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.

VIEWPOINT	CATEGORY: Tabular	Structural	Behavioural	Mapping	Ontology	Pictorial	Timeline
All Views	AV-1 Link				AV-2 Link		
Strategic	StV-1 Link	StV-4 Link		StV-3 Link StV-5 Link StV-6 Link	StV-2 Link		
Operational	OV-1b Link OV-1c Link OV-3 Link	OV-2 Link OV-4 Link OV-7 Link	OV-5 Link OV-6a Link OV-6b Link OV-6c Link			OV-1a Link	
System	SV-6 Link SV-7 Link SV-9 Link	SV-1 Link SV-2a Link SV-2b Link SV-2c Link SV-11 Link	SV-4 Link SV-10a Link SV-10b Link SV-10c Link	SV-3 Link SV-5 Link SV-12 Link			SV-8 Link
Technical	TV-1 Link TV-2 Link						
Acquisition		AcV-1 Link					AcV-2 Link
Service Oriented	SOV-2 Link		SOV-4a Link SOV-4b Link SOV-4c Link SOV-5 Link	SOV-3 Link	SOV-1 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	• 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.	• Scope • Purpose • Listing of views used	Back to table
AV-2 Integrated Dictionary	• 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.	• Ontology References • Specialisation Relationships (Subtyping) • Type-Instance Relationships	Back to table

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	• Communication of strategic vision regarding capability evolution	• Enterprise Vision • Enterprise Phase • Enterprise Goals • Capability • Enduring Task	Back to table

StV View	Used for	Data objects	
StV-2 Capability Taxonomy	• 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	• Capability • Capability Specialisation (relationship between capabilities) • Enterprise Phase	Back to table
StV-3 Capability Phasing	• Capability planning (capability phasing) • Capability integration planning • Capability gap analysis	• Capability • Capability Configuration • Capability Increment (Project Milestone) • Out of Service (Project Milestone) • Enterprise Phase	Back to table
StV-4 Capability Dependencies	• Identification of capability dependencies • Capability management (impact analysis for options, disposal etc)	• Capability • Capability Dependency (relationship) • Capability Composition (relationship)	Back to table
StV-5 Capability to Organisation Deployment Mapping	• Fielding planning • Capability integration planning • Capability options analysis • Capability redundancy/overlap/gap analysis • Identification of deployment level shortfalls	• 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)	Back to table
StV-6 Operational Activity to Capability Mapping	• Tracing capability requirements to enduring tasks • Capability audit	• Capability • Standard Operational Activity	Back to table

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	• 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	• 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	• 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	• Definition of performance characteristics. • Measures of Effectiveness (input to URD).	• 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	• Definition of operational concepts. • Elaboration of capability requirements. • Definition of collaboration needs. • 'Localising' capability. • Problem space definition. • Operational planning. • Supply chain analysis.	• 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	• Definition of interoperability requirements	• 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	A **typical** OV-4 may be used for: • Organisational analysis • Definition of human roles • Operational analysis An **actual** OV-4 may be used to: • Identify architecture stakeholders • Identify process owners • Illustrate current or future organisation structures	• Organisation Types • Resource Composition relationships • Resource Interaction relationships • Post Types • Role Types • Actual Posts and Organisations • Competences	Back to table
OV-5 Operational Activity Model	• 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.	• Operational activities. • Standard operational activities (originating in StV-6). • Operational Activity Flow Objects • Swimlanes (each associated with a node).	Back to table
OV-6a Operational Rules Model	• Definition of doctrinally correct operational procedures • Definition of business rules • Identification of operational constraints	• Operational constraints	Back to table
OV-6b Operational State Transition Description	• Analysis of business events. • Behavioural analysis. • Identification of constraints (input to SRD).	• States (each associated with a mission, node or operational activity.) • State transitions (each associated with an event).	Back to table
OV-6c Operational Event-Trace Description	• Analysis of operational events. • Behavioural analysis. • Identification of non-functional user requirements (input to URD). • Operational test scenarios.	• Lifelines (each associated with a Node).	Back to table
OV-7 Information Model	• Information architecture. • Information product hierarchy.	• Operational Information Entity.	Back to table

System Views

Describe the resources that realise capability.

SV View	Used for	Data objects	
SV-1 Resource Interaction Specification	• Definition of system concepts • Definition of system options • Interface requirements capture • Capability integration planning • System integration management • Operational planning (capability configuration definition)	• Artefact • Organisation Type • Post Type • Role Type • Software • Capability Configuration • Resource Composition • Resource Interaction	Back to table
SV-2a System Port Specification	• Interface specification • Identification of applicable protocols • Description of system communication paths	• System • System Port • Protocol	Back to table
SV-2b System Port Connectivity Description	• Interface specification	• System • System port • Port connection • Protocol	Back to table
SV-2c System Connectivity Clusters	• Interface specification. • Bandwidth and capacity analysis.	• Physical asset. • Organisational resource (post type or organisation type). • System. • System port. • System port connection.	Back to table
SV-3 Resource Interaction Matrix	• Summarising resource interactions. • Interface (ICD) management. • Comparing interoperability characteristics of solution options.	• Resource types. • Resource interactions.	Back to table
SV-4 Functionality Description	• Description of task workflow. • Identification of functional system requirements. • Functional decomposition of systems. • Relate human and system functions.	• Function • Resource • Data Element	Back to table

SV View	Used for	Data objects	
SV-5 Function to Operational Activity / Service Function Traceability Matrix	• Tracing functional system requirements to user requirements. • Tracing solution options to requirements. • Identification of overlaps.	• Function. • Resource. • Operational activity. • Service function.	Back to table
SV-6 Systems Data Exchange Matrix	• Detailed definition of data flows.	• System. • Resource interaction. • System port connector. • Data element. • Information exchange (OV-2).	Back to table
SV-7 Resource Performance Parameters Matrix	• Definition of performance characteristics. • Identification of non-functional requirements (input to SRD).	• Resource (system, role, or capability configuration). • Measurable property. • Qualitative property.	Back to table
SV-8 Capability Configuration Management	• Development of incremental acquisition strategy. • Planning technology insertion.	• Capability configurations. • Resources that are parts of capability configurations. • Project milestone (reflecting capability delivery).	Back to table
SV-9 Technology & Skills Forecast	• Forecasting technology readiness against time. • HR trends analysis. • Recruitment panning. • Planning technology insertion. • Input to options analysis.	• Resources. • Competences. • Standards. • Forecasts (for the any of the above).	Back to table
SV-10a Resource Constraints Specification	• Definition of implementation logic. • Identification of resource constraints.	• Resource constraint.	Back to table
SV-10b Resource State Transition Description	• Definition of states, events and state transitions (behavioural modelling). • Identification of constraints (input to System Requirements Document).	• Resources. • States (associated with a resource or function). • State transitions (each associated with an event).	Back to table

SV View	Used for	Data objects	
SV-10c Resource Event-Trace Description	• Analysis of resource events impacting operation. • Behavioural analysis. • Identification of non-functional system requirements (input to System Requirement Document).	• Lifelines (each associated with a functional resource or a system port).	Back to table
SV-11 Physical Schema	• Specifying the system data elements exchanged between systems, thus reducing the risk of interoperability errors. • Definition of physical data structure (input to system design).	• System data entity.	Back to table
SV-12 Service Provision	• Service implementation. • Resource audit. • Tracing business processes to the resources that support them.	• Service. • Resource type	Back to table

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	• Application of standards (informing project strategy) • Standards compliance	• Standard • Protocol	Back to table
TV-2 Standards Forecast	• Forecasting future changes in standards (informing project strategy)	• Standard (evolution over time)	Back to table

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	• Programme management (specified acquisition programme structure) • Project organisation	• Project • Project Owner • Enterprise Phase	Back to table
AcV-2 Programme Timelines	• 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)	• Projects • Project Milestones • Threads (e.g. DLOD) • Project Dependencies • Capability Configurations	Back to table

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	• SOA Governance • Identification of Services • Service Planning • Service Audit • Service gap analysis • Providing reference services for architectures • Tailoring generic services for specific applications	• Service • Service Generalisation (the specialisation relationship) • Service Attribute • Service Policy (optional, also shown in SOV-3)	Back to table

View	Used for	Data objects	
SOV-2 Service Interface Specification	• SOA Governance • Detailed Service Specification • Service Interoperability	• Service (Operational, Information and Application Service) • Service Interface • Service Interface Operation • Service Interface Parameter	Back to table
SOV-3 Capability to Service Mapping	• Service specification & planning • Governance	• Service (Operational, Information and Application Service) • Capability • Service Aims to Achieve (relationship from Service to Capability)	Back to table
SOV-4a Service Constraints	• Service Specification • Service Governance	• Service (Operational, Information and Application Service) • Service Policy	Back to table
SOV-4b Service State Model	• Service Specification	• Service (Operational, Information and Application Service) • Service State Machine	Back to table
SOV-4c Service Interaction Specification	• Service Specification	• Service(Operational, Information and Application Service) • Service Interface • Service Lifeline • Service Consumer	Back to table
SOV-5 Service Functionality	• Service Specification • Functional Requirements Definition	• Service(Operational, Information and Application Service) • Service Function	Back to table