ENTERPRISE ARCHITECT

User Guide Series

Value Delivery Modeling Language (VDML)

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CREATED WITH ENTERPRISE ARCHITECT

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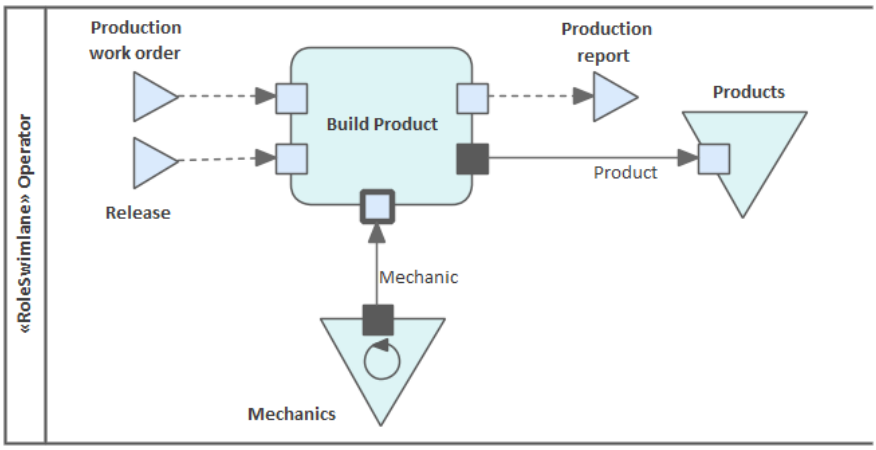
Value Delivery Modeling Language (VDML)

Create Expressive Models Describing Business Value Exchange

VDML is a standard modeling language for the analysis and design of enterprise operations, with a specific focus on the creation and exchange of value. Using the language you can create a representation or abstraction of an enterprise's operations, appropriately and tailored for business executives, along with visualizations of supporting detail for business analysts to link strategy and business models to the activities, roles, and capabilities that run the enterprise. The language is designed for executives, business architects, analysts and managers. Information systems analysts and designers, including solution architects, software engineers and testers, can use VDML models as specifications for the design of supporting information systems. This image shows an example of one of the VDML diagrams that can be created with Enterprise Architect:



Getting Started

The Value Delivery Modeling Language (VDML) allows you to create VDML models with Enterprise Architect.

This definition of VDML is derived from the Object Mangement Group (OMG) Value Delivery Modeling Language (VDML) Specification (version 1.0, October 2015):

Selecting the Perspective

Enterprise Architect partitions the tool's extensive features into Perspectives, which ensures that you can focus on a specific task and work with the tools you need without the distraction of other features. To work with the Value Delivery Modeling Language features you first need to select this Perspective:


<perspective name> > Business Modeling > VDML

Setting the Perspective ensures that the Value Delivery Modeling Language diagrams, their tool boxes and other features of the Perspective will be available by default.

Example Diagram

An example diagram provides a visual introduction to the topic and allows you to see some of the important elements and connectors that are created in specifying or describing the business value is exchanged between in and between organizations including: Capabilities, Collaborations Organization Units, Communities, Business Networks and more.

Language Overview

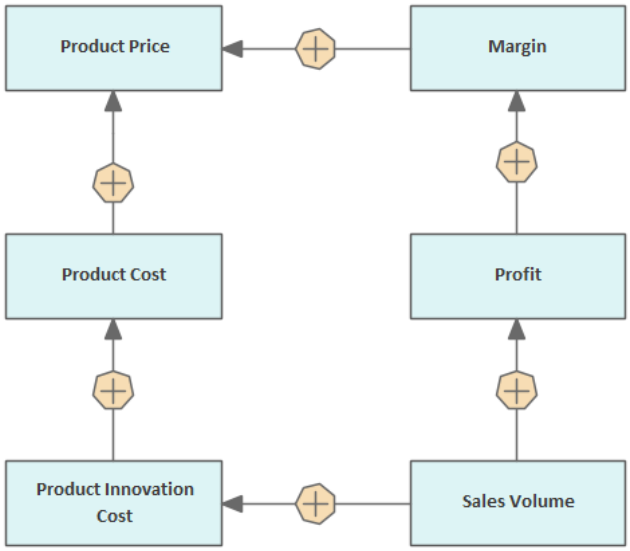
This topic introduces you to the main concepts of the language including its structure, architecture and the elements and connectors that are used to create Value Delivery Modeling Language (VDML) models.

More Information

This section provides useful links to other topics and resources that you might find useful when working with the Value Delivery Modeling Language tool features.

Example Diagram

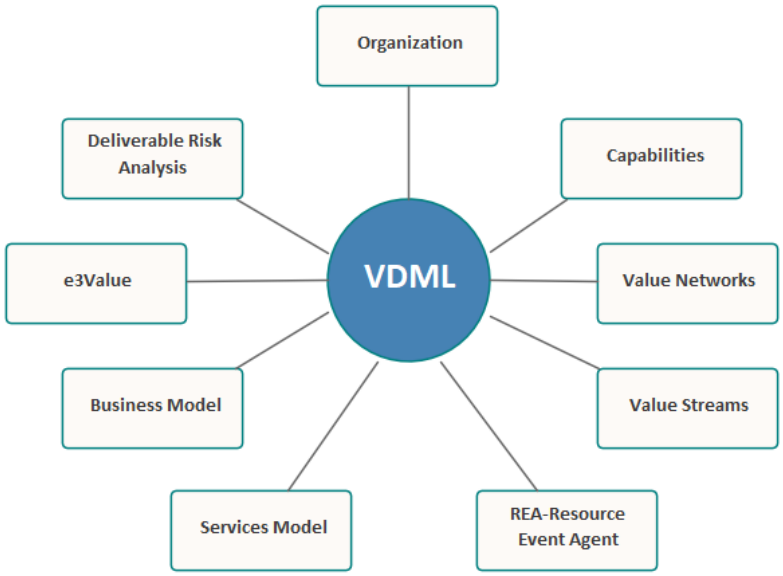
Using the Value Delivery Modeling Language (VDML) facility you can model organizations and the way in which value is exchanged. The models can be used to show the relationship between Capabilities, Activities, Stores, Roles, Value Propositions. In this diagram you will see the use of Measured Characteristics to represent aspects of the cost and profit associated with the development of a new product. The elements are connected by the Measurement relationship, indicating the direction of the measurement.



You can create any number of diagrams and relate elements between the diagrams, including tracing to other non VDML elements such as Goals, Objectives, Requirements, Solution Architecture Components, Interfaces and more

Language Overview

VDML defines the language mechanisms for the consistent and expressive representation and integration of business concepts and viewpoints, for business executives, leaders and line managers to develop an appreciation and understanding of the value-oriented facets of an enterprise or its divisions. Using VDML you have the ability to foster consensus and provide what-if scenarios, along with the ability to exchange the resulting models with other users. There is some semantic and syntactic overlap with other business modeling language standards such as Business Process Model and Notation (BPMN) and ArchiMate. VDML includes concepts of Activities, Roles, Flows and Participants, which have analogous elements in the BPMN, but VDML provides a higher level of abstraction of business activity to focus on statistical characteristics of activities, resources, deliverables and value contributions. VDML also overlaps with Archimate (used to model enterprise architecture) with concepts such as business capabilities and extended organizational relationships - to provide an enterprise-level perspective on the operation of the business.



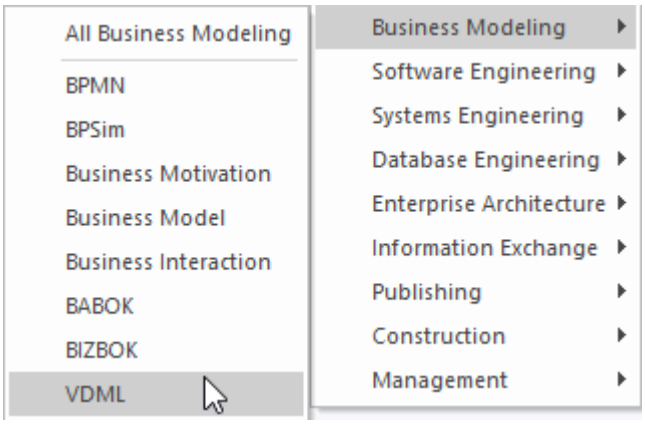
VDML Viewpoints

The language supports multiple viewpoints that express different abstractions or simplifications of the structure and design of an enterprise. These viewpoints influenced the development of the language and show how the language relates to other industry standards.

The creation and exchange of business value is a fundamental driver of analysis using VDML. A value is defined as a measurable benefit delivered to a recipient in association with a business item (deliverable). A Measurement, which can be objective or subjective, represents the extent to which the property is present. The concept of a recipient is critical to understanding the language as this is where the value is realized. A value might represent a feature that is intrinsic to the deliverable, such as its composition, its performance, or its weight, or other benefits conveyed by the deliverable to the recipient, such as price, a commitment to future purchases, a warranty, an environmental impact of the product or trustworthiness. Each recipient will potentially have different opinions regarding their level of satisfaction with the particular value (different Measurements), but they should all agree on the operational Measurement of the value contribution. A deliverable will typically convey multiple values, and an exchange might involve multiple deliverables.

Modeling with VDML

You can create VDML diagrams and models using the diagramming and modeling facilities in Enterprise Architect. First you need to select the VDML Perspective. Perspectives are a facility that ensures you remain focused and can concentrate on just your area of work - in this case, VDML modeling.



Perspective menu - VDML Perspective Selection

This activates the UML Profile for VDML, allowing you to create models with elements and connectors that describe your organization or community domains.

Access

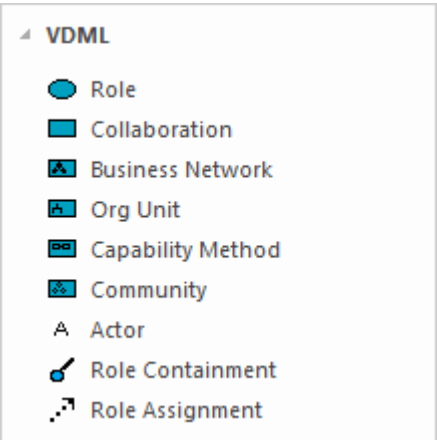
For the selected Package, open the Model Wizard (Start Page 'Create from Pattern' tab), select the required Viewpoint and Pattern, then click on the Create Model(s) button. The model pattern is created in the selected Package. When you open the diagram created from the Pattern, the Diagram Toolbox automatically displays the 'VDML' Toolbox page corresponding to the diagram type you have opened.

Ribbon	Design > Package > Model Wizard : <perspective name> | Business Modeling | VDML
Other	> Business Modeling > VDML > Model Patterns

VDML Toolbox Pages

The VDML Toolbox pages contain the elements and connectors used for each of the diagram types, including:

- Role Collaboration
- Value Proposition Exchange
- Activity Network
- Collaboration Structure
- Capability Library
- Capability Heatmap
- Capability Management
- Measurement Dependency



Value Proposition Exchange Toolbox pages showing elements and connectors.

Elements

Activity	Work contributed to a collaboration by a participant in a Role of the collaboration. A role might be filled by another collaboration and a role might contribute to multiple activities in the same collaboration.
Business Network	A collaboration between independent business (or economic) entities, potentially companies, agencies, individuals or anonymous members of communities of independent business entities, participating in an economic exchange.
Capability	Ability to perform a particular kind of work and deliver desired value.
Capability Method	A collaboration specification that defines the activities, deliverable flows, business items, capability requirements and roles that deliver a capability and associated value contributions.
Capability Offer	Identifies the Capability Method and/or Pool of Actors that provide the Capability as well as significant resources that are used to deliver the Capability.
Collaboration	Collection of participants joined together for a shared purpose or interest.

Community	A loose collaboration of participants with similar characteristics or interests.
Measurement Characteristic	Characteristics of different measurements often contained in a measurements library.
Org Unit	An administrative or functional organizational collaboration, with responsibility for defined resources, including a collaboration that occurs in the typical organization hierarchy, such as business units and departments (and also the company itself), as well as less formal organizational collaboration such as a committee, project, or task force.
Pool	A store that contains re-usable resource, i.e., resource that is returned to the pool after having been used, so that it is again available for use.
Port	Ports are the connection points for inputs and outputs to Collaborations, Activities and Stores
Role	An expected behavior pattern or capability profile associated with participation in a collaboration.
Role Swimlane	A way of represent a role in an Activity Network diagram.
Store	Represents a container of resource. The resource that is stored is identified by a business item.
Value Proposition	Expression of the values offered to a recipient evaluated in terms of the recipient's level of satisfaction.

Relationships

Capability Association	
Capability Dependency	Suggests a possible dependency between two Capabilities, indicating that one Capability requires a deliverable that is provided by the other.
Deliverable Flow	The transfer of a deliverable from a provider (or producer) to a recipient (or consumer).
Internal Port Delegation	Delegates Ports of a Collaboration to Ports of Activities or Stores inside the Collaboration, ensuring that the internal structure of a Collaboration need not be visible to the Activity that delegates its work to the Collaboration.
Measurement Relationship	Specifies relationships between Measurements, which represent aggregations, rankings or other transformations, dependent on the particular semantics of the various types of Measurements (and their underlying Measures).
Role Assignment	Assigns a role to one or more participants.
Role Containment	Shows the structural relationship between roles, indicating that a role contains other roles.

More Information

Edition Information

This feature is available in the Unified and Ultimate Editions of Enterprise Architect, from Release 15.0.

Learn more

VDML Specification (Online Resource)