# 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 | ◯ᴿ 24/7 Forest Fire Detection | ◯ᴿ SAF_SystemFunctionalRequirement [Class] | The FFDS system shall allow a forest fire detection day & night. | | SDS |
| 3 | SYS-REQ-002 | ⊟ ◯ᴿ Forest Fire Detection | ⊡ SAF_SystemFunctionalRequirement | The FFDS system shall allow a forest fire | ◯ᴿ CPBLTY-11 Fire Detect... | SDS |
| 4 | SYS-REQ-002.1 | ◯ᴿ Smoke and Fire | ⊡ SAF_SystemFunctionalRequirement | The FFDS system shall allow to detect | | SDS |
| 5 | SYS-REQ-002.2 | ◯ᴿ Smoke and Fire | ⊡ SAF_SystemFunctionalRequirement | When a forest fire is detected, the FFDS | | SDS |
| 6 | | ⊟ 🗀 Fire Prediction | | | | |
| 7 | SYS-REQ-004 | ◯ᴺ Forest Fire Spread | ⊡ SAF_SystemFunctionalRequirement | In the event of a forest fire, the FFDS | ◯ᴺ CPBLTY-25 Propagati... | SDS |
| 8 | | ⊟ 🗀 Fire Assessment | | | | |
| 9 | SYS-REQ-005 | ◯ᴺ Forest Fire Damage | ⊡ SAF_SystemFunctionalRequirement | For evaluating the impacts of forest fire in | | SDS |
| 10 | | ⊟ 🗀 Fire Monitoring | | | | |
| 11 | SYS-REQ-003 | ◯ᴺ Forest Fire Evolution | ⊡ SAF_SystemFunctionalRequirement | In the event of a forest fire, the FFDS | ◯ᴿ 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