

SAF User Documentation : System Requirement Traceability Viewpoint

| Domain | Aspect | Maturity |
|------------|------------------------|---|
| Functional | Traceability & Mapping |  released |

Example

| Legend | | | | | | | | | | | | | | | |
|---|--|---|---|---|-----------------------------------|---|---|---------------------------------|-----------------------------|---|---------------------------|----------------------------------|---|--|--|
|  SAF_SystemFunctionalRequirementRefinement | | | | | | | | | | | | | | | |
|  SAF_SystemRequirementDerivation | | | | | | | | | | | | | | | |
| | | Detect and Report Fire (context FFDS Cont | Request sensor data (context FFDS Cont | Analyze FF data (context FFDS Cont | Alert fire (context FFDS Context) | Retrieve sensor data (context FFDS | Provide Sensor Data (context FFDS (... | StakeholderRequirement [CONOPS_ | Capability [CEO FFDS Vendor | CPBLTY-11 Fire Detection | CPBLTY-12 Fire Monitoring | Capability [Fire Dept. Operation | CPBLTY-25 Propagation Estimati... | | |
|  | FFDS_Requirement | | 1 | 2 | 1 | 1 | 2 | | | | | | | | |
|  | Fire Detection | | 1 | | 1 | 1 | 2 | | | | | | | | |
|  | SYS-REQ-002 Forest Fire Detection | 3 |  | | |  |  | 1 | 1 |  | | | | | |
|  | SYS-REQ-002.1 Smoke and Fire Detection | 1 | | | |  | | | | | | | | | |
|  | SYS-REQ-002.2 Smoke and Fire Alert | 1 | |  | | | | | | | | | | | |
|  | Fire Monitoring | | | 1 | | | | | | | 1 | | | | |
|  | SYS-REQ-003 Forest Fire Evolution Monitoring | 1 |  | | | | | 1 | 1 |  | | | | | |
|  | Fire Prediction | | | 1 | | | | | | | | | 1 | | |
|  | SYS-REQ-004 Forest Fire Spread Prediction | 1 |  | | | | | 1 | | | | 1 |  | | |

Purpose

The System Requirement Traceability Viewpoint specifies for every System Requirement the traceability to the functional domain level

- System Use Case
- System Capability
- System Context Definition
- System Context Exchange
- System Context Interaction
- System Process
- System State

Applicability

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

Presentation

A dependency matrix featuring relationships for every System Requirement to the functional domain level

- System Use Case
- System Capability
- System Context Definition
- System Context Exchange
- System Context Interaction
- System Process
- System State

Stakeholder

- [Project Manager](#)

Concern

- [What is the rationale for this system requirement?](#)
- [Which Stakeholder Requirements are addressed by System Requirements?](#)
- [Which system interface is addressed by a system requirement?](#)

Profile Model Reference

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

- [SAF_SFV08b_View](#)
- [SAF_SystemFunctionalRequirementConstraint](#)
- [SAF_SystemFunctionalRequirementRefinement](#)
- [SAF_SystemFunctionalRequirement](#)
- [SAF_SystemNonFunctionalRequirement](#)
- [SAF_SystemRequirementDerivation](#)
- [SAF_SystemRequirementRefinement](#)
- [SAF_SystemRequirement](#)

Input from other Viewpoints

Required Viewpoints

- [Stakeholder Requirement Viewpoint](#)
- [System Requirement Viewpoint](#)

Recommended Viewpoints

- [System Use Case Viewpoint](#)
- [System Capability Viewpoint](#)
- [System Context Exchange Viewpoint](#)
- [System Context Interaction Viewpoint](#)
- [System Process Viewpoint](#)
- [System Functional Refinement Viewpoint](#)
- [System State Viewpoint](#)