THE Open GROUP

ArchiMate® 3.1 Specification

Reference Cards

About the ArchiMate® 3.1 Specification

The ArchiMate® Specification, a standard of The Open Group, is an open and independent modeling language for Enterprise Architecture that is supported by different tool vendors and consulting firms. The ArchiMate language enables Enterprise Architects to describe, analyze, and visualize the relationships among architecture domains in an unambiguous way.

Just as an architectural drawing in classical building architecture describes the various aspects of the construction and use of a building, the ArchiMate Specification offers a common language for describing the construction and operation of business processes, organizational structures, information flows, IT systems, and technical and physical infrastructure. This insight helps stakeholders to design, assess, and communicate the consequences of decisions and changes within and between these architecture domains.

The main changes between Version 3.0.1 and Version 3.1 of the ArchiMate Specification are listed below:

- Introduced a new strategy element: value stream
- Added an optional directed notation for the association relationship
- Improved the organization of the metamodel and associated figures
- Further improved and formalized the derivation of relationships

In addition to these changes, various other minor improvements in definitions and other wording have been made.

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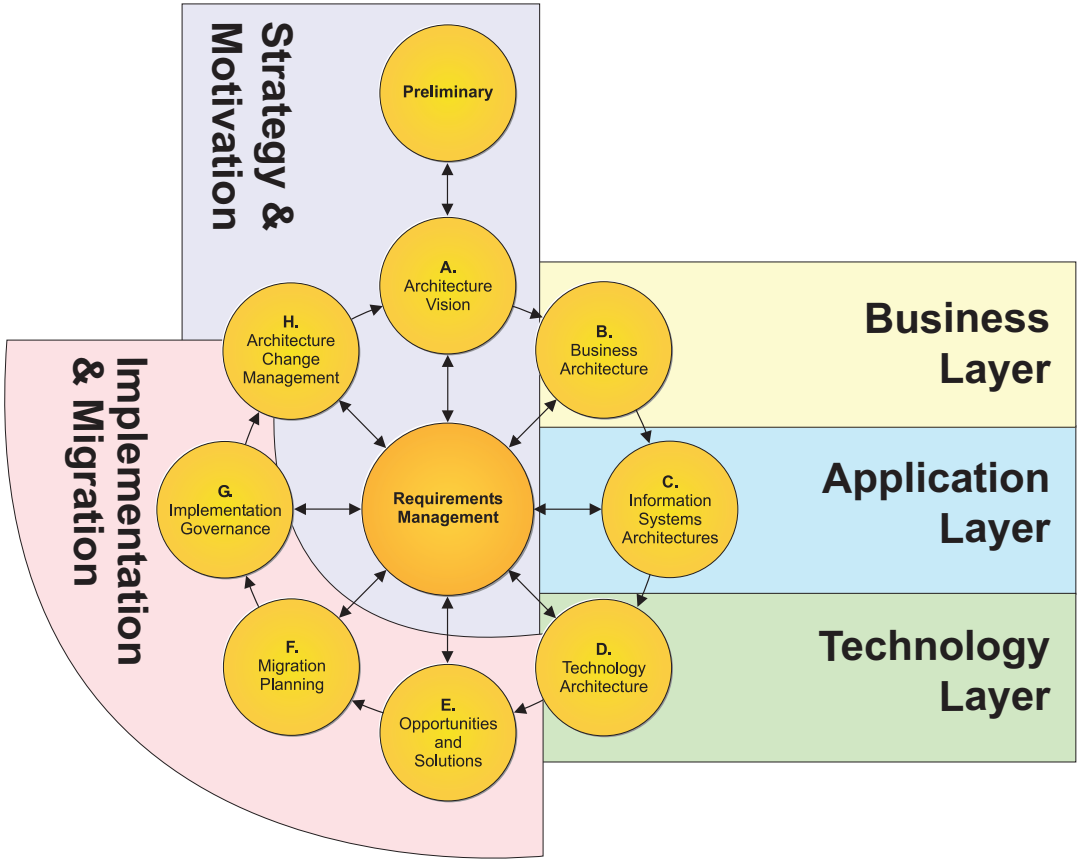
Mapping to the TOGAF® ADM



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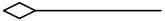
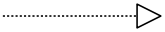
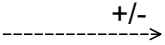
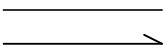
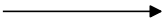
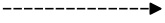
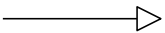
Relationships

Structural Relationships		Notation
Composition	Represents that an element consists of one or more other concepts.	
Aggregation	Represents that an element combines one or more other concepts.	
Assignment	Represents the allocation of responsibility, performance of behavior, storage, or execution.	
Realization	Represents that an entity plays a critical role in the creation, achievement, sustenance, or operation of a more abstract entity.	
Dependency Relationships		**Notation**
Serving	Represents that an element provides its functionality to another element.	
Access	Represents the ability of behavior and active structure elements to observe or act upon passive structure elements.	
Influence	Represents that an element affects the implementation or achievement of some motivation element.	
Association	Respesents an unspecified relationship, or one that is not represented by another Archimate relationship.	
Dynamic Relationships		**Notation**
Triggering	Represents a temporal or causal relationship between elements.	
Flow	Represents transfer from one element to another.	
Other Relationships		**Notation**
Specialization	Represents that an element is a particular kind of another element.	
Relationship Connectors		**Notation**
Junction	Used to connect relationships of the same type.	

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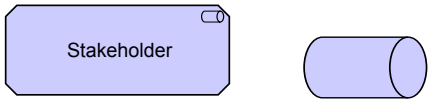
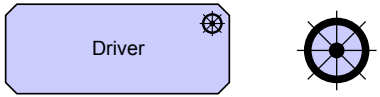
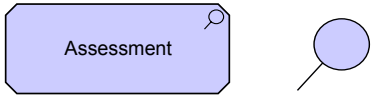
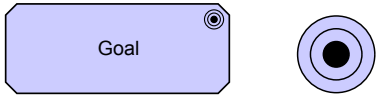
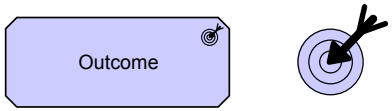
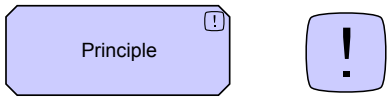
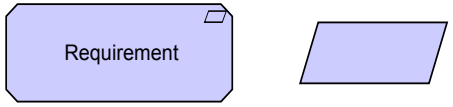
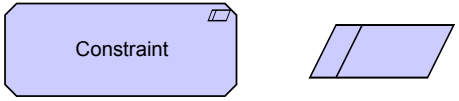
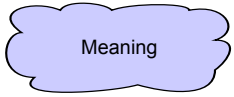
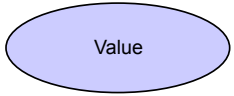
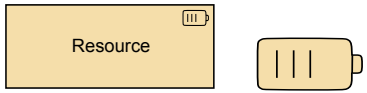
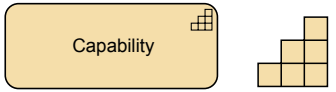
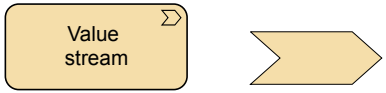
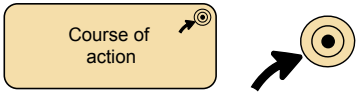
Motivation Elements

Element	Definition	Notation
Stakeholder	Represents the role of an individual, team, or organization (or classes thereof) that represents their interests in the effects of the architecture.	
Driver	Represents an external or internal condition that motivates an organization to define its goals and implement the changes necessary to achieve them.	
Assessment	Represents the result of an analysis of the state of affairs of the enterprise with respect to some driver.	
Goal	Represents a high-level statement of intent, direction, or desired end state for an organization and its stakeholders.	
Outcome	Represents an end result.	

Motivation Elements – continued

Element	Definition	Notation
Principle	Represents a statement of intent defining a general property that applies to any system in a certain context in the architecture.	
Requirement	Represents a statement of need defining a property that applies to a specific system as described by the architecture.	
Constraint	Represents a factor that limits the realization of goals.	
Meaning	Represents the knowledge or expertise present in, or the interpretation given to, a concept in a particular context.	
Value	Represents the relative worth, utility, or importance of a concept.	

Strategy Elements

Element	Definition	Notation
Resource	Represents an asset owned or controlled by an individual or organization.	
Capability	Represents an ability that an active structure element, such as an organization, person, or system, possesses.	
Value stream	Represents a sequence of activities that create an overall result for a customer, stakeholder, or end user.	
Course of action	Represents an approach or plan for configuring some capabilities and resources of the enterprise, undertaken to achieve a goal.	

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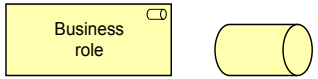
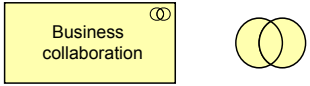
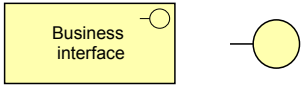
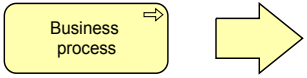
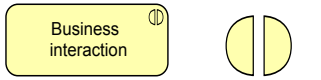
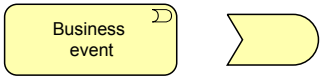
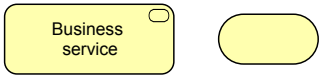
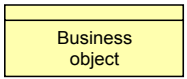
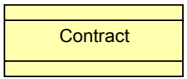
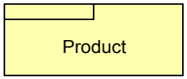
Business Layer

Element	Definition	Notation
Business actor	Represents a business entity that is capable of performing behavior.	
Business role	Represents the responsibility for performing specific behavior, to which an actor can be assigned, or the part an actor plays in a particular action or event.	
Business collaboration	Represents an aggregate of two or more business internal active structure elements that work together to perform collective behavior.	
Business interface	Represents a point of access where a business service is made available to the environment.	
Business process	Represents a sequence of business behaviors that achieves a specific result such as a defined set of products or business services.	
Business function	Represents a collection of business behavior based on a chosen set of criteria (typically required business resources and/or competencies), closely aligned to an organization, but not necessarily explicitly governed by the organization.	

Element	Definition	Notation
Business interaction	Represents a unit of collective business behavior performed by (a collaboration of) two or more business actors, business roles, or business collaborations.	
Business event	Represents an organizational state change.	
Business service	Represents explicitly defined behavior that a business role, business actor, or business collaboration exposes to its environment.	
Business object	Represents a concept used within a particular business domain.	
Contract	Represents a formal or informal specification of an agreement between a provider and a consumer that specifies the rights and obligations associated with a product and establishes functional and non-functional parameters for interaction.	
Representation	Represents a perceptible form of the information carried by a business object.	
Product	Represents a coherent collection of services and/or passive structure elements, accompanied by a contract/set of agreements, which is offered as a whole to (internal or external) customers.	

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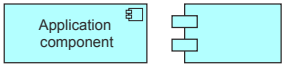
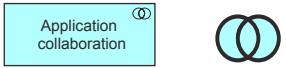
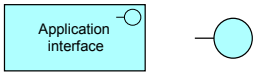
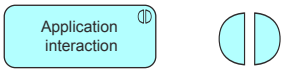
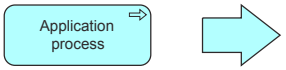
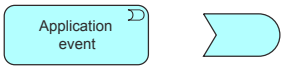
Application Layer

Element	Definition	Notation
Application component	Represents an encapsulation of application functionality aligned to implementation structure, which is modular and replaceable.	
Application collaboration	Represents an aggregate of two or more application internal active structure elements that work together to perform collective application behavior.	
Application interface	Represents a point of access where application services are made available to a user, another application component, or a node.	
Application function	Represents automated behavior that can be performed by an application component.	
Application interaction	Represents a unit of collective application behavior performed by (a collaboration of) two or more application components.	
Application process	Represents a sequence of application behaviors that achieves a specific result.	
Application event	Represents an application state change.	
Application service	Represents an explicitly defined exposed application behavior.	
Data object	Represents data structured for automated processing.	

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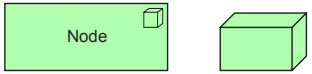
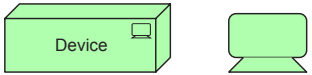
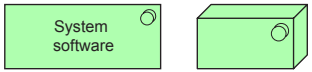
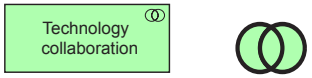
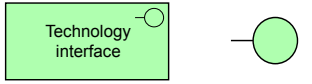
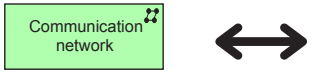
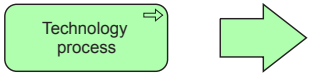
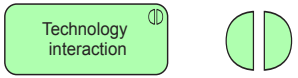
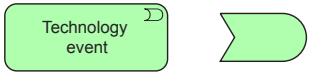
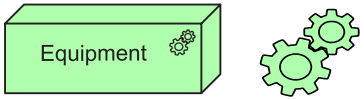
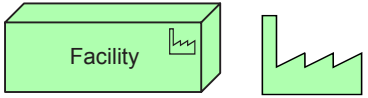
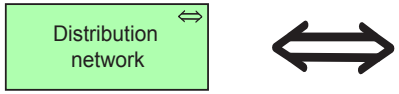
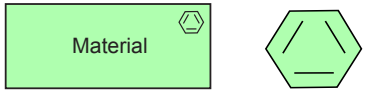
Technology Layer

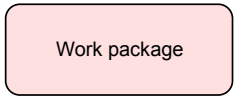
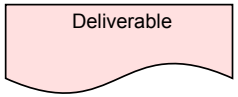
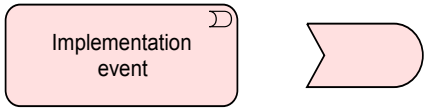
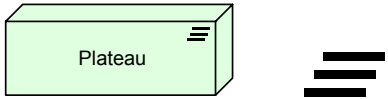
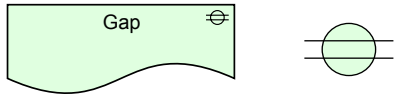
Element	Definition	Notation
Node	Represents a computational or physical resource that hosts, manipulates, or interacts with other computational or physical resources.	
Device	Represents a physical IT resource upon which system software and artifacts may be stored or deployed for execution.	
System software	Represents software that provides or contributes to an environment for storing, executing, and using software or data deployed within it.	
Technology collaboration	Represents an aggregate of two or more technology internal active structure elements that work together to perform collective technology behavior.	
Technology interface	Represents a point of access where technology services offered by a node can be accessed.	
Path	Represents a link between two or more nodes, through which these nodes can exchange data, energy, or material.	
Communication network	Represents a set of structures and behaviors that connects nodes for transmission, routing, and reception of data.	

Element	Definition	Notation
Technology function	Represents a collection of technology behavior that can be performed by a node.	
Technology process	Represents a sequence of technology behaviors that achieves a specific result.	
Technology interaction	Represents a unit of collective technology behavior performed by (a collaboration of) two or more nodes.	
Technology event	Represents a technology state change.	
Technology service	Represents an explicitly defined exposed technology behavior.	
Artifact	Represents a piece of data that is used or produced in a software development process, or by deployment and operation of an IT system.	

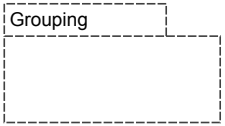
Physical Elements

Element	Definition	Notation
Equipment	Represents one or more physical machines, tools, or instruments that can create, use, store, move, or transform materials.	
Facility	Represents a physical structure or environment.	
Distribution network	Represents a physical network used to transport materials or energy.	
Material	Represents tangible physical matter or energy.	

Implementation and Migration Elements

Element	Definition	Notation
Work package	Represents a series of actions identified and designed to achieve specific results within specified time and resource constraints.	
Deliverable	Represents a precisely-defined result of a work package.	
Implementation event	Represents a state change related to implementation or migration.	
Plateau	Represents a relatively stable state of the architecture that exists during a limited period of time.	
Gap	Represents a statement of difference between two plateaus.	

Composite Elements

Element	Definition	Notation
Grouping	The grouping element aggregates or composes concepts that belong together based on some common characteristic.	
Location	A location is a place or position where structure elements can be located or behavior can be performed.	

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Leading the development of open, vendor-neutral IT standards and certifications

The Open Group is a global consortium that enables the achievement of business objectives through technology standards. Our diverse membership of more than 700 organizations includes customers, systems and solutions suppliers, tool vendors, integrators, academics, and consultants across multiple industries.

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