

SAF User Documentation : P1_PCXD Physical Context Definition Viewpoint

Domain	Aspect	Maturity
Physical	Context & Exchange	 released

Example



Purpose

The Physical Context Definition Viewpoint identifies the various contexts the SOI is used in, along with the associated external entities sharing a physical interface with the system. For each context, the applicable environmental conditions shall be defined. The physical context helps identify the interface requirements needed to integrate a system into its environment in a given context.

Applicability

The Physical Context Definition Viewpoint supports the "Design Definition Process" activities of the INCOSE SYSTEMS ENGINEERING HANDBOOK 2023 [§2.3.5.5] and contributes to the artifacts "System Design Description" and "System Interface Definition".

Presentation

A block definition diagram (BDD) depicting the elements available in a specific context. At least one BDD is used per identified context featuring

- one block representing the Physical System, i.e., the system of interest
- one block representing the specific Physical System Context
- several blocks representing Physical Context Elements such as Physical User, Physical External System, and Physical Environment that are present in the Physical System Context
- composition relationships attaching the Physical Context Elements and the Physical System to the Physical System Context block

Stakeholder

- [Acquirer](#)
- [Customer](#)
- [IV&V Engineer](#)
- [Safety Expert](#)
- [Security Expert](#)
- [Supplier](#)
- [System Architect](#)

Concern

- [Which are the external physical entities the system interacts with in the given context?](#)
- [Which are the given contexts the system is embedded and utilized in?](#)
- [Which interface partners does the system have?](#)

Profile Model Reference

The following Stereotypes / Model Elements are used in the Viewpoint:

- [SAF_P1_PCXD](#)
- [SAF_PhysicalContextRole](#)
- [SAF_PhysicalContext](#)
- [SAF_PhysicalEnvironment](#)
- [SAF_PhysicalExternalSystem](#)
- [SAF_PhysicalSystem](#)
- [SAF_PhysicalUser](#)

Input from other Viewpoints

Required Viewpoints

none

Recommended Viewpoints

none