

SAF User Documentation : F6_SRQD System Requirement Definition 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	The FFDS system shall allow a forest fire	CPBLTY-11 Fire Detect...	SDS
4	SYS-REQ-002.1	Smoke and Fire	SAF_SystemFunctionalRequirement	The FFDS system shall allow to detect		SDS
5	SYS-REQ-002.2	Smoke and Fire	SAF_SystemFunctionalRequirement	When a forest fire is detected, the FFDS		SDS
6		Fire Prediction				
7	SYS-REQ-004	Forest Fire Spread	SAF_SystemFunctionalRequirement	In the event of a forest fire, the FFDS	CPBLTY-25 Propagati...	SDS
8		Fire Assessment				
9	SYS-REQ-005	Forest Fire Damage	SAF_SystemFunctionalRequirement	For evaluating the impacts of forest fire in		SDS
10		Fire Monitoring				
11	SYS-REQ-003	Forest Fire Evolution	SAF_SystemFunctionalRequirement	In the event of a forest fire, the FFDS	CPBLTY-12 Fire Monit...	SDS

Purpose

The System Requirement Definition 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 Definition 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).

Presentation

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.

Stakeholder

- [Hardware Developer](#)
- [IV&V Engineer](#)
- [Project Manager](#)
- [Software Developer](#)
- [System Architect](#)

Concern

- [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 System Requirements are derived from Stakeholder Requirements?](#)
- [Which are the interface requirements imposed on the system?](#)

Profile Model Reference

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

- [SAF_F6_SRQD_Table](#)
- [SAF_StakeholderRequirement](#)
- [SAF_SystemFunctionalRequirementConstraint](#)
- [SAF_SystemFunctionalRequirement](#)
- [SAF_SystemNonFunctionalRequirement](#)
- [SAF_SystemRequirementDerivation](#)
- [SAF_SystemRequirement](#)

Input from other Viewpoints

Required Viewpoints

- [Stakeholder Requirement Definition Viewpoint](#)

Recommended Viewpoints

- [Operational Story Viewpoint](#)
- [Operational Context Exchange Viewpoint](#)
- [Operational Capability Definition Viewpoint](#)
- [Operational Process Viewpoint](#)

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