

# MINISTRY OF DEFENCE



## MOD Architectural Framework Overview of Acquisition Views

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Prepared by:- Mr Dave Mawby  
MODAF Technical Consultant

Approved by:-

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## RECORD OF CHANGES

This page will be updated and re-issued with each amendment. It provides an authorisation for the amendment and a checklist to the current amendment number.

<b>Issue No.</b>	<b>Date</b>	<b>Revision Details</b>
Draft 0.1	20 <sup>th</sup> Sept 2004	First Draft Issue: New document to provide guidance on implementation of MODAF Acquisition views prior to availability of MODAF handbook.  This version is an unapproved draft provided for initial guidance only.

# Introduction

## **DODAF views tailored to MOD processes and lifecycle**

The MOD Architectural Framework (MODAF) is being developed as a critical enabler of NEC<sup>1</sup>, which enables improved interoperability and should realise significant cost avoidance benefits through improved efficiency of the MOD acquisition processes and reduction in the amount of rework required to deliver interoperability and integration. The full rationale behind the development of MODAF and its expected benefits are described in more detail within the MODAF PID and its associated business case.

MODAF will be based largely upon best practice, which for defence acquisition is mainly the US Department of Defense Architectural Framework<sup>2</sup> (DODAF). However, DODAF was developed over a number of years to meet the needs, organisational structure, doctrine and acquisition processes of the US armed forces and as a consequence is not always ideally suited to MOD needs. Therefore, although many DODAF views will be used as-is, some are likely to be dropped, as mandatory views at least, and others added to supplement the needs of the MOD processes and lifecycle.

Key amongst the MODAF additions will be the Acquisition Views (AcVs) that describe programmatic details, including dependencies between projects and capability integration across the all the Lines of Development (LoDs). These views guide the acquisition and fielding processes, and support the information provided in associated Strategic Capability Views (SCVs), Operational Views (OVs) and System Views (SVs).

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## **Aim**

The aim of this paper is to give an overview of the AcVs whilst the full MODAF documentation is being developed. This paper therefore provides interim guidance only and will be superseded by the MODAF handbook when available.

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## **Scope and Exclusions**

The scope of this paper is limited to the AcVs and is provided as interim guidance only whilst the MODAF views are fully developed and documented in the MODAF handbook. A similar paper has been developed on the SCVs. For all other views, it is recommended that the DODAF documentation is consulted until definitive MODAF documentation is available.

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## **Development of AcVs**

The utility of AcVs has been established for some time and their current definition owes much to the System of Systems Architectural Framework<sup>3</sup> developed by the Integration Authority. This work identified the 2 potential AcVs documented here. The concept of employment for these views and their associated roles and responsibilities were further developed by the MODAF project during its initial consultation with the relevant communities of interest (COI) as part of the start-up and initiation stage of the project.

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<sup>1</sup> CM(IS) NEC Next Steps paper of April 2003.

<sup>2</sup> DOD Architectural Framework, version 1.0, February 2004.

<sup>3</sup> Land Digitisation, System of Systems Architectural Framework, IA, July 2003.

A number of pilot projects are being utilised by the MODAF project to assess the utility of different MODAF views to a variety of projects – which will cover a broad spectrum of MOD activities and stages through the CADMID cycle. The feedback from these pilots will be used to identify issues with the AcVs as currently defined and develop improvements for inclusion in the MODAF handbook.

During the development stage of the MODAF project the AcVs will be further refined through consultation with the main affected stakeholders and document more fully in a MODAF handbook, similar in style to volume 2 of the DODAF suite of documents.

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## Acquisition Views (AcVs)

**Two Acquisition Views support integrated capability acquisition**

The AcVs are intended primarily to support the acquisition and fielding processes, however they can be used to support the complete CADMID cycle. The views identify interaction between programmes and projects, and integrate acquisition across all of the LoDs.

The acquisition and fielding processes are primarily delivered by the DPA and ECC, and therefore they will be the principle user of the views. However, Customer 1 and 2 will also use the views to manage, coordinate and deliver the non-equipment LoDs. The wide utility of the views will assist in achieving the delivery of integrated capability across all LoDs.

There are currently 2 candidate AcVs however, since the intent is that MODAF will only mandate 10 to 15 views overall, it is likely that one or both AcVs will not be mandated. If any AcVs are not mandated they will still be documented within the MODAF handbook as optional views and may still be used by the relevant MOD communities as they see fit.

The 2 candidate AcVs are:

- AcV-1 SoS Acquisition Clusters
- AcV-2 SoS Acquisition Programmes

The AcVs can be used to illustrate the complete Acquisition Programme, or a subset of the programmes / projects in order to provide further detail specific to that subset or to reduce the complexity of the view.

A summary of each of these views is included below.

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### **AcV-1 SoS Acquisition Clusters**

**AcV-1 illustrates the organisational structure of Acquisition tasks**

AcV-1 SoS Acquisition Clusters provides detail of how acquisition tasks are grouped under directorships and clusters, to improve management of interoperability and programmatic dependencies. The view will require regular updating, and will be distributed across the acquisition community. It is linked closely to SCV-4 SoS Clusters, which provides a means of analysing

the main dependencies between capability elements and hence their most logical grouping for acquisition and capability integration purposes.

The AcV-1 view is likely to be developed and owned within the DPA Corporate structure or at Acquisition director level.

**AcV-1 Format**

There is no prescribed structure or format to AcV-1, however it is likely to be represented as an organisational chart, N-squared matrix or a graphical presentation. The information represented is by its nature hierarchical, and the convention of displaying the largest organisation at the top, with organisational size reducing towards the base of the view. An example is included below.



**AcV-2 SoS Acquisition Programmes**

**AcV-2 provides a complete view of the Acquisition Programme incorporating all Lines of Development**

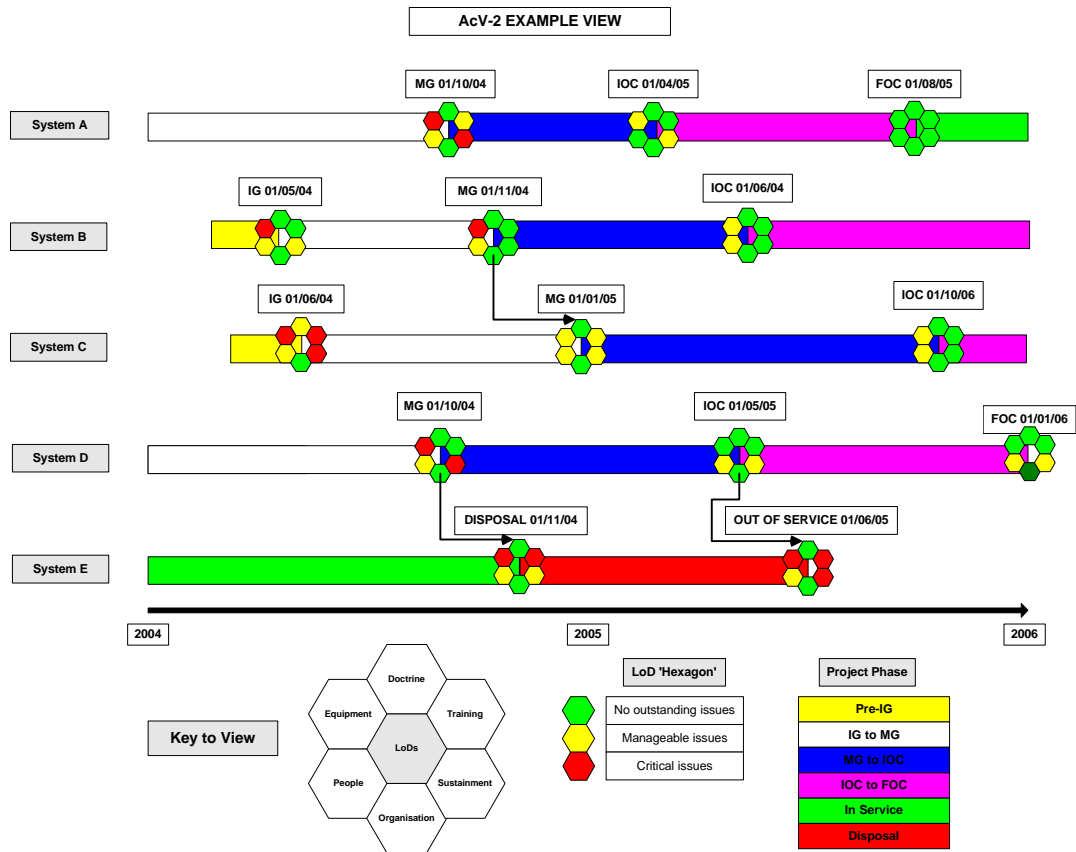
AcV-2 SoS Acquisition Programmes provides an overview of either the complete acquisition programme or a subset of projects. The view covers the complete CADMID cycle, illustrating the dependencies and management interactions between new systems, in-service systems, and systems in the disposal phase.

In addition to the interdependencies and activities between systems, the view summarises interaction across the LoDs. This information can be used to determine the impact of either planned or unplanned programmatic changes, and highlight opportunities for optimisation across the delivery profile. It can also be used to highlight areas of concern that may not be directly within an IPT's control, but would need addressing in order to successfully deliver the integrated capability.

**AcV-2 Format**

The recommended structure for an AcV-2 is an enhanced Gantt chart. The additions to the Gantt chart format are:

- The Gantt 'bars' are colour-coded to indicate the phases of the CADMID cycle
- A 'hexagon' traffic light icon is inserted between each CADMID phase, representing the level of development for all LoDs.



**Acquisition Views Concept of Employment**

**Supporting Acquisition Organisations**

The AcVs are intended primarily to support the acquisition and fielding processes, however they can be used to support the complete CADMID cycle.

An initial assessment of which organisations are associated with each of the AcVs is included in Appendix A to this paper. Analysis of the AcV roles and responsibilities will be developed further and validated through stakeholder consultation during the development of the MODAF handbook.

**COI feedback on AcV utility**

As part of the MODAF project start-up and initiation stage an initial consultation was conducted with a wide variety of MOD stakeholders who were expected to utilise architectural products that would be developed in MODAF. This was conducted through a number of COI workshops, each of which included a survey of the degree to which the respondents expected each candidate MODAF view to contribute towards the needs of that COI.

The results of this survey in relation to the utility of the AcVs as perceived across a number of different COIs is summarised in the table below.

This shows that the Acquisition views are seen as having most utility in the DPA and DEC areas - a conclusion that could broadly have been predicted, although the role of Customer 2 in delivering non-equipment LoDs must be emphasised too.

This information is being used to aid the initial MODAF view development and will be validated through further stakeholder consultation.

View	Description	DPA	DCSA	DEC	Gov/nce	Cust 2	Aggregate
AcV-1	SoS Acquisition Clusters	2%	1%	3%	1%	1%	2%
AcV-2	SoS Acquisition Programmes	3%	1%	4%	3%	1%	3%

Produced by Dave Mawby, IA1CON7 (07887 540406) of the MODAF team using information from the following sources, with thanks:

DEC(CCII), IA, US DOD Architecture Framework Volume II, John May for the LDI SoS Architectural Framework and Fariba Hozhbrafkan of Cornwell Associates.

## Appendix A: MODAF Acquisition View Roles and Responsibilities

The following table defines the organisations that may be involved in providing information for, compiling and using each of the AcVs. These roles and responsibilities were based upon inputs provided to the MODAF project team through the community of interest workshops and other briefings. These will be validated through further consultation during the development of the MODAF handbook.

<b>View Ref</b>	<b>View Title</b>	<b>Inputs to View</b>	<b>Compiles View</b>	<b>Purpose of View</b>	<b>Uses View</b>
AcV-1	SoS Acquisition Clusters	DEC, DPA, IPT clusters, IPTs	DPA	Analysis of acquisition dependencies and acquisition organisation.	IPT Clusters, IPTs
AcV-2	SoS Acquisition Programmes	DEC, IPTs, IPT Clusters, Customer 2	IPT Clusters / ECC	Programmatic dependencies within a system of systems – including all lines of development. Input to Capability Integration Plans.	IPT Clusters, IPTs, Customer 2