A12

Low Code for Individual Enterprise Software
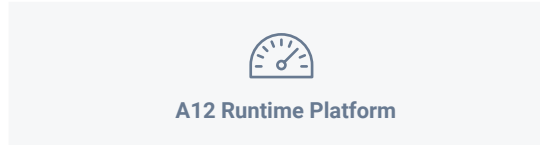
2024.06 LTS

A12 is a platform for developing enterprise applications in complex IT landscapes. It relies on model-driven software engineering (MDSE) and brings the low-code principle to the world of enterprise software.

Structure of the A12 Platform

A12 Modeling Platform

A12's **modeling platform** provides tools to quickly create and maintain parts of an application without programming skills.

A12 Runtime Platform

A12's **runtime platform** provides the flexibility to develop enterprise applications with a low code approach, professional custom software development and system integration.

For Which Operational Scenarios Is A12 Designed?

A12 is intended for professional custom software development projects. It is aimed at large and medium-sized companies, and public authorities that need highly scalable, secure, robust, and potentially business-critical web applications.

This includes form-based applications, portals and administrative processes for the public sector, underwriting platforms for industrial insurance, and integrated solutions for online, retail and mail order businesses (Multi-Channel).

Using A12 is particularly beneficial in overarching scenarios. The model-driven approach makes it possible to use the modelled business expertise across all applications. This ensures consistency, prevents duplication, simplifies release and dependency management and reduces testing overhead.

Model types

A12 DM — DOCUMENT MODEL
A12 RM — RELATIONSHIP MODEL
A12 FM — FORM MODEL
A12 OM — OVERVIEW MODEL
A12 TM — TREE MODEL
A12 CM — CONTENT MODEL
A12 PM — PRINT MODEL
A12 AM — APP MODEL

Validation & Calculation

A12 RL — RULE LANGUAGE

Editor

A12 SME — SIMPLE MODEL EDITOR

Client — Frontend Application
Engines — Model-Driven UI
Widgets — Reusable UI Components
UAA — Identity & Access Management
Data Services — Backend / Server
Kernel — Domain Specific Language (DSL)
Workflows — Process Automation
Data Distribution — Synchronization of Mobile Data
CMS — Content Management
Notification Center — Centralized Notification Management

1. Executive Summary

What Benefits Does A12 Provide?

Handling your business content yourself
Business experts and analysts can use the modeling tools themselves to create the software's domain-specific core and maintain it in the long term.

- Adjust business aspects without programming knowledge
- Implement business changes rapidly
- Automate the software development process extensively
- Powerful Rule Language for validations and computations

1

An open platform, not a closed ecosystem
A12 is designed as an open system. It provides an enormous amount of flexibility for software development, long-term maintenance and further development.

- Flexible use of modular runtime components
- Systematic use of open source technology
- APIs for individual extensions at any level
- Full operational control – on-premises or (private) cloud-based
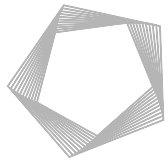- Requirements can be entered directly into the A12 base

2

Future-proof platform for long-lasting software
The consistent separation of business-specific models and technology makes it possible to retain the business-specific core even in the case of technological leaps.
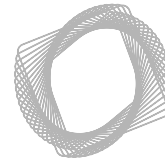
- Detached innovation of technology through model-based approach
- "Data First" principle for sustainable domain-oriented modeling
- Careful technology selection and use of industry standards
- Continuous development of the technical basis
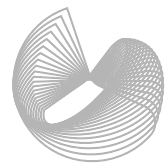
3

Motivation and Approach

mgm's goal is to faster and more economically build enterprise software that is robust, secure and durable. Our experienced software engineers back up this claim. They work at gradually reducing the typical expenditure involved in developing enterprise applications. This is first and foremost done by using model-driven abstractions and separating business expertise and technology.
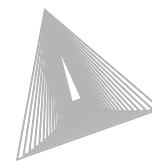
Modeling Platform

The A12 modeling platform provides several modeling tools and a rule language that can be used to map high levels of business complexity for enterprise applications. The following sections provide a brief introduction to the modeling philosophy of A12 and introduce the main models and tools.

Plasma UI/UX Design System

Enterprise applications are characterised by high information density and great complexity. Design languages such as Material Design hit their limits quickly. They cannot fully respond to some challenges, such as how to present complex tables, clearly. Or how to develop the user interface structure consistently when new information is added. This is why mgm developed A12's Plasma design system.

Runtime Platform

The A12 runtime platform consists of a set of modular client and server side components in a modern enterprise architecture. It provides robust components for typical enterprise application requirements. At the same time, it gives the development team full control through fine-grained entry points to plug in their own code and implement individual project requirements.

mgm

**We look forward to the individual
and personal exchange with you.**

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