




























































































SAF User Documentation : C2_GRID Grid Definition Viewpoint

Domain	Aspect	Maturity
Common	Taxonomy & Structure	 under construction

Example

	CONTEXT & EXCHANGE	TAXONOMY & STRUCTURE	PROCESS & BEHAVIOR	INTERACTION & COLLABORATION	INTERFACE	REQUIREMENT	SAFETY & SECURITY	TRACEABILITY & MAPPING
COMMON DOMAIN SCV		Common Structure FFDS Model Reference Definition SAF FFDS View Grid Rendering Framework FFDS Geometry Tools						
OPERATIONAL DOMAIN SOV	Operational Context & Exchange Operational Overview Story FFDS Context Definition FFDS Context Exchange	Operational Structure Operational Structure Item Definition Operational Relationship Definition SAF and FFDS Capability Definition Operational Identification Exchange	Operational Process Mission and Success Process Fire Detection and Identification Process	Operational Interaction	Operational Interface Definition	Stakeholder Requirement Stakeholder Requirement Table Stakeholder Requirement Definition		Traceability & Mapping SAF and FFDS Capability Mapping Table SAF and FFDS Operational Process Mapping Table
FUNCTIONAL DOMAIN SFV	System Context & Exchange FFDS User Data, a Data & Data-Driven System FFDS Context Definition FFDS Context Exchange	System Structure FFDS System Structure Item Definition FFDS Capability Definition FFDS Functional Structure Definition FFDS Functional Structure Definition	System Process Fire Detection and Identification Process Operational Process Flow FFDS Context Definition FFDS Context Exchange	System Interaction FFDS Context Definition FFDS Context Exchange	System Interface Definition FFDS System Interface Definition FFDS System Interface Definition	System Requirement System Requirement Table System Requirement Definition	System Hazard	Traceability & Mapping FFDS Capabilities Mapping Table System Requirement Traceability Table
LOGICAL DOMAIN SLV	Logical Context & Exchange	Logical Structure FFDS Logical Architecture Definition	Logical Behavior	Logical Interaction & Internal Exchange FFDS Logical Interaction FFDS Logical Internal Exchange	Logical Interface Definition			Mapping Mapping of FFDS to Logical Elements
PHYSICAL DOMAIN SPV	Physical Context & Exchange FFDS PDS System Physical Context Definition FFDS PDS System Context	Physical Structure FFDS PDS System 1	Physical Behavior	Physical Interaction & Internal Exchange FFDS Context Table Exchange and Mapping	Physical Interface Definition FFDS Interface Table			Mapping Physical Logical Mapping Physical to Physical

#	Domain	Aspect	Name	△ Viewpoint ID	Diagrams
1	Common	Taxonomy & Structure	 Argumentation Assurance Viewpoint	C2_ARAS	 FFDS Safety Assurance Definition
2	Common	Taxonomy & Structure	 Common Standards Definition Viewpoint	C2_CSTD	 Image_Standards  Network Standards  Standards Overview
3	Common	Taxonomy & Structure	 Grid Definition Viewpoint	C2_GRID	 SAF_FFDS_View Grid Structuring Formalism  FFDS View Overview
4	Common	Taxonomy & Structure	 Common Terms Definition Viewpoint	C2_TRMD	 PNG V3 Terms  FFDS Glossary Table
5	Functional	Context & Exchange	 System Context Definition Viewpoint	F1_SCXD	 FFDS Context Definition Table
6	Functional	Context & Exchange	 System Context Exchange Viewpoint	F1_SCXE	 FFDS Context Definition  FFDS Context Exchange
7	Functional	Context & Exchange	 System Use Case Viewpoint	F1_SUCS	 FFDS Use Case A Day in Life of the System  FFDS Use Case Table
8	Functional	Taxonomy & Structure	 System Capability Definition Viewpoint	F2_SCYD	 FFDS Capability Definition
9	Functional	Taxonomy & Structure	 System Domain Item Kind Viewpoint	F2_SDIK	 FFDS System Domain Item Definition
10	Functional	Taxonomy & Structure	 System Functional Breakdown Structure Viewpoint	F2_SFBS	 FFDS Function Breakdown Structure Definition  FFDS Function Breakdown Structure Maintenance
11	Functional	Process & Behavior	 System Functional Refinement Viewpoint	F3_SFRE	 Detect and Report Fire
12	Functional	Process & Behavior	 System Process Viewpoint	F3_SPRO	 Fire Detection and Monitoring
13	Functional	Process & Behavior	 System State Viewpoint	F3_SSTA	 FFDS System Modes and States
14	Functional	Interaction & Collaboration	 System Context Interaction Viewpoint	F4_SCXI	 FFDS Context Interaction
15	Functional	Interface	 System Interface Definition Viewpoint	F5_SIFD	 FFDS System Interface Definition
16	Functional	Requirement	 System Requirement Definition Viewpoint	F6_SRQD	 System Requirement Table
17	Functional	Traceability & Mapping	 System Capability Mapping Viewpoint	F8_SCYM	 FFDS Capability Mapping Table
18	Functional	Traceability & Mapping	 System Requirement Traceability Viewpoint	F8_SRQT	 System Requirement Traceability Matrix
19	Logical	Taxonomy & Structure	 Logical Structure Definition Viewpoint	L2_LSTD	 FFDS Logical Architecture Definition  FFDS Logical Architecture Definition Full Tree
20	Logical	Interaction & Collaboration	 Logical Internal Exchange Viewpoint	L4_LIEX	 FFDS Logical Internal Exchange  FFDS Logical Internal Exchange Full
21	Logical	Interaction & Collaboration	 Logical Internal Interaction Viewpoint	L4_LITI	 FFDS Internal Interaction
22	Logical	Traceability & Mapping	 Logical Functional Mapping Viewpoint	L8_LFUM	 Mapping of Functions To Logical Elements
23	Operational	Context & Exchange	 Operational Context Definition Viewpoint	O1_OCXD	 FDN Context Definition  SAR Context Definition
24	Operational	Context & Exchange	 Operational Context Exchange Viewpoint	O1_OCXE	 FDN Context Exchange
25	Operational	Context & Exchange	 Operational Story Viewpoint	O1_OSTY	 Exemplary Operational Story
26	Operational	Taxonomy & Structure	 Operational Capability Definition Viewpoint	O2_OCYD	 SAR and FDN Capability Definition
27	Operational	Taxonomy & Structure	 Operational Domain Item Kind Viewpoint	O2_ODIK	 Operational Domain Item Definition  Operational Domain Item Table
28	Operational	Taxonomy & Structure	 Operational Performer Viewpoint	O2_OPRF	 Operational Performer Table  Operational Performer Definition
29	Operational	Taxonomy & Structure	 Stakeholder Identification Viewpoint	O2_STID	 Stakeholder Identification Definition
30	Operational	Process & Behavior	 Operational Process Viewpoint	O3_OPRO	 Fire Detection and Notification Process  Search and Rescue Process
31	Operational	Interaction & Collaboration	 Operational Context Interaction Viewpoint	O4_OCXI	 Fire Detection and Notification
32	Operational	Requirement	 Stakeholder Requirement Definition Viewpoint	O6_SKRD	 Stakeholder Requirement Table
33	Operational	Traceability & Mapping	 Operational Capability Mapping Viewpoint	O8_OCYM	 SAR and FDN Capability Mapping Table
34	Operational	Traceability & Mapping	 Operational Process Mapping Viewpoint	O8_OPRM	 SAR and FDN Operational Process Mapping Table
35	Physical	Context & Exchange	 Physical Context Definition Viewpoint	P1_PCXD	 FFDS_POC System Physical Context Definition  FFDS_POC System Context
36	Physical	Context & Exchange	 Physical Context Exchange Viewpoint	P1_PCXE	 FFDS_POC System Context with peek inside  POC FFDS Interfaces
37	Physical	Taxonomy & Structure	 Physical Structure Definition Viewpoint	P2_PSTD	 POC CCU  POC Dev Sensor Node  POC Comms Node  POC FFDS System 1  Proof Of Concept FFDS System Internal Network Exchange
38	Physical	Interaction & Collaboration	 Physical Internal Exchange Viewpoint	P4_PIEX	 POC Comms Node Environmental and Mounting  Proof Of Concept FFDS System Internal Exchange  Proof Of Concept FFDS System 1 ExchangeTable  POC Comms Node Internal Exchange  POC Comms Node Network Aspects
39	Physical	Interface	 Physical Interface Definition Viewpoint	P5_PIFD	 Arduino Interfaces Types  Boundary Interface Types  Internal Interface Types
40	Physical	Traceability & Mapping	 Physical Functional Mapping Viewpoint	P8_PFUM	 Function To Physical
41	Physical	Traceability & Mapping	 Physical Logical Item Mapping Viewpoint	P8_PLIM	
42	Physical	Traceability & Mapping	 Physical Logical Mapping Viewpoint	P8_PLOM	 Physical Logical Mapping

Purpose

The Grid Definition Viewpoint serves as overview about the of the Views present in a System Model.

Applicability

The Grid Definition Viewpoint supports the "System Viewpoints, Views and Models" input/output of various Technical Processes in INCOSE SYSTEMS ENGINEERING HANDBOOK 2023.

Presentation

A content diagram featuring a matrix view for the SAF Viewpoint conceptual model: Rows represent Domains, and columns represent Aspects, and the cells manage the Views.

A table featuring the saf viewpoints, the views (diagrams, tables, ..) of the system model conforming to those viewpoints, domain and aspect information

Stakeholder

- [SAF System model user](#)

Concern

- [Which viewpoints are used in the system model](#)
- [Which views of the frameworks viewpoints are present in the system model?](#)

Profile Model Reference

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

- Attribute "diagrams" of SAF_Viewpoint referencing SAF_Diagram
- [SAF_C2_GRID](#)
- [SAF_C2_GRID_Table](#)
- [SAF_Diagram](#)
- [SAF_Viewpoint](#)

Input from other Viewpoints

Required Viewpoints

none

Recommended Viewpoints

none