



Red Hat Decision Manager 7.5

Release notes for Red Hat Decision Manager 7.5

Release Note

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Release Note

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概要

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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 7.5.

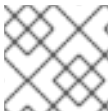
第1章 PRODUCT OVERVIEW

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

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



注記

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](#).

第2章 NEW FEATURES

This section highlights new features in Red Hat Decision Manager 7.5.

2.1. INSTALLATION

2.1.1. Image naming and tagging conventions

The Red Hat Decision Manager image naming and tagging conventions have changed. Starting with Red Hat Decision Manager 7.5.0, the major and minor version is part of the tag itself, along with the micro version. Additionally, the suffix **-openshift** is replaced with **-rhel[version]** to signify the underlying operating system version. For example:

- **registry.redhat.io/rhdm-7/rhdm-decisioncentral-rhel8:7.5.0** is the Red Hat Decision Manager Business Central 7.5.0 image.
- **registry.redhat.io/rhdm-7/rhdm-decisioncentral-rhel8:7.5.1** is the Red Hat Decision Manager Business Central 7.5.1 image.

2.1.2. Reference implementations

Three reference implementations are available that you can use as starter applications. They are provided in the **Red Hat Decision Manager 7.5.1 Reference Implementations** download, available on the Red Hat Decision Manager Software Downloads page in the Red Hat Customer Portal.

Employee Rostering reference implementation

The employee rostering reference implementation enables you to create an application that assigns employees to shifts on various positions in an organization. For example, you can use the application to distribute shifts in a hospital between nurses, guard duty shifts across a number of locations, or shifts on an assembly line between workers.

High available event-driven decisioning reference implementation

A reference implementation for high available event-driven decisioning on Red Hat OpenShift Container Platform is available. You can customize this reference implementation to deploy Drools engine code that requires stateful processing, including rules developed with complex event processing, in an OpenShift environment. Doing this enables the decision engine to process complex event series with high availability.

Vehicle route planning reference implementation

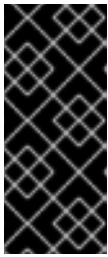
The vehicle route planning reference implementation enables you to create an application that solves a vehicle route planning problem with real-world maps, roads, and vehicles delivering goods to locations, each with a specific capacity. For more information, see the read me file in the vehicle routing ZIP file, included in the reference implementation download.

2.2. BUSINESS CENTRAL

2.2.1. Decision Model and Notation (DMN) designer improvements

The Decision Model and Notation (DMN) designer in Business Central includes the following notable enhancements:

- New **Documentation** tab that you can use to generate a report of your DMN model. You can print or download the report as an HTML file for offline use.
- PMML support in DMN included models. You can now use the **Included Models** tab in the DMN designer to include Predictive Model Markup Language (PMML) models from your project in a specified DMN file. When you include a PMML model within a DMN file, you can invoke that PMML model as a boxed function expression for a DMN decision node or business knowledge model node.
- Support for JPMML execution of PMML models included in DMN models. For PMML models that you include in DMN models, you can use either the **kie-pmml** compiler or the full PMML specification implementation with the Java Evaluator API for PMML (JPMML) for PMML execution.



重要

Red Hat supports integration with the Java Evaluator API for PMML (JPMML) for PMML execution in Red Hat Decision Manager. However, Red Hat does not support the JPMML libraries directly. If you include JPMML libraries in your Red Hat Decision Manager distribution, see the [Openscoring.io](https://www.openscoring.io) licensing terms for JPMML.

For more information about DMN support in Red Hat Decision Manager 7.5, see the following resources:

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

2.2.2. Ability to convert a guided decision table to a spreadsheet decision table

You can convert a guided decision table in Business Central to an XLS spreadsheet decision table file for offline reference and file sharing. The guided decision table must be an extended entry guided decision table in order to be converted. The conversion tool does not support limited entry guided decision tables. To convert a guided decision table, navigate to the guided decision table asset that you want to convert and in the upper-right toolbar of the guided decision tables designer, click **Convert to XLS**.



警告

Guided decision tables and spreadsheet decision tables are different decision table formats that support different features. Any supported features that differ between the two decision table formats are modified or lost when you convert one decision table format to the other.

2.2.3. Import and export Dashbuilder data in Business Central

You can now import and export Dashbuilder data as ZIP files. To import and export Dashbuilder data, select the **Admin** icon in the upper-right corner of the Business Central window and select **Dashbuilder Data Transfer**.

2.2.4. Test scenarios

The test scenarios designer in Business Central is now available with the new features supported in Red Hat Decision Manager 7.5.

- View coverage reports for rule-based models. The test scenarios designer displays the test coverage statistics in the **Coverage Report** panel on the right side of the test scenarios designer.
- Download coverage reports for rule-based and DMN-based models. You can now download the test scenario coverage reports in CSV format.
- You can run test scenarios with stateless KIE sessions. To configure a stateless KIE session, expand the **Settings** panel of the test scenario and select or clear the **Stateless Session** check box to indicate whether or not the KIE session is stateless or not.



注記

The test scenario **scesim** file format is not public. You can only edit the **scesim** file using the test scenario editor.

2.3. DECISION SERVER

2.3.1. Ability to configure the queue size for the planning engine in a Decision Server

You can now configure the queue size for the planning engine in a Decision Server. The queue size determines how many solver requests can be enqueued to wait for processing while the engine is working on other requests. If the queue is full, new requests are rejected. The default queue size is equal to the number of active CPU cores. To change the queue size, set the **org.optaplanner.server.ext.thread.pool.queue.size** system property for the Decision Server.

2.4. RED HAT OPENSIFT CONTAINER PLATFORM

2.4.1. Automatic minor and patch version updates in operator deployments on Red Hat OpenShift Container Platform

When you deploy Red Hat Decision Manager on Red Hat OpenShift Container Platform using the Business Automation Operator, you can now enable automatic minor and patch version updates.

If you enable automatic patch updates, when a new version becomes available all components of your deployment are updated automatically. Normally, there is no interruption in service.

2.4.2. Support for configuring aliases in Red Hat OpenShift Container Platform

You can now configure container aliases for services running on immutable Decision Servers on Red Hat OpenShift Container Platform. If you use Smart Router, it automatically routes requests to Decision Servers based on the alias name specified in the requests.

第3章 DEPRECATED AND REMOVED COMPONENTS

The components listed in this section have been deprecated or removed.

3.1. INCREMENTAL MAVEN REPOSITORY

The incremental Maven repository has been removed from the Red Hat Decision Manager 7.5 distribution in favor of the full Red Hat Decision Manager 7.5 Maven Repository available from the [Software Downloads](#) page in the Red Hat Customer Portal (login required).

3.2. LEGACY TEST SCENARIOS TOOL

The legacy Test Scenarios tool was deprecated with Red Hat Decision Manager 7.3.0. It will be removed in a future Red Hat Decision Manager release. Use the new Test Scenarios designer instead.

3.3. SUPPORT FOR RED HAT OPENSIFT CONTAINER PLATFORM 3.X

Starting with the 7.5 release of Red Hat Decision Manager, support for Red Hat OpenShift Container Platform 3.x, including installation using all templates and using the Automation Broker (Ansible Playbook) is deprecated. Support for Red Hat OpenShift Container Platform 3.x will be removed in a future Red Hat Decision Manager release. Consider deploying Red Hat Decision Manager using the Operator on Red Hat OpenShift Container Platform 4.x.

第4章 TECHNOLOGY PREVIEW

This section lists features that are in Technology Preview in Red Hat Decision Manager 7.5. Business Central includes an experimental features administration page that is disabled by default. To enable this page, set the value of the **appformer.experimental.features** property to **true**.



重要

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 RED HAT OPENSIFT CONTAINER PLATFORM)

Configuration of Business Central for high availability is currently a Technology Preview feature. Search and messaging technology used to enable the search feature is considered an implementation detail. That technology might be replaced in Red Hat Decision Manager in a future release while the capability offered might be preserved.

4.2. CONSTRAINT STREAMS API

You can use the Constraint Streams API as an alternative to the Drools Rules Language (DRL) to program incremental score calculations in plain Java 8+. The Constraint Streams API is fast, scalable, and debuggable. You can use any IDE to develop and debug solvers using the Constraint Streams API. It uses deltas that enable the engine to redo only necessary calculations. It also supports justifications, so you can review the reason a solution was reached in order to debug the solver.

4.3. OPENSIFT OPERATOR INSTALLER WIZARD

An installer wizard is provided in the OpenShift Operator for Red Hat Decision Manager. You can use the wizard to deploy a Red Hat Decision Manager environment on Red Hat OpenShift Container Platform with the Operator.

4.4. RED HAT JBOSS DATA GRID REPLACES ELASTICSEARCH

Red Hat JBoss Data Grid replaces Elasticsearch as the distributed highly scalable full-text search and analytics engine for Red Hat Decision Manager.

Red Hat Data Grid is built from the Infinispan open-source software project and contains indexing capabilities that enable you to store, search, and analyze high volumes of data quickly and in near-real time. In a Red Hat Decision Manager clustered environment, it enables you to perform complex and efficient searches across cluster nodes.

The **ConstraintStreams** API is currently a Technology Preview feature. It does not cover the full range of Red Hat Business Optimizer engine capabilities.

第5章 KNOWN ISSUES

This section lists known issues with Red Hat Decision Manager 7.5.

5.1. BUSINESS CENTRAL

You cannot start a task if the Elytron adapter is installed [[RHPAM-2450](#)]

Issue: If Business Central on Red Hat JBoss EAP is integrated with RH-SSO using the Elytron adapter, errors are displayed after a task is started.

Steps to reproduce:

1. Install Red Hat Decision Manager on Red Hat JBoss EAP.
2. Configure Business Central with RH-SSO using the Elytron adapter.
3. Import a process sample.
4. Start the process.
5. Start a task.

Expected result: The task starts correctly.

Actual result: The task does not start and an error is displayed.

Workaround: Use the legacy adapter instead of the Elytron adapter. Enter the following command to install the legacy adapter:

```
./bin/jboss-cli.sh -c --file=bin/adapter-install.cli
```

An error might occur if you import a sample project twice [[RHPAM-2434](#)]

Issue: An **Unable to complete your request** error might appear if you import a sample project that has already been imported.

Steps to reproduce:

- Import a sample project twice. Note that this error does not always occur.

Workaround: If the sample project that failed to import is present in your space, remove it then import it again.

In the DMN designer, the DMN file validation operation does not report invalid operators [[RHDM-1119](#)]

Issue: In the DMN designer, if the DMN model contains an invalid operator (an operator that does not exist), for example >>>>, the validation operation does not report the invalid operator.

Workaround: None.

Users cannot test DMN context expression in test scenarios [[RHDM-1116](#)]

Issue: If you test DMN context expressions using the test scenario designer and the test fails, the corrected output has the wrong format.

Steps to reproduce:

- Create two tests where the second test is created according to the hint message in the first test, while retaining the same input as the first test.

Expected result: The corrected output has the correct format, as shown in the following example:

```
{"key_a" : "value_a", "key_b" : "value_b", ...}
```

Actual result: The corrected output has an incorrect format (missing double quotes), as shown in the following example:

```
{key_a : value_a, key_b : value_b, ...}
```

5.2. DECISION ENGINE

The executable model does not fully parse multi-line patterns [[RHDM-1098](#)]

Issue: When a pattern has multiple lines, the executable model does not fully parse its conditions. Only the first line is parsed.



注記

This issue is resolved with Red Hat Decision Manager patch release 7.5.1.

Workaround: None.

5.3. HIGH AVAILABILITY

In a high-availability authoring environment, when one user imports a project, another user is unable to see it [[RHPAM-2470](#)]

Issue: When multiple users connect to a high-availability Business Central and one user creates a project, another user cannot see the project.

Steps to reproduce:

1. Log in to Business Central as two different users (A and B) from two different hosts or browsers.
2. As user A and as user B, open the same space.
3. As user A, import a project using an external Git repository URL.

Expected result: As user B, you can see the imported project in the space.

Actual result: As user B, you cannot see the imported project in the space.

Workaround: As user B, reload the space.

In a high-availability authoring environment, role changes in Business Central are not saved [[RHPAM-2342](#)]

Issue: If you configure a role change in high-availability Business Central, the change can be lost after a time and the roles reset to defaults.

Workaround: Configure the role change again.

In a high-availability authoring environment, an imported project in Business Central appears multiple times [RHPAM-2372]

Issue: If you import a sample project in high-availability Business Central, the project can appear in the list several times. Some copies might not have all of the assets. The environment can slow down when this issue occurs.

Workaround: Ensure one copy has all of the assets, then remove all other copies. If Business Central performance is slow, restart all of the nodes connected to it.

In a high-availability authoring environment, project creation fails when a Business Central node is down [RHPAM-2475]

Issue: When you create a project, the project creation does not complete. The cause is one Business Central node in a high-availability authoring environment going down.

Workaround: Create the project again.

In a high-availability authoring environment, asset creation is not completed when a Business Central node is down [RHPAM-2476]

Issue: When you create an asset, the asset is not indexed. It is displayed in Business Central but you cannot use it. The cause is one Business Central node in a high-availability authoring environment going down.

Workaround: In the **Project Explorer** view, open the asset and click **Save**.

In a high-availability authoring environment, multi-project import slows down Business Central [RHPAM-2477]

Issue: When a user imports multiple projects in a high-availability Business Central with multi-project import enabled, Business Central slows down and consumes significant resources.

Steps to reproduce:

1. In the **Settings** menu of Business Central, enable multi-project import.
2. Enter a space and import all samples at one time.

Expected result: Business Central operates normally and imports the samples.

Actual result: Business Central slows down and consumes a lot of resources. In a Red Hat OpenShift Container Platform environment, the pod eventually fails.

Workaround: Restart all Business Central nodes. To avoid this issue, do not enable multi-project import.

5.4. RED HAT OPENSIFT CONTAINER PLATFORM

The role properties file configuration is available for internal authentication [RHPAM-2247]

Issue: The role properties file configuration should be available only when RH-SSO or LDAP authentication is used. However, currently it is also available when internal authentication is used.



注記

This issue is resolved with Red Hat Decision Manager patch release 7.5.1.

Steps to reproduce:

1. Open the Business Automation Operator UI.
2. Assign values to mandatory parameters.
3. Retain the authentication mode **Internal**.
4. Complete the role properties file configuration.
5. Deploy the result.

Expected result: When internal authentication is used, it is not possible to specify the role properties file.

Actual result: When internal authentication is used, it is possible to specify the role properties file.

Workaround: If you plan to use internal authentication, leave the role properties file property in Business Automation Operator UI empty.

Resource requests have an incorrect name in the customer resource (CR) YAML file [RHPAM-2248]

Issue: Resource requests are specified as **request** in the Business Automation Operator UI, however in the customer resource definition (CRD) they are specified as **requests**. Therefore, CPU and memory requests from the UI are not applied.



注記

This issue is resolved with Red Hat Decision Manager patch release 7.5.1.

Steps to reproduce:

1. Open the Business Automation Operator UI.
2. Assign values to mandatory parameters.
3. Complete CPU and memory requests for Console.
4. Check the resulting YAML file.

Expected result: In the generated YAML file, resource requests are specified as **requests**.

Actual result: In the generated YAML file, resource requests are specified as **request**.

Workaround: In the generated YAML file, change the resource request specification from **request** to **requests**.

Product environment fails to deploy on Amazon Web Services (AWS) with AWS Elastic Block Storage (EBS) because of AWS EBS volume plugin lack of support for ReadWriteMany (RWX) persistent volume access mode [RHPAM-2480]

Issue: Several templates used for installing Red Hat Decision Manager on Red Hat OpenShift Container Platform, as well as deployment of several environment types using the Business Automation Operator,

fail to deploy on AWS with EBS. The templates and environment types include persistent volume claims that require support for the **ReadWriteMany** access mode and the AWS EBS volume plugin does not provision persistent volumes with this access mode.

The **rhdm75-authoring-ha.yaml** template is affected.

Workaround: Deploy an NFS server and provision the persistent volumes using NFS. For information about provisioning persistent volumes using NFS, see one of the following guides:

- For Red Hat OpenShift Container Platform version 3, see the "Persistent storage using NFS" section of the [OpenShift Container Platform 3.11 Installation and Configuration](#) guide.
- For Red Hat OpenShift Container Platform version 4, see the "Persistent storage using NFS" section of the [OpenShift Container Platform 4.2 Storage](#) guide.

Optaweb Vehicle Routing tests fail due to different versions of dependencies [[RHDM-1129](#)]

Issue: Optaweb Vehicle Routing is distributed with the incorrect **package-lock.json** file. As a result, snapshot tests of the **optaweb-vehicle-routing-frontend** module fail because of changes in HTML code generated by different versions of dependencies.

Workaround:

1. Change directory to the **optaweb-vehicle-routing-frontend** module.
2. Enter the following command to download the required dependencies:

```
$ npm install
```

3. Enter the following command to run the tests:

```
$ npm test
```

4. Press the u key to update failing snapshots.

The **optaweb-employee-rostering** example fails to build with the offline Maven repository ZIP files [[RHPAM-2465](#)]

Issue: When you build the **optaweb-employee-rostering** example with only Business Central and the Red Hat Decision Manager offline Maven repository, the build fails with the following message:

```
Could not resolve dependencies for project org.optaweb.employee-rostering:employee-rostering-server:jar:7.26.0.Final-redhat-00004: The following artifacts could not be resolved: net.jcip:jcip-annotations:jar:1.0.0.redhat-8, org.jboss.logging:jboss-logging:jar:3.3.2.Final-redhat-00001: Could not find artifact net.jcip:jcip-annotations:jar:1.0.0.redhat-8 in bxms-product-repo
```



注記

This issue is resolved with Red Hat Decision Manager patch release 7.5.1.

Workaround: Use the the [Red Hat GA repository](#) to fetch the missing artifacts.

Red Hat Business Optimizer is missing an environment variable for thread pool queue size [[RHDM-1096](#)]

Issue: The **org.optaplanner.server.ext.thread.pool.queue.size** system property has been added to the Decision Server Red Hat Business Optimizer extension. This property cannot be directly set on the Decision Server image.

Workaround: Use the existing **JAVA_OPTS_APPEND** environment variable and append the system property.

The Decision Server pod fails to start after a user updates the BusyBox image on Red Hat OpenShift Container Platform [RHPAM-2431]

Issue: In a Red Hat OpenShift Container Platform environment, a Decision Server pod fails to start or restart with the latest version of the BusyBox image.

Steps to reproduce:

1. In your Red Hat OpenShift Container Platform environment, use a template or operator to deploy a Decision Server that uses a MySQL or PostgreSQL database server.
2. Enter the following command to manually update the OpenShift registry to the latest BusyBox image:

```
$ docker pull busybox
```

3. Scale the Decision Server pod down to 0 replicas and then scale up.

Expected result: The Decision Server pod starts normally.

Actual result: The Decision Server pod fails to start and remains at 0 replicas.

Workaround:

1. On a local machine that has access to the cluster and has Docker installed, enter the following command to pull the BusyBox image version 1.28.4:

```
$ docker pull docker.io/busybox:1.28.4
```

2. Enter the following command to tag the image with the latest tag:

```
docker tag docker.io/busybox:1.28.4 myopenshiftcluster/openshift/busybox:latest
```

3. Push the image into your Red Hat OpenShift Container Platform environment. For instructions, refer to the following documentation:
 - For Red Hat OpenShift Container Platform version 3.11, see the "Accessing the Registry" section of the [OpenShift Container Platform 3.11 Developer Guide](#).
 - For Red Hat OpenShift Container Platform version 4.1, see the "Accessing the Registry" section of [Configuring registries for OpenShift Container Platform 4.1](#).

High available event-driven decisioning (HA CEP server) build fails [RHPAM-2530]

Issue: The image build for the HA CEP server fails with the following message:

```
The command '/bin/sh -c microdnf install --nodocs java-1.8.0-openjdk-headless && microdnf clean all' returned a non-zero code: 141
```

The problem is caused by a [recently found issue with microdnf](#).

Workaround:

In the **springboot** directory, edit the **Dockerfile** file. Replace the line that contains the **microdnf** command with the following line:

```
RUN microdnf install java-1.8.0-openjdk-headless && microdnf clean all
```

第6章 FIXED ISSUES IN RED HAT DECISION MANAGER 7.5.0

Red Hat Decision Manager 7.5.0 provides increased stability and fixed issues listed in this section.

6.1. DECISION ENGINE

- An abbreviated comparison with Map fails in the executable model [RHDM-1034]
- A **BigDecimal** and primitive comparison error occurs in the executable model build [RHDM-1039]
- When the **from accumulate** statement uses **BigDecimal** with the **MVEL** syntax, it fails with the executable model [RHDM-1033]
- A **ClassCastException** error occurs in the **MVEL** dialect when updating a **list** property with **modify** [RHDM-1062]
- A comparison error occurs with primitive and Map in the executable model [RHDM-1035]
- A compilation error occurs for the **from accumulate init()** statement [RHDM-1032]
- An error occurs while using declared types in different packages [RHDM-1037]
- An executable model build error occurs when a rule uses **matches** and class function and its argument is a property of the fact [RHDM-1040]
- Invalid result with **collect**, **mvel**, and **ForceEagerActivationOption.YES** [RHDM-1068]
- Make sure that all drools **AgendaFilter** implementations are serializable [RHDM-1045]
- A **NullPointerException** occurs at **org.drools.core.phreak.SegmentUtilities.createChildSegments** with a removed rule in **updateToVersion** [RHDM-1066]
- Saliency assignment behavior is different when **SequentialMaxPriority** is set [RHDM-1031]
- Type coercion occurs with **Map.get()** after jitting [RHDM-1022]
- Using **BigDecimal** with **from accumulate** causes an **Error: argument type mismatch** error [RHDM-1027]
- KJAR dependencies are not correctly set in the **kie-maven-plugin** build [RHDM-1058]
- The executable model fails with a query with more than five arguments [RHDM-1011]
- The **kie-maven-plugin** does not generate the **kbase.cache** in the KJAR [RHDM-1001]
- Line separators in the **CONDITION** column in the spreadsheet are escaped [RHDM-1029]

6.2. BUSINESS CENTRAL

- The **Constraint Matches** window throws the **IllegalStateException** error in the machine reassignment example when the data set is **model_a1_1** [RHDM-273]
- An empty structure causes the DMN editor to crash [RHDM-1076]

- Business Central fails to create a social event file on Windows when the user login contains special characters [[RHDM-813](#)]
- The main class (**ClientProducerDemo**) of the High Available Event-Driven Decisioning sample project is not able to start because of a missing configuration [[RHDM-1081](#)]
- Rule-based test scenarios that contain maps of simple types fail [[RHDM-1015](#)]

6.3. DECISION MODEL AND NOTATION (DMN)

- When you import a PMML model into a DMN model and then save or validate the model, DMN throws an error [[RHDM-1077](#)]
- The included models feature does not work correctly when you include a BKM node from other DMN model [[RHDM-978](#)]
- In the DMN designer, the **Validation** button does not work [[RHDM-980](#)]

6.4. RED HAT OPENSIFT CONTAINER PLATFORM

- OpenShift High Available Event-Driven Decisioning manages incorrect versions of GAVs [[RHDM-1093](#)]

第7章 FIXED ISSUES IN RED HAT DECISION MANAGER 7.5.1

Red Hat Decision Manager 7.5.1 provides increased stability and fixed issues listed in this section.

7.1. DECISION ENGINE

- If a condition in the spreadsheet contains (' **and** ') separately as a different value, the build fails [[RHDM-1095](#)]
- The executable model compilation fails with the **ClassCastException** error when you use **accumulate** and an additional constraint [[RHDM-1125](#)]
- The executable model compilation fails with a function call and large input array [[RHDM-1130](#)]
- The **ClassCastException** error occurs at **BuildUtils.mergeNodes** when two rules have identical constraints [[RHDM-1104](#)]
- The **kie-maven-plugin** fails with nested Kbases and when dependency versions are declared in the BOM [[RHDM-1107](#)]
- The executable model compilation fails with the **inference variable A has incompatible bounds** error when you use **accumulate** [[RHDM-1110](#)]
- The executable model does not fully parse multi-line patterns [[RHDM-1098](#)]
- A rule that contains an expired event and additional constraints incorrectly fires [[RHDM-1103](#)]
- The executable model incorrectly calculates in **eval** with parenthesis [[RHDM-1099](#)]
- In the executable model, a fact with many properties causes a problem with the **not** rule [[RHDM-1102](#)]
- Executable model compilation fails with the **java.lang.RuntimeException: Unknown expression type: -1** error [[RHDM-1091](#)]
- In the executable model, a **ClassCastException** error occurs at runtime if you use the **accumulate** statement with the **max** parameter [[RHDM-1092](#)]
- Executable model compilation fails with map modifications in **action** [[RHDM-1094](#)]
- In the executable model, a **NullPointerException** error occurs in **MatchesOperator** [[RHDM-1087](#)]
- The executable model does not generate stable IDs for indexes across different compilations [[RHDM-1070](#)]

7.2. BUSINESS CENTRAL

- Download failures when you use the offliner manifest file [[RHDM-1097](#)]
- You cannot create a guided rule with a constraint over the **LocalDate** field [[RHDM-968](#)]
- In a guided decision table, you cannot use the delete or backspace key to clear a cell [[RHDM-1086](#)]

- In a guided decision table, the **Uncaught exception: TypeError: b is undefined** (<http://<host>:<port>/decision-central/verifier/dtableVerifier/xxx.cache.js:2590>) javascript error occurs when you insert columns [[RHDM-959](#)]

7.3. DECISION MODEL AND NOTATION (DMN)

- The **RuntimeException** error occurs when you import a DMN model generated with Trisotech [[RHDM-1083](#)]

7.4. RED HAT OPENSIFT CONTAINER PLATFORM

- If multiple ksessions are defined in the **kmodule.xml** file and the event listener is set to more than one ksession, the s2i build fails at **KieServerContainerVerifier** [[RHDM-1084](#)]

7.5. UPGRADE TOOL

- Business Central fails to start after you apply the update from 7.3.0 to 7.3.1 due to the duplicated property **org.kie.workbench.profile** [[RHDM-1017](#)]

付録A VERSIONING INFORMATION

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