

# Getting Started with jBPM

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# Schedule

- About the tool
- Execution Engine (Kie Server)
- Authoring and Process Management with Business Central
- jBPM Installation
- Exploration

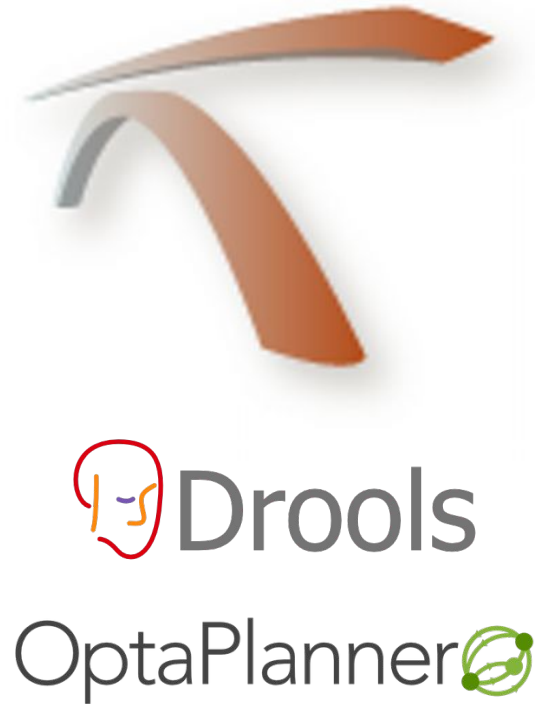
# About jBPM

# About jBPM

**jBPM** is a toolkit for building business applications to help automate business processes and decisions.

**jBPM** is one of the projects under the KIE umbrella, along with *Drools*, *OptaPlanner* and *Kogito*.

[jbpm.org](http://jbpm.org)



# What you can do with jBPM

You can currently **author**, **execute** and **manage** and **monitor**:

- Business Processes (BPMN2)
- Case Management (BPMN2 and CMMN)
- Decision Management (DMN)
- Business Rules (DRL)
- Business Optimization (Solver)



# Running jBPM

Business applications can mainly be planned in **two** ways:

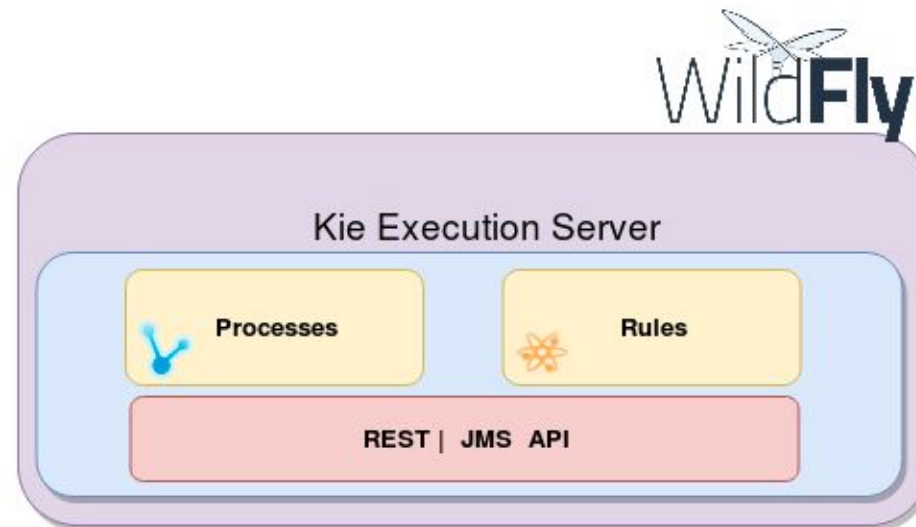
- **Embedded** in Java applications using jBPM libraries:
  - E.g. Create a spring-based business app in: [start.jbpm.org](https://start.jbpm.org)
- **Decoupled**, by installing the business app in the Execution Engine (Kie Server)



# Kie Server

# Kie Server

Kie Server is a Java web application aimed to run Business Process and Business Rules. It runs on Java application servers and expose business processes and rules using REST and JMS.



# Installing projects on Kie Server

- The data objects and all other business assets are packaged in special JARs called **KJARs** (Knowledge JAR)
- Once deployed, KJARs are exposed as **Kie Containers**
- Client applications can use REST or JMS APIs to interact with Kie Server ( e.g. manage business processes, run business rules)

# Execution Modes

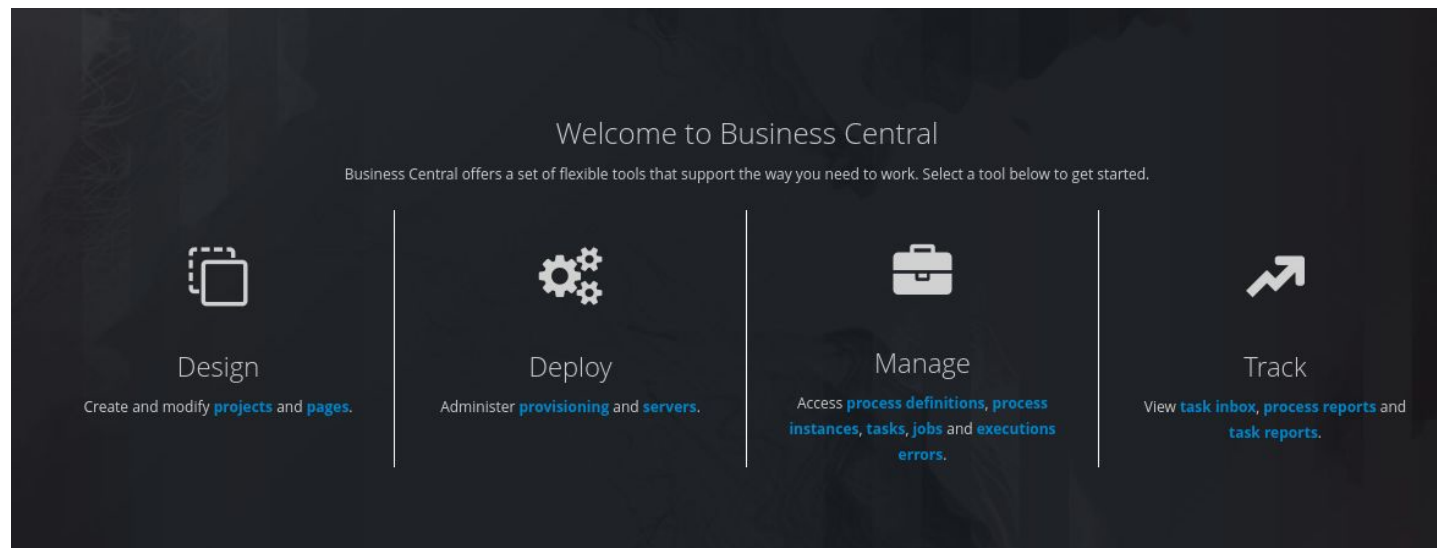
Kie Server can run in two modes:

- **Unmanaged:** Clients connect direct to Kie Server to manage containers
- **Managed:** Kie Server connects to a controller application using an open API.
  - **Business Central**, available out-of-the-box, can be used as a controller;
  - You can also develop custom controllers if you will.

# Business Central

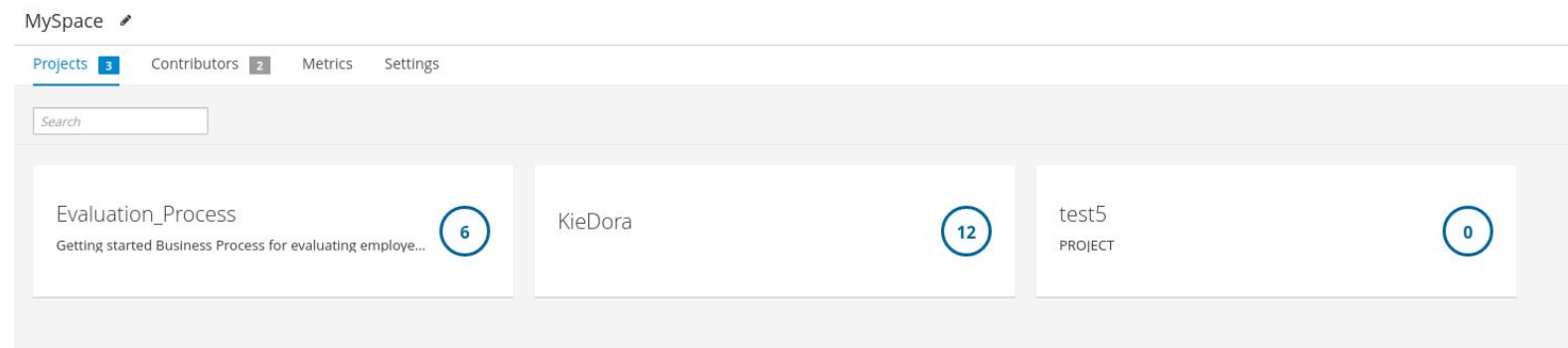
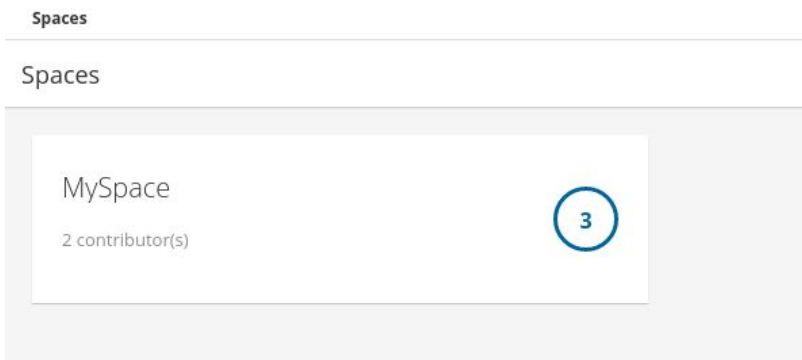
# Business Central

Business Central (BC) is an **authoring** environment to create projects that contains business assets and **manage** and **monitor** business processes running in Kie Server.



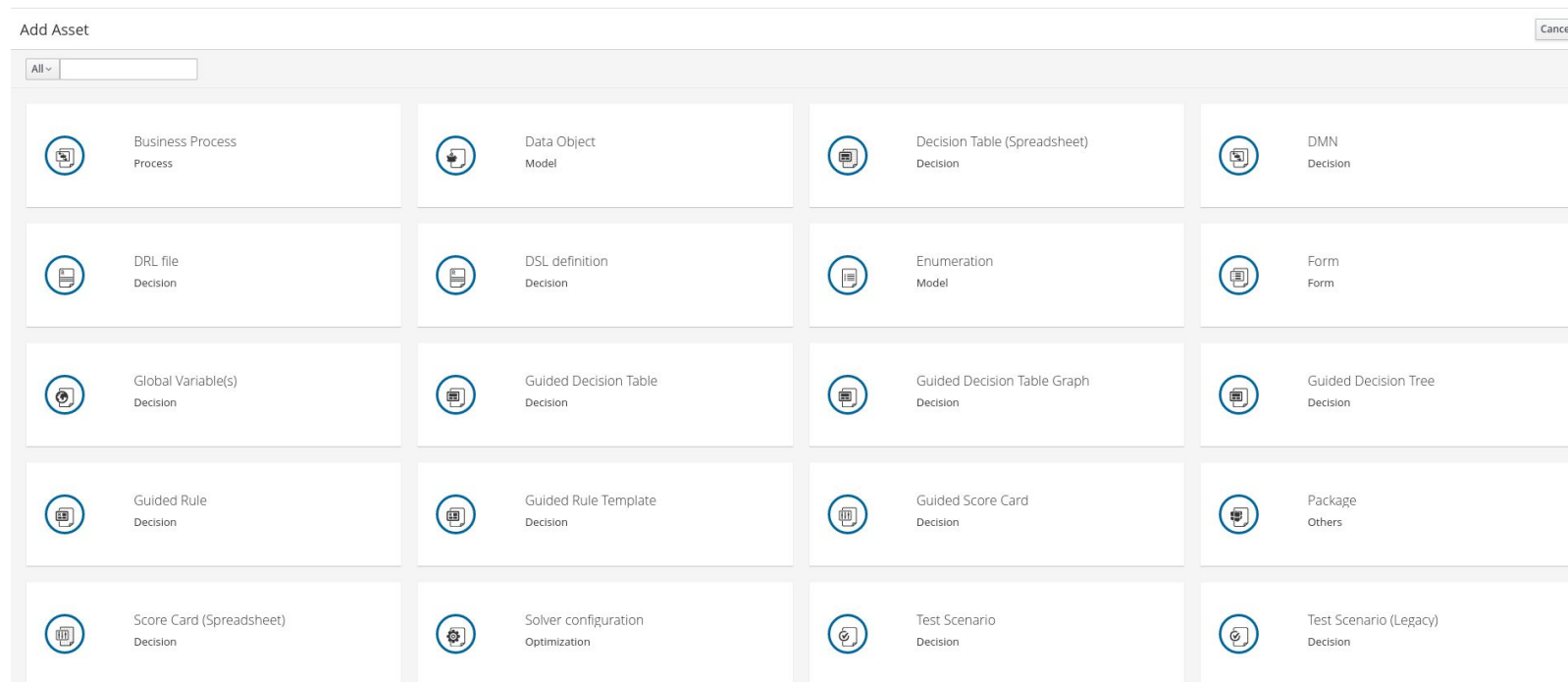
# Space and Projects

A **Space** is a group of projects. Each **project** is versioned in a git repository.



# Project assets

A BC project is a maven project that contains several types of assets. When packaged, it becomes a KJAR that can run on Kie Server.





# Kie Server Controller

BC can connect to Kie Server and be used as a controller.

In other words, from BC we can deploy our projects to connected Kie Servers.

The screenshot displays the Business Central Kie Server Controller interface. On the left, the 'SERVER CONFIGURATIONS' panel shows a list of server configurations, with 'sample-server' selected. Below this, the 'Capabilities' section lists 'Decision', 'Process', and 'Planner'. The 'DEPLOYMENT UNITS' section shows two units: 'test5\_1.0-SNAPSHOT' and 'test5\_2.0-SNAPSHOT'. The 'REMOTE SERVERS' section shows a list of servers, with 'sample-server@localhost:8080' selected.

The main panel displays the details for the selected server, 'sample-server@localhost:8080'. It shows the server's URL, 'http://localhost:8080/kie-server/services/rest/server', and a list of deployment units. Two units are shown: 'test5' (Group Id: com.myspace | Artifact Id: test5) and 'test5\_1.0-SNAPSHOT' (Group Id: com.myspace | Artifact Id: test5). Both units are marked with a green checkmark, indicating they are successfully deployed. The interface also includes 'Refresh' and 'Remove' buttons.

# Managing Business Process

BC provides an UI to interact with processes running on Kie Server

The screenshot displays two sections of the Business Central interface. The top section, titled 'Manage Process Definitions', shows a table with one entry: 'Evaluation' (Version 1, Deployment evaluation\_1.0.0-SNAPSHOT). The bottom section, titled 'Manage Tasks', shows a table with one entry: 'Self Evaluation' (Process Definition Id: evaluation, Status: Reserved, Actual Owner: krisv, Created On: 30-Jun-2020 01:36:51, Errors: 0).

**Manage Process Definitions**

Active filters: Save Filters | Clear All

Name	Version	Deployment	Actions
Evaluation	1	evaluation_1.0.0-SNAPSHOT	

10 Items

**Manage Tasks**

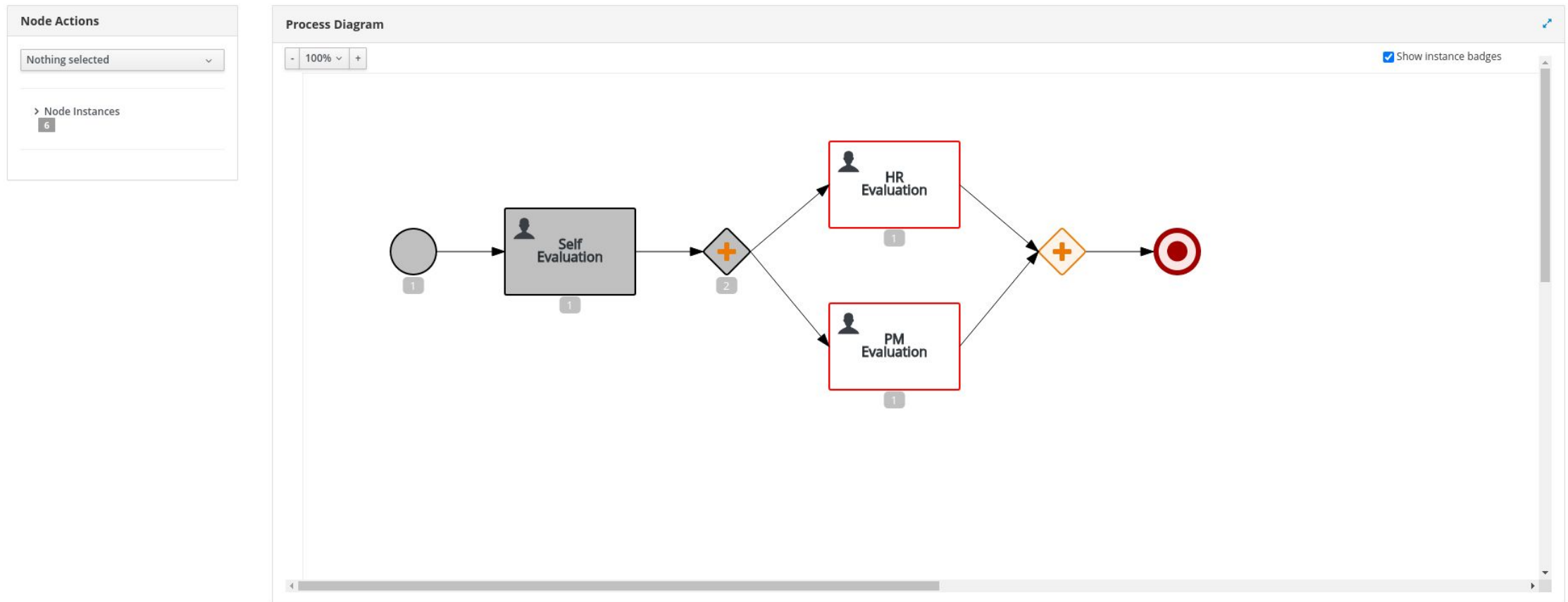
Active filters: Status: Ready, Reserved, InProgress X Save Filters | Clear All

Task	Process Definition Id	Status	Actual Owner	Created On	Errors	Actions
<input type="checkbox"/> Self Evaluation	evaluation	Reserved	krisv	30-Jun-2020 01:36:51	0	

10 Items

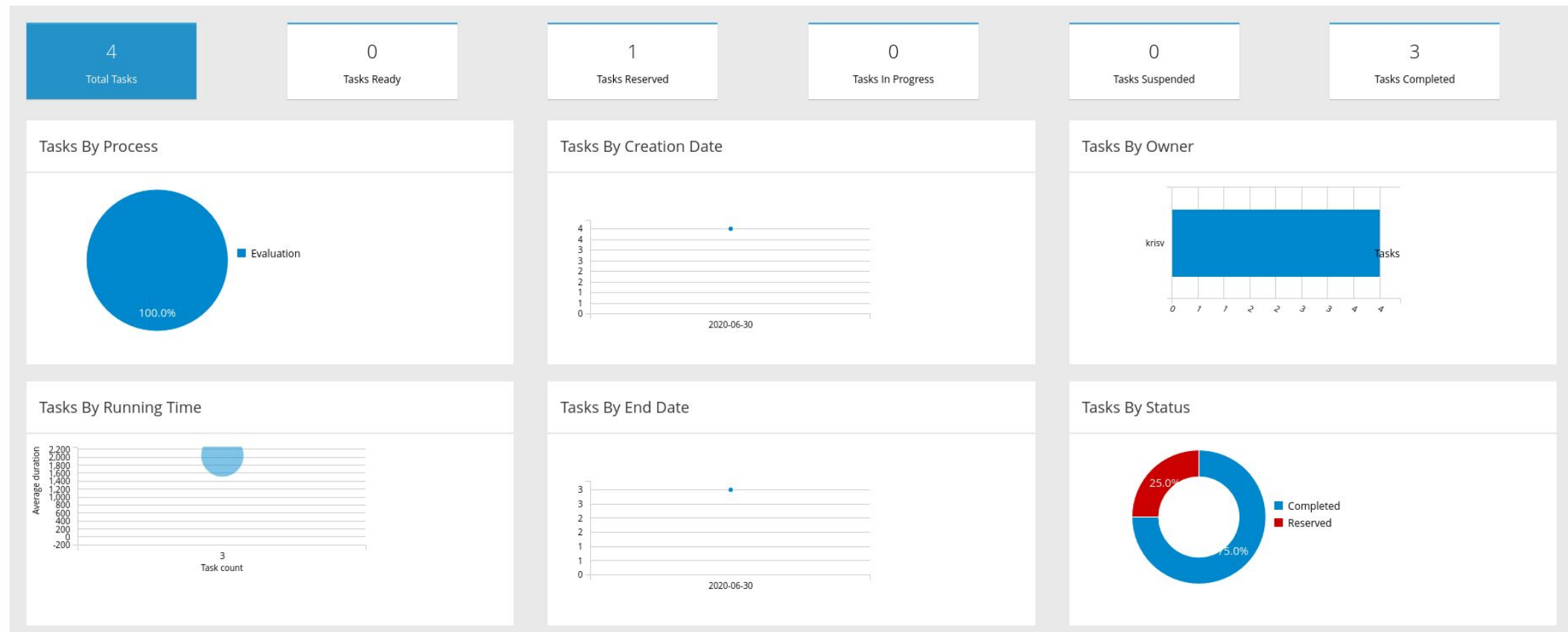
# Monitoring Business Process Execution

Instance Details Process Variables Documents Logs Diagram



# Monitoring Business Process Execution

All Tasks



# jBPM Installation

# jBPM Installation

Different ways to install and run jBPM:

- Individually install and configure components ( bc, kie server)
- Pre-configured bundle (jbpm-dist). Go to ***jbpm.org*** and click on



- Community Docker image

```
docker run -p 8080:8080 -p 8001:8001 -d --name jbpm-server-full jboss/jbpm-server-full:latest
```

# Running jBPM Bundle

The jBPM bundle is pre-configured and you can easily run it to try jBPM:

- Java JDK 8 or 11 is a requirement
- Download the zip file at <http://jbpm.org> - Unzip it!
- Run the script `standalone.sh` or `standalone.bat` which is in `${ROOT_FOLDER}/bin/`
- Wait for the server to boot. A log like this should be displayed:  
"WFLYSRV0025: WildFly Full 19.1.0.Final (WildFly Core 11.1.1.Final) started in XXXXXms"
- Go to <http://localhost:8080/business-central> and login as one of pre-configured users (e.g. *krisv/krisv*)

# Exploring jBPM



# Thank You!

See more

★ [kogito.kie.org](http://kogito.kie.org)

★ [kie.org](http://kie.org)

★ [jbpm.org](http://jbpm.org)



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