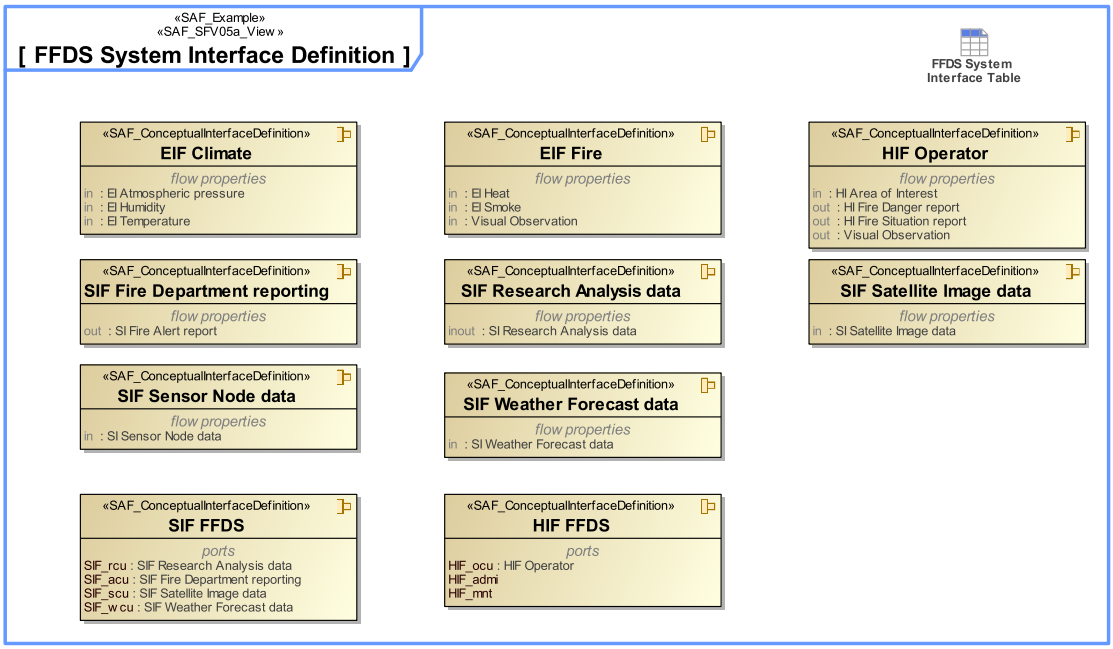
SAF User Documentation : System Interface Definition Viewpoint

Domain	Aspect	Maturity
Functional	Interface	released

Example



Purpose

The System Interface Definition Viewpoint captures system wide concepts defining interfaces. It allows to adopt long-lived standards and to harmonize the interface definitions to improve interchangeability, interoperability, and portability.

Applicability

The System Interface Definition Viewpoint supports the "Prepare for Interface Requirement Definition" activity included in "System Requirements Definition Process" activities of the INCOSE SYSTEMS ENGINEERING HANDBOOK 2015 [§2.3.5.3] and contributes to the System Interface definition.

Presentation

A block definition diagram (BDD) featuring System Interface blocks with ports, and flow properties.

A tabular format listing System Interface blocks, their ports, and flow properties.

Stakeholder

- Acquirer
- Customer
- Hardware Developer
- IV&V Engineer
- Maintainer
- Safety Expert
- Security Expert
- Software Developer
- System Architect

Concern

- Which kind of conceptual items (energy, material, information, etc.) are exchanged between the system and external entities?
- Which standards, protocols, and format specifications apply to a physical interface?
- what are the interface definitions for the logical architecture

Profile Model Reference

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

- Attribute "realizingConnector" of InformationFlow referencing Connector
- Connector [UML_Standard_Profile]
- FlowProperty [SysML Profile]
- FlowProperty contained in SAF_ConceptualInterfaceDefinition
- FlowProperty typed by SAF_DomainKind
- ItemFlow [SysML Profile]
- ItemFlow typed by SAF_DomainKind
- ProxyPort [SysML Profile]
- ProxyPort typed by SAF_ConceptualInterfaceDefinition
- SAF_ConceptualInterfaceDefinition
- SAF_DomainKind
- SAF_SFV05a_View

Input from other Viewpoints

Required Viewpoints

none

Recommended Viewpoints

none