# **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.

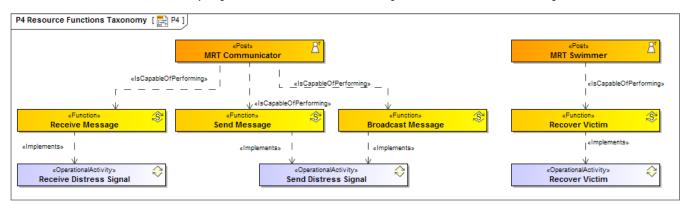
The P4 view may be used for:

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

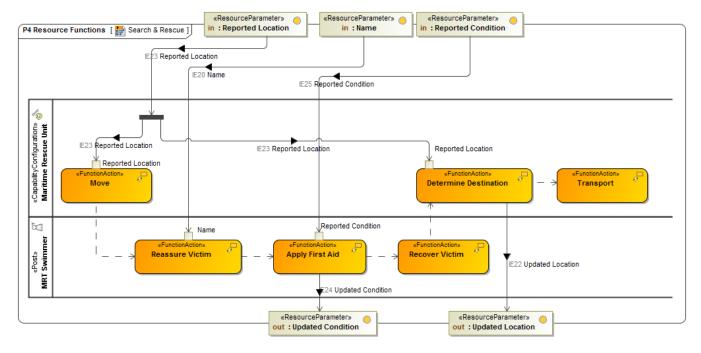
#### Implementation

The P4 view can be represented using:

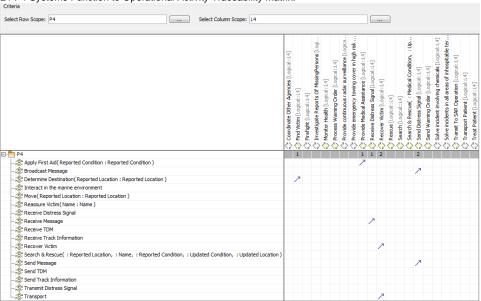
• P4 Resource Functions Taxonomy diagram for Function hierarchies. This diagram is based on the UML Class diagram.



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



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



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

### Related elements

- Function
- Operational Activity
- Standard Operational Activity
- Resource Artifact
- Software
- Capability Configuration
- Organization
- Post
- Is Capable To Perform
- Function Action
- Function ActionFunction Control Flow
- Function Object Flow
- Resource Exchange
- Resource Information

Natural Resource

## Related procedures

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

- Resources to Capabilities Mapping matrix
  Creating Process Flow Diagrams From Compositions or Aggregations Defined in Process Diagrams
  Using Implied Relations