



# Red Hat Decision Manager 7.3

## Release notes for Red Hat Decision Manager 7.3



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## Abstract

This document contains release notes for Red Hat Decision Manager 7.3.

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## PREFACE

These release notes list new features, features in technology preview, known issues, and issues fixed in Red Hat Decision Manager 7.3.

## CHAPTER 1. PRODUCT OVERVIEW

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 7.3 provides increased stability, several fixed issues, and new features.

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



### NOTE

Red Hat Decision Manager requires Java 8 or later.

For information about the support policy for Red Hat Decision Manager, see the [Release maintenance plan for Red Hat Decision Manager 7.x and Red Hat Process Automation Manager 7.x](#).



## CHAPTER 2. NEW FEATURES

This section highlights new features in Red Hat Decision Manager 7.3.

### 2.1. BUSINESS CENTRAL

#### 2.1.1. Decision Central renamed to Business Central

Decision Central has been renamed to Business Central to improve consistency between Red Hat Decision Manager and Red Hat Process Automation Manager. However, all Red Hat Decision Manager file names and URL components remain unchanged to prevent impact on existing Red Hat Decision Manager distributions. For example, the Business Central URL in Red Hat Decision Manager continues to be **http://HOST:PORT/decision-central**.

#### 2.1.2. New development mode and project deployment enhancements for Decision Server

You can now set Decision Server to run in **production** mode, formerly the default setting, or in **development** mode, the new default setting. Development mode provides a flexible deployment policy that enables you to update existing deployment units (KIE containers) while maintaining active process instances for small changes, or to reset the deployment unit state before updating active process instances for bigger changes. Production mode is optimal for production environments, where each deployment creates a new deployment unit, as in previous releases.

Along with this improvement, Business Central also includes new **Build & Install** and **Redeploy** options for building and deploying projects. In either a development or production environment, you can select the **Build & Install** option to build the project and publish the KJAR file to the configured Maven repository without deploying to a Decision Server. In a development environment, you can click **Deploy** to deploy the built KJAR file to a Decision Server without stopping any running instances (if applicable), or click **Redeploy** to deploy the built KJAR file and stop any running instances. The next time you deploy or redeploy the built KJAR, the previous deployment unit (KIE container) is automatically updated in the same target Decision Server. In a production environment, the **Redeploy** option is disabled and you can click **Deploy** only to deploy the built KJAR file to a new deployment unit (KIE container) on a Decision Server.

To configure the Decision Server environment mode, set the **org.kie.server.mode** system property to **org.kie.server.mode=development** or **org.kie.server.mode=production**. To configure the deployment behavior for a corresponding project in Business Central, go to project **Settings** → **General Settings** → **Version** and toggle the **Development Mode** option. By default, Decision Server and all new projects in Business Central are in development mode. You cannot deploy a project with **Development Mode** turned on or with a manually added **SNAPSHOT** version suffix to a Decision Server that is in production mode.

#### 2.1.3. GIT hook execution handling

GIT hook execution handling now includes UI notifications to indicate if a script is executed successfully or with a warning or error.

#### 2.1.4. Authoring collaboration

Authoring collaboration enables users to configure the contributors of a project or space and their role (**owner**, **admin**, or **contributor**) with associated privileges.

## 2.2. RED HAT BUSINESS OPTIMIZER

### 2.2.1. Deployment of the Employee Rostering starter application on OpenShift

You can now use a template to deploy the Red Hat Business Optimizer Employee Rostering starter application on Red Hat OpenShift Container Platform with persistent data storage.

## 2.3. JAVA 11

### 2.3.1. Java 11 certification

Various distributions of Java 11, such as OpenJDK 11, have been certified as runtime platforms, on par with the pre-existing Java 8 certification. In addition, with this release we are including support for OpenJDK on Windows.

## 2.4. SPRING BOOT

### 2.4.1. Spring Boot 2.1.x

Red Hat Decision Manager support for Spring Boot has been updated from Spring Boot 1.5.x to Spring Boot 2.1.x.

## 2.5. COMPONENTS MOVED FROM TECHNOLOGY PREVIEW TO FULLY SUPPORTED

### 2.5.1. Decision Model and Notation (DMN) designer

The Decision Model and Notation (DMN) designer in Business Central is now fully supported in Red Hat Decision Manager 7.3. You can use the new DMN designer in Business Central to design DMN decision requirements diagrams (DRDs) and define decision logic for a complete DMN decision model. Red Hat Decision Manager 7.3 provides both design and runtime support for DMN 1.2 models at conformance level 3, and includes enhancements and fixes to FEEL and DMN model components to optimize the experience of implementing DMN decision services with Red Hat Decision Manager.

The improved DMN designer also includes the following notable enhancements:

- New support for decision service nodes in DRDs
- Automatic layout for imported DRDs
- Improved DMN data types and constraints
- Improved DRD validation when assets are saved or built

For more information about DMN support in Red Hat Decision Manager 7.3, see the following resources:

- [Designing a decision service using DMN models](#)
- [Getting started with decision services](#)

### 2.5.2. Test Scenarios designer

The Test Scenarios designer in Business Central is now fully supported in Red Hat Decision Manager 7.3.

- Data object list support: The Test Scenarios designer in Business Central now supports data object lists in Red Hat Decision Manager 7.3. You can now define and test scenarios that include Java collections as inputs (given values) or outputs (expected values). A concrete collection can now be defined as a value of a particular cell. The collections can be created, modified, and removed at any time during the development of a test scenario.
- DMN support: The Test Scenarios designer in Business Central now supports DMN-based test scenario assets in Red Hat Decision Manager 7.3. You can now create test scenario assets that are rule-based, to test all rules inside all DRL files within the project, or DMN-based, to test all decisions defined inside one particular DMN file.
- Visual test results: The Test Scenarios designer in Business Central now provides visual test results in Red Hat Decision Manager 7.3.

## 2.6. OTHER ENHANCEMENTS

- Ability to set the **drools.trimCellsInDTable** system property to **false** in a Red Hat Decision Manager distribution to retain intentional white space before or after values in decision table cells.
- New domain specific language (DSL) and fact type search filter when adding conditions or actions to guided rules and guided rule templates.
- Ability to include slashes in Git branch names.

## CHAPTER 3. DEPRECATED COMPONENTS

The components listed in this section have been deprecated.

### 3.1. INTERNET EXPLORER 11

Internet Explorer 11 is deprecated with Red Hat Decision Manager 7.3.0.

## CHAPTER 4. TECHNOLOGY PREVIEW

This section lists features that are in technology preview in Red Hat Decision Manager 7.3. Business Central includes an experimental features administration page which is disabled by default. To enable this page, set the value of the **appformer.experimental.features** property to **true**.



### 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, see [Technology Preview Features Scope](#).

### 4.1. HIGH-AVAILABILITY AUTHORIZING ON RED HAT JBOSS EAP (ON PREMISE AND WITH OPENSIFT)

Configuration of Business Central for high availability is currently technology preview. Search and messaging technology used to enable search feature is considered an implementation detail. Red Hat Decision Manager may choose to replace that technology in the future while preserving the capability offered.

## CHAPTER 5. KNOWN ISSUES

This section lists known issues with Red Hat Decision Manager 7.3.

### 5.1. UPGRADING

**After upgrading to Red Hat Decision Manager 7.3.0, rules do not fire.**

Issue: If you upgrade to Red Hat Decision Manager 7.3.0, rules do not fire because of a change to packages in the **kmodule.xml** file. For more information, see [Rules don't fire after upgrading to RHDM 7.3.0](#).

### 5.2. BUSINESS CENTRAL

**All line separators in the right-hand side of rules in the spreadsheet are escaped [ [RHDM-903](#)]**

Issue: If you have multiple lines in the **ACTION** column of a spreadsheet, all line separators are converted to **\n**. This conversion causes a build error.

Steps to reproduce:

1. Add more than one line to a row in the in **ACTION** column of a spreadsheet.
2. Build the spreadsheet with Red Hat Decision Manager.

Expected result: The spreadsheet builds successfully.

Actual result: The build fails with errors similar to **line 1:15 no viable alternative at character '\**.

Workaround: Ensure that rows in the **ACTION** column of a spreadsheet do not contain more than one line in each row.

**You cannot upload a spreadsheet that contains a large decision table [ [RHDM-488](#)]**

Issue: If you try to upload a spreadsheet that contains a large decision table into Business Central, an out-of-memory error appears in the **error.log** file.

Steps to reproduce:

1. Create a spreadsheet that contains a large decision table.
2. Create a new project in Business Central.
3. Click **Add Asset** and then select **Spreadsheet Decision Table**.
4. Attach the spreadsheet that contains the large decision table.
5. Review the server **error.log** file.

Actual result: An out-of-memory error appears in the **error.log** file.

Workaround: None.

**An unexpected error occurs if you delete a project that contains a business process [ [RHPAM-1943](#)]**

Issue: If you delete a project that contains a business process, an unexpected error occurs.

Steps to reproduce:

1. Create a project in Business Central.
2. Add a business process asset to the project.
3. Save the business process asset.
4. Delete the business process asset.

Expected result: The business process asset is deleted.

Actual result: An error occurs.

Workaround: None.

## 5.3. INSTALLER

### The controller URL is not updated in the standalone.xml file if only Decision Server is installed [[RHPAM-1781](#)]

Issue: When you run the Red Hat Decision Manager installer and you specify a URL for the controller, the URL is not updated in the Red Hat JBoss EAP **standalone.xml** and **standalone-full.xml** files.

Steps to reproduce:

1. Run the Red Hat Decision Manager installer.
2. Specify an Red Hat JBoss EAP installation for container.
3. Select only Process Server to install.
4. Select **Advanced Configuration** and update controller URL.
5. Complete the installation.
6. Open the Red Hat JBoss EAP **standalone.xml** or **standalone-full.xml** file and find the controller URL.

Expected result: The value of the controller URL property is the URL that you entered during installation.

Actual result: The value of the controller URL property is the default value.

Workaround: Manually update the value of the controller URL property in the Red Hat JBoss EAP **standalone.xml** and **standalone-full.xml** file.

## 5.4. DECISION SERVER

### You cannot deploy a KJAR with a PMML asset to a Decision Server Spring Boot starter on Windows [[RHDM-852](#)]

Issue: If a KJAR contains a PMML asset, you cannot deploy it as a container on a Decision Server that is running in the **kie-server-spring-boot-starter** Spring Boot starter on Microsoft Windows.

Steps to reproduce:

1. Create a KJAR that contains a PMML asset.
2. Start **kie-server-spring-boot-starter** on Windows.
3. Deploy the KJAR to a Decision Server that is running the **kie-server-spring-boot-starter** Spring Boot starter on Microsoft Windows.

Expected result: The KJAR is deployed successfully.

Actual result: The KJAR cannot be deployed.

Workaround: None.

## 5.5. OPENSIFT

**User password is displayed in the Readiness and Liveness probes [ [RHDM-848](#)]**

Issue: If you deploy Red Hat Decision Manager on OpenShift, the user password is displayed in both the Readiness and Liveness probes.

Workaround: None.

## 5.6. RED HAT BUSINESS OPTIMIZER

**ScoreCalculationCountLimit termination does not work with multi-threaded solving [ [RHDM-740](#)]**

Issue: Red Hat Business Optimizer configured with the score calculation count termination (**ScoreCalculationCountLimit**) does not terminate. The score calculation count termination is primarily used for testing.

Workaround: Use another type of termination.



# CHAPTER 6. FIXED ISSUES IN RED HAT DECISION MANAGER

## 7.3.0

Red Hat Decision Manager 7.3.0 provides increased stability and fixed issues listed in this section.

### 6.1. INSTALLATION

- If you use the installer to install only Decision Central, the **standalone-secure.sh** and **standalone-secure.conf** files are not installed [ [RHDM-641](#)]
- The Red Hat Decision Manager installer fails at the Server Configuration stage [ [RHDM-839](#)]

### 6.2. BUSINESS CENTRAL

- If a rule has a name that contains "%", the **URLDecoder: Illegal hex characters in escape (%) pattern** error occurs [ [RHDM-601](#)]
- Wrong Business Central logo with the Swarm distribution [ [RHDM-736](#)]
- Downloaded project cannot be extracted with the built-in Windows unzip tool [ [RHDM-785](#)]
- The business rule condition **is contained in the (comma separated) list** does not produce a multiple option menu in a guided decision table and guide rule template [ [RHDM-804](#)]
- Importing a DMN asset fails with the **Activity Not Found** error [ [RHDM-797](#)]

### 6.3. DECISION ENGINE

- Unexpected node sharing by function with equals [ [RHDM-850](#)]
- Using **From** with **modify** fires an unexpected rule [ [RHDM-843](#)]
- Misleading error messages generated by maven plugin when creating an executable model KJAR [ [RHDM-841](#)]
- Compiler error in executable model when there is a clash between a field and a class name [ [RHDM-834](#)]
- A **NoSuchElementException: No value present error** occurs when an executable rule model is compiled [ [RHDM-832](#)]
- The behavior of **update** is different from the behavior of **modify** when the **mvel** dialect is used with property reactive type [ [RHDM-830](#)]
- The executable model fails to compare BigDecimal [ [RHDM-824](#)]
- KIE base packages in the **kmodule.xml** file work differently with the executable model [ [RHDM-823](#)]
- In the executable model, a build error occurs when multiple DRLs of the same package are used [ [RHDM-819](#)]
- In the executable model, a parse error occurs if you use the Java dialect and connect expressions with a comma inside a modify block [ [RHDM-818](#)]

- The MVEL expression **(1 + 2 \* 3 + 4 \* \$v)** causes a **no such method or function** error for bind variables [[RHDM-815](#)]
- A rule with many accumulates is corrupted by **DrIParser** and **DrIDumper** [[RHDM-811](#)]
- In Windows, if you run **CRLF** in a **.xlsx** spreadsheet ACTION cell, the value is not treated as an absolute value [[RHDM-807](#)]

## 6.4. DATA MODELER

- When creating a data object class that implements the Comparable interface, a **ClassNotFoundException** is thrown when saving the asset [[RHDM-734](#)]

## 6.5. DECISION SERVER

- The thread used by **LoadBalancer** remains when the connection to Decision Server fails during the instantiation of **KieServicesClient** [[RHDM-829](#)]
- Beans annotated with **@propertyChangeSupport** do not account for the property reactivity when propagating a modification [[RHDM-846](#)]

## 6.6. OPENSIFT

- Business Central liveness and readiness probes point to the wrong URL [[RHDM-847](#)]
- The **rhdm73-authoring-ha.yaml** template does not configure AMQ to be high availability [[RHDM-861](#)]

# CHAPTER 7. FIXED ISSUES IN RED HAT DECISION MANAGER

## 7.3.1

Red Hat Decision Manager 7.3.1 provides increased stability and fixed issues listed in this section.

### 7.1. INSTALLER

- When installing only Decision Server, the installer does not create the user specified on the user creation screen [[RHDM-885](#)]

### 7.2. BUSINESS CENTRAL

- Manual changes to the **kmodule.xml** file are overridden [[RHDM-599](#)]
- In a guided decision table, an incorrect V&V results when an operator is entered in the row definition rather than the column definition [[RHDM-711](#)]
- The Red Hat Decision Manager designer library must be filtered with the RuleFlow filter by default under a SWARM installation [[RHDM-538](#)]
- The package name white list should contain the project's default package [[RHPAM-1890](#)]

### 7.3. DECISION ENGINE

- **MVELConcequenceBuilder** interprets the second appearance of the hash symbol (#) within a string incorrectly as a comment [[RHDM-856](#)]
- If you use the plus icon (+) to insert a row in a guided rule template, values are missed or changed [[RHDM-920](#)]
- Decision Server is not removed from the controller view if the server is killed or crashes [[RHPAM-1654](#)]

### 7.4. OPENSIFT

- Setting the Maven mirror URL does not exclude Business Central [[RHDM-883](#)]
- Kie server timers are not clustered [[RHPAM-181](#)]
- XStream marshaller does not work with PMML on execution server [[RHPAM-1900](#)]

## APPENDIX A. VERSIONING INFORMATION

Documentation last updated on Wednesday, May 8, 2019.