MODAF. OV-5 Operational Activity Model

Description

The Operational Activity Model describes the operations that are normally conducted in the course of achieving a mission or a business goal, from a net-centric perspective. It describes capabilities, operational activities (or tasks), input and output (I/O) flows between activities, and I/O flows to/from activities that are outside the scope of the architecture. It is imperative that the levels-of-detail between the OV-2, OV-3, and OV-5 remain cohesive. For example, if one diagram of OV-2 operational nodes is developed that shows aggregated organizations only, then it is imperative that the corresponding OV-5 product be developed to show only those operational activities that are meaningful with respect to these operational nodes. Similarly, the information exchanges of OV-3 should remain at a high level of aggregation to represent actual information workflow products that are used at the operational nodes depicted in OV-2 (and not their subordinate operational nodes). The net-centric OV-5 may be used in the following ways:
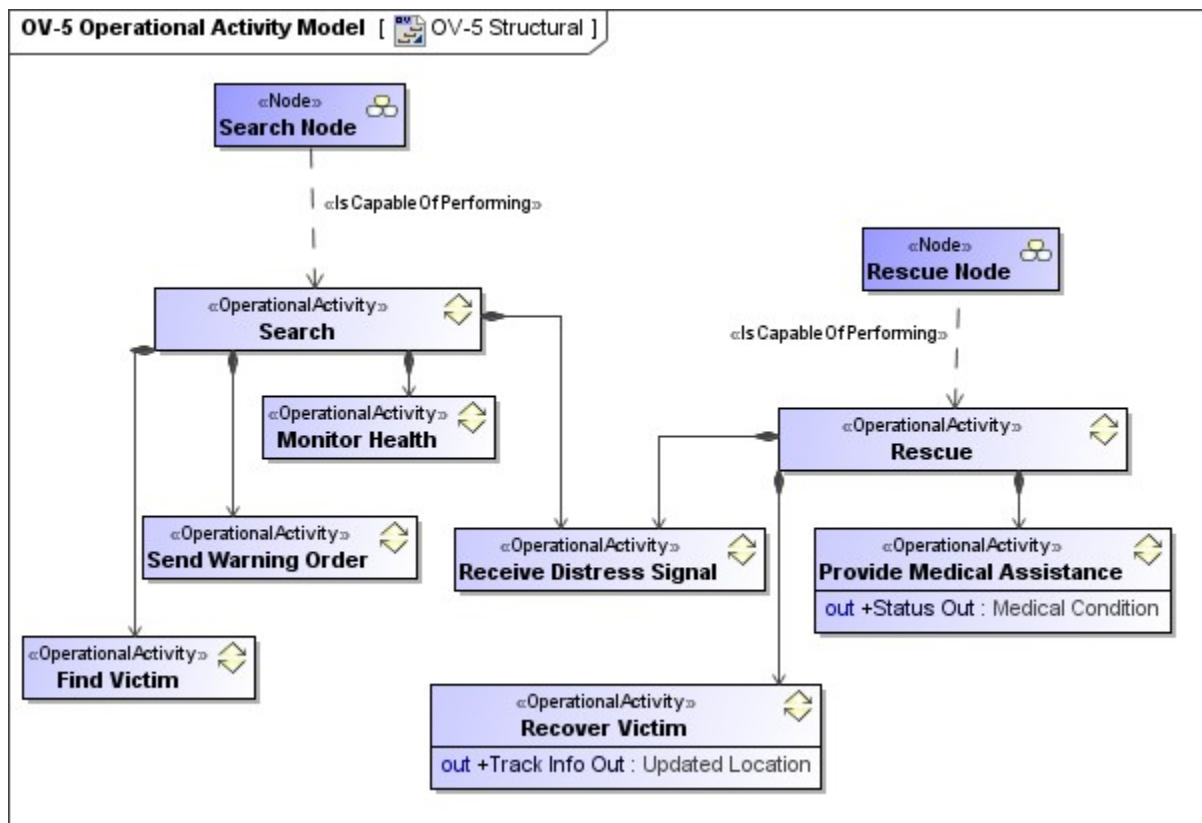
- Delineate lines of dependency on external activities when coupled with an OV-2.
- Highlight information flows to depict the status of the information's refinement (raw, preprocessed, fused, etc.).
- Provide the critical foundation for depicting Task, Post, Process, and Use (TPPU) activity sequencing and timing in the OV-6a, OV-6b, and OV-6c.
- Identify critical mission threads and operational information exchanges by annotating which activities are critical, i.e., identify the activities in the model that are critical.
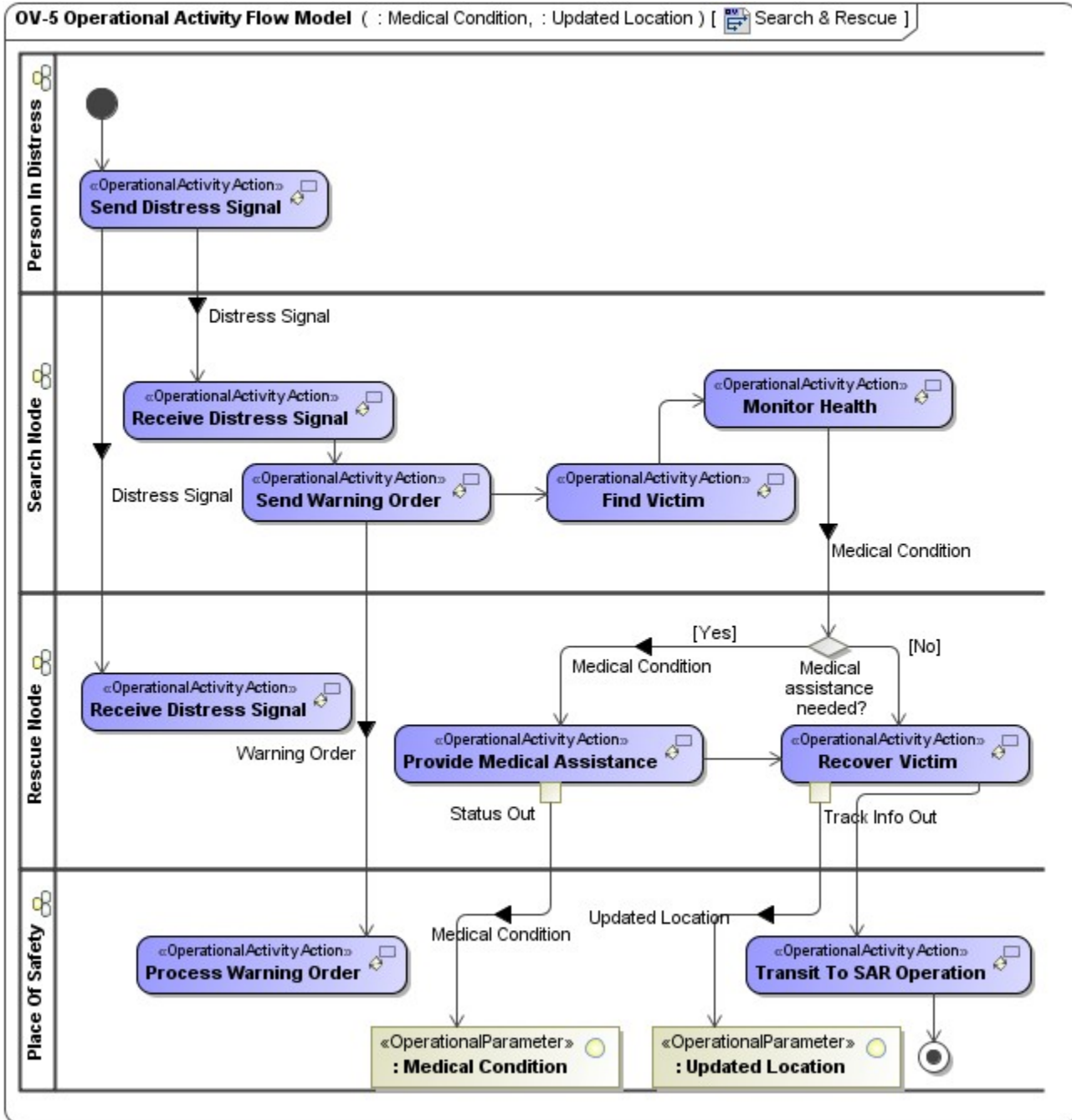
Implementation

OV-5 can be represented using:

- OV-5 diagram for Operational Activity hierarchies. This diagram is based on the UML Class diagram.
- OV-5 diagram for Operational Activity flows. This diagram is based on the UML Activity diagram.
- UML Class diagram.
- UML Activity diagram.
- SysML Block diagram.
- SysML Activity diagram.

Sample

OV-5 Operational Activity hierarchy Model

Fragment of OV-5 Operational Activity Model

Related views

The OV-5 and OV-2 are, to a degree, complements of each other. An OV-5 focuses on the operational activities whereas OV-2 focuses on the operational nodes. Due to the relationship between nodes and operational activities, these types of view should normally be developed together.

To maintain this independence from implementation, the logical Nodes in an OV-2 are used to represent the structure which carries out the Operational Activities. Operational Activities are realized as Functions (SV-4) which are the "how" to the Operational Activities' "what", for example, they are specified in terms of the resources that carry them out.

The activities described in an OV-5 may be Standard Operational Activities which are defined in the StV-6 (which also maps the activities to corresponding capabilities).

Related elements

- Operational Activity
- Operational Parameter
- Standard Operational Activity
- Operational Performer

- Is Capable To Perform
- Operational Activity Action
- Operational Activity Edge
- Operational Exchange
- Information Element
- Natural Resource

Related procedures

- Creating OV-5 Operational Activity Model diagram
- Creating OV-5 Operational Activity Flow Model diagram
- Displaying possible Operational Exchanges on the selected Operational Activity Edge
- Creating Process Flow Diagrams From Compositions or Aggregations Defined in Process Diagrams

Related references

- Realized Operational Exchange wizard
- Operational Exchange Manager dialog