# SV-5b Operational Activity to Systems Traceability Matrix

## Description

The SV-5b addresses the linkage between described in SV-1 Systems Functionality Description and Operational Activities specified in OV-5a Operational Activity Decomposition Tree or OV-5b Operational Activity Model. The SV-5b depicts the mapping of systems and, optionally, the capabilities and nodes that provide them to operational activities. The SV-5b identifies the transformation of an operational need into a purposeful action performed by a system or solution.

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

The intended usage of the SV-5b includes:

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

#### Implementation

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

|                       | Coordinate Other Agencies [Oper | Find Victim [Operational Viewpoint | Firefight [Operational Viewpoint: | 🕁 Investigate Reports Of MissingPe | Annitor Health [Operational View | Process Warning Order [Operatio | 🔶 Provide continuous radar surveilla | 🔆 Provide emergency towing cover i | 🔶 Provide Medical Assistance [Oper | 🔶 Receive Distress Signal [Operatio | Recover Victim [Operational View | ờ Rescue [Operational Viewpoint: | 🔶 Search [Operational Viewpoint::0 | 🔆 Search & Rescue( : Medical Cond | 🔶 Send Distress Signal [Operational | 🔶 Send Warning Order [Operational | $\diamondsuit$ Solve incident involving chemicals … | 🔆 Solve incidents in all areas of inho | 🔆 Transit To SAR Operation [Opera | 🔆 Transport Patient [Operational Vi | 🔆 Treat Patient [Operational Viewp |
|-----------------------|---------------------------------|------------------------------------|-----------------------------------|------------------------------------|----------------------------------|---------------------------------|--------------------------------------|------------------------------------|------------------------------------|-------------------------------------|----------------------------------|----------------------------------|------------------------------------|-----------------------------------|-------------------------------------|-----------------------------------|---|--|-----------------------------------|-------------------------------------|------------------------------------|
| ⊡ <mark>.</mark> SV-2 |                                 |                                    |                                   |                                    |                                  |                                 |                                      |                                    |                                    | 1                                   |                                  |                                  |                                    |                                   | 2                                   |                                   |   |  |                                   |                                     |                                    |
| 🔍 Distress Beacon     |                                 |                                    |                                   |                                    |                                  |                                 |                                      |                                    |                                    |                                     |                                  |                                  |                                    |                                   |                                     |                                   |   |  |                                   |                                     |                                    |
| 👽 ESM System          |                                 |                                    |                                   |                                    |                                  |                                 |                                      |                                    |                                    |                                     |                                  |                                  |                                    |                                   |                                     |                                   |   |  |                                   |                                     |                                    |
| V Frequency Scanner   |                                 |                                    |                                   |                                    |                                  |                                 |                                      |                                    |                                    |                                     |                                  |                                  |                                    |                                   |                                     |                                   |   |  |                                   |                                     |                                    |
| 👽 Link 16             |                                 |                                    |                                   |                                    |                                  |                                 |                                      |                                    |                                    |                                     |                                  |                                  |                                    |                                   | 2                                   |                                   |   |  |                                   |                                     |                                    |
| 👽 Link 16 Terminal    |                                 |                                    |                                   |                                    |                                  |                                 |                                      |                                    |                                    |                                     |                                  |                                  |                                    |                                   |                                     |                                   |   |  |                                   |                                     |                                    |
| 🔍 Naval Ship          |                                 |                                    |                                   |                                    |                                  |                                 |                                      |                                    |                                    |                                     |                                  |                                  |                                    |                                   |                                     |                                   |   |  |                                   |                                     |                                    |
| 🐺 Receiver            |                                 |                                    |                                   |                                    |                                  |                                 |                                      |                                    |                                    |                                     |                                  |                                  |                                    |                                   |                                     |                                   |   |  |                                   |                                     |                                    |
| 👽 Signal Processor    |                                 |                                    |                                   |                                    |                                  |                                 |                                      |                                    |                                    |                                     |                                  |                                  |                                    |                                   |                                     |                                   |   |  |                                   |                                     |                                    |
| 🔍 Track Interface     |                                 |                                    |                                   |                                    |                                  |                                 |                                      |                                    |                                    |                                     |                                  |                                  |                                    |                                   |                                     |                                   |   |  |                                   |                                     |                                    |
| 🔍 Transmitter         |                                 |                                    |                                   |                                    |                                  |                                 |                                      |                                    |                                    |                                     |                                  |                                  |                                    |                                   |                                     |                                   |   |  |                                   |                                     |                                    |
| Voice Radio           |                                 |                                    |                                   |                                    |                                  |                                 |                                      |                                    |                                    | 4                                   |                                  |                                  |                                    |                                   | 4                                   |                                   |   |  |                                   |                                     |                                    |

The SV-5b is generally presented as a matrix of the relationship between system resources and activities and can be a summary of the Operational Activity to System Function Traceability Matrix (SV-5a). The SV-5b can show requirements traceability with Operational Activities on one axis of a matrix, the System Functions on the other axis, and with an X, date, or phase in the intersecting cells, where appropriate.

#### **Related elements**

- Resource Artifact
- Function
- Operational Activity
- Is Capable To Perform
- Implements

### **Related procedures**

📃 Unknown macro: 'list-children'

• Using Implied Relations