workflow Manager Systems (WMS) developers
 - ◆ Educators

APPROACH

- ◆ Build on the decades of research and development in the SimGrid project
- ◆ Implement the software stack on the left