

SEMANTIC WORKFLOW PRODUCT DETAILS

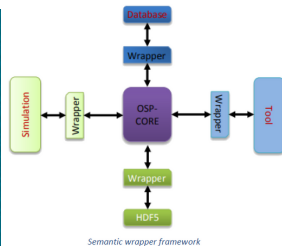


DESCRIPTION

Semantic interfaces (wrappers) between simulation tools and OSP-core are the backbone of semantic interoperability enabling data/concept sharing and transfer between applications. They can be described as “bridges” in software development that enable the intercommunication between different tools, and the exchange of meaningful information (concept) understandable by any tool able to “speak” the same language.

FRAMEWORK

The wrappers are based on ontology-compliant high-level requirements. In INTERSECT, **SimPhoNy** is the core of the semantic interoperability layer of Interoperable Material-To-Device (IM2D) that analyses the specific use case from user specification, identifies data and information that need to be exchanged, and selects the most appropriate workflow to be operated by the simulation Hub (sHub) through **AiiDA**



Different wrappers facilitate the coupling-and-linking between different simulation engines and data sources. Using wrappers it is not necessary to translate the input and output formats from/to different simulation engines, while multiple simulations can be run and synced simultaneously to create complex scenarios, such as a multi-scale simulation.



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