

## SAF User Documentation : System Requirement Viewpoint

Domain	Aspect	Maturity
Functional	Requirement	 released

### Example

#	Id	Name	Applied Stereotype	Text	Requirement Derived FROM	Source
1		Fire Detection				
2	SYS-REQ-001	24/7 Forest Fire Detection	SAF_SystemFunctionalRequirement [Class]	The FFDS system shall allow a forest fire detection day & night.		SDS
3	SYS-REQ-002	Forest Fire Detection	SAF_SystemFunctionalRequirement [Class]	The FFDS system shall allow a forest fire detection acquiring data collected by terrestrial-based and aerial-based systems.	CPBLTY-11 Fire Detection	SDS
4	SYS-REQ-002.1	Smoke and Fire Detection	SAF_SystemFunctionalRequirement [Class]	The FFDS system shall allow to detect smoke and fire.		SDS
5	SYS-REQ-002.2	Smoke and Fire Alert	SAF_SystemFunctionalRequirement [Class]	When a forest fire is detected, the FFDS system shall allow to warn FFDS operator, the Fire Department, and other interacting agents about the danger.		SDS
6		Fire Prediction				
8		Fire Assessment				
10		Fire Monitoring				

### Purpose

The System Requirement Viewpoint specifies functions, non-functional properties, or constraints of the System. System Requirements are captured, the interrelationships between Functional and Non-Functional Requirements on the same level of abstraction and the traceability to Stakeholder Requirements are depicted.

### Applicability

The System Requirement Viewpoint supports the "System Requirements Definition Process" activities of the INCOSE SYSTEMS ENGINEERING HANDBOOK 2015 [§4.3] and contributes to the System Requirements Verification and Traceability Matrix (RVTM).

### Stakeholder

- Hardware Developer
- IV&V Engineer
- Project Manager
- Software Developer

- [System Architect](#)

## Concern

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- What are the Interface Requirements imposed on the system?
- What are the exchange requirements imposed on the system?
- What are the functional requirements imposed on the system?
- What are the non-functional requirements imposed on the system?
- What are the requirements of environmental conditions imposed on the system?
- What is the range of acceptable system performance, i.e. the critical, top-level performance requirements derived from the operational needs?
- Which Stakeholder Requirements are addressed by System Requirements?

## Presentation

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A tabular format listing

- unique requirement ID, text, and attributes,
- traceability reference to Stakeholder Requirements,
- traceability reference to depended Requirements on the same level of abstraction.

## Profile Model Reference

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

- [SAF\\_SFV06a\\_View](#)
- [SAF\\_StakeholderRequirement](#)
- [SAF\\_SystemFunctionalRequirement](#)
- [SAF\\_SystemFunctionalRequirementConstraint](#)
- [SAF\\_SystemNonFunctionalRequirement](#)
- [SAF\\_SystemRequirement](#)
- [SAF\\_SystemRequirementDerivation](#)
- [SAF\\_SystemRequirementDerivation](#)

## Input from other Viewpoints

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### Required Viewpoints

- [Stakeholder Requirement Viewpoint](#)

### Recommended Viewpoints

- [Operational Story Viewpoint](#)
- [Operational Context Exchange Viewpoint](#)

- Operational Capability Viewpoint
- Operational Process Viewpoint
- Operational Interaction Viewpoint
- Operational Capability Mapping Viewpoint
- Operational Process Mapping Viewpoint