



# Physical Context Definition Viewpoint

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*Domain:* **Physical Aspect: Context & Exchange**

## Example

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*none*

## Purpose

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The physical context definition Viewpoint identifies the different context the SOI is used in, along with the associated external entities sharing a physical interface with the SOI. For each context the applicable environmental conditions may be defined. The physical context helps in discovering the interface requirement(s) needed to integrate a SOI into its environment in a specific context. NOTE: For each candidate SOI architecture, the physical context Viewpoint is elaborated forming the baseline for the later assessment of the different system architecture solutions.

## Applicability

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The physical context definition Viewpoint supports the “Architecture Definition Process” activities of the INCOSE SYSTEMS ENGINEERING HANDBOOK 2015 [§ 4.4]. The Viewpoint is used to define context, boundaries, and external interactions of the SOI in the physical domain. NOTE: Only those external entities are identified that share a physical interface. Other entities connected via a network are subject of the logical system context.

## Stakeholder

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- [Acquirer](#)
- [Customer](#)
- [IV&V Engineer](#)
- [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 artifact(s) support the modeling activities: A) The physical context definition diagram defines the elements available in the context. At least one context definition diagram is generated per identified context. For each identified context a BDD featuring:

- one block representing the Physical SOI
- one block representing the 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 relationship(s) attaching the Physical Context Elements and the Physical SOI to the Physical System Context block

## Profile Model Reference

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

## Input from other Viewpoints

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### Required Viewpoints

*none*

### Recommended Viewpoints

*none*