The MODAF Acquisition Viewpoint

Viewpoint Summary
The Acquisition Viewpoint depicts programmatic information, including project/programme structure, project ownership, dependencies between projects, and capability integration across the Defence Lines of Development (DLODs).

The Acquisition Viewpoint consists of 2 Acquisition Views (AcVs) that support capability management and acquisition by identifying the interactions between programmes, projects and integration activities across all of the DLODs.

Views
There are 2 AcVs Views that make up the Acquisition Viewpoint:

1. AcV-1 - Acquisition Clusters
   Represent an organisational perspective on programmes.

2. AcV-2 - Programme Timelines
   Provide a timeline perspective on programmes.
**AcV-1 Acquisition Clusters**

AcV-1 provides an organisational-based perspective on how projects can be grouped together to achieve coherent programmes.

**Background**

The AcV-1 depicts logical groupings of projects (into “clusters”), mapped to the organisations that manage them, in order to describe the portfolio of projects that contribute to a coherent acquisition programme. It provides a means of identifying the main dependencies between acquisition elements.

**Usage**

- Programme management (specified acquisition programme structure).
- Project organisation.

**Data objects**

The data in an AcV-1 can include:

- Project.
- Project Owner.
- Enterprise Phase.

**Representation**

- Topological (Connected Shapes).
- ‘Nested box' Diagram.
- UML Composite Structure Diagram.
- UML Class Diagram.

**Detailed Product Description**

The AcV-1 provides a way of describing the organisational relationships between multiple acquisition projects that deliver individual systems or capabilities as part of a wider programme. Consequently, it generally will not be developed by those building Architectures for an individual project.

In essence, AcV-1 is an organisational breakdown consisting of actual organisations (see OV-4, Operational Relationships Chart) in a hierarchical structure which groups the projects they manage to form acquisition clusters.

The view is strongly linked with StV-4, Capability Dependencies, which shows capability clusters and dependencies.

The intent of an AcV-1 is to show:

- All of the acquisition projects delivering capability within the programme of interest.
- The structure of acquisition projects.
An AcV-1 is specific to a particular Enterprise Phase – i.e. the structure of programmes may change over time as projects are merged, axed and the capability portfolio rebalanced. Hence, it is possible that an acquisition programme could have more than one AcV-1, each showing how the acquisition clusters are arranged for relevant Enterprise Phases.
AcV-2 - Programme Timelines

The AcV-2 provides a time-based perspective of programmes.

Background
The AcV-2 is primarily intended to support the acquisition process across multiple projects or programmes, including the management of dependencies between projects and the integration of all the DLODs to achieve a successfully integrated military capability.

Use of AcV-2 should support the management of capability delivery and be aligned with the StV-3, Capability Phasing.

Usage
- Project management and control (including delivery timescales).
- Project dependencies and the identification of associated risk.
- Portfolio management.
- Through Life Management Planning (TLMP).

Data objects
The data in an AcV-2 can include:
- Projects.
- Project Milestones (which may indicate capability increments or capability configurations going out of service).
- Project Threads (e.g. DLOD).
- Project Dependencies.
- Capability Configurations.

Relationships between Key Data Objects (Simplified from M3)

Representation:
- Timeline View.
- Augmented Gantt Chart
Detailed Product Description

The AcV-2 provides an overview of a set of individual projects (e.g. within a given programme), based on a time-line. Projects may be broken into threads (work streams) to show the dependencies at a lower level. For capability-based acquisition, these threads could conveniently be equated with MOD’s Defence Lines of Development (DLODs) – though MODAF does not mandate the use of DLODs.

Where appropriate, the AcV-2 may also summarise the level of maturity achieved across the threads at given milestones in each project.

The information provided by the AcV-2 can be used to determine the impact of either planned or unplanned programmatic changes, and highlight opportunities for optimisation across the delivery programme. The inclusion of the DLOD information enables the Delivery Team to identify potential delays which impact on the delivery of capability. Action to address areas of concern identified in one or more thread, (e.g. a shortfall in training resource) can be co-ordinated across a programme or group of projects. In particular, the knowledge of the dependencies between project milestones can quickly inform a programme manager when a slippage in one project is likely to cause delays in other projects.

The presentational format for an AcV-2 Product is a Gantt chart optionally augmented with symbols that show the status of each thread at given milestones, and the dependencies between them. The example below shows an AcV-2 depicting dependencies between project milestones, but not showing the thread status icons for the milestones.
Where AcV-2 differs significantly from a standard Gantt chart is in its use of project thread status indicators. The architect can identify a set of standard threads that run through all projects – e.g. the DLOD. For each of these threads, there can be a status indicator at any given project milestone. This is usually achieved using colour-coding so that stakeholders can tell, at a glance, the status of a given project at different points in time. In the example below, based on the MOD DLOD, colour coding has been used as follows:

- Green cells indicate that there are no outstanding issues or areas of concern and that the DLOD is at a level of maturity appropriate to the stage of the lifecycle.
- Yellow cells indicate that there are outstanding issues or areas of concern, but that there are planned activities that will provide resolution in the required timescale and the DLOD is at a level of maturity appropriate to the stage of the lifecycle.
- Red cells indicate that there are outstanding issues or areas of concern, for which there are no planned activities that will provide resolution in the required timescale, or that the DLOD is below the level of maturity appropriate to the stage of the acquisition lifecycle.
- White cells indicate that the DLOD relevance is not known at this time.
- Black cells indicate that the DLOD is not required.

AcV-2 does not mandate a standard set of colour codes or even standard threads or statuses; however, it is likely that UK MOD acquisition projects will use the DLODs.

Example templates for this form of AcV-2 can be found on pages 7 and 8.

In support of the management of a programme of acquisition projects, it is desirable to have a set of common milestones at the programme level against which the maturity of each constituent projects is judged. MODAF does provide the flexibility to define individual milestones at the project level if required. An example of programme synchronisation is given at page 9. It is expected that UK MOD acquisition programmes will at least feature the standard OGC gateways as milestones on an AcV-2.
System A

MG 01/10/04
IOC 01/04/05
FOC 01/08/05

System B

IG 01/05/04
MG 01/11/04
IOC 01/06/05

System C

IG 01/06/04
MG 01/05/05
IOC 01/01/06

System D

MG 01/10/04
IOC 01/05/05
FOC 01/01/06

System E

Disposal 01/11/04
Out of Service 01/06/05

2004 2005 2006

Key to View

LoD 'Hexagon'

No outstanding issues
Manageable issues
Critical issues

Project Phase

Pre IG
IG to MG
MG to IOC
IOC to FOC
In Service
Disposal

AcV-2 Template (with DLOD Status)
Kestrel needs to come into service as planned to avoid a capability gap arising when SPECS is fully disposed of.