Implementation Matrix

Description

The Implementation Matrix describes the mapping between Systems Operational and Service oriented viewpoint elements.

The DoDAF, MODAF, and NAF Operational viewpoint elements should be implemented by the Systems or service oriented viewpoint elements. The implementation in UPDM is defined by the Implements relationship connecting implementation and specification elements In order to specify the implementation and analyze implementation gaps the Implementation Matrix is added as a supportive product for UPDM.
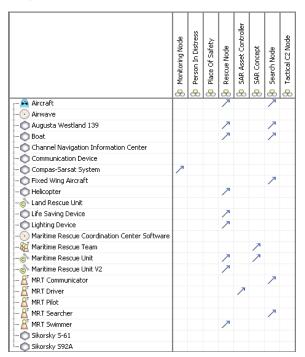
Implementation

An Implementation Matrix in MagicDraw can be represented by a Dependency Matrix based diagram. The implementation elements will be used as the row elements and specification (implemented) elements will be used as the column elements.

To be more specific, systems elements are: System Resources, Functions, and Resource Interactions.

Operational elements are: Nodes (MODAF / NAF) or Performers (DoDAF), Operational Activities, and Operational Exchanges.

Service oriented elements are: Service Function.

Sample

	Monitoring Node	Person In Distress	Place Of Safety	Rescue Node	SAR Asset Controller	SAR Concept	Search Mode	Tactical C2 Node
Aircraft				↗			↗	
Airwave								
Augusta Westland 139				↗			↗	
Boat				↗			↗	
Channel Navigation Information Center								
Communication Device								
Compas-Sarsat System	↗							
Fixed Wing Aircraft							↗	
Helicopter				↗				
Land Rescue Unit								
Life Saving Device				↗				
Lighting Device				↗				
Maritime Rescue Coordination Center Software								
Maritime Rescue Team					↗			
Maritime Rescue Unit				↗	↗			
Maritime Rescue Unit V2				↗				
MRT Communicator							↗	
MRT Driver						↗		
MRT Pilot								
MRT Searcher							↗	
MRT Swimmer				↗				
Sikorsky S-61								
Sikorsky S92A								

Predefined configurations

There are several types of predefined implementation matrices:

- Nodes/Performers Implementation Matrix. It maps Nodes/Performers to System Resources only.
- Operational Activities Implementation Matrix. It maps Operational Activities to Functions.
- Operational Exchanges Implementation Matrix. It maps Operational Exchanges to Resource Interactions.

You can find predefined matrices by clicking **Analyze** > **OV-SV Gap analysis**.

These matrices provide analysis of the whole model of a particular implementation, so you do not have to define the scope or any additional properties for building them.

Related elements

- System
- Function
- Resource Interaction
- Node
- Performer
- Operational Activity
- Operational Exchange
- System Function