



## Red Hat Process Automation Manager 7.10

Release notes for Red Hat Process Automation  
Manager 7.10



# Red Hat Process Automation Manager 7.10 Release notes for Red Hat Process Automation Manager 7.10

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## Abstract

This document contains release notes for Red Hat Process Automation Manager 7.10.

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## PREFACE

These release notes list new features, features in technology preview, known issues, and issues fixed in Red Hat Process Automation Manager 7.10.



## MAKING OPEN SOURCE MORE INCLUSIVE

Red Hat is committed to replacing problematic language in our code, documentation, and web properties. We are beginning with these four terms: master, slave, blacklist, and whitelist. Because of the enormity of this endeavor, these changes will be implemented gradually over several upcoming releases. For more details, see [our CTO Chris Wright's message](#).

## CHAPTER 1. PRODUCT OVERVIEW

Red Hat Process Automation Manager is an open-source business automation platform that combines business process management (BPM), case management, business rules management, and resource planning. It enables business and IT users to create, manage, validate, and deploy business processes, cases, and business rules.

Red Hat Process Automation Manager uses a centralized repository where all resources are stored. This ensures consistency, transparency, and the ability to audit across the business. Business users can modify business logic and business processes without requiring assistance from IT personnel.

Red Hat Process Automation Manager 7.10 provides increased stability, several fixed issues, and new features.

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



### NOTE

Red Hat Process Automation Manager requires Java 8 or later.

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

## CHAPTER 2. KOGITO PRODUCTIZED FEATURES IN RED HAT PROCESS AUTOMATION MANAGER

Red Hat Process Automation Manager 7.10 provides the following Kogito based applications that you can use to design Business Process Model and Notation (BPMN) process models and Decision Model and Notation (DMN) decision models using graphical modelers:

- VSCode extension including BPMN, DMN, and test scenario editor
- Standalone embeddable DMN and BPMN editors
- Standalone embeddable DMN viewer

Customers who own the Red Hat Process Automation Manager can access these new applications or extensions without acquiring a new subscription.

### 2.1. ADDITIONAL RESOURCES

- [Designing a decision service using DMN models](#)
- [Designing business processes using BPMN models](#)
- [Getting started with decision services](#)
- [Red Hat Business Automation Bundle](#)

## CHAPTER 3. NEW FEATURES

This section highlights new features in Red Hat Process Automation Manager 7.10.

### 3.1. BUSINESS CENTRAL

#### 3.1.1. Support for DMN 1.1 and 1.3 assets in DMN designer

You can now use the DMN designer in Business Central to open DMN 1.1 and 1.3 assets. Any DMN 1.1 and 1.3 models (do not contain DMN 1.3 features) that you import into Business Central, open in the DMN designer, and save are converted to DMN 1.2 models. For more information, see [Designing a decision service using DMN models](#).

#### 3.1.2. Test scenarios

The test scenarios designer in Business Central is now available with the following new features:

- You can now perform the undo and redo operations from the **Settings** panel. Also, a warning pop-up is displayed when you save or discard any changes from the **Settings** panel.
- In rule-based test scenarios, you can use the following new java classes as data objects:
  - **LocalDateTime**
  - **LocalTime**
  - **BigDecimal**
  - **BigInteger**
- You can use **Byte**, **Character**, **Float**, **Long**, **Short**, **LocalDateTime**, **LocalTime**, **BigDecimal**, and **BigInteger** classes to create and manage the list of data object values.

For more information, see [Testing a decision service using test scenarios](#) .

#### 3.1.3. New parameter list for Decision Services

Red Hat Process Automation Manager 7.10 includes a new **Decision Service details** section in the DMN editor properties panel containing a read-only list of **Input Data**, **Encapsulated Decisions**, and **Output Decisions**.

For more information, see [Getting started with decision services](#) and [Designing a decision service using DMN models](#).

#### 3.1.4. Dashbuilder Runtime

The following list provides a summary of Dashbuilder Runtime updates:

- You can automatically deploy the dashboards from Business Central on Dashbuilder Runtime. Business Central is linked to Dashbuilder Runtime using a gradual export feature. You can select datasets and pages, but instead of downloading a **ZIP** file, you can click the **Open** button. After clicking the **Open** button, the selected data is exported, and Dashbuilder Runtime updates the model content. You can use **dashbuilder.runtime.multi**, **dashbuilder.runtime.location**, and **dashbuilder.export.dir** system properties to enable this feature.

For more information, see [Configuring Business Central settings and properties](#).

- Dashboards that are imported in Dashbuilder Runtime contain a default page. The following are the updates of the Dashbuilder Runtime default page:
  - If an imported dashboard consists of only one page, then the page is used as the default page.
  - If a page is named as **index**, then the index page is used as the default page.
  - In other cases, the generic home page of the Dashbuilder Runtime is used as the default page.
- Dashbuilder Runtime is now available with a new heatmap component feature. You can add the heatmap component to the pages and export it to the Dashbuilder Runtime. Heatmap components are used to display heat information over a process diagram, and you can create, edit, and build a dashboard using the heatmap component. The heat information is retrieved from KIE Server datasets.  
For more information, see [Building custom dashboard widgets](#).

## 3.2. NEW STANDALONE BPMN AND DMN EDITORS

Red Hat Process Automation Manager now provides standalone editors for Business Process Model and Notation (BPMN) process models and Decision Model and Notation (DMN) decision models. The standalone editors enable you to view and design BPMN and DMN models embedded in your web applications. The read-only mode for standalone BPMN editor is not supported in Red Hat Process Automation Manager 7.10.0.

The standalone editors are distributed in a self-contained library that provides an all-in-one JavaScript file for each editor. The JavaScript file uses a comprehensive API to set and control the editor. You can install the standalone editors in two ways:

- Download each JavaScript file manually
- Use the NPM package

For more information, see [Designing a decision service using DMN models](#) and [Designing business processes using BPMN models](#).

## 3.3. SUPPORT FOR VSCODE EXTENSION

Red Hat Process Automation Manager now provides support for VSCode extension enabling you to view and design BPMN and DMN models in Visual Studio Code (VSCode). The VSCode extension in Red Hat Process Automation Manager requires VSCode 1.46.0 or later.

You can install the Red Hat Process Automation Manager VSCode extension using:

- VSCode user interface
  1. Open **Extensions** menu option.
  2. Search for and install **Red Hat Business Automation Bundle** extension.
- Terminal
  1. Launch VSCode Quick Open.

2. Enter the following command and press **Enter**.

**ext install redhat.vscode-extension-red-hat-business-automation-bundle**

For more information, see [Designing a decision service using DMN models](#) and [Designing business processes using BPMN models](#).

## 3.4. PROCESS DESIGNER

### 3.4.1. Ability to access activity details in boundary events

In the BPMN modeler, you can now set a data output in the **Data Output and Assignments** field for a boundary event. For example, you can set **nodeInstance** as a data output variable for a boundary event, which carries the node instance details to use in a further process when the boundary event is triggered. For more information, see [Designing business processes using BPMN models](#).

### 3.4.2. Support for MVEL expressions in data assignments

You can now add MVEL expressions in the data input and output assignments of a user task. For more information, see [Designing business processes using BPMN models](#).

## 3.5. PROCESS ENGINE

### 3.5.1. Process engine API improvements

The following list provides a summary of the process engine API updates:

- You can now use the process engine API to signal a process instance using its correlation key.
- You can now use the process engine API to determine the node type from within an event listener.
- When using the advanced query feature of the process engine API, you can now optionally exclude process variables from the search results.

For more information about using the process engine API, see [Interacting with Red Hat Process Automation Manager using KIE APIs](#).

### 3.5.2. KIE API improvements

You can now use the KIE REST API to signal a process using its alias. For more information about using the KIE REST API, see [Interacting with Red Hat Process Automation Manager using KIE APIs](#).

### 3.5.3. Singleton timer start node

The process engine now supports the singleton timer start node in a process with the cluster extension. When the extension is configured and a process is deployed in several instances, the timer start node is only triggered once among all instances.

## 3.6. NEW WRAPPER MODULES

Red Hat Process Automation Manager 7.10 now includes wrapper modules that you can use to reduce overhead and improve the maintenance of Drools engine. There is an ongoing effort to refactor Drools

engine by identifying and descopeing optional features that are unrelated to the internal algorithm of the engine. Drools engine uses MVEL for DRL parsing, constraints evaluation, and templates generation. Usages of MVEL are isolated in a new **drools-mvel** module. Drools engine implements KieSessions serialization with **protobuf** to ensure better backward compatibility. This serialization feature is isolated in the **drools-serialization-protobuf** module.

You can add **drools-mvel** and **drools-serialization-protobuf** modules to your project classpath.

Red Hat Process Automation Manager now provides the following new wrapper modules:

- **drools-engine**: Contains **drools-core**, **drools-compiler**, and **drools-model-compiler** dependencies
- **drools-engine-classic**: Contains **drools-core**, **drools-compiler**, and **drools-mvel** dependencies

To use the Drools engine with the executable model, you must include the **drools-engine** wrapper module in your project dependencies. To use the Drools engine without the executable model, you must import your dependencies to the **drools-engine-classic** wrapper module.

## 3.7. INTEGRATION

### 3.7.1. Integration with AMQ Streams

You can now integrate your business processes that run on a KIE Server with Red Hat AMQ Streams or Apache Kafka. Processes can send and receive Kafka messages using message events. A KIE Server can emit Kafka events when a process, case, or task completes.

For more information about integration with Red Hat AMQ Streams or Apache Kafka, see [Integrating Red Hat Process Automation Manager with Red Hat AMQ Streams](#).

### 3.7.2. Support for client roles in Red Hat Single Sign-On

When integrating Red Hat Process Automation Manager with Red Hat Single Sign-On, you can enable support for client roles. By default, only realm roles are supported.

For more information about integration with Red Hat Single Sign-On, see [Integrating Red Hat Process Automation Manager with Red Hat Single Sign-On](#).

## 3.8. KIE SERVER

### 3.8.1. Running job failover

If you have multiple KIE Server nodes in a cluster and one node fails while a job is in a running state, the jobs in that instance are requested to another running node.

## 3.9. SPRING BOOT

### 3.9.1. Pluggable variable persistence

You can now provide an arbitrary entity manager for configured process variable persistence in your Red Hat Process Automation Manager Spring Boot application.

## 3.10. RED HAT OPENSIFT CONTAINER PLATFORM

### 3.10.1. Support for Red Hat OpenShift Container Platform version 4.7

Red Hat Process Automation Manager now supports Red Hat OpenShift Container Platform version 4.7 and Red Hat OpenShift Container Platform version 4.6 EUS.

For more information, see [Red Hat OpenShift Container Platform Life Cycle Policy](#) and [Red Hat OpenShift Extended Update Support \(EUS\) Overview](#).

### 3.10.2. Support for Dashbuilder Standalone on Red Hat OpenShift Container Platform

Red Hat Process Automation Manager now supports Dashbuilder Standalone (Dashbuilder Runtime) on Red Hat OpenShift Container Platform.

### 3.10.3. Support for LDAP login module stacking

Red Hat Process Automation Manager now supports LDAP login module stacking. You can set the **AUTH\_LDAP\_LOGIN\_MODULE** environment variable to **optional** for LdapExtended login module images.

### 3.10.4. Configurable persistent volume sizes for Business Central

Red Hat Process Automation Manager now supports configurable persistent volume sizes for Business Central. The default is 1Gi for Business Central and 64Mb for Business Central Monitoring.



## CHAPTER 4. SUPPORT AND COMPATIBILITY

This section highlights supported version updates in Red Hat Process Automation Manager 7.10.

### 4.1. RED HAT FUSE INTEGRATION

Integration with Red Hat Fuse 7.8 on Red Hat JBoss EAP is supported.

Integration with Red Hat Fuse on Apache Karaf is not supported in the current version. Use Red Hat Process Automation Manager 7.9 with Red Hat Fuse 7.7 if you want to integrate with Red Hat Fuse on Apache Karaf.

## CHAPTER 5. DEPRECATED AND REMOVED COMPONENTS

### 5.1. DEPRECATED COMPONENTS

The components listed in this section have been deprecated.

#### 5.1.1. Legacy kie-pmml dependency

The legacy **kie-pmml** dependency is deprecated with Red Hat Process Automation Manager 7.10.0 and will be replaced in a future Red Hat Process Automation Manager release. For more information, see [Designing a decision service using PMML models](#).

#### 5.1.2. Support for OSGi framework integration

Support for integration with the OSGi framework is deprecated in Red Hat Process Automation Manager. It does not receive any new enhancements or features and will be removed in a future release. The decision and process engine integration with the OSGi framework is currently incompatible in Fuse version 7.8. If you intend to use the OSGi framework, stay on the previous Red Hat Process Automation Manager version 7.9 release with Fuse version 7.7 until the new Fuse version 7.9 is available and certified.

#### 5.1.3. Support for RuleUnit API

An existing RuleUnit API is now deprecated due to incompatibility with the Kogito RuleUnit API.

#### 5.1.4. Legacy Test Scenarios tool

The legacy Test Scenarios tool is deprecated from Red Hat Process Automation Manager version 7.3.0. It will be removed in a future Red Hat Process Automation Manager release. Use the new Test Scenarios designer instead.

#### 5.1.5. Support for Red Hat OpenShift Container Platform 3.x

From Red Hat Process Automation Manager version 7.5, images and templates for Red Hat OpenShift Container Platform 3.x are deprecated. The deprecated images and templates are not supported with new features but remain available until the end of Red Hat OpenShift Container Platform version 3.x support. For more information about the full support lifecycle phase for Red Hat OpenShift Container Platform version 3.x, see [Red Hat OpenShift Container Platform Life Cycle Policy \(non-current versions\)](#).

Consider deploying Red Hat Process Automation Manager using the operator on Red Hat OpenShift Container Platform 4.x.

#### 5.1.6. Legacy process designer

The legacy process designer in Business Central was deprecated in Red Hat Process Automation Manager since 7.6.0. The legacy process designer does not receive any new enhancements or features. If you intend to use the new process designer, start migrating your processes to the new designer, and create new processes in the new process designer. For information about migrating projects to the new designer, see [Managing projects in Business Central](#).

### 5.2. REMOVED COMPONENTS

The component listed in this section are removed.

### 5.2.1. The case modeler technical preview editor

The case modeler technical preview editor is removed in Red Hat Process Automation Manager 7.10. Use the new BPMN designer for cases.

For more information, see [Getting started with case management](#).

### 5.2.2. Integration with Red Hat CodeReady Studio

Support for integration with Red Hat CodeReady Studio is removed in Red Hat Process Automation Manager 7.10. The support for the authoring tools based on JBoss Developer Studio (JBDS) Eclipse plugin is also removed. The feature references and documentation is not be available from the 7.10 release.

## CHAPTER 6. TECHNOLOGY PREVIEW

This section lists features that are in Technology Preview in Red Hat Process Automation Manager 7.10. 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**.



### 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](#).

### 6.1. PREDICTION SERVICE API

You can use the prediction service API to provide a prediction service that assists with user tasks. The prediction service can use AI. For example, you can use the Predictive Model Markup Language (PMML) models or Statistical Machine Intelligence and Learning Engine (SMILE) to implement the service.

### 6.2. DEPLOYING A HIGH-AVAILABILITY AUTHORIZING ENVIRONMENT ON RED HAT OPENSIFT CONTAINER PLATFORM 4.X

You can deploy a high-availability Red Hat Process Automation Manager authoring environment on Red Hat OpenShift Container Platform 4.x using the operator.

### 6.3. OPENSIFT OPERATOR INSTALLER WIZARD

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

### 6.4. AUTHORIZING PERSPECTIVE CUSTOMIZATION

You can customize the Business Central authoring perspective using the following features:

- Ability to open a Business Central project directly using an URL path parameter, without going through a list of spaces and projects
- Ability to hide or show the project toolbar, **Metrics** tab, and **Change Request** tab as per your requirements
- Ability to enhance the pagination
- Ability to customize the number of assets present on the project screen

## CHAPTER 7. KNOWN ISSUES IN RED HAT PROCESS AUTOMATION MANAGER 7.10.0

This section lists known issues with Red Hat Process Automation Manager 7.10.

### 7.1. BUSINESS CENTRAL

#### Unable to display the new dashboard data when you open the Dashbuilder Runtime from the Business Central again [[RHPAM-3411](#)]

Issue: You cannot see the new dashboard data when you open the Dashbuilder Runtime from the Business Central again

Steps to reproduce:

1. In Business Central, select the **Admin** icon in the upper-right corner of the screen and select **Dashbuilder Data Transfer**.
2. On the **Dashbuilder Data Transfer** page, click **Custom export**
3. Select **Export Wizard** and click **Open**.  
You can see the Dashbuilder Runtime home page. If you are not logged in, you are redirected to the log in page.
4. Go to **Dashboards → Runtime Dashboards**
5. Return to Business Central.
6. Create a new dashboard and click **Open**.  
The old dashboard is displayed instead of the newly created dashboard.

Workaround: None.

#### Unable to find heatmap component feature on Windows [[RHPAM-3412](#)]

Issue: In Windows, when you add heatmap component properties, you receive a **Not Found** error message.

Workaround: None.

#### Heatmap dashboard fails on multi-mode [[RHPAM-3408](#)]

Issue: In Dashbuilder Runtime, when you set the **dashbuilder.runtime.multi** system property to **true** while importing the heatmap dashboard, you receive an error.

Workaround: None.

#### Unable to display heatmap internal component [[RHPAM-3401](#)]

Issue: The categories for provided heatmap internal components are not displayed by default in the page authoring.

Workaround: Set the **dashbuilder.components.enable** system property to **true**.

#### When you manage a list of structures in the test scenario editor, it throws an exception [[RHDM-1590](#)]

Issue: In the test scenario editor, when you delete an item from a list of nested structures, you receive an exception with an inappropriate message.

Steps to reproduce:

1. Import the project attached in the [RHDM-1590](#) issue.
2. Open the **Test Math Functions** test scenario.
3. In the **GIVEN** column, double-click the **List(3)** in the first row under the **numbers** value.
4. Click the bin icon to delete the first item in the list.
5. Click **Save**.  
You receive **Uncaught exception: Exception caught: (TypeError) : Cannot read property 'Tc' of undefined Caused by: (TypeError) : Cannot read property 'Tc' of undefined** exception.

Workaround: None.

### **Settings panel is not updated when you make the changes in the DMN model field [[RHDM-1589](#)]**

Issue: In an existing DMN test scenario file, when you change the **DMN model** field, the related **DMN name** and **DMN namespace** read-only fields are not updated. The content of the **Settings** panel is not synchronized.

Steps to reproduce:

1. Open any existing test Scenario for DMN model.
2. Open the **Settings** panel.
3. Change the value of **DMN model** field.
4. Verify the values of **DMN name** and **DMN namespace** fields.

Workaround: Close and reopen the asset.

## **7.2. PROCESS DESIGNER**

### **JavaScript language in an On Entry Action causes an unexpected system error after changing node to Multiple Instance [[RHPAM-3409](#)]**

Issue: In the **Properties** panel, if the language is set to JavaScript in an **On Entry Action** property and you change the node to **Multiple Instance**, you receive an unexpected system error.

Steps to reproduce:

1. Create a new business process.
2. Create a task that contains **Multiple Instance** property.
3. Enter any string to the **On Entry Action** property.
4. Change the language to JavaScript.
5. Set the value of the **Multiple Instance** property to **true**.

Expected result: No errors occur in the user interface or server log.

Actual result: You receive an unexpected system error.

Workaround: None.

### Service task thumbnails are large in documentation [ [RHPAM-2759](#)]

Issue: Service task thumbnails are large as compared to other thumbnails in **Documentation**.

Steps to reproduce:

1. Import the **thumbnails.bpmn** process attached in the [RHPAM-2759](#) issue.
2. Create a service task.
3. Close and reopen the process.
4. Open the **Documentation** tab and scroll down.

Expected result: Service task thumbnails are of the same size as compared to other thumbnails.

Actual result: Service task thumbnails are large as compared to other thumbnails.

Workaround: None.

### structureRef is missing for message event when creating a process [ [RHPAM-3437](#)]

Issue: When you create a new process, the message event does not contain the **structureRef** in the generated BPMN file.

Steps to reproduce:

1. Create a new process.
2. Add message start event and message end event.
3. Configure the message for the nodes.
4. Add a new process variable to the process.
5. Add a newly created process variable as an input or output of both the nodes.  
The generated BPMN file does not contain the **structureRef** for **endMessageType**, as per the following example:

```
<bpmn2:itemDefinition id="endMessageType"/>
<bpmn2:message id="_lcr1JGVqEeuMVv5wG-FCkw" itemRef="endMessageType"
name="endMessage"/>
```

Workaround: Perform the same steps in the VSCode editor in desktop, the correct BPMN file is generated as per the following example:

```
<bpmn2:itemDefinition id="personMessageType" structureRef="com.javierito.Person"/>
<bpmn2:message id="_bRr10EeVEDmMS7uvL9VDoA" itemRef="personMessageType"
name="personMessage"/>
```

## 7.3. PROCESS ENGINE

### The Data I/O of a reusable sub-process does not return any implicit data [ [RHPAM-3429](#) ]

Issue: When you use the **Data I/O** variables such as **nodeInstance**, **event**, and **workItem**, a reusable sub-process does not return any implicit data. All the returned values are null.

Steps to reproduce:

1. Import the **ThrowAnError.bpmn** and **ThrowErrorEventTest.bpmn** assets attached in the [RHPAM-3429](#) issue.
2. Build and deploy the project.
3. Execute the **ThrowErrorEventTest** process.
4. Check the logs on the terminal for the variable values.  
You receive null values of the variables.

Workaround: None.

### The Data I/O of an implicit event variable returns a null value for some node types [ [RHPAM-3428](#) ]

Issue: When you use the **Data I/O** variables such as an implicit **event** variable, you receive a **null** value for some node types is returned.

Steps to reproduce:

1. Import the assets attached in the [RHPAM-3428](#) issue.
2. Build and deploy the project.
3. Check the logs of an application server on the terminal for the variable value.  
You receive a **null** value for the **event** variable.

Workaround: None.

## 7.4. DMN DESIGNER

### Undo operations are not visible in standalone DMN editor [ [RHDM-1561](#) ]

Issue: In the standalone DMN editor, when you change any value in the **Properties** panel and click **Undo** without collapsing the **Properties** panel, the changed value is not reflected.

Workaround: To reflect the changes, you can collapse and expand the **Properties** panel again.

### Standalone DMN editor is missing isDirty indication on data types or included models [ [RHDM-1560](#) ]

Issue: The **subscribeToContentChanges** API method fails to reflect the changes that are made in a data type or included models. As a result, save, discard,undo, and redo operations are not available.

Workaround: None.

## 7.5. RED HAT OPENSIFT CONTAINER PLATFORM



## Deployment failures due to invalid labels [ [RHPAM-3471](#) ]

Issue: A bug in the operator causes the operator to use an image name as a label for deployments. This can cause deployments to fail if the image name contains a special character.

Workaround: A fix has been released to update this bug in the operator. If you are encountering this issue, update to the latest operator.



### NOTE

As a result of this fix, the deployments will no longer have the correct subcomponent label that is used by the metering operator. The results from the metering operator may no longer provide the expected results for Red Hat Process Automation Manager products.

## CHAPTER 8. FIXED ISSUES IN RED HAT PROCESS AUTOMATION MANAGER 7.10.0

Red Hat Process Automation Manager 7.10.0 provides increased stability and fixed issues listed in this section.

### 8.1. BUSINESS CENTRAL

- Package list fails to populate default package for imported projects [[RHPAM-3209](#)]
- Collection editor is not opening for DRL based test scenarios [[RHDM-1464](#)]
- REST endpoints are accessible to all the logged in users, even when the correct roles are not assigned to the users [[RHPAM-3284](#)]
- In test scenarios coverage report, rule name column size is increased and the numbers are aligned to the right side [[RHPAM-3271](#)]
- In a guided decision table, an exception error pop-up returns an inappropriate error message [[RHPAM-3201](#)]
- The number of assets listed on the project page of Business Central does not match with the count displayed for pagination [[RHPAM-2859](#)]

### 8.2. FORM MODELER

- **DocumentCollection** output parameter does not work in the generated forms [ [RHPAM-3252](#)]

### 8.3. KIE SERVER

- Some issues appear when starting up the KIE Server while executing a long query [[RHPAM-3342](#)]
- When a specified time is reached, a **start timer** event in a process model creates duplicate process instances [[RHPAM-3189](#)]
- When you generate a form with a components slider, various form options including **DocumentCollection**, **MultipleInput**, and **MultipleSelector**, are not rendering in an API response [[RHPAM-2330](#)]
- REST endpoint authentication fails, if the authorization header contains **==** in an encoded key in the REST work item handler [[RHPAM-3259](#)]

### 8.4. DMN DESIGNER

- DMN editor does not detect the changes from the Decision Navigator view [[RHDM-1482](#)]

### 8.5. PROCESS ENGINE

- You cannot use the same **correlationKey** for two active process instances [ [RHPAM-3336](#)]
- When you set **userId == null**, **exlOwner !=null**, and **groups !=null** in a query, the task is not returned [[RHPAM-3230](#)]

## 8.6. PROCESS DESIGNER

- Process designer does not read all the parameters defined in a Work Item Definition (WID) file [[RHPAM-3249](#)]

## 8.7. DECISION ENGINE

- **testDoubleNaN** fails after jitting on **TypeCoercionTest** [[RHDM-1470](#)]
- When you use the same variable name to different declarations, you receive a false **accumulate** functions conflict [[RHPAM-3216](#)]
- In an executable model, a new line character between the last parameter and **);** in a call method throws a build error [[RHDM-1550](#)]
- In an executable model, when you use a compound assignment operation such as **BigDecimal\_type\_property += BigDecimal\_value**, you receive a compilation error [[RHDM-1528](#)]
- In an executable model, when you use a compound assignment operation such as **BigDecimal\_type\_property += Numeric\_value**, you receive compilation errors [[RHDM-1527](#)]
- When you use an expression such as **BigDecimal\_type\_property = BigDecimal\_type\_property.divide(BigDecimal\_value)** in an executable model, you receive a build failure error [[RHDM-1521](#)]
- When you use a **BigDecimal** type values in an executable model, you receive a build failure error [[RHDM-1520](#)]
- In MVEL dialect mode in an executable model, when you use the four basic binary operators (**+, -, \*, /**) for **BigDecimal** type values, you receive a compilation error [[RHDM-1519](#)]
- In MVEL dialect mode in an executable model, when you use an assignment statement for **BigDecimal** type values, you receive compilation errors [[RHDM-1518](#)]
- When an **AccumulateDescr** does not contain a constraint, the **DrIDumper** generates an incorrect DRL, which does not allow you to build the generated DRL [[RHDM-1517](#)]
- The **DrIDumper** is unable to generate the **accumulate** import [[RHDM-1516](#)]
- When you try to bind an **enum** value, you receive an error in an executable model generation [[RHDM-1514](#)]
- In MVEL dialect mode in an executable model, when you use an enhanced **for** (foreach) statement, you receive a compilation error [[RHDM-1513](#)]
- In MVEL dialect mode in an executable model, when you use the space characters between **(** and **LocalVariableType** in an enhanced **for** (foreach) statement, you receive a compilation error [[RHDM-1505](#)]
- When you use the standard Java serialization mechanism, the **ByteArrayResource** is declared twice [[RHDM-1502](#)]
- When you are unable to call a **reset** method in the **PriorityMap** and call the method inside **org.kie.api.internal.utils.ServiceDiscoveryImpl**, you receive an exception [[RHDM-1501](#)]

- When you have two or more different implementations of service on the classpath, the service discovery or wiring mechanism randomly chooses the services that come first in the classpath. You can explicitly configure a priority among these services [[RHDM-1500](#)]
- You cannot use **AgendaFilter** method when the rules are combined with a ruleflow and fired using **KieSession.startProcess** method [[RHDM-1461](#)]

## 8.8. RED HAT OPENSIFT CONTAINER PLATFORM

- Business Central pod fails to start when **known\_host** file is missing from the Git hook secret [[RHPAM-3056](#)]
- Red Hat OpenShift Container Platform properties related to passwords in **EJB\_TIMER** cannot use literal **\$n** [[RHPAM-3211](#)]

## CHAPTER 9. KNOWN ISSUES IN RED HAT PROCESS AUTOMATION MANAGER 7.10.1

This section lists known issues with Red Hat Process Automation Manager 7.10.1.

### 9.1. BUSINESS CENTRAL

#### Data Object editor removes imports when saving [ [RHPAM-3544](#) ]

Issue: In the data object editor, you cannot add an import using a **Source** tab. The added import is removed automatically when you save the changes.

Steps to reproduce:

1. Open Business Central.
2. Open or create any project.
3. Create a data object.
4. In the **Source** tab of a data object, add **import java.util.Date** data object.
5. Click **Save**.  
You can see that the added import is not present in the data object editor.

Expected result: In the the **Source** tab a data object, added import is not removed.

Actual result: In the the **Source** tab a data object, added import is removed.

Workaround: None.

#### Guided decision tables does not open when you migrate from Red Hat JBoss BPM Suite 6.4 to Red Hat Process Automation Manager 7.7 [ [RHPAM-3217](#) ]

Issue: When you migrate from Red Hat JBoss BPM Suite 6.4 to Red Hat Process Automation Manager 7.7, guided decision tables fails to open.

Workaround: Do not use the name starting with **ruletable** for the column description.

### 9.2. PROCESS DESIGNER

#### Custom task thumbnails are not consistent [ [RHPAM-3496](#) ]

Issue: Custom task thumbnails are not consistent in both project and case project.

Steps to reproduce:

1. Create a case project.
2. In the case project, create both a process and a case.
3. Save the changes and close the process.
4. Navigate to the project settings and add all of the custom tasks.
5. Save the changes.

6. Check the process.  
If the issue is not visible try to close and reopen the asset.
7. Close the process.
8. Remove all of the custom tasks and save the changes.
9. Check the process.  
If the issue is not visible try to close and reopen the asset.

Expected result: Custom task thumbnails are consistent.

Actual result: Custom task thumbnails are not consistent.

Workaround: None.

### JavaScript language in an **On Entry Action** causes an unexpected system error after changing node to **Multiple Instance** [[RHPAM-3409](#)]

Issue: In the **Properties** panel, if the language is set to JavaScript in an **On Entry Action** property and you change the node to **Multiple Instance**, you receive an unexpected system error.

Steps to reproduce:

1. Create a new business process.
2. Create a task that contains **Multiple Instance** property.
3. Enter any string to the **On Entry Action** property.
4. Change the language to JavaScript.
5. Set the value of the **Multiple Instance** property to **true**.

Expected result: No errors occur in the user interface or server log.

Actual result: You receive an unexpected system error.

Workaround: None.

## 9.3. PROCESS ENGINE

### Listeners are not ready when a signal is released in a subprocess [[RHPAM-3484](#)]

Issue: A signal released in a subprocess is not captured correctly in an intermediate capture event.

Workaround: A new **executeActionAfterComplete** metadata is added. You can set the **executeActionAfterComplete** to **true** to avoid problems with the action nodes.

## 9.4. KIE SERVER

### Execution of the **WebServiceWorkItemHandler** running on Red Hat JBoss EAP 7.3.5 fails [[RHPAM-3440](#)]

Issue: The execution of the **WebServiceWorkItemHandler** on KIE Server running on Red Hat JBoss EAP 7.3.5 fails. The **ModuleClassLoader** is changed in the latest Red Hat JBoss EAP release causes incompatibility with the code working in previous versions.

**NOTE**

Do not upgrade to Red Hat JBoss EAP 7.3.5 if you are using **WebServiceWorkItemHandler** on KIE Server. Use Red Hat JBoss EAP 7.3.4 instead.

Steps to reproduce:

1. Clone the [droolsjbpm-integration](#) repository.
2. Go to **droolsjbpm-integration/kie-server-parent/kie-server-tests/kie-server-integ-tests-jbpm/** directory.
3. Execute the following command:

```
mvn clean install -Peap7 -Deap7.download.url=<eap 7.3.5 zip file URL> -  
Dit.test=WebServiceIntegrationTest
```

Test fails with errors displayed in the console.

Workaround: None.

## CHAPTER 10. FIXED ISSUES IN RED HAT PROCESS AUTOMATION MANAGER 7.10.1

Red Hat Process Automation Manager 7.10.1 provides increased stability and fixed issues listed in this section.

### 10.1. BUSINESS CENTRAL

- Unable to find heatmap component feature on Windows [[RHPAM-3412](#)]
- Business Central REST API is allowing container creation with empty container id [[RHPAM-3362](#)]
- When you migrate from Red Hat JBoss BPM Suite 6.4 to Red Hat Process Automation Manager 7.3.1, some guided decision tables throws **Cannot assign field values of types other than ActionFieldFunction** error [[RHPAM-3308](#)]
- **project.repositories** upload function is not working in Business Central [[RHPAM-3277](#)]
- A system error occurs when you add a deployment unit [[RHPAM-3111](#)]
- In test scenario editor, the **LocaldateTime** guided rule does not render correctly [[RHPAM-2961](#)]
- When you migrate from Red Hat Process Automation Manager 7.8 to Red Hat Process Automation Manager 7.9.1, most of the DMN nodes are misplaced [[RHDM-1604](#)]
- When you manage a list of structures in the test scenario editor, it throws an exception [[RHDM-1590](#)]
- **Settings** panel is not updated when you make the changes in the **DMN model** field [[RHDM-1589](#)]
- Unable to use a space with quotes in a guided decision table [[RHDM-1578](#)]
- Running tests affects incremental build [[RHDM-1508](#)]
- Improved the error message of a guided decision table error [[RHDM-1426](#)]
- When you open a guided decision table, you receive **TypeError: b is undefined** uncaught exception [[RHDM-1425](#)]

### 10.2. PROCESS ENGINE

- Due to lazy loading of the runtime engine KIE session ID fails to unlock during the disposal [[RHPAM-3447](#)]
- A process with multiple parallel gateways is not completed in **Async** mode [[RHPAM-3338](#)]

### 10.3. PROCESS DESIGNER

- **structureRef** is missing for message event when creating a process [[RHPAM-3437](#)]
- You cannot edit the expressions in the data input and output assignments of a user task [[RHPAM-3434](#)]



- When you create a new case project in Business Central, a Work Item Definition (WID) file is not present at the root package instead it is located outside of the root package [[RHPAM-3432](#)]
- Service task thumbnails are large in documentation [[RHPAM-2759](#)]

## 10.4. DECISION ENGINE

- Numeric coercion breaks beta indexing [[RHPAM-3456](#)]
- In an executable model, an error is parsing for the single apex which is delimited by an empty string [[RHDM-1625](#)]
- An experimental alpha network compiler is removed from kie-maven-plugin build process [[RHDM-1624](#)]
- In an executable model, the behavior of binding of a boolean unary expression is different as compared to the plain DRL file [[RHDM-1612](#)]
- In an executable model, you cannot build a project by inserting and updating a fact of same rule [[RHDM-1606](#)]
- You receive a null pointer exception while updating the KIE container [[RHDM-1596](#)]
- Use MVEL version 2.4.12 or above in Red Hat Process Automation Manager 7.10.1 [[RHDM-1574](#)]
- In an executable model, incorrect parameter is passed to **accumulate** function [[RHDM-1572](#)]
- In an executable model, **and exists** used in the source pattern of an **accumulate** function statement matches multiple times instead it should match only once [[RHDM-1571](#)]
- Type coercion does not work for bound variables in an executable model [[RHDM-1564](#)]
- In an executable model, you receive a null pointer exception at **ConstraintEvaluator.findPatternAndRequiredDeclaration()** in an **accumulate** function [[RHDM-1556](#)]
- In an executable model, **@watch** annotation containing **!\*** does not work as expected [[RHDM-1553](#)]
- Property reactivity for properties is not modified in modify block and the rule is executes repeatedly [[RHDM-1552](#)]
- In an executable model, the order of parameters passed to the method is unexpectedly changed and the parameters are not passed correctly in **action()** accumulate function [[RHDM-1551](#)]
- In an executable model, when you use the **AND** operator in the source pattern of an **accumulate** function, you receive a compilation error [[RHDM-1549](#)]
- In an executable model, when you use an operation such as **BigDecimal\_variable % Numeric\_value**, you receive a compilation error [[RHDM-1545](#)]
- Variable binding of a map element throws compilation errors in an executable model [[RHDM-1543](#)]
- In an executable model, when you bind a list written in MVEL expression, you receive a build error [[RHDM-1542](#)]

- **forall** rule pattern does not work as expected [ [RHDM-1541](#)]
- In MVEL dialect mode in an executable model, when you use a compound assignment operation such as **BigDecimal\_type\_property <op> Numeric/BigDecimal\_value**, you receive an unexpected error [ [RHDM-1538](#)]

## 10.5. RED HAT OPENSIFT CONTAINER PLATFORM

- When **AUTH\_LDAP\_BASE\_FILTER** contains the | value, you receive LDAP sync issues [ [RHDM-1567](#)]
- In the KIE Server launch script, pulling of the dependencies and KJAR validation is skipped to speedup the start time [ [RHPAM-3494](#)]
- **jbpm.business.calendar.properties** system property is not working in Red Hat OpenShift Container Platform environment [ [RHPAM-3352](#)]

## APPENDIX A. VERSIONING INFORMATION

Documentation last updated on Tuesday, March 8, 2022.

## APPENDIX B. CONTACT INFORMATION

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