

A SUMMARY OF MODAF VIEWS BY THEIR USE AND DATA TYPES

This document provides a summary of the MODAF viewpoints; for each viewpoint, it lists the uses for that viewpoint and the data objects which each viewpoint contains.

		CATEGORY													
		Tabular		Structural		Behavioural		Mapping		Ontology		Pictorial		Timeline	
VIEWPOINT	All Views	AV-1	Link							AV-2	Link				
	Strategic	StV-1	Link	StV-4	Link			StV-3	Link	StV-2	Link				
								StV-5	Link						
								StV-6	Link						
	Operational	OV-1b	Link	OV-2	Link	OV-5	Link					OV-1a	Link		
		OV-1c	Link	OV-4	Link	OV-6a	Link								
		OV-3	Link	OV-7	Link	OV-6b	Link								
						OV-6c	Link								
System	SV-6	Link	SV-1	Link	SV-4	Link	SV-3	Link					SV-8	Link	
	SV-7	Link	SV-2a	Link	SV-10a	Link	SV-5	Link							
	SV-9	Link	SV-2b	Link	SV-10b	Link	SV-12	Link							
			SV-2c	Link	SV-10c	Link									
			SV-11	Link											
Technical	TV-1	Link													
	TV-2	Link													
Acquisition			AcV-1	Link										AcV-2	Link
Service Oriented	SOV-2	Link			SOV-4a	Link	SOV-3	Link	SOV-1	Link					
					SOV-4b	Link									
					SOV-4c	Link									
					SOV-5	Link									

View Categories

Tabular: Views which are essentially tabular, which includes structured text as a special case

Structural: This category comprises diagrams describing the structural aspects of an Architecture.

Behavioural: This category comprises diagrams describing the behavioural aspects of an Architecture.

Mapping: These views provide matrix (or similar) mappings between two different types of information.

Ontology: Views which extend the MODAF ontology for a particular Architecture.

Pictorial: This category comprises just one view, namely OV-1a, which is essentially a free-form picture.

Timeline: This category comprises diagrams describing the programmatic aspects of an Architecture.

Clicking on the "link" takes you to the summary of the view.

All Views Viewpoint (AV)

An overarching description of the architecture, its scope, ownership, timeframe and all of the other meta data that is required in order to effectively search and query architectural models.

AV View	Used for	Data objects
AV-1 Overview & Summary Information	<ul style="list-style-type: none">• Scoping the project.• Providing context to the project.• Definition of an architecture-based task.• Summarising the findings from an architecture-based task.• Assisting search within an architecture repository.	<ul style="list-style-type: none">• Scope• Purpose• Listing of views used
AV-2 Integrated Dictionary	<ul style="list-style-type: none">• AV-2 presents all the Elements used in an architecture as a stand alone structure. An AV-2 presents all the Elements as a specialisation hierarchy, provides a text definition for each one and references the source of the element (e.g. MODAF Ontology, IDEAS Model, local, etc.).• An AV-2 shows elements from the MODAF Ontology that have been used in the architecture and new elements (i.e. not in the MODAF Ontology) that have been introduced by the architecture.	<ul style="list-style-type: none">• Ontology References• Specialisation Relationships (Subtyping)• Type-Instance Relationships

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Strategic Viewpoint (SV)

These views support to the process of analysing and optimising the delivery of military capability in line with the MOD's strategic intent.

StV View	Used for	Data objects
StV-1 Enterprise Vision	<ul style="list-style-type: none">• Communication of strategic vision regarding capability evolution	<ul style="list-style-type: none">• Enterprise Vision• Enterprise Phase• Enterprise Goals• Capability• Enduring Task

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StV View	Used for	Data objects
StV-2 Capability Taxonomy	<ul style="list-style-type: none"> • Identification of capability requirements • Capability planning (capability taxonomy) • Codifying required capability elements • Capability audit • Capability gap analysis • Source for the derivation of cohesive sets of KUR • Providing reference capabilities for architectures 	<ul style="list-style-type: none"> • Capability • Capability Specialisation (relationship between capabilities) • Enterprise Phase
StV-3 Capability Phasing	<ul style="list-style-type: none"> • Capability planning (capability phasing) • Capability integration planning • Capability gap analysis 	<ul style="list-style-type: none"> • Capability • Capability Configuration • Capability Increment (Project Milestone) • Out of Service (Project Milestone) • Enterprise Phase
StV-4 Capability Dependencies	<ul style="list-style-type: none"> • Identification of capability dependencies • Capability management (impact analysis for options, disposal etc) 	<ul style="list-style-type: none"> • Capability • Capability Dependency (relationship) • Capability Composition (relationship)
StV-5 Capability to Organisation Deployment Mapping	<ul style="list-style-type: none"> • Fielding planning • Capability integration planning • Capability options analysis • Capability redundancy/overlap/gap analysis • Identification of deployment level shortfalls 	<ul style="list-style-type: none"> • Capability • Capability Configuration • Resource Interaction (between Capability Configurations or their components) • Actual Organisational Resource (Actual Post, Actual Organisation) • Capability Delivery (Project Milestone) • Capability No Longer Used (Project Milestone)
StV-6 Operational Activity to Capability Mapping	<ul style="list-style-type: none"> • Tracing capability requirements to enduring tasks • Capability audit 	<ul style="list-style-type: none"> • Capability • Standard Operational Activity

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Operational Viewpoint (OV)

These views describe a requirement for a to-be architecture in logical terms, or as a simplified description of the key behavioural and information aspects of an as-is architecture.

OV View	Used for	Data objects	
OV-1a High-Level Operational Concept Graphic	<ul style="list-style-type: none"> • Puts an operational situation or scenario into context • Provides a tool for discussion and presentation; for example, aids industry engagement in acquisition • Can provide a common way in to more detailed information in published architectures 	<ul style="list-style-type: none"> • Operational Nodes i.e. Headquarters • Systems i.e. aircraft • Organisations • Information Flows • Environmental context objects i.e. rivers, hills 	Back to table
OV-1b Operational Concept Description	<ul style="list-style-type: none"> • Concept of Operations • Input to URD 	OV-1b is a textual description of the OV-1a graphic so does not usually have specific data objects associated with it.	Back to table
OV-1c Operational Performance Attributes	<ul style="list-style-type: none"> • Definition of performance characteristics. • Measures of Effectiveness (input to URD). 	<ul style="list-style-type: none"> • Metrics associated with performance associated with specific concepts within the scenario specified within the OV-1a. 	Back to table
OV-2 Operational Node Relationship Description	<ul style="list-style-type: none"> • Definition of operational concepts. • Elaboration of capability requirements. • Definition of collaboration needs. • 'Localising' capability. • Problem space definition. • Operational planning. • Supply chain analysis. 	<ul style="list-style-type: none"> • Nodes ("Operational Nodes"). • Needlines (bundles of information exchanges). • Logical Flows (of materiel, people or energy). • Operational Activities. • Locations. 	Back to table
OV-3 Operational Information Exchange Matrix	<ul style="list-style-type: none"> • Definition of interoperability requirements 	<ul style="list-style-type: none"> • Information Exchanges (each associated with a Needline) • Information Elements (each carried by one or more Information Exchange) 	

OV View	Used for	Data objects
OV-4 Organisational Relationships Chart	<p>A typical OV-4 may be used for:</p> <ul style="list-style-type: none"> • Organisational analysis • Definition of human roles • Operational analysis <p>An actual OV-4 may be used to:</p> <ul style="list-style-type: none"> • Identify architecture stakeholders • Identify process owners • Illustrate current or future organisation structures 	<ul style="list-style-type: none"> • Organisation Types • Resource Composition relationships • Resource Interaction relationships • Post Types • Role Types • Actual Posts and Organisations • Competences
OV-5 Operational Activity Model	<ul style="list-style-type: none"> • Description of business processes and workflows. • Requirements capture (input to URD). • Definition of roles and responsibilities. • Support task analysis to determine training needs. • Problem space definition. • Operational planning. • Logistic support analysis. • Information flow analysis. 	<ul style="list-style-type: none"> • Operational activities. • Standard operational activities (originating in StV-6). • Operational Activity Flow Objects • Swimlanes (each associated with a node).
OV-6a Operational Rules Model	<ul style="list-style-type: none"> • Definition of doctrinally correct operational procedures • Definition of business rules • Identification of operational constraints 	<ul style="list-style-type: none"> • Operational constraints
OV-6b Operational State Transition Description	<ul style="list-style-type: none"> • Analysis of business events. • Behavioural analysis. • Identification of constraints (input to SRD). 	<ul style="list-style-type: none"> • States (each associated with a mission, node or operational activity.) • State transitions (each associated with an event).
OV-6c Operational Event-Trace Description	<ul style="list-style-type: none"> • Analysis of operational events. • Behavioural analysis. • Identification of non-functional user requirements (input to URD). • Operational test scenarios. 	<ul style="list-style-type: none"> • Lifelines (each associated with a Node).
OV-7 Information Model	<ul style="list-style-type: none"> • Information architecture. • Information product hierarchy. 	<ul style="list-style-type: none"> • Operational Information Entity.

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System Views

Describe the resources that realise capability.

SV View	Used for	Data objects
SV-1 Resource Interaction Specification	<ul style="list-style-type: none"> • Definition of system concepts • Definition of system options • Interface requirements capture • Capability integration planning • System integration management • Operational planning (capability configuration definition) 	<ul style="list-style-type: none"> • Artefact • Organisation Type • Post Type • Role Type • Software • Capability Configuration • Resource Composition • Resource Interaction
SV-2a System Port Specification	<ul style="list-style-type: none"> • Interface specification • Identification of applicable protocols • Description of system communication paths 	<ul style="list-style-type: none"> • System • System Port • Protocol
SV-2b System Port Connectivity Description	<ul style="list-style-type: none"> • Interface specification 	<ul style="list-style-type: none"> • System • System port • Port connection • Protocol
SV-2c System Connectivity Clusters	<ul style="list-style-type: none"> • Interface specification. • Bandwidth and capacity analysis. 	<ul style="list-style-type: none"> • Physical asset. • Organisational resource (post type or organisation type). • System. • System port. • System port connection.
SV-3 Resource Interaction Matrix	<ul style="list-style-type: none"> • Summarising resource interactions. • Interface (ICD) management. • Comparing interoperability characteristics of solution options. 	<ul style="list-style-type: none"> • Resource types. • Resource interactions.
SV-4 Functionality Description	<ul style="list-style-type: none"> • Description of task workflow. • Identification of functional system requirements. • Functional decomposition of systems. • Relate human and system functions. 	<ul style="list-style-type: none"> • Function • Resource • Data Element

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SV View	Used for	Data objects
SV-5 Function to Operational Activity / Service Function Traceability Matrix	<ul style="list-style-type: none"> • Tracing functional system requirements to user requirements. • Tracing solution options to requirements. • Identification of overlaps. 	<ul style="list-style-type: none"> • Function. • Resource. • Operational activity. • Service function.
SV-6 Systems Data Exchange Matrix	<ul style="list-style-type: none"> • Detailed definition of data flows. 	<ul style="list-style-type: none"> • System. • Resource interaction. • System port connector. • Data element. • Information exchange (OV-2).
SV-7 Resource Performance Parameters Matrix	<ul style="list-style-type: none"> • Definition of performance characteristics. • Identification of non-functional requirements (input to SRD). 	<ul style="list-style-type: none"> • Resource (system, role, or capability configuration). • Measurable property. • Qualitative property.
SV-8 Capability Configuration Management	<ul style="list-style-type: none"> • Development of incremental acquisition strategy. • Planning technology insertion. 	<ul style="list-style-type: none"> • Capability configurations. • Resources that are parts of capability configurations. • Project milestone (reflecting capability delivery).
SV-9 Technology & Skills Forecast	<ul style="list-style-type: none"> • Forecasting technology readiness against time. • HR trends analysis. • Recruitment panning. • Planning technology insertion. • Input to options analysis. 	<ul style="list-style-type: none"> • Resources. • Competences. • Standards. • Forecasts (for the any of the above).
SV-10a Resource Constraints Specification	<ul style="list-style-type: none"> • Definition of implementation logic. • Identification of resource constraints. 	<ul style="list-style-type: none"> • Resource constraint.
SV-10b Resource State Transition Description	<ul style="list-style-type: none"> • Definition of states, events and state transitions (behavioural modelling). • Identification of constraints (input to System Requirements Document). 	<ul style="list-style-type: none"> • Resources. • States (associated with a resource or function). • State transitions (each associated with an event).

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SV View	Used for	Data objects
SV-10c Resource Event-Trace Description	<ul style="list-style-type: none"> • Analysis of resource events impacting operation. • Behavioural analysis. • Identification of non-functional system requirements (input to System Requirement Document). 	<ul style="list-style-type: none"> • Lifelines (each associated with a functional resource or a system port).
SV-11 Physical Schema	<ul style="list-style-type: none"> • Specifying the system data elements exchanged between systems, thus reducing the risk of interoperability errors. • Definition of physical data structure (input to system design). 	<ul style="list-style-type: none"> • System data entity.
SV-12 Service Provision	<ul style="list-style-type: none"> • Service implementation. • Resource audit. • Tracing business processes to the resources that support them. 	<ul style="list-style-type: none"> • Service. • Resource type

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Technical Standards Viewpoint (TV)

Standards, rules, policy and guidance that are applicable to aspects of the architecture.

TV View	Used for	Data objects
TV-1 Standards Profile	<ul style="list-style-type: none"> • Application of standards (informing project strategy) • Standards compliance 	<ul style="list-style-type: none"> • Standard • Protocol
TV-2 Standards Forecast	<ul style="list-style-type: none"> • Forecasting future changes in standards (informing project strategy) 	<ul style="list-style-type: none"> • Standard (evolution over time)

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Acquisition Viewpoint (AV)

Describe programmatic details, including dependencies between projects and capability integration across the Defence Lines of Development (DLODs).

AcV View	Used for	Data objects
AcV-1 Acquisition Clusters	<ul style="list-style-type: none"> • Programme management (specified acquisition programme structure) • Project organisation 	<ul style="list-style-type: none"> • Project • Project Owner • Enterprise Phase
AcV-2 Programme Timelines	<ul style="list-style-type: none"> • Project management and control (including delivery timescales) • Project dependency risk identification • Management of dependencies within a System of Systems (including all Lines of Development) • Portfolio management (for System of Systems acquisition) • Through Life Management Planning (TLMP) 	<ul style="list-style-type: none"> • Projects • Project Milestones • Threads (e.g. DLOD) • Project Dependencies • Capability Configurations

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Service Oriented Views

Specify Services that are to be used in a Service-Orientated Architecture (SOA).

View	Used for	Data objects
SOV-1 Service Taxonomy	<ul style="list-style-type: none"> • SOA Governance • Identification of Services • Service Planning • Service Audit • Service gap analysis • Providing reference services for architectures • Tailoring generic services for specific applications 	<ul style="list-style-type: none"> • Service • Service Generalisation (the specialisation relationship) • Service Attribute • Service Policy (optional, also shown in SOV-3)

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View	Used for	Data objects	
SOV-2 Service Interface Specification	<ul style="list-style-type: none"> • SOA Governance • Detailed Service Specification • Service Interoperability 	<ul style="list-style-type: none"> • Service (Operational, Information and Application Service) • Service Interface • Service Interface Operation • Service Interface Parameter 	Back to table
SOV-3 Capability to Service Mapping	<ul style="list-style-type: none"> • Service specification & planning • Governance 	<ul style="list-style-type: none"> • Service (Operational, Information and Application Service) • Capability • Service Aims to Achieve (relationship from Service to Capability) 	Back to table
SOV-4a Service Constraints	<ul style="list-style-type: none"> • Service Specification • Service Governance 	<ul style="list-style-type: none"> • Service (Operational, Information and Application Service) • Service Policy 	Back to table
SOV-4b Service State Model	<ul style="list-style-type: none"> • Service Specification 	<ul style="list-style-type: none"> • Service (Operational, Information and Application Service) • Service State Machine 	Back to table
SOV-4c Service Interaction Specification	<ul style="list-style-type: none"> • Service Specification 	<ul style="list-style-type: none"> • Service(Operational, Information and Application Service) • Service Interface • Service Lifeline • Service Consumer 	Back to table
SOV-5 Service Functionality	<ul style="list-style-type: none"> • Service Specification • Functional Requirements Definition 	<ul style="list-style-type: none"> • Service(Operational, Information and Application Service) • Service Function 	Back to table