Viewpoint linkages

The relationship between MODAF Viewpoints is best understood using the principle of layering, as explained in the article on MODAF Layers¹. This article explores the exploitation of these relationships, in terms of the use of MODAF.

The diagram below illustrates the viewpoint linkages from the point of view of the author of a User Requirement Document (URD). Such a user of MODAF will have a focus on the operational viewpoint because models within this viewpoint describe ‘what’ the bounded operational capability is that is the subject of the URD. From this perspective, any strategic views that are relevant to the requirements definition activity will provide context (both capability and business context) – the strategic views then answer the ‘why’ question.

Similarly models in the system viewpoint offer alternative means of realising the operational capability of interest – these alternatives each provide one way of addressing the capability need, i.e. the ‘how’.

It is important to recognise that the what-why-how relationships depend upon the perspective of the MODAF user and the task they are engaged in. For example, a capability planner would regard models in the Strategic Viewpoint as describing ‘what’ the capability needs are; then models in the Operational Viewpoint would represent (possibly alternative) representations of ‘how’ those needs might be realised.

Similarly an author of a System Requirements Document (SRD) may be focused on the System Viewpoint as described ‘what’ the equipment capability is that is needed. Models in the Operational Viewpoint provide operational capability context for that requirements definition task, i.e. ‘why’ the equipment is needed (as well as which military tasks it would be used for).

Use of the familiar what-who-why-how-when-where paradigm provides an opportunity to obtain a useful characterisation of the MODAF viewpoints (recognising that the what-why-how aspects tend to be subjective). This has been found to be particularly useful in differentiating the Strategic Viewpoint from the other MODAF viewpoints.

¹ A link to the document “How do MODAF layers interrelate?” is to be found on the “MODAF Concepts” page.
The Strategic Viewpoint addresses issues of timing (specifically capability phasing) but not, for example, personnel (e.g. transformation owners are not currently represented). The Operational Viewpoint addresses issues of personnel (specifically organisation and post types) as well as location (the location of nodes). The System Viewpoint also addresses personnel and location (but now in terms of roles and the deployment to physical assets). While not shown on the diagram, the Acquisition Viewpoint addresses personnel (project ownership) and timing (project timelines) but not, for example, where projects are based.

The example below shows how the core views – StV-2, OV-2, OV-5, SV-1 and SV-4 are linked:

Note: A link to a larger version of the example above is available on the “Views summary documents” page.

In this example, capabilities are traced to a node to specify what level of capability is required by whatever resource realises it. The links from the node the SV-1 show a capability configuration that can meet that required capabilities. Note also that the capability configuration itself is traced back to capabilities (via <<CapabilityRealisation>>> dependencies), and in fact exceeds the capability specified for the operational node.