SAF User Documentation : Physical Functional Mapping Viewpoint

Domain	Aspect	Maturity
Physical	Traceability & Mapping	⚠️ under construction

Example

none

Purpose

The Physical Functional Mapping Viewpoint analyses the assignment of the System Functions and the System Partial Functions to the Physical SOI Elements.

Applicability

The Physical Functional Mapping Viewpoint supports the "System Architecture Definition process" activities of the INCOSE SYSTEMS ENGINEERING HANDBOOK 2015 .

Stakeholder

- Hardware Developer
- Software Developer
- System Architect

Concern

- What is the allocation of functions to the physical architecture?
- Which functions and services need to be implemented in SW?
- Which functions need to be realized by HW?

Presentation

A Physical Functional Mapping Matrix featuring

- the call behavior action representing usage of System Functions
- Physical SOI Elements or Physical SOI
- a derived relationship

Profile Model Reference

- Allocate [SysML Profile]
- Property [UML_Standard_Profile]
- SAF_FunctionAction
- SAF_PhysicalElement
- SAF_PhysicalHardwareElement
- SAF_PhysicalSoftwareElement
- SAF_SPV08b_View
- SAF_SystemFunction
- SAF_SystemPartialFunction

Input from other Viewpoints

Required Viewpoints

- Physical Structure Viewpoint
- Logical Functional Mapping Viewpoint
- Logical Structure Viewpoint

Recommended Viewpoints

- System Process Viewpoint
- System Functional Refinement Viewpoint