# **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.

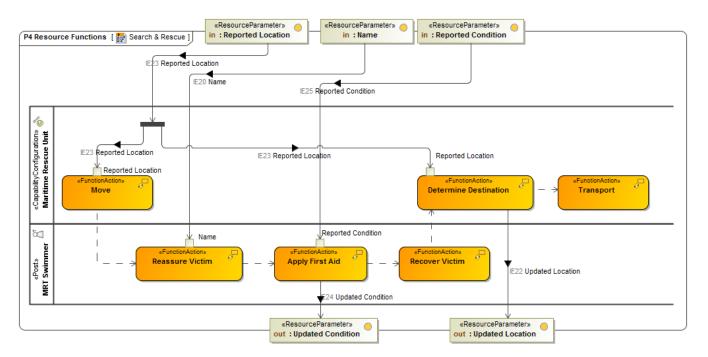
#### Implementation

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 Taxonomy [ 📑	P4 ]				
	aPosta MRT Communicator				
«IsCapableO	Performing»	Performing»	«IsCapableOfPerforming»		
«Function»	v «IsCapableOfPerforming» «Function» Send Message	v ≪Function» Broadcast Message	≪Function» (S) Recover Victim		
«Implements»	«Implements»	«Implements»	<implements></implements>		
	لا «OperationalAc Send Distres:				

• 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.

Select Row Scope: P4 Select Column Scope: L4																	
	Coordinate Other Agencies [Logical::L4]	Find Victim [Logical::L4]	Firefight [Logical::L4]	Investigate Reports Of MissingPersons [Logi Monitor Health [Logical::L4]	Process Warning Order [Logical::L4]	Provide continuous radar surveillance [Logica	Provide emergency towing cover in high risk	Provide Medical Assistance (Logical:::L4) Receive Distress Signal (Logical::L4)	Recover Victim [Logical::L4]	Rescue [Logical::L4]	Search [Logical::L4]	Search & Rescue( : Medical Condition, : Up	Send Distress Signal [Logical::L4]	sena warring order Logical::L+J Solve incident involving chemicals [Logical::L+]	Solve incidents in all areas of inhospitable ter	Transit To SAR Operation [Logical::L4]	Transport Patient [Logical::L4] Treat Patient [Logical::L4]
3- <b>b</b> P4	$\langle \rangle$	↓	<u>ک</u>	(> <)		<u>ر</u> ک	<><	≥ <) 1 1	2	• 🔷	<₽	<b>₹</b> } ₹	$\geq$	2<	2>		12 (2
							/	7									
S Broadcast Message												/	7				
S Determine Destination (Reported Location : Reported Location )		7															
S Interact in the marine environment																	
Move(Reported Location : Reported Location )																	
Reassure Victim(Name : Name )																	
Receive Distress Signal																	
S Receive Message								7									
Receive TDM																	
Receive Track Information																	
Recover Victim									7								
Search & Rescue( : Reported Location, : Name, : Reported Condition, : Updated Condition, : Updated Location )																	
S Send Message													7				
Send TDM																	
Send Track Information																	
Transport									7								

- UML Class diagram.
- ٠ 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 Control Flow Function Object Flow
- Resource Exchange
- Data Element

### Natural Resource

## **Related procedures**

📃 Unknown macro: 'list-children'

• Using Implied Relations