
FLOW^x.AI

BUILDING BLOCKS / supported-scripts

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BUILDING BLOCKS / Supported scripts

Supported scripts

Scripts are used to define and run **actions** but also properties inside **nodes**. For now, the following script languages are supported:

- Python (Jython)
- DMN
- MVEL
- Groovy
- JavaScript (Nashorn Engine)

Scripting Language	Version
Python (Jython)	2.7.0

Scripting Language	Version
DMN	1.3
MVEL	2.4.10
Groovy	3.0.8
Nashorn engine (JavaScript)	15.4

Python

! INFO

We use **Jython**.

Jython is an implementation of the high-level, dynamic, object-oriented language **Python** seamlessly integrated with the **Java** platform. Jython is an open-source solution.

Properties:

- Supports **Python 2.7** most common python libs can be imported, ex: math, time, etc.
- Java libs can also be imported: [details here](#)

Useful links:

[» Python 2.7.18 documentation](#)[» Jython](#)[» Jython FAQs](#)

DMN

Decision Model and Notation (DMN) is a standard for Business Decision Management.

FLOWX uses [BPMN.io](#) (based on **camunda-engine-dmn** version **7.14.0**) which is built on [DMN 1.3](#) standards.

Properties:

camunda-engine-dmn supports [DMN 1.3](#), including Decision Tables, Decision Literal Expressions, Decision Requirements Graphs, and the Friendly Enough Expression Language (FEEL)

Useful links:

[» Decision Model and Notation \(DMN\)](#)[» DMN 1.3 specs](#)

[» DMN Business Rule Action](#)

More information:

[» Intro to DMN](#)[» DMN Business Rule Action](#)

MVEL

MVEL is a powerful expression language for Java-based applications. It provides a plethora of features and is suited for everything from the smallest property binding and extraction, to full-blown scripts.

- FLOWX uses **mvel2 - 2.4.10 version**

Useful links:

[» Mvel documentation](#)[» Maven repository: Mvel 2.4.0 final](#)

More information:

[» Intro to MVEL](#)

Groovy

Groovy is a multi-faceted language for the Java platform. The language can be used to combine Java modules, extend existing Java applications and write new applications

We use and recommend **Groovy 3.0.8** version, using **groovy-jsr223** engine.

! INFO

Groovy has multiple ways of integrating with Java, some of which provide richer options than available with **JSR-223** (e.g. greater configurability and more security control). **JSR-223** is recommended when you need to keep the choice of language used flexible and you don't require integration mechanisms not supported by **JSR-223**.

! INFO

JSR-223 (spec) is a **standard scripting API for Java Virtual Machine (JVM) languages** . The JVM languages provide varying levels of support for the JSR-223 API and interoperability with the Java runtime.

Useful links:

[» Groovy Language Documentation](#)

» [\[Java\] Class GroovyScriptEngineImpl](#)

Nashorn Engine (JavaScript)

Nashorn engine is an open source implementation of the [ECMAScript Edition 5.1 Language Specification](#). It also implements many new features introduced in ECMAScript 6 including template strings; `let`, `const`, and block scope; iterators and `for...of` loops; `Map`, `Set`, `WeakMap`, and `WeakSet` data types; symbols; and binary and octal literals. It is written in Java and runs on the Java Virtual Machine.

Latest version of **Nashorn** is **15.4**, available from [Maven Central](#). You can check the [changelog](#) to see what's new.

Useful links:

» [GitHub - Nashorn](#)

» [OpenJDK - Nashorn](#)

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