



BPM Camp

<http://bit.ly/1MZzV9N>

AGENDA

BPM Goals

Bonita BPM Components

BPMN Introduction

Data & Contracts

More about BPMN

Forms & Pages

Actors

Connectors

Deployment

BPM GOALS

Collaborate during the definition and execution of Business Processes

Track process execution

Optimise processes

BONITA BPM COMPONENTS

Bonita Studio

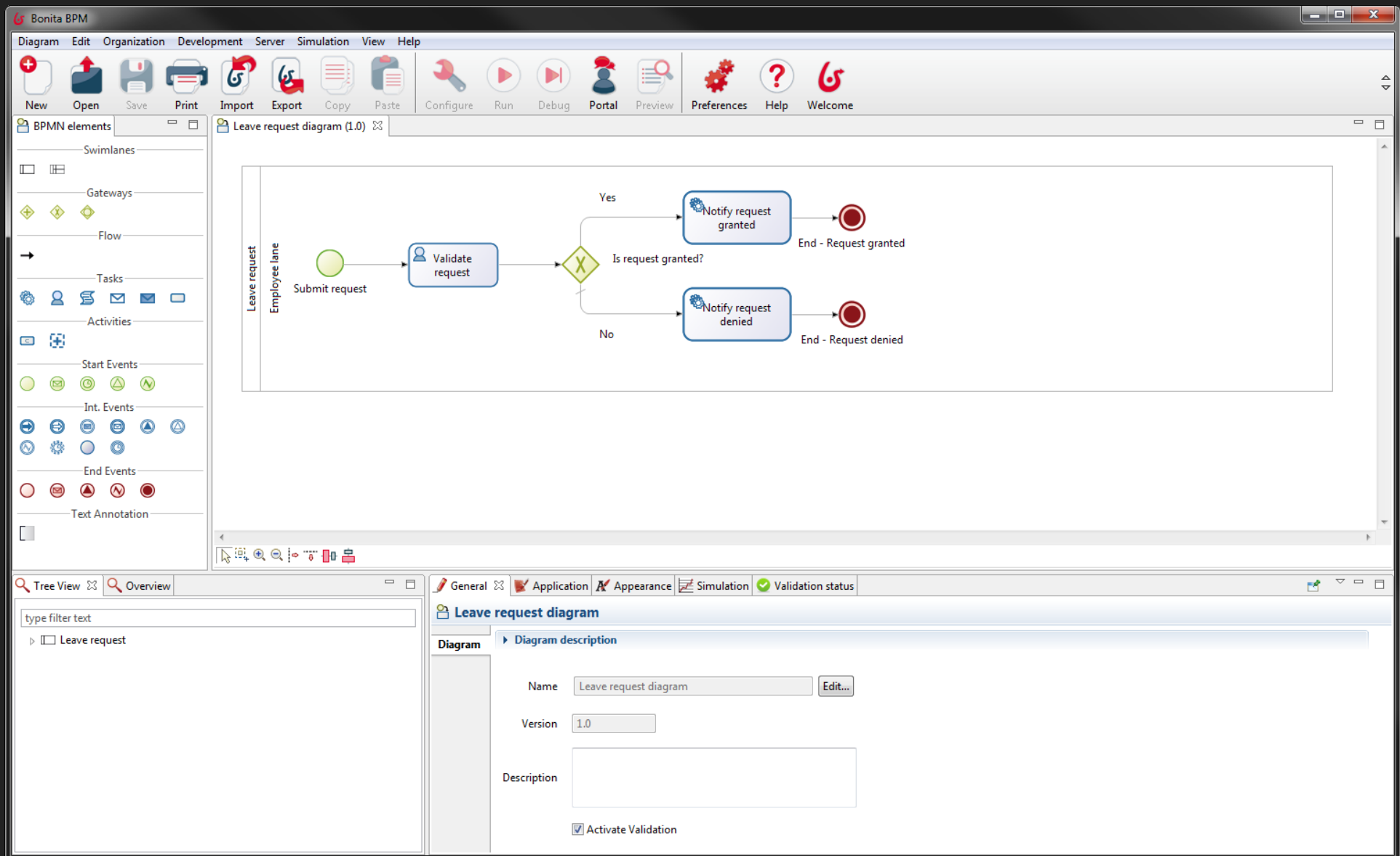
Bonita Engine

Bonita Portal



Bonita Platform

BONITA BPM STUDIO : PROCESS EDITOR



BONITA BPM STUDIO : UI DESIGNER

PAGE EDITOR | procurementRequestCreat | **Save** | **Preview**

12 | **1**

Specify need & identify suitable suppliers

Need | Suitable suppliers | +

Identify a list of suitable suppliers.

All suppliers

Suitable suppliers

Send request

VARIABLES | **ASSETS**

Create a new variable | Search

Name	Value	Type
allSuppliers	/bonita/API/bdm/businessData/com.company.model.Supplier?p=0&c=20&q=find	External API
formError		String
onDismissError	\$data.formError = null;	Javascript expres...
selIdFromAllSuppliers		String
selIdFromSuitableSuppliers		String

LISTTRANSFERBUTTONS

Edit the custom widget

Width 2 columns

CSS classes
Space-separated list

Hidden
☐ no ☐ yes

Left list values
allSuppliers

Left list selection
selIdFromAllSuppliers

Right list values
suitableSuppliers

Right list selection
selIdFromSuitableSuppliers

Right list ids
selIdData.supplierIds

BONITA BPM ENGINE

In charge process execution (no built-in UI)

Based on Java SE 7+ / Java EE 6

Packaged with the Bonita Portal in a Java web application

Requires :

- A Java application server
- A JDBC compliant transactional database

BONITA BPM PORTAL

End user and administration web interface

Displays the list of available tasks

Allows to deploy and configure processes

The screenshot displays the Bonita BPM Portal web interface. The browser address bar shows the URL: `localhost:41667/bonita/portal/homepage#?_pf=1&_f=humanTask&_id=2&_p=tasklistinguser`. The Bonita logo is in the top left, and the user is logged in as "Walter Bates" with a "Settings" link in the top right.

The main navigation bar includes "Tasks", "Cases", and "Processes". The "Tasks" tab is active, showing a search bar and "TAKE" and "RELEASE" buttons. A sidebar on the left lists "To do", "My tasks", "Available tasks", and "Done". Under "Processes", the "Leave request" process is listed with version "5.0".

The task list shows one task: "Validate request" (1 - Leave request) with a due date of "in 59 min". The task details panel on the right shows the task name "Validate request", a "No description" field, and case information: "Case: 1", "Due date: in 59 min", "Process: Leave request", and "Priority: Normal".

The "Comments" section shows two comments from the "System":

- "The task 'Validate request' is now assigned to walter.bates" (1 sec ago)
- "The task 'Validate request' is now assigned to helen.kelly" (10 sec ago)

The comment list is numbered "1 - 2 of 2". A "Type new comment" input field and an "ADD COMMENT" button are at the bottom.

BONITA BPM PORTAL : FORMS

Renders forms created with UI Designer

Served within Bonita Portal or embedded in an application

New procurement request

[Need](#) [Suitable suppliers](#)


Assemble a list of suitable suppliers.

All suppliers		Suitable suppliers
Name		Name
Donut Co.	>	Acme Inc.
Teamwork Ltd.	<	Duff Co.
Efficiency Ltd.		
Performance Ltd.		

[Send request](#)

BONITA BPM PORTAL : APPLICATIONS

Allows to deploy Business Applications composed of custom pages implemented with the UI Designer

RequestsSuppliers


Procurement requests

Select a request to view more details

+ Start new request

Summary	Creation date	Created by	Status	Completion date	Selected supplier
5 video projectors	2015-03-27 16:01	Walter Bates	Pending for quotations		
10 flat screen TVs	2015-03-27 16:04	Walter Bates	Pending for quotations		
50 desks	2015-03-27 16:11	Walter Bates	Pending for review		
28 office chairs	2015-03-27 16:17	Walter Bates	Completed	2015-03-27 18:03	Acme Inc.
50 mugs	2015-04-07 10:10	Walter Bates	Pending for quotations		

Requests per status



■ Pending for quotations ■ Pending for review ■ Completed

Request details

Summary

Description

Creation date

Completion date

Selected supplier

50 desks

Approx dimensions: 60" x 40" x 30", Color: white, 3 drawers

2015-03-27 16:11

Walter Bates

Pending for review

Review quotations & select supplier

Quotations

Supplier	Status	Accepted	Proposed price	Comments
Donut Co.	Replied	true	9999	I can have these in 2 weeks.
Duff Co.	Replied	true	11000	I can have these and ship them in a week.

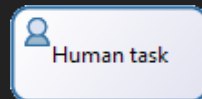
BPMN INTRODUCTION

Standard notation (OMG) for process modelling

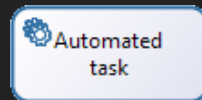
A process is represented by a Pool 

Key elements :

 Start Event



Human Task



Automated/Service Task

 End Event

Elements are linked together by Transitions →

EXERCISE 1

Modelling a basic process

Download the instructions and corrections from this link :

<http://bit.ly/1MZzV9N>

DATA : SCOPES & LIFECYCLES

BDM (Business Data Model)

Accessible from anywhere, stored in Business DB

+ Use case: store any kind of data manipulated by processes instances and/or applications.

Process & Step data

Accessible within a single process or step instance, stored in Engine DB, archived with process instance

+ Use case: chain connectors execution.

Form data

Accessible within form, never persisted

+ Use case: process and store data displayed and updated in forms

DATA

BDM

Process & Task data

Form data

-
- | | | |
|---|---|---|
| <ul style="list-style-type: none">• Structured objects composed of:<ul style="list-style-type: none">▪ Java primitives (String, Integer, Boolean, Date...)▪ Other BDMs | <ul style="list-style-type: none">• Any Java Serializable type:<ul style="list-style-type: none">▪ Primitives, Collections...▪ Custom types... | <ul style="list-style-type: none">• Any JavaScript type |
|---|---|---|
-

Documents: files with revisions can be declared at process level

CONTRACTS

Set of required input parameters with validation rules.

Data sent by forms must satisfy a contract in order to

- Start a process
- Execute a human task

Contributes to the decoupling of process logic and user interface.

EXERCISE 2

Adding data and specifying contracts

MORE ABOUT BPMN

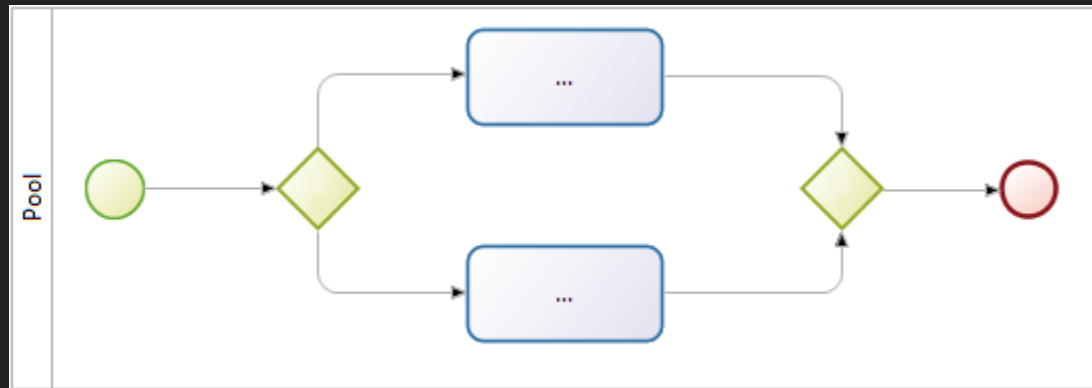
3 types of gateways:

✕ Exclusive

+ Parallel

◯ Inclusive

Best practice: in order to avoid bad designs, gateways should be placed in a symmetrical manner when possible:



EXERCISE 3

Dynamically controlling the process flow with data

FORMS & PAGES

Created with UI Designer with containers and widgets

Based on AngularJS and Bootstrap.

2 types of forms:

- **Editable forms** that must satisfy a contract
 - Process instantiation
 - Human tasks
- **Overview form** (read-only) defined at pool level

WIDGETS

A set of widgets is available out of the box (text field, select, date picker...)

Custom widgets can be created with the UI Designer

EXERCISE 4

Creating forms

ACTORS

Declared at pool level. Associated with lanes or human tasks. 2 options available: actors and actors filters

	Benefits	Limitations
Actors	Always up to date with organization	Static mapping that can not rely on business/process data
Actor filters	Dynamic mapping that can include business/process data	Executed only once at task instantiation

EXERCISE 5

Configuring actors

CONNECTORS

Allows processes to interact with IS (opposite of the Bonita APIs)

A set of standard connectors is shipped in the Studio

Custom connectors can be:

- Implemented using the Studio or other Java IDEs
- Imported from the Community website

EXERCISE 6

Using a connector to send an email

DEPLOYMENT

Main steps for process deployment :

- | | |
|--------------------------|--------|
| 1. Process configuration | Studio |
| 2. Bar file generation | |
| <hr/> | |
| 3. Bar deployment | Portal |
| 4. Process configuration | |
| 5. Process activation | |

THANK YOU FOR YOUR ATTENTION

Any questions? Do not hesitate.

Extra Resources:

- Documentation - documentation.bonitasoft.com
- Corporate Website - bonitasoft.com
- Community - community.bonitasoft.com
- GitHub - github.com/bonitasoft