# Migration Vinci Construction 2019

## Before starting

There is 2 migration tool version:

* The **version 1.x** that migrate the platform **from** version **6.0.2 or later** to any version **up to 7.0.0**
* the **version 2.x** that migrate the platform **from** version **7.0.0 or later** to any version **up to the last one.**

For example, if you are migrating from 6.5.3 to 7.1.0, you must migrate from 6.5.3 to 7.0.0 using version 1.x of the Bonita Migration Tool, and then migrate from 7.0.0 to 7.1.0 using version 2.x.

#### Where to download the Migration Tool? → [Customer Portal](https://customer.bonitasoft.com/download/request)

Do not forget to start with a back-up of your database and to perform your migration on a non-production environment before migrating in production  
Please add here your current and targeted environment as well as hardware information

## Current environment

**Operating System:** Windows 2012R2

**JVM**: jre1.8.0\_121

**Application server**: vicprdorgnbpm01.vc-ic.grpsc.net

**Database Engine**: Postgresql 9.3

**Cluster node**: Non

**Bonita version: 7.3**

## Current Hardware

**CPUs:** 4

**RAM: 16Go**

**HD: 1x50G0 + 1x70Go**

## Target environment

**Operating System:** Windows 2016

**JVM**: jre1.8.0\_121(minimum)

**Application server**: vicprdorgnbpm01.vc-ic.grpsc.net

**Database Engine**: Oracle 12c

**Cluster node**: Non

**Bonita version: >7.3**

## Target Hardware

**CPUs:** 4

**RAM: 16Go**

**HD: 1x50G0 + 1x70Go**

## Migration steps

## Main features per version

You can refer to the release notes of each new version

### Bonita 7.3

[Release notes](https://documentation.bonitasoft.com/bonita/7.3/release-notes)  
Highlights on new features

* Bonita home removal (cf below for details about the impacts)
* User task-list re-design
* New UI Designer widgets : File viewer and rich text area

### Bonita 7.4

[Release notes](https://documentation.bonitasoft.com/bonita/7.4/release-notes)  
Highlights on new features

* LONG contract input types
* Estimated due date for a human task can be defined as an expression in the Studio
* New REST Connector to make REST calls to a third-party system
* CMIS connector improved
* CSRF security mechanism enabled by default

Technology updates :

* Wildfly 10.1.0 as a replacement of JBoss AS 7.1.1
* Hazelcast update to 3.6.5

### Bonita 7.5

[Release notes](https://documentation.bonitasoft.com/bonita/7.5/release-notes)  
Highlights on new features :

* LA Development : new wizard to import a process in the studio and compare the artifacts
* Industrialization of Living Apps : Editor in the Studio to create the Living app descriptor
* New management of Date/Time in BDM, contracts and user interfaces

Technology updates :

* Full Java 8 support
* Support of Microsoft Edge
* Integration of SSO SAML 2.0
* IE 9 and IE 10 not supported anymore
* Weblogic not supported anymore

### Bonita 7.6

[Release notes](https://documentation.bonitasoft.com/bonita/7.6/release-notes)  
Highlights on new features :

* LA Industrialization : Profiles are available in the Studio (edit, create, map, etc)
* Display name can be added to a process
* SAML logout
* New API method to protect task assignation

Technology updates :

* Studio on Eclipse Oxygen 4.7
* Supported Tomcat version is Tomact 8.5.23
* Support of Windows Server 2016 and SQLServer 2016
* SQL Server connector modified (simple connector supporting each versions)
* Ubuntu 16.04

### Bonita 7.7

[Release notes](https://documentation.bonitasoft.com/bonita/7.7/release-notes)  
Highlights on new features :

* Collaborative development with GIT
* Business Data Access Control (BDM data access protection through REST API calls)
* Save a form temporarly
* New case overview
* And the last maintenance version 7.7.5 should include important performance improvements

### Bonita 7.8

[Release notes](https://documentation.bonitasoft.com/bonita/7.8/release-notes)  
Highlights on new features :

## Important modifications

Please read below all modifications per versions

#### Engine database INDEXES:

* + If you have added indexes to certain tables in the Engine database, you must remove them before migrating from 6.2.6 to a later version. If you do not remove these indexes, the migration will not complete. This applies to the following tables: ***arch\_process\_instance*,*arch\_connector\_instance*,*arch\_flownode\_instance*,*arch\_data\_instance***and ***arch\_data\_mapping*.**

#### BDM (Business Data Model), and the business data database:

* + The migration script supports MySQL, Postgres, Oracle, and MS SQLServer. There is no migration for h2 databases.
  + If the migration path **includes version 7.0.0, 7.2.0 or 7.2.4**, the Business Data Model **must be redeployed after migration**, using [Define and deploy the BDM](https://documentation.bonitasoft.com/?page=define-and-deploy-the-bdm)).
* **JRE requirements:**
  + Versions **7.0 to 7.4** only support JRE version 7. If you come from older versions of Bonita supporting JRE 6, you must also upgrade your JRE to version 7.
  + Version **7.5** only supports JRE version 8. If migrating to version 7.5, please upgrade your JRE to version 8. For more info, see Support Guide and Supported Environment Matrix for Server.
* **From v7.3.x**
  + Bonita HOME (file system) → Bonita Platform configuration (database)
  + Starting from version 7.3 there is no more bonita home folder. This means that, if your installation does not have any custom change, then you do not need to configure the bundle any further for an installation migrated in 7.3 or above.
  + On the other hand, if you have customized your configuration, you will have to use the [platform setup tool](https://documentation.bonitasoft.com/?hash=update_platform_conf&page=BonitaBPM_platform_setup) to send your customized configuration files to the database, where the configuration is stored, for versions 7.3 and above.
* **Before 7.4**

We have 3 type of objects that can be manipulated by the API where the userId who does the action is automatically computed by the API itself (by looking at the user currently logged in on the API) :  - Case Comments: addProcessComment(long processInstanceId, String comment)  - Process Documents addDocument(long processInstanceId, String documentName, String description, DocumentValue documentValue)  attachDocument(long processInstanceId, String documentName, String fileName, String mimeType, byte[] documentContent) attachDocument(long processInstanceId, String documentName, String fileName, String mimeType, String url) attachNewDocumentVersion(long processInstanceId, String documentName, String contentFileName, String contentMimeType, byte[] documentContent) attachNewDocumentVersion(long processInstanceId, String documentName, String fileName, String mimeType, String url)  - LivingApp Pages createPage(PageCreator pageCreator, byte[] content) createPage(String contentName, byte[] content)

* + When these methods were used on a **human task in a groovy script of an operation**, **the userId computed was the logged user** because the execution was in the same transaction of the human task.
  + When a method on these objects was called, the userId was computed with the userId connected (active session) because these methods were initially intended to be used from the Portal.

#### From 7.4

* + The methods did not change but the execution of these methods in a human task changed.   
    Indeed, the execution of operations, etc. were done in another transaction to optimize the performance.   
    The consequence: **the userId set by the usage of these methods in a Groovy operation is -1 (i.e. "System") instead of the task's assignee.**
  + **CSRF filter**is included and**not enabled by deafult**. So, you need to enable it. setup/platform\_confg/current/security-config-properties
* **From v7.5.x**
  + JVM 7 → JVM 8

## Checklist

This checklist combined with the list of modifications described above should help you prepare your migration

#### Task Comments?

* + Yes
  + **No**

From 7.4, a new method has been added **to add a comment on behalf**a user to set the proper user id (task's assignee) to the added comment: [addProcessCommentOnBehalfOfUser](https://documentation.bonitasoft.com/javadoc/api/7.7/org/bonitasoft/engine/api/ProcessRuntimeAPI.html" \l "addProcessCommentOnBehalfOfUser-long-java.lang.String-long-)

#### Process Document?

* + Yes
  + **No**

The usage of Document must follow the best practice: use the Process Document type provided in the Studio. we have a dedicated type called Document that can be used in the operations. The usage of this type and the related operations is guaranteed. From 7.4, we have ensured the compatibility of operations on the Document types (i.e. the userId of an added document is the task's assignee).   
We encourage and push for the usage of the Document type and the associated operations instead of writing code in groovy script.

**Custom Platform configuration?**

* + **Yes**
  + No

Reapply your customizations manually after the migration script has finished (using [platform setup tool](https://documentation.bonitasoft.com/?hash=update_platform_conf&page=BonitaBPM_platform_setup) if migrated to 7.3.0+).

Some typical customizations:

* + LDAP Authentication
  + SSO Authentication
  + Event handler
  + Tomcat Filter

**New license needed?**

* + **Yes**
  + No

If you are upgrading to a new maintenance version and not changing the minor version number (for example, you are migrating from 7.7.0 to 7.7.1), your current license remains valid after migration

**Custom Look & Feel?**

* + **Yes**
  + No

Steps:

* Export your current Look & Feel before migrating.
* [Export the default Look & Feel](https://documentation.bonitasoft.com/?page=managing-look-feel) from the new version.
* Modify your custom Look & Feel to be compatible with the new definition, and with the [recommendations for form footers](https://documentation.bonitasoft.com/?page=creating-a-new-look-feel).
* Then [import](https://documentation.bonitasoft.com/?page=managing-look-feel) your updated custom Look & Feel into Bonita Portal.

#### I didn't set the default Look & Feel

* + [Restore the default Look & Feel](https://documentation.bonitasoft.com/bonita/7.7/managing-look-feel#toc3) using a REST client or the Engine API

#### I can't log in the Portal

* + - Clear your browser cache. If you do not clear the cache, you might see old, cached versions of Portal pages instead of the new version

#### REST API extensions?

* + **Yes**
  + No
  + These might continue to work in the new version, but should be tested depending on your custom code.
  + Take into account you will be using JVM 8 after migration.

**Custom connectors?**

* + Yes
  + **No**
  + These might continue to work in the new version, but should be tested depending on your custom code.
  + Take into account you will be using JVM 8 after migration.

#### Custom actor filters?

* + **Yes**
  + No
  + These might continue to work in the new version, but should be tested depending on your custom code.
  + Take into account you will be using JVM 8 after migration

#### Version 6 Forms?

* + Yes
  + **No**
  + [Migration Forms V6 to V7 guide](https://bonitasoft.atlassian.net/wiki/spaces/DS/pages/571572421/Migration+Forms+V6+to+V7)

**Cluster?**

* + Yes
  + No

A Bonita cluster must have the same version of Bonita on all nodes. To migrate a cluster:

* 1. Download the migration tool:
     1. In version 1.x you need to download the tool for Performance cluster, the ordinary Performance migration tool does not support migration of a cluster.
     2. In version 2.x there is only one kind of migration tool. It will work for both cluster and non-cluster installation.
  2. Shutdown all cluster nodes.
  3. On one node, follow the [procedure to migrate the platform](https://documentation.bonitasoft.com/bonita/7.7/migrate-from-an-earlier-version-of-bonita-bpm#toc4).
  4. The migration of the cluster is now complete, and the cluster can be restarted.

**Custom Groovy Page ?**

From 7.6, cache policy changed and custom pages developed in Groovy must be rewritten.

## Good to know

**Deployed process definitions:**

* The processes will continue to run using the definition created in the previous version of Bonita.

#### Process definition sources (.bos files):

* Migrate these by importing them into the new version of Bonita Studio.