SV-5a Operational Activity to Systems Function Traceability Matrix

Description

The SV-5a addresses the linkage between System Functions described in SV-4 Systems Functionality Description and Operational Activities specified in OV-5a Operational Activity Decomposition Tree or OV-5b Operational Activity Model. The SV-5a depicts the mapping of system functions and, optionally, the capabilities and performers that provide them to operational activities. The SV-5a identifies the transformation of an operational need into a purposeful action performed by a system or solution.

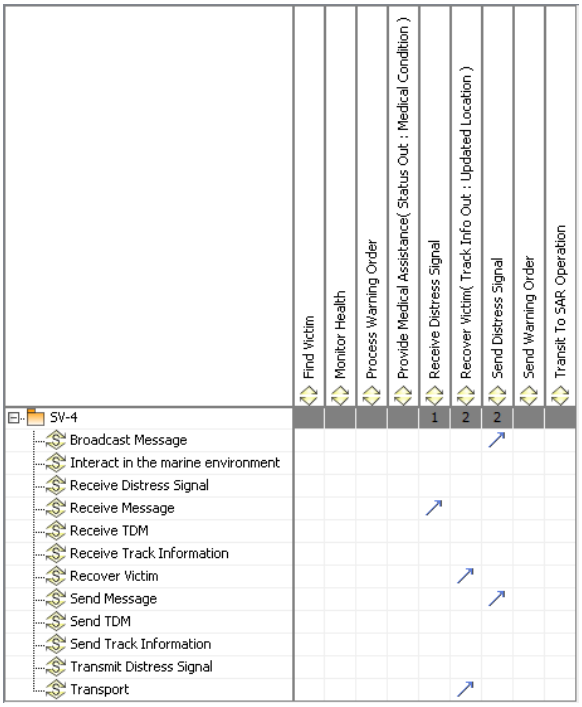
During requirements definition, the SV-5a plays a particularly important role in tracing the architectural elements associated with system function requirements to those associated with user requirements.

The intended usage of the SV-5a includes:

- Tracing functional system requirements to user requirements.
- Tracing solution options to requirements.
- Identification of overlaps or gaps.

Implementation

SV-5a can be represented using a SV-5a diagram which is an editable Dependency Matrix. System Functions are used as row elements and Operational Activities are used as column elements.



DoDAF uses the term Operational Activity in the OVs and the term System Function in the SVs to refer to essentially the same kind of thing; both activities and functions are tasks that are performed, accept inputs, and develop outputs. The distinction between an Operational Activity and a Function is a question of what and how.

The Operational Activity is a specification of what is to be done, regardless of the mechanism used. A System Function is specifies how a resource carries it out. For this reason, SV-5a is a significant model, as it ties together the logical specification in the OV-5a with the physical specification of the SV-4 Systems Functionality Description. System Functions can be carried out by Functional Resources (systems, performers executing activities, and performers).

Related elements

- Function
- Operational Activity
- Implements

Related procedures

- Creating SV-5a matrix