Red Hat Process Automation Manager 7.1

Release notes for Red Hat Process Automation Manager 7.1

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Abstract

This document contains release notes for Red Hat Process Automation Manager 7.1.

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PREFACE

These release notes list new features, features in technical preview, known issues, and issues fixed in Red Hat Process Automation Manager 7.1.

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 7.1 provides increased stability, several fixed issues, and a few new features.

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

> **NOTE**
>
> Red Hat Process Automation Manager requires Java 8 or higher.

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. NEW FEATURES

This section highlights new features in Red Hat Process Automation Manager 7.1.

2.1. INSTALLATION AND UPGRADES

2.1.1. Consolidated Red Hat Process Automation Manager update tool

Previously, Red Hat Process Automation Manager patch updates and minor release upgrades were applied with separate patch and upgrade tools. With this release, you can use the new **rhpam-$VERSION-update.zip** update tool to apply both patch updates and minor release upgrades to Red Hat Process Automation Manager 7.1. Patch updates of Red Hat Process Automation Manager, such as an update from version 7.1 to 7.1.1, include the latest security updates and bug fixes. Minor release upgrades of Red Hat Process Automation Manager, such as an upgrade from version 7.1.x to 7.2, include enhancements, security updates, and bug fixes.

You can use the new update tool to upgrade from Red Hat Process Automation Manager 7.0.x to Red Hat Process Automation Manager 7.1. For information about using the Red Hat Process Automation Manager update tool, see *Patching and upgrading Red Hat Process Automation Manager 7.1* .

2.2. BUSINESS CENTRAL

2.2.1. Multiple GIT branch support

Business Central now provides multiple GIT branch support which enables you to work on multiple source branches interchangeably. On the project's page, select the branch drop-down menu in the library breadcrumbs to access this feature.

2.3. PROCESS DESIGNER

2.3.1. New event nodes

The process designer interface includes new conditional and escalation nodes to improve business process authoring capabilities.

Conditional events define an event that is triggered if a given condition is evaluated to **true**. The following conditional events have been added in Red Hat Process Automation Manager 7.1:

- Start Conditional event

- Intermediate Conditional event

Escalation events can be used to communicate from a subprocess to a parent process or another subprocess. For example, when using a Start Escalation event, which is only available for triggering an in-line event subprocess, communication is from a parent process to a subprocess.

An escalation event is non critical (the execution is not suspended) and execution continues at the location that the even occurred. The following escalation events have been added in Red Hat Process Automation Manager 7.1:

- Start Escalation event

- Catch Intermediate Escalation event

- End Escalation event

2.4. PROCESS SERVER

2.4.1. Decision Model and Notation (DMN) models

Red Hat Process Automation Manager 7.1 includes full runtime support for DMN 1.1 and DMN 1.2 models at conformance level 3. Red Hat Process Automation Manager 7.1 currently does not include a built-in DMN model designer, but you can design your DMN models using a third-party DMN authoring tool and include them in your Red Hat Process Automation Manager projects for deployment and execution. A DMN model designer will be added to Red Hat Process Automation Manager in the near future.

For more information about DMN support in Red Hat Process Automation Manager 7.1, see *Designing a decision service using DMN models*.

2.4.2. Case Management Model Notation (CMMN) support

CMMN 1.1 is now supported. You can use Business Central to import, view, and modify the content of **.cmmn** files. When authoring a project, you can import your case management model and then select it from the asset list to view or modify in the standard XML editor.

The following CMMN 1.1 constructs are currently available:

- Tasks (human task, process task, decision task, case task)

- Discretionary tasks (same as above)

- Stages

- Milestones

- Case file items

- Sentries (entry and exit)

Required, repeat, and manual activation tasks are currently not supported. Sentries for individual tasks are limited to entry criteria while entry and exit criteria are supported for stages and milestones. Decision task maps by default to DMN decision. Event listeners are not supported.

2.4.3. Predictive Modeling Markup Language (PMML) models

Red Hat Process Automation Manager 7.1 now supports the following PMML 4.2.1 model types:

- Regression models

- Scorecard models

- Tree models

- Mining models (with sub-types **modelChain**, **selectAll**, and **selectFirst**)

More PMML model types and Mining model sub-types will be supported as they become available.

For more information about PMML support in Red Hat Process Automation Manager 7.1, see *Designing a decision service using PMML models*.

2.4.4. Executable rule models

Executable rule models are embeddable models that provide a Java-based representation of a rule set for execution at build time. The executable model is a more efficient alternative to the standard asset packaging in Red Hat Process Automation Manager and enables KIE containers and KIE bases to be created more quickly, especially when you have large lists of DRL (Drools Rule Language) files and other Red Hat Process Automation Manager assets.

For more information about executable rule models in Red Hat Process Automation Manager 7.1, see "Executable rule models" in *Designing a decision service using DRL rules* .

2.4.5. Spring Boot support

You can use the following Spring Boot starters to bootstrap your projects with Spring Boot:

- Business Central process management - embedded engine

  - **groupId: org.kie**

  - **artifactId: jbpm-spring-boot-starter-basic**

- Fully featured Process Server

  - **groupId: org.kie**

  - **artifactId: kie-server-spring-boot-starter**

- Rules and decisions Process Server

  - **groupId: org.kie**

  - **artifactId: kie-server-spring-boot-starter-drools**

- Rules and decisions, processes and cases Process Server

  - **groupId: org.kie**

  - **artifactId: kie-server-spring-boot-starter-jbpm**

- Planning Process Server

  - **groupId: org.kie**

  - **artifactId: kie-server-spring-boot-starter-optaplanner**

2.5. SMART ROUTER

2.5.1. Support for HTTPS

Support for HTTPS is now available with Smart Router.

2.6. RED HAT BUSINESS OPTIMIZER

2.6.1. Multithreaded incremental solving

Red Hat Business Optimizer now supports multithreaded incremental solving. The solving process can now run on several CPU cores in parallel while remaining fully reproducible through repeated runs. Depending on the task, using four cores can increase the speed by a factor of three or more compared to solving on a single core. You do not need to modify the task source to use multithreaded incremental solving.

2.6.2. Employee Rostering

The Employee Rostering starter application has been significantly improved:

- You can now create a new tenant so you can use the application with your own real-world data and enter this data starting from a blank slate.

- The user interface was improved, including notifications and performance.

- You can now select the week to view instead of scrolling through long time periods.

CHAPTER 3. TECHNOLOGY PREVIEW

This section lists features that are in technology preview in Red Hat Process Automation Manager 7.1.

> **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.

- Embedded jBPM use case with a DBCP datasource.

- Optaweb employee rostering.

- High-availability authoring on Red Hat JBoss EAP (on premise and OpenShift). Configuration of Business Central for high availability is currently tech preview. Search and messaging technology used to enable search feature is considered an implementation detail. Red Hat Process Automation Manager may choose to replace that technology in the future while preserving the capability offered.

- Rule units: Rule units represent a declarative approach to partitioning a rule set into smaller units, binding different data sources to those units, and the execution of the individual unit. A rule unit consists of data sources, global variables, and rules.

CHAPTER 4. KNOWN ISSUES

This section lists known issues with Red Hat Process Automation Manager 7.1.

4.1. BUSINESS CENTRAL

Cannot close the standalone editor [RHPAM-976]

Issue: If you make a change in a standalone editor, you cannot close the editor until you save your changes.

Steps to reproduce:

1. Open a standalone editor.

2. Make a change to asset.

3. Try to close the editor.

Expected result: The editor closes.

Actual result: The editor does not close.

Workaround: Save any changes before closing the editor.

In guided rules, guided decision tables, and guided decision templates, the use of the "contains" operator does not add values from enumerations that have quotes. [RHDM-25]

Issue: When enumeration is used for a string field of a fact in guided rules, guided decision tables, and guided decision templates, the resultant rule does not wrap the selected value from the enumeration drop down in quotes ("") and a validation error occurs.

Process designer instances are very slow with Google Chrome on Linux [RHPAM-922]

Step to reproduce: Open three process designer instances in Google Chrome on Linux.

Expected result: All instances of process designer perform at the same level, regardless of the number of instances open.

Actual result: The first two instances that were opened perform as usual, but the third and all subsequent instances are very slow, even if you close the first two instances.

Workaround: Set the value of **chrome://flags/#force-color-profile** to sRGB.

Project cannot be built and deployed in Business Central when connected to a snapshot Maven repo [RHPAM-1544]

Steps to reproduce:

1. Start the local Nexus repository.

2. Install Red Hat JBoss EAP with Business Central.

3. Set the value of the **kie.maven.settings.custom** system property to **settings.xml** which will point to the Nexus snapshot repository.

4. Start Red Hat JBoss EAP, log in to Red Hat JBoss EAP, and try to create a project.

Actual result: An error appears.

Workaround: Remove the snapshot Maven repository from the **settings.xml** file used by Business Central.

4.2. OPENSHIFT

Opening Case Modeler (legacy) throws a JSON exception [RHPAM-1431]

Steps to reproduce:

1. Install Red Hat Single Sign-On in OpenShift.

2. Create a realm.

3. Install Red Hat Process Automation Manager in OpenShift.

4. Open the IT-Orders orders hardware case definition.

Actual result: An error occurs and the application restarts.

Workaround: Replace the **keycloak.sh** script that is configuring **autodeploy**:

1. Download the updated **keycloak.sh** script from the *Business Central Authoring Environment (on Openshift) crashes when a new "Business Processes (legacy)" asset is created* article.

2. Use the script to create a configuration map:

   ```
   $ oc create configmap sso-script --from-file=keycloak.sh=keycloak.sh
   ```

3. Mount the configuration map and override the previous script, where **<NAME>** is the name of the volume, for example **myapp-rhpam**:

   ```
   $ oc volume dc/<NAME> --add --type configmap --configmap-name=sso-script --sub-path=keycloak.sh --name=keycloak-script --mount-path=/opt/eap/bin/launch/keycloak.sh
   ```

4.3. PROCESS SERVER

Execution errors: Details cannot be loaded from Sybase 16.0 [RHPAM-1567]

Issue: If you select a Sybase 16.0 error from the list of execution errors, the **Details** panel opens but no data is displayed and the following error appears:

> An unexpected error happened. Please try again in a few moments.

4.4. DECISION ENGINE

MVEL expression (1 + 2 * 3 + $v) causes a "no such method or function " error for bind variable[RHDM-707]

Issue: When using an expression such as **(1 + 2 * 3 + $v)** in the consequence of a rule which uses the mvel dialect, where **$v** is a bound variable from rule constraints, the evaluation of the rule produces an exception.

Workaround: Change the expression to **(1 + (2 * 3) + $v)**.

4.5. PROCESS DESIGNER

The Data Objects functionality in the process designer is disabled by the **designerdataobjects=false** configuration switch because at this time it is considered incomplete.

CHAPTER 5. FIXED ISSUES IN RED HAT PROCESS AUTOMATION MANAGER 7.1.0

Red Hat Process Automation Manager 7.1.0 provides increased stability and fixed issues listed in this section.

5.1. BUSINESS CENTRAL

- [IE] Project Explorer disappears after editing pom.xml file [RHPAM-997]

- Some user actions don't fire post-commit hook: create data object, modify data object [RHPAM-624]

- Unable to start standalone business central without internet access [RHPAM-1293]

- Overview Description placeholder [RHPAM-787]

- [Guided Decision Table] Selected Cell highlight ignores hidden columns [RHPAM-974]

- Enum deletion throws an Error [RHPAM-1436]

- Asset editors don't resize with window size change [RHPAM-576]

- RHPAM git import is not backward compatible [RHPAM-1364]

- Jobs: New job dialog "Add Parameter" button doesn't respond to click [RHPAM-1353]

- Bad link for subprocess instances in Business Central process SVG [RHPAM-1332]

- Unable to access completed processes with undeployed container [RHPAM-1275]

- Show all process instances when all containes are stopped [RHPAM-1314]

- Process Instances: Filter over the column "processId" introduces superfluous visible columns [RHPAM-1258]

- [GSS](7.0.z) Unable to push changes to a remote repository which has been cloned from remote repo in RHPAM [RHPAM-1310]

- Problem: Unable to open variable assignments screen in full screen mode in BPM Suite 6.4.x [RHPAM-69]

- Unable to import filesystem bare git repository in Windows [RHPAM-1311]

- Error popup on first deploy of project [RHPAM-1516]

- Managed Process Intelligent Server does not load the artifact changes in BPM Suite 6.4 [RHPAM-397]

- Guided Decision Table is changing date field value based on the timezone [RHPAM-1415]

- Can't import projects using ssh protocol [RHPAM-1528]

- WebService Task execution fails with ClassCastException [RHPAM-1409]

- [GSS] (7.0.z) Process model SVG is not updated in Windows environments [RHPAM-1264]

- Updating task details alters Due On time [RHPAM-1229]

- KIE Server data set editor fails with 'DataSet is empty' when being created and data exists [RHPAM-1542]

- Error popup on first delete project [RHPAM-1526]

- jdbc drivers should not be downloaded by default [RHPAM-1527]

- Update project branches on runtime even when they are modified out of the workbench [RHPAM-1523]

- Error popup when deleting project with opened Data Object [RHPAM-1525]

5.2. DECISION ENGINE

- Unexpected rule fire by sharing From and pojo without hashCode/equals [RHPAM-1186]

- Support Java 8 date API in dates comparison [RHPAM-1356]

- "java.security.AccessControlException: WFSM000001: Permission check failed" when enabled security-manager [RHPAM-1266]

- DRL function import doesn't work using static inner class [RHPAM-1071]

- WorkflowRuntimeException wraps only the most bottom root cause Exception in RuleSetNodeInstance [RHPAM-1188]

- PMML compilation problem with weightedAverage mining operator [RHPAM-1500]

- Mining model is not able to chain regression models [RHPAM-1509]

- Executable model wrongly generates alpha indexing for constraints not having a literal as right expression [RHPAM-653]

- PMML scorecards are not able to evaluate ComplexPartialScore [RHPAM-928]

- Drools engine does not compile PMML SimpleSetPredicate correctly [RHPAM-929]

- GetResultValue method does not return empty Optional for missing values [RHPAM-931]

- Executable model cannot handle fieldnames with second letter in uppercase [RHPAM-1363]

- PMML - tests in class ScorecardReasonCodeTest fail randomly [RHPAM-1298]

- Surrogate operator does not work correctly in decision trees [RHPAM-1492]

- Missing image streams for databases in "rhpam70-image-streams.yaml" [RHPAM-1171]

5.3. PROCESS SERVER

- Security framework of XStream not initialized [RHPAM-25]

- HTTP 500 when aborting process with not existing container id [RHPAM-1240]

- KIE database creation does not include indexes [RHPAM-1271]

- Mining model mode of modelChain does not properly generate rules [RHPAM-623]

5.4. PROCESS ENGINE

- The Process last modification date isn't updated when a task/node fire an event [RHPAM-631]

- MigrationManager allows nodeInstance which cannot find upgradedNode [RHPAM-1458]

- Error in the tasks search by potential owners [RHPAM-1192]

- "IllegalArgumentException: Unknown node id" when migrating MultiInstance [RHPAM-1185]

- parentProcessInstanceId in ProcessEventListener is 0 [RHPAM-153]

- Timers in composite nodes are not migrated [RHPAM-1411]

- org.kie.server.json.format.date has no effect anymore in RHPAM 7 [RHPAM-1324]

- Missing "import" doesn't always produce a compilation error in BPMN2 process [RHPAM-1211]

- OptimisticLockRetryInterceptor doesn't retry 3 times [RHPAM-214]

- no index created for AuditTaskImpl table [RHPAM-1467]

- Syncing job executor with database stopped after temporary database unavailability [RHPAM-1521]

- PersistenceContext (application scoped entity manager) is not properly cleaned in Spring based setup [RHPAM-1520]

5.5. CASE MANAGEMENT

- Closed cases shown as canceled [RHPAM-1355]

5.6. RED HAT PROCESS AUTOMATION MANAGER ON OPENSHIFT

- PROBE_* env vars should not exist in templates anymore [RHPAM-1485]

- Switch the imagestreams to the new redhat.io registry [RHPAM-1471]

- Git hooks dir is not created when is set GIT_HOOKS_DIR to non-existent dir [RHPAM-1479]

- GIT_HOOKS_DIR parameter not exposed in RHPAM templates [RHPAM-1491]

- Kie Server with RH SSO on OpenShift return empty task list for user with assign tasks [RHPAM-1361]

- Inconsistent naming of KIE server in RHPAM OpenShift templates [RHPAM-1506]

- RHPAM maven repository id should be configurable instead of generated [RHPAM-1452]

- PAM7 PaaS image does not allow to push maven artifacts through remote repositories [RHPAM-1531]

- Missing org.appformer.m2repo.url configuration in Workbench scripts [RHPAM-1429]

- Malformed Kie server id in case it contains number [RHPAM-1556]

5.7. DATA MODELER

- Multibyte lables are persisted as Unicode numbers for the first time in Data Objects source code [RHPAM-1202]

- Cannot use multibyte field name for Data Objects [RHPAM-1204]

5.8. FORM MODELER

- Two different radiogroups with the same name have the same id. [RHPAM-461]

- Form copied from a Subform is not visible in the Subform menu. [RHPAM-460]

- Users can interact with fields on edit mode. [RHPAM-500]

5.9. PROCESS DESIGNER

- Stunner – NewMarshallers – Variable identifiers [RHPAM-1461]

- Can't compile embedded subprocess when new marshaller is enabled [RHPAM-629]

- Unexpected process variable is created in process which contains user task [RHPAM-607]

- Can't compile process with reusable subprocess when new marshaller is enabled [RHPAM-630]

- Stunner – Specific MI SubProcess can not be migrated [RHPAM-978]

- Subprocess – Documentation migration to old designer [RHPAM-975]

- Stunner – Bendpoints on SequenceFlows does not move when user moves entire diagram [RHPAM-1393]

- All elements are selected when you open create a new process [RHPAM-1063]

5.10. RED HAT BUSINESS OPTIMIZER

- [OptaShift Employee Rostering] Added unavailabilities in Employee Roster are not saved [RHPAM-1060]

- [OptaShift Employee Rostering] Added unassigned spots in Spot roster disappear after solving [RHPAM-1057]

- [OptaShift Employee Rostering] It is not possible to set employee availability [RHPAM-1059]

- [OptaShift Employee Rostering] Cannot view more than one page in Employee and Spot roster [RHPAM-1056]

CHAPTER 6. FIXED ISSUES IN RED HAT PROCESS AUTOMATION MANAGER 7.1.1

Red Hat Process Automation Manager 7.1.1 addresses critical issues reported by customers.

6.1. BUSINESS CENTRAL

- Cannot open a task form from the Task Inbox in Business Central [RHPAM-1566]

- Unable to import projects from a secured Git repository [RHPAM-1617]

- Business Calender does not work as expected when the timer is set in some conditions [RHPAM-1589]

6.2. DECISION ENGINE

- MVEL uses random parameter type methods for **BigDecimal.valueOf(100)** [RHDM-699]

- MVEL expression (1 + 2 * 3 + $v) causes the "no such method or function" error for bind variables [RHDM-707]

6.3. MAVEN REPOSITORY

- Maven repository is the org.kie.server:kie-server-controller-client [RHDM-770]

6.4. RED HAT PROCESS AUTOMATION MANAGER ON OPENSHIFT

- s2i build fails for multi module Maven projects [RHDM-765]

6.5. PROCESS ENGINE

- RHPAM 7.1.0 contains a file handle leak in AbstractUserGroupInfo [RHPAM-1586]

6.6. PROCESS SERVER

- An exception occurs during deployment of KJARs in RHPAM 7.0.2 [RHPAM-1564]

- REST call does not filter results by container ID [RHPAM-1600]

APPENDIX A. VERSIONING INFORMATION

Documentation last updated on Wednesday, March 27, 2019.