


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