The relationship between the ArchiMate toolset & TOGAF

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ArchiMate® is a valuable modeling language for developing enterprise architectures.

Owned and maintained by The Open Group (http://www.opengroup.org), ArchiMate is tightly linked to The Open Group Architecture Framework (TOGAF), but adaptable to any EA methodology.

Symbolic references clarify the functions, roles, processes, actors, products and services. The references have defined relationships illustrating how they interact and influence each other.

Conceptually, ArchiMate evolved from UML, which makes it easily understood and easily assimilated into the tools for architecture framework development.

The most effective use of ArchiMate is in the production of viewpoints. A single function/process/service in the architecture can be represented in many ways depending on the stakeholders reviewing the status of development.

Senior executives need to know how their requirements, goals and principles are being met. Business unit managers want to confirm that the services and products will provide customers the appropriate services. Application, data and IT systems managers have to ensure that they can provide the supporting framework for service and product delivery.

In this article, we will investigate the relationship between ArchiMate and TOGAF using figure 1 (below) as a reference.
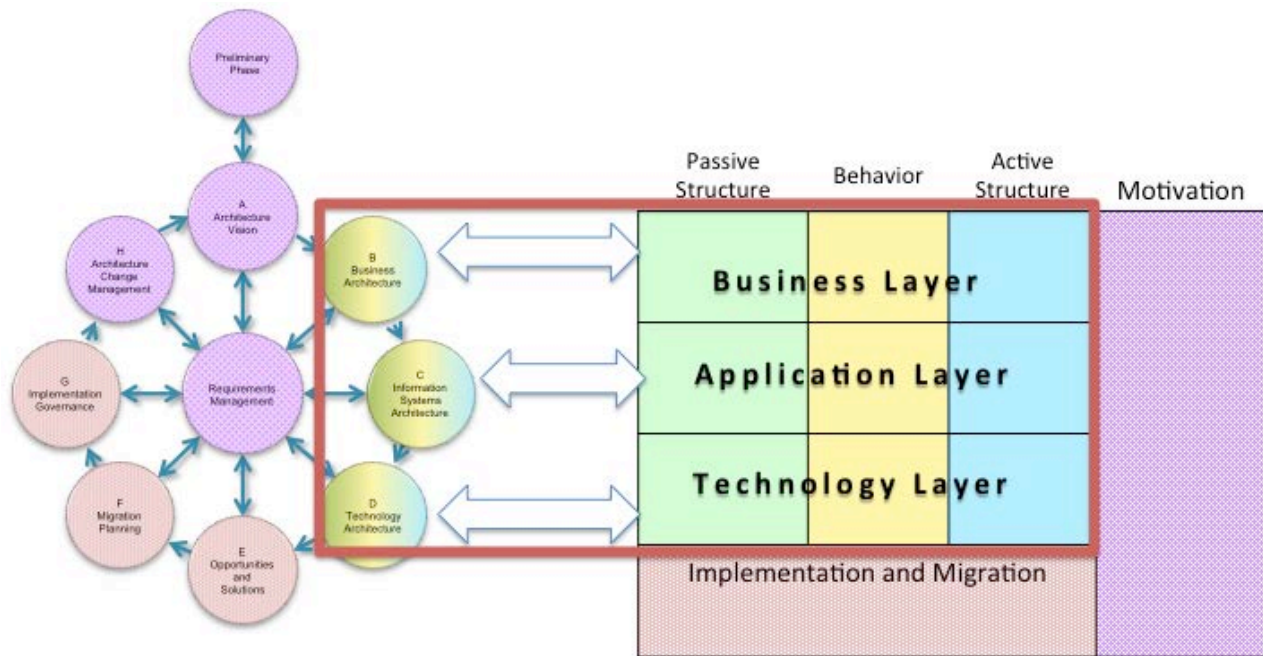
Figure 1: Correspondence between ArchiMate and TOGAF

The preface to these articles explains that The Open Group developed ArchiMate to be tightly linked to the TOGAF model.

The bulk of the relationship is with the Architecture Development phases B-D, but recently The Open Group added Motivation as well as Implementation and Migration concepts. This makes the modeling tool effective throughout the TOGAF ADM.

Standard Concepts

The standard concepts in ArchiMate provide graphics that represent the various elements of an architecture framework.

These elements include Actors, Roles, Services, Functions, Collaborations, Data and Application Objects, Processes, and more. Each of the TOGAF Architecture Development

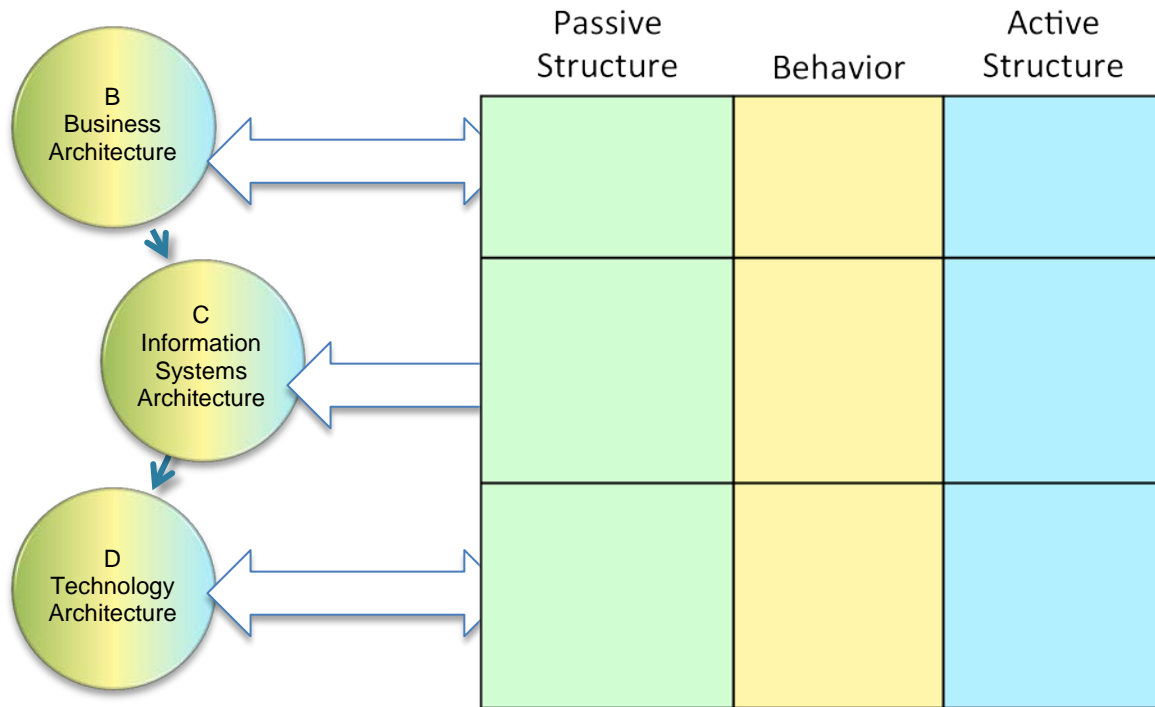phases (Business, Information Systems Architecture, and Technology) has a unique set of concepts.

Figure 2: Standard Concepts

The graphic in Figure 2 shows the mapping between Phases B-D to ArchiMate Layers.

Notice that Phase B maps to ArchiMate's Business Layer, Phase C to its Application Layer, and Phase D to its Technology Layer. The Application Layer in ArchiMate addresses both data and application elements. This is the heart of ArchiMate. Each Layer is broken down into three types of concepts: Passive Structure, Behavior, and Active Structure.

Passive structure elements are written to and read from by Active structure elements. Behavior elements describe the transaction between the Active and Passive structure elements as well as between Active structure elements. Examples of Passive structure

elements are contracts, data objects and products. Actors, roles, collaboration, and others represent active structure elements. Functions, processes, and events are some of the elements that represent behavior structure elements.
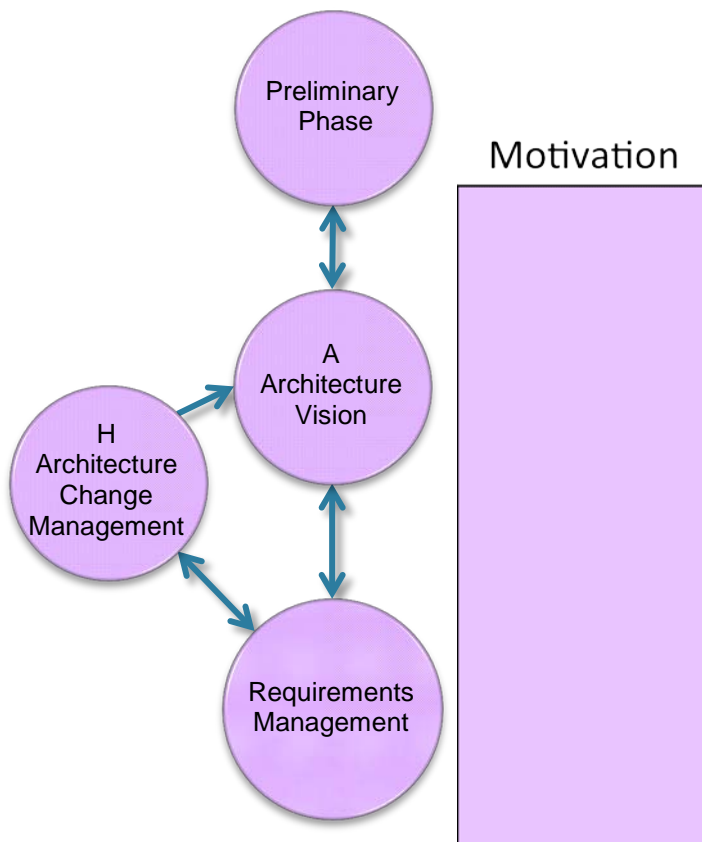
Motivation

Figure 3: *Motivation Concepts and the ADM*

Motivation concepts apply to Architecture Capability development. Its concepts are Stakeholders, Assessments, Drivers, Goals, Principles, Constraints, and Requirements.

These concepts assist in understanding the way the enterprise architecture is aligned to its context, persons or organizations that influence, guide or constrain, and internal or external factors which influence plans and aims.

Implementation and Migration
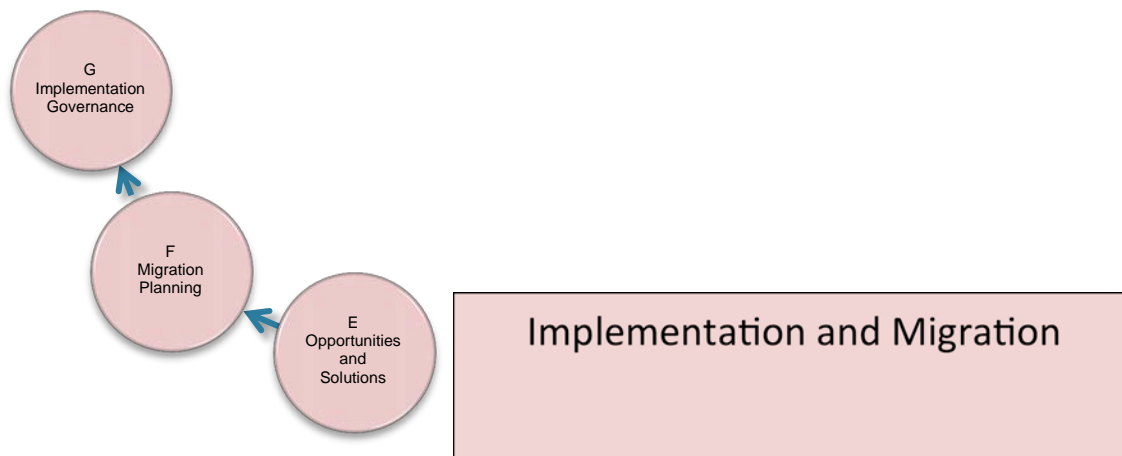
Implementation and Migration concepts in ArchiMate apply to Transition Planning and Architecture Governance.

Its concepts are Work Packages, Deliverables, Gaps, and Plateaus. These concepts assist in understanding programs/projects that carry out implementation, results and outcomes produced as part of implementation, and baseline, transition, and target architectures.

The differences between architecture states are addressed in the migration plan.

Summary

This article provided a thumbnail sketch of how ArchiMate maps into the TOGAF model, especially in relation to the ADM.