


# SAF User Documentation : Physical Context Definition Viewpoint

Domain	Aspect	Maturity
Physical	Context & Exchange	 under construction

## Example

Physical-Context-Definition-Viewpoint-example.svg

## Purpose

The Physical Context Definition Viewpoint identifies the different context the system is used in, along with the associated external entities sharing a physical interface with the system. For each context the applicable environmental conditions may be defined. The physical context helps in discovering the Interface Requirements needed to integrate a system into its environment in a specific context. Note: For each candidate system architecture, the physical context Viewpoint is elaborated forming the baseline for the later assessment of the different system architecture solutions.

## Applicability

The Physical Context Definition Viewpoint supports the "System Architecture Definition Process" activities of the INCOSE SYSTEMS ENGINEERING HANDBOOK 2023 [§ 2.3.5.4]. and contributes to the artifacts "System Architecture Description" and "System Interface Definition".

The Viewpoint is used to define context, boundaries, and external interactions of the SOI in the physical domain.

## Stakeholder

- [Acquirer](#)
- [Customer](#)
- [Hardware Developer](#)
- [IV&V Engineer](#)
- [Safety Expert](#)
- [Software Developer](#)

- [Supplier](#)
- [System Architect](#)

## Concern

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- How does the system or a system element interact with the test environment?
- What are necessary enabling systems?
- What are the external physical entities the system interacts with in the respective context?
- What is the system boundary definition?
- What kind of test equipment is necessary to test the system elements?

## Presentation

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The following artifacts support the modeling activities: The physical context definition diagram (BDD) defines the elements available in a specific context. At least one physical context definition diagram 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 present in the systems context
- composition relationships attaching the Physical Context Elements and the Physical System to the Physical System Context block

## Profile Model Reference

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

- Association [UML\_Standard\_Profile]
- Association [UML\_Standard\_Profile]
- Property [UML\_Standard\_Profile]
- Property [UML\_Standard\_Profile]
- [SAF\\_PhysicalContext](#)
- [SAF\\_PhysicalEnvironment](#)
- [SAF\\_PhysicalExternalSystem](#)
- [SAF\\_PhysicalSystem](#)
- [SAF\\_PhysicalUser](#)
- [SAF\\_SPV01a\\_View](#)

## Input from other Viewpoints

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### Required Viewpoints

*none*

**Recommended Viewpoints**

*none*