
OpenArchitectureModel Specification

Release 0.1.0 (Draft 2024-10-26)

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1.1 Introduction

OpenArchitectureModel is a *language for defining and querying software architecture models*. Its main goal is to enable developers to define architecture elements in a standard way.

OpenArchitectureModel is an open standard developed by *Sheikh Mohammad Sajid*.

This document describes version 0.1.0 (Draft 2024-10-26) of the **core** OpenArchitectureModel standard. It is intended that it will be superseded by new incremental releases with additional features in the future.

1.1.1 Design Goals

The design goals of OpenArchitectureModel are the following:

- Fast, safe, and portable *semantics*:
 - **Well-defined**: fully and precisely defines the syntax.
 - **Language-independent**: does not privilege any particular language, programming model, or object model.
 - **Open**: programs can interoperate with their environment in a simple and universal manner.
- Efficient and portable *representation*:
 - **Modular**: programs can be split up in smaller parts that can be transmitted, cached, and consumed separately.
 - **Portable**: makes no architectural assumptions that are not broadly supported across modern hardware.

1.1.2 Scope

At its core, OpenArchitectureModel is a model for storing and retrieving data about software elements. To encompass their variety and enable maximum reuse, the OpenArchitectureModel specification is split and layered into several documents.

This document is concerned with the core layer of OpenArchitectureModel. It defines the base model, query syntax, validation, and execution semantics. It does not, however, define how OpenArchitectureModel data are stored within a specific environment they execute in, nor how they are invoked from such an environment.

1.2 Overview

1.2.1 Concepts

OpenArchitectureModel is a high-level, SQL-like programming language. This language is structured around the following concepts:

Organisation An organisation is a tenant with its own set of architectural information that are versioned together. Transactions are limited to a single organisation and do not span multiple organisations.

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Application

Framework

Profile

Element

Extensions

Release

Deployment

Architecture Decision Records

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