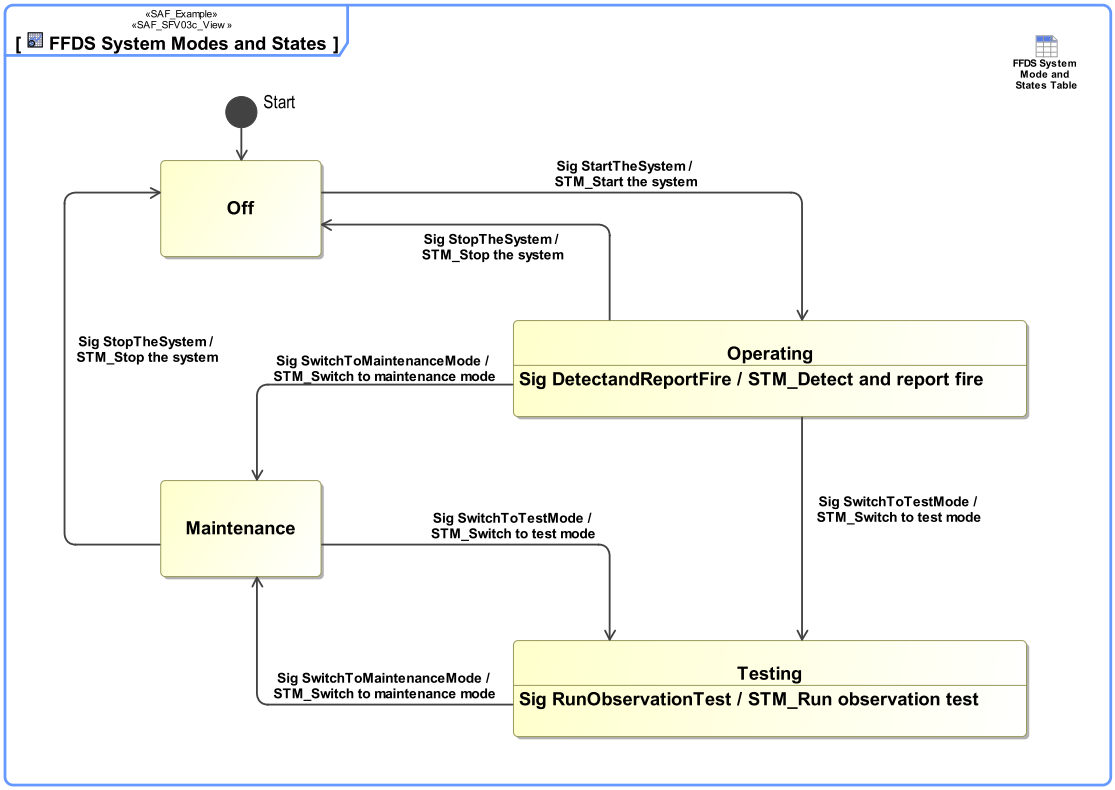
System State Viewpoint

Domain	Aspect	Maturity
Functional	Process & Behavior	released

Example



Purpose

The System State Viewpoint defines the conditions of the SOI or parts of it that constrain the execution of System Functions. System States are used as pre-condition or post-condition of Use Cases, as constraints within the definition of System Functions, to specify states and allowed transitions in system wide concepts captured by Domain Model Items, and are also used in Requirements. The valid transitions between System States and the conditions for transitioning are specified.

Applicability

The System State Viewpoint supports the "System Requirements Definition Process" activities of the INCOSE SYSTEMS ENGINEERING HANDBOOK 2015 [§4.3] and contributes to the System Function Definition.

Stakeholder

- Hardware Developer
- IV&V Engineer
- Maintainer
- Regulation Authority
- Safety Expert
- Security Expert
- Software Developer
- System Architect

Concern

- Which modes and states does the system have?
- Which system functions are dependent on a systems mode or state?

Presentation

A state transition diagram featuring states and transitions between states. References to model elements that are dependent of states or transitions shall be shown as callout or compartment notation.

A table featuring states, transitions to other states and the conditons to be fullfilled for the transition to happen. References to Model Elements that are dependent of states (domain items, system functions, use cases..) shall also be shown in the table

Profile Model Reference

- Event [UML_Standard_Profile]
- SAF_DomainKind
- SAF_LogicalElement
- SAF_SFV03c_View
- SAF_SystemFunction
- State [UML_Standard_Profile]
- StateMachine [UML_Standard_Profile]
- StateMachine [UML_Standard_Profile]
- Transition [UML_Standard_Profile]

Input from other Viewpoints

Required Viewpoints

none

Recommended Viewpoints

- System Context Definition Viewpoint
- System Domain Item Kind Viewpoint
- System Process Viewpoint