P4 Resource Functions

Description

The P4 Resource Functions view addresses resource (human and non-human) functions – i.e. the activities performed by Resources.

The primary purposes of the P4 view are to:

- Develop a clear description of the necessary data flows that are input (consumed) by and output (produced) by each resource.
- Ensure that the functional connectivity is complete (i.e. that a resource's required inputs are all satisfied).
- Ensure that the functional decomposition reaches an appropriate level of detail.
- Provide implementation-specific realizations of the operational activities specified in the L4 - Logical Activities view.

The Functionality Description provides detailed information regarding the:

- Allocation of functions to resources.
- Flow of data between functions.

The P4 view is the systems view counterpart to the Activity Model (L4) of the operational view.

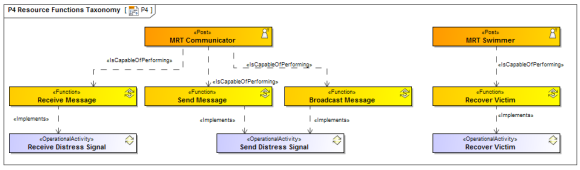
The P4 view may be used for:

- Description of task workflow.
- Identification of functional system requirements.
- Functional decomposition of systems.
- Relate human and system functions.

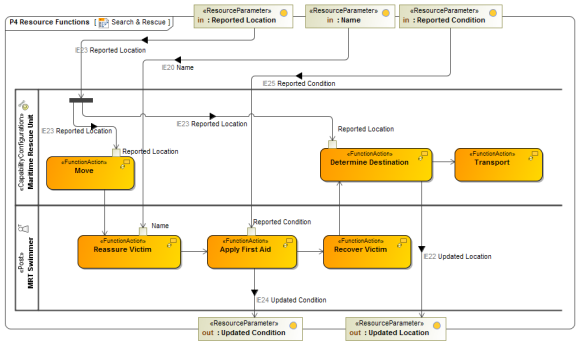
Implementation

The P4 view can be represented using:

- A P4 Resource Functions Taxonomy diagram for Function hierarchies. This diagram is based on the UML Class diagram.



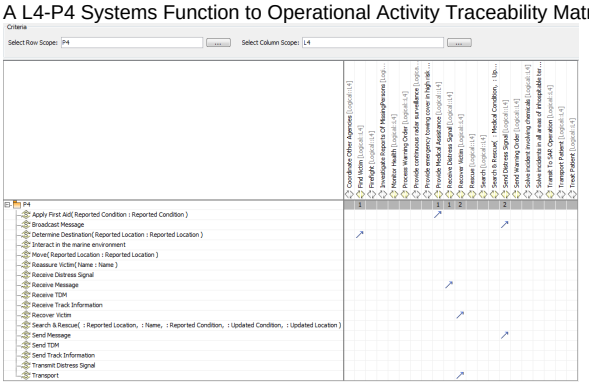
- A P4 Resource Functions diagram for Function flows. This diagram is based on the UML Activity diagram.



Related procedures

- Creating P4 Resource Functions diagram
- Creating P4 Resource Functions Taxonomy diagram
- Creating L4-P4 Systems Function to Operational Activity Traceability Matrix

- A L4-P4 Systems Function to Operational Activity Traceability Matrix.



- A UML Class diagram.
- A UML Activity diagram.
- A SysML Block diagram.
- A SysML Activity diagram.

Related elements

- Function
- Operational Activity
- Standard Operational Activity
- Resource Artifact
- Software
- Capability Configuration
- Organization
- Post
- Is Capable Of Performing
- Function Action
- Function Edge
- Function Parameter
- Resource Interaction
- Exchange Element
- Energy
- Materiel