# **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.

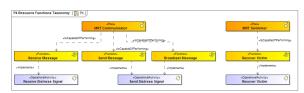
The P4 view may be used for:

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

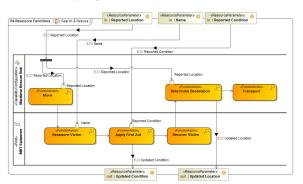
#### Implementation

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.



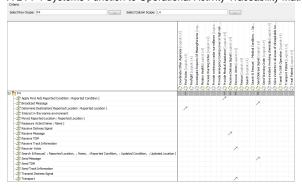
 A P4 Resource Functions diagram for Function flows. This diagram is based on the UML Activity diagram.



#### 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

- Post
  Is Capable Of Performing
  Function Action
  Function Edge
  Function Parameter
  Resource Interaction
- Exchange Element
- EnergyMateriel