



Red Hat Decision Manager 7.0

Release notes for Red Hat Decision Manager 7.0

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Abstract

This document contains release notes for Red Hat Decision Manager 7.0

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PREFACE

These release notes highlight new features in Red Hat Decision Manager 7.0, list features that are in technical preview, and include any known issues.

CHAPTER 1. ABOUT RED HAT DECISION MANAGER

Red Hat Decision Manager is an open source decision management platform that combines business rules management, complex event processing, Decision Model & Notation (DMN) execution, and Business Optimizer for solving planning problems. It automates business decisions and makes that logic available to the entire business.

Business assets such as rules, decision tables, and DMN models are stored in a central repository. This ensures consistency, transparency, and the ability to audit across the business. Business users can modify business logic without requiring assistance from IT personnel.

Red Hat Decision Manager is fully supported on OpenShift and can be installed on various platforms.

CHAPTER 2. WHAT'S NEW

This section highlights new features in Red Hat Decision Manager 7.0.

2.1. RED HAT DECISION MANAGER

2.1.1. Improved navigation

Red Hat Decision Manager Home page

The Red Hat Decision Manager Home page has been redesigned for easier navigation.

2.1.2. Guided Decision Table

- Guided Decision Table has a new wizard for creating and editing columns.
- Hit policies are now available. Hit policies determine the order in which rules (rows) in a guided decision table are applied.
- New support to display multiple linked guided decision tables in the Guided Decision Table Editor has been added.

2.1.3. Projects Metrics dashboard

A new dashboard is available for every project listed in the Projects perspective. The Projects Metrics dashboard displays all of your project contribution metrics in one place. This new dashboard replaces the Contributors page, which was part of the Authoring group.

2.1.4. Team Metrics dashboard

The Team Metrics dashboard shows all of the project metrics for a team in a single page. This new dashboard replaces the older Contributors page, which was part of the Authoring group.

2.1.5. Decision Server

The Decision Server (also known as kie-server) has been extended to support core engine features and offers a remote API for these operations. In addition the following architectural changes were introduced.

2.1.5.1. Separate Red Hat Decision Manager from execution server

Red Hat Decision Manager now delegates all of its requests to the execution server. The main advantage is that Red Hat Decision Manager can now be used to monitor any set of execution servers.

2.1.5.2. Smart router

The smart router (also known as kie-server-router) can be used as a proxy to help manage multiple independent process execution servers.

2.1.5.3. Aliases

You can now use aliases instead of container IDs in the remote REST APIs of the execution server.

2.1.6. Red Hat Decision Manager Monitoring web application

This release includes a new distribution **war** file that enables you to build custom cloud images. Use the Red Hat Decision Manager Monitoring web application with Decision Server instances to manage containers, process instances, tasks, dashboards, and other runtime capabilities in the cloud. Unlike the standard Red Hat Decision Manager distribution, no authoring capabilities are available.



NOTE

For on-premise deployments, use the standard Red Hat Decision Manager **war** file.

2.1.7. KIE Server Maven plugins

KIE Server has been enhanced with additional Maven plugins that enable interaction with the KIE Server and KIE Controller REST API directly from within a build. This interaction facilitates easier integration with CI/CD pipelines when building KJars so they can be directly deployed to the execution environment (both managed and unmanaged KIE Servers).

2.2. BUSINESS OPTIMIZER

- Multi-threaded partitioned search is available. Business Optimizer now has out-of-the box support for solving a single data set by partitioning across multiple threads. This enhancement makes use of multiple CPU cores for a single problem. Partitioned search can implement geo-fencing for Vehicle Routing use cases.
- The Solution interface is deprecated. Your solution class requires only the `@PlanningSolution` annotation.
- You no longer need to define the score type in the solver configuration. Business Optimizer now determines it automatically from the domain model.
- The Business Optimizer editor screen now supports adding all termination types, including composite termination. The phase configuration section enables you to tweak Construction Heuristic settings and select the local search algorithm to optimize your planning problem.
- The Business Optimizer domain editor can now specify a planning entity difficulty. Navigate through the object hierarchy and define the sorting attributes. Several construction heuristic algorithms use this information to construct a better initial solution.
- The Business Optimizer execution server now supports real-time planning.

2.3. NEW COMPONENT NAMES

The following components have been renamed in Red Hat Decision Manager 7.0:

| Red Hat JBoss BRMS | Red Hat Decision Manager (RHDM) |
|---------------------------|---------------------------------|
| BRMS | Decision Manager |
| Business Central | Decision Central |
| Business Resource Planner | Business Optimizer |

| Red Hat JBoss BRMS | Red Hat Decision Manager (RHDM) |
|------------------------------|--|
| Guided Decision Table editor | Guided Decision Table designer |
| Realtime Decision Server | Decision Server |
| KIE Execution Server | Decision Server (for Decision Management capabilities), Planner Server (for Business Optimization capabilities), KIE Server (represents both Decision server and Planner servers) |
| Organizational units | Spaces |
| Drools engine, Rules engine | Decision engine |

2.4. BUSINESS APPLICATION TEMPLATES

2.4.1. Templates

Business application templates are provided with Red Hat Decision Manager and can be modified to meet your business requirements. Red Hat Decision Manager 7.0 contains the **Employee Roster** template.

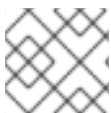
2.4.2. Template delivery

Templates are downloaded from the Customer Portal and are included in the Red Hat Decision Manager distribution.

2.4.3. Template support

Business application templates are not an integral part of Red Hat Decision Manager and are intended for development purposes of customer solutions. Templates are provided to encourage customers to adopt and modify them to work for their specific needs. The content of the template itself does not carry product-specific Service Level Agreements (SLAs). We encourage you to report issues, request for enhancements, and any other feedback for consideration in template updates.

Red Hat Support will provide guidance on the use of this template on a commercially reasonable basis for its intended use, excluding the provided example UI code provided within.



NOTE

[Production support](#) is limited to Red Hat Decision Manager distribution.

CHAPTER 3. TECHNICAL PREVIEW

This section lists features that are in technical preview in Red Hat Decision Manager 7.0. You will see the following note where technical preview features are referred to in the documentation:



IMPORTANT

These features are for Technology Preview only. Technology Preview features are not supported with Red Hat production service level agreements (SLAs), might not be functionally complete, and Red Hat does not recommend to use them for production. These features provide early access to upcoming product features, enabling customers to test functionality and provide feedback during the development process. For more information on Red Hat Technology Preview features support scope, see <https://access.redhat.com/support/offerings/techpreview/>.

3.1. TECHNICAL PREVIEW FEATURES

- Aliases - You can use aliases instead of container IDs in the remote REST APIs of the Planner Server.
- Application Lifecycle Automation - Part of Red Hat Decision Manager and disabled by default.
- Content Management System (CMS) Perspective - Part of Red Hat Decision Manager and disabled by default.
- OpenShift Container Platform - Comprised of the Decision Server, Planner Server, and Decision Central.
- Provisioning User Interface - Enables you to provision a server on OpenShift while running the selected project build from Decision Central. It is part of Red Hat Decision Manager and disabled by default.
- Predictive Model Markup Language (PMML) - The PMML feature is fully implemented for the following predictive model types:
 - Decision Tree
 - Regression
 - Scorecard
 - PMML has a partial implementation of the Mining Model type; with the following model sub-types available:
 - Select All
 - Select First
 - Model Chaining

3.2. TECHNICAL PREVIEW EXPERIMENTAL FEATURES

The following Technology Preview features are experimental and may require additional API changes:

- Multithreaded Execution - Solves a single data set by partitioning across multiple threads. It is turned off by default and can be enabled either with a KieBaseConfiguration option or with a system property as explained in [Drools Documentation](#)
- Rule Units - Rule Units represent a declarative approach to partitioning a rule set in to smaller units, binding different data sources to those units, and the execution of the individual unit. A Rule Unit is comprised of data sources, global variables, and rules.

3.2.1. Enabling Application Lifecycle Automation and Provisioning User Interface

Red Hat Decision Manager settings allow you to enable the Application Lifecycle Automation and Provisioning User Interface features.

1. Go to **Settings** → **Roles** → **admin**.
2. Expand **Pages** and click the **Read** field to enable **Deployments**.

3.2.2. Enabling the Content Management System (CMS) Perspective

Red Hat Decision Manager settings allow you to enable the CMS Perspective.

1. Go to **Settings** → **Roles** → **admin**.
2. Expand **Pages** and click the **Read** field to enable **Page Authoring**.

3.2.3. Enabling Predictive Model Markup Language (PMML)

This feature uses a single configuration option, `org.drools.compiler.compiler.PMMLCompiler`. The valid values for this configuration option are:

- `org.kie.pmml.pmml_4_2.PMML4Compiler` - This value should be used for the majority of cases where PMML support is desired.
- `org.drools.pmml.pmml_4_2.PMML4Compiler` - This value provides backwards compatibility, and should only be used in cases where there is a reliance on the older `drools-pmml` and `drools-scorecards` modules.

CHAPTER 4. KNOWN ISSUES

This section lists known issues with Red Hat Decision Manager 7.0.

Decision Central fails to deploy on Red Hat JBoss EAP with space in its path [RHDM-371]

Steps to reproduce:

1. Download the latest Red Hat JBoss EAP and Decision Central.
2. Unzip Red Hat JBoss EAP and place a space in the new directory name.
3. Finish the setup and run `./standalone.sh`.

Expected result: Decision Central should be deployed.

Actual result: Decision Central fails to deploy and an error appears in the console log.

Workaround: Do not specify a directory that contains any spaces.

Repositories are created when other users open a new space in cluster [RHDM-385]

Steps to reproduce:

1. Create a new space and open the space.
2. Open the space as a different user in the cluster.

Expected result: The space opened by a different user should use the same repository.

Actual result: A new repository is created in the cluster for every user.

Workaround: None

CHAPTER 5. FIXED ISSUES IN RED HAT DECISION MANAGER

7.0.1

Red Hat Decision Manager 7.0.1 provides increased stability and fixed issues listed in this section.

5.1. INSTALLATION

- Red Hat Decision Manager installation fails with new Red Hat JBoss EAP installation. [[RHDM-394](#)]
- Installation path options display null characters in the Red Hat Decision Manager installer. [[RHDM-388](#)]
- Red Hat Decision Manager installer displays incorrect version number in the quit window. [[RHDM-640](#)]

5.2. DECISION ENGINE

- **ProtobufOutputMarshaller.orderFacts** causes a "Comparison method violates its general contract" error. [[RHDM-459](#)]
- Incremental compilation fails on misfire and on **IndexOutOfBoundsException**. [[RHDM-486](#)]
- A **ClassCastException** error is generated when a nested fact is modified during an incremental update. [[RHDM-490](#)]
- Automatic addition of join condition properties to property reactive watch does not work when the first pattern has no constraint. [[RHDM-399](#)]
- The **@watch** annotation is not working with **accumulate** in rules. [[RHDM-509](#)]

5.3. DECISION CENTRAL

- The new name of a renamed project is not being displayed in the Space. [[RHDM-414](#)]
- User and Group management does not work if SSL is enabled in Red Hat JBoss EAP management console. [[RHDM-453](#)]
- An empty "Validation errors" pop-up appears when a rule asset is validated in Decision Central. [[RHDM-462](#)]
- Japanese translation is not included in Red Hat Decision Manager. [[RHDM-600](#)]
- Files cannot be uploaded to a project that has a space in its name. [[RHDM-395](#)]
- A **TypeError** exception is generated when an open guided decision table is selected from the guided decision table graphs designer. [[RHDM-471](#)]
- Decision Central times out and displays a **TypeError** exception after several minutes of inactivity. [[RHDM-457](#)]
- A "Loading assets" pop-up is displayed indefinitely after deleting a project. [[RHDM-382](#)]
- Test scenarios cannot be run in Decision Central in Internet Explorer. [[RHDM-541](#)]

- Solver Configuration validation never finishes. [[RHDM-572](#)]
- The publication URL for the DMN XSD is incorrect. [[RHDM-512](#)]
- The **org.kie:kie-dmn-validation** and **org.kie:kie-dmn-signavio** artifacts for DMN are not in the Red Hat Decision Manager Maven repository. [[RHDM-573](#)]

5.4. RED HAT BUSINESS OPTIMIZER

- Chained immovable (pinned) planning entities in Red Hat Business Optimizer should not move but do move in some cases. [[RHDM-386](#)]
- The **arquillian** test in the Employee Rostering sample for Red Hat Business Optimizer is not building properly in Red Hat Decision Manager. [[RHDM-495](#)]
- The **errai** version in the Employee Rostering sample for Red Hat Business Optimizer is mismatched between the **pom.xml** file for the sample and the **kie-parent** file. [[RHDM-518](#)]
- Several dependencies related to Red Hat Business Optimizer are missing from the **rhdm-7.0.1.GA-add-ons.zip** distribution. [[RHDM-637](#), [RHDM-635](#)]

5.5. RED HAT DECISION MANAGER ON OPENSIFT

- ActiveMQ version is not updated in Red Hat Decision Manager image. [[RHDM-492](#)]
- The **rhdm70-kieserver** OpenShift template cannot be imported. [[RHDM-508](#), [RHDM-597](#)]
- Default memory limits in OpenShift templates are too low. [[RHDM-494](#)]
- Persistent volume claim for OpenShift is **512Mi** but must be **1Gi**. [[RHDM-583](#)]
- OpenShift catalog does not include updated parameter descriptions in OpenShift templates. [[RHDM-503](#)]
- Service accounts in OpenShift templates are not created automatically when needed but instead must be created manually. [[RHDM-584](#)]
- OpenShift resources need to be delivered as a ZIP distribution. [[RHDM-374](#)]

APPENDIX A. VERSIONING INFORMATION

Documentation last updated on: Monday, October 1, 2018.