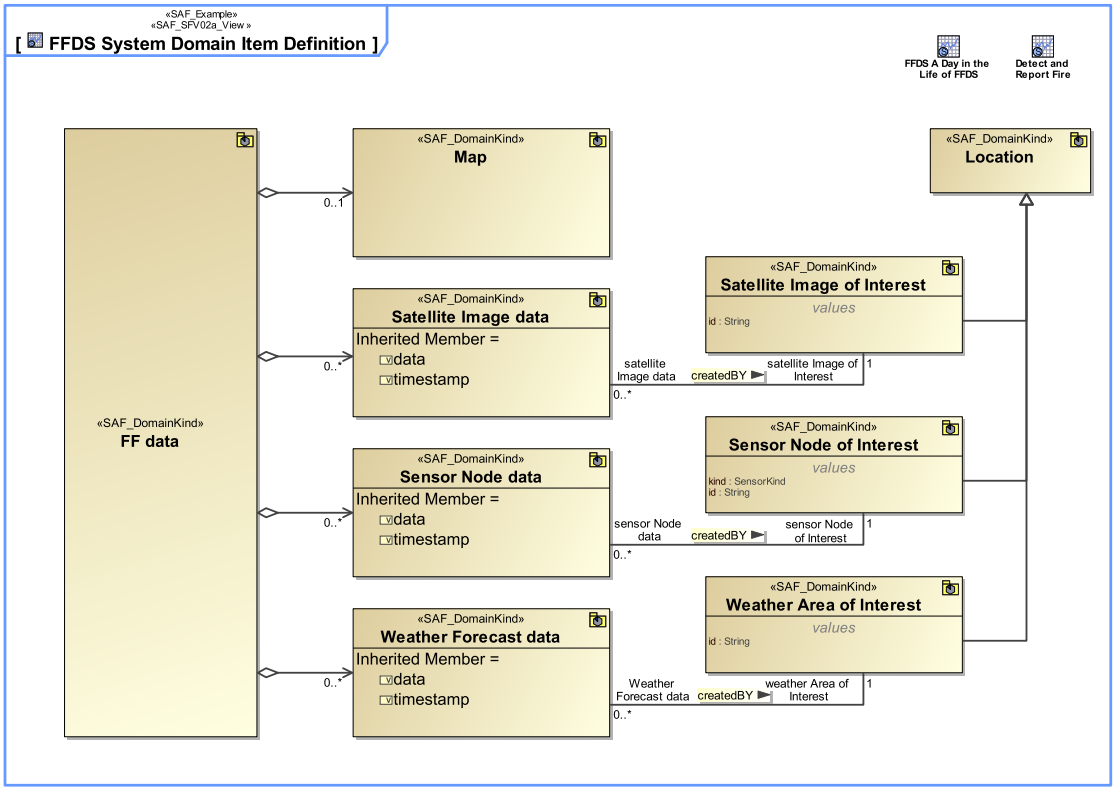
SAF User Documentation : System Domain Item Kind Viewpoint

Domain	Aspect	Maturity
Functional	Taxonomy & Structure	released

Example



Purpose

The System Domain Item Kind Viewpoint captures system wide concepts and collects type definitions for any exchanged item, e.g., information, material, or energy, of the Functional and Logical domain. Its purpose is to define these item types and their relationships. Furthermore, the System Domain Item Kind Viewpoint specifies the data types, entity types, related value types, and units that are used by the SOI. Note: Domain Item Kinds are used as types of function input and output in the Functional Domain, and for types of interfaces in the Logical Domain. They specify what is to be exchanged but not how.

Applicability

The System Domain Item Kind Viewpoint supports the "System Requirements Definition Process" activities of the INCOSE SYSTEMS ENGINEERING HANDBOOK 2015 [§4.3] and contributes to the System Function, and the System Interface definition.

Presentation

A block definition diagram (BDD) featuring Domain Item Kinds and their relationships in terms of generalization, composition, or general association. Note: Domain Item Kinds are managed in the domain knowledge package of the SOI, the Domain Item Kinds are visible and usable to all sub elements of the SOI. Domain Item Kinds shall be value types or blocks.

A tabular format listing the Domain Item Kinds, and their relationships.

Stakeholder

- Acquirer
- Customer
- Hardware Developer
- Safety Expert
- Security Expert
- Software Developer
- System Architect

Concern

- Which conceptual level data / energy / material definitions have to be known by the SOI and used by the SOI?

Profile Model Reference

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

- FlowProperty [SysML Profile]
- ItemFlow [SysML Profile]
- Parameter [UML_Standard_Profile]
- State [UML_Standard_Profile]
- SAF_DomainKindComposition
- SAF_DomainKindDerivation
- SAF_DomainKind
- SAF_OperationalDomainKind
- SAF_SFV02a_View

Input from other Viewpoints

Required Viewpoints

none

Recommended Viewpoints

- Operational Domain Item Kind Viewpoint