



Joget DX8

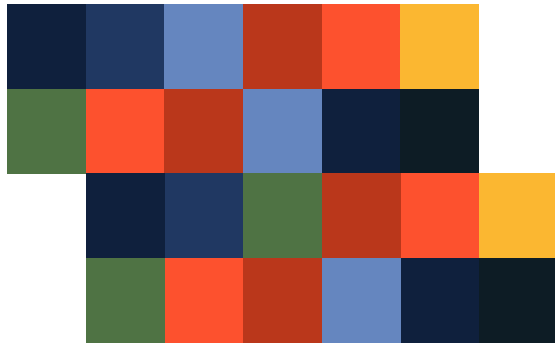
Using Your First Process Tool

Prerequisites

- Able to design a Process Flow.
- Understand the differences between activity and tool.

Content

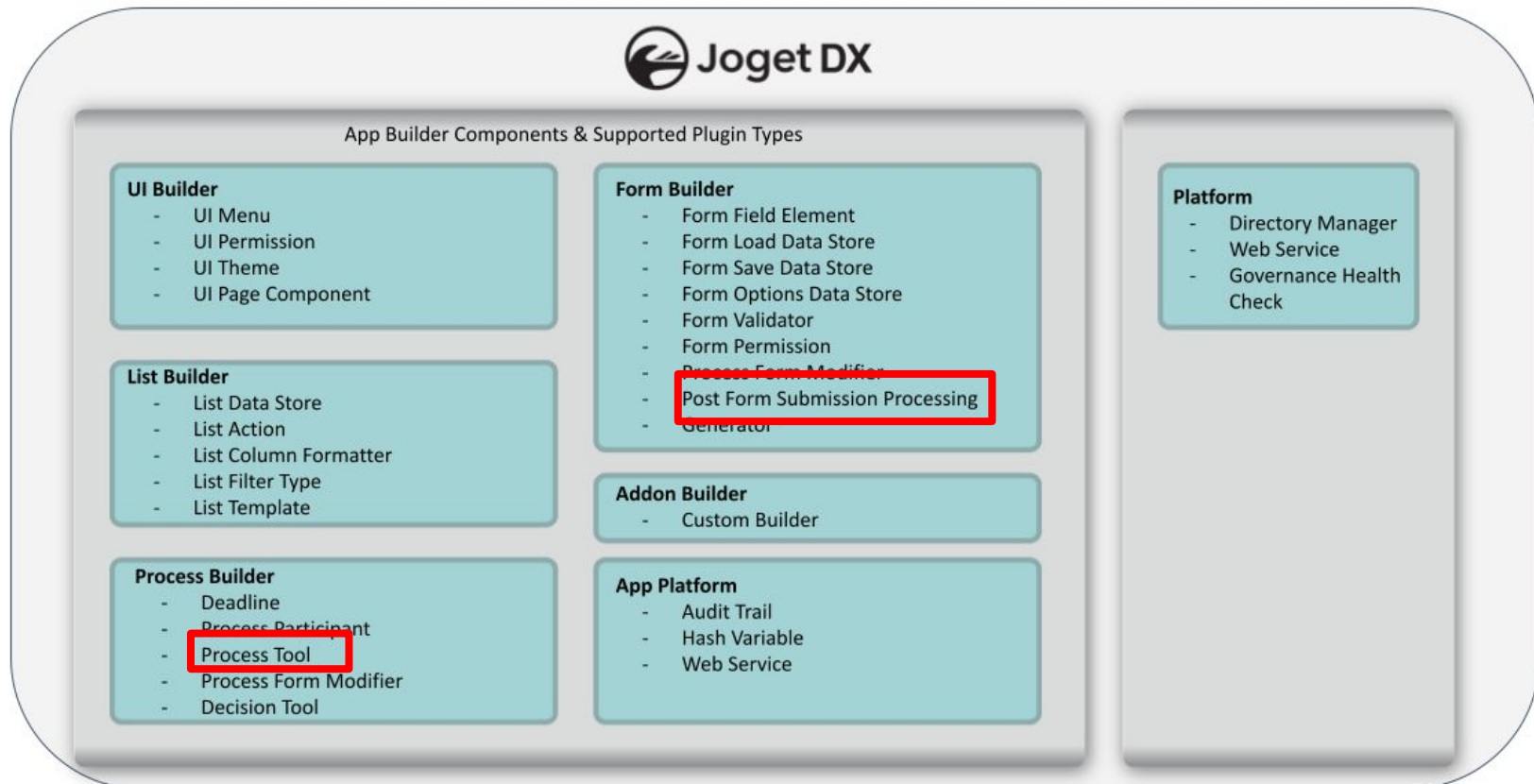
1. Introduction to Process Tool
2. Using Email Tool in Process
3. Using Process Tool Plugin in Post Form Submission Processing



Chapter 1

Introduction to Process Tool

Plugin Types

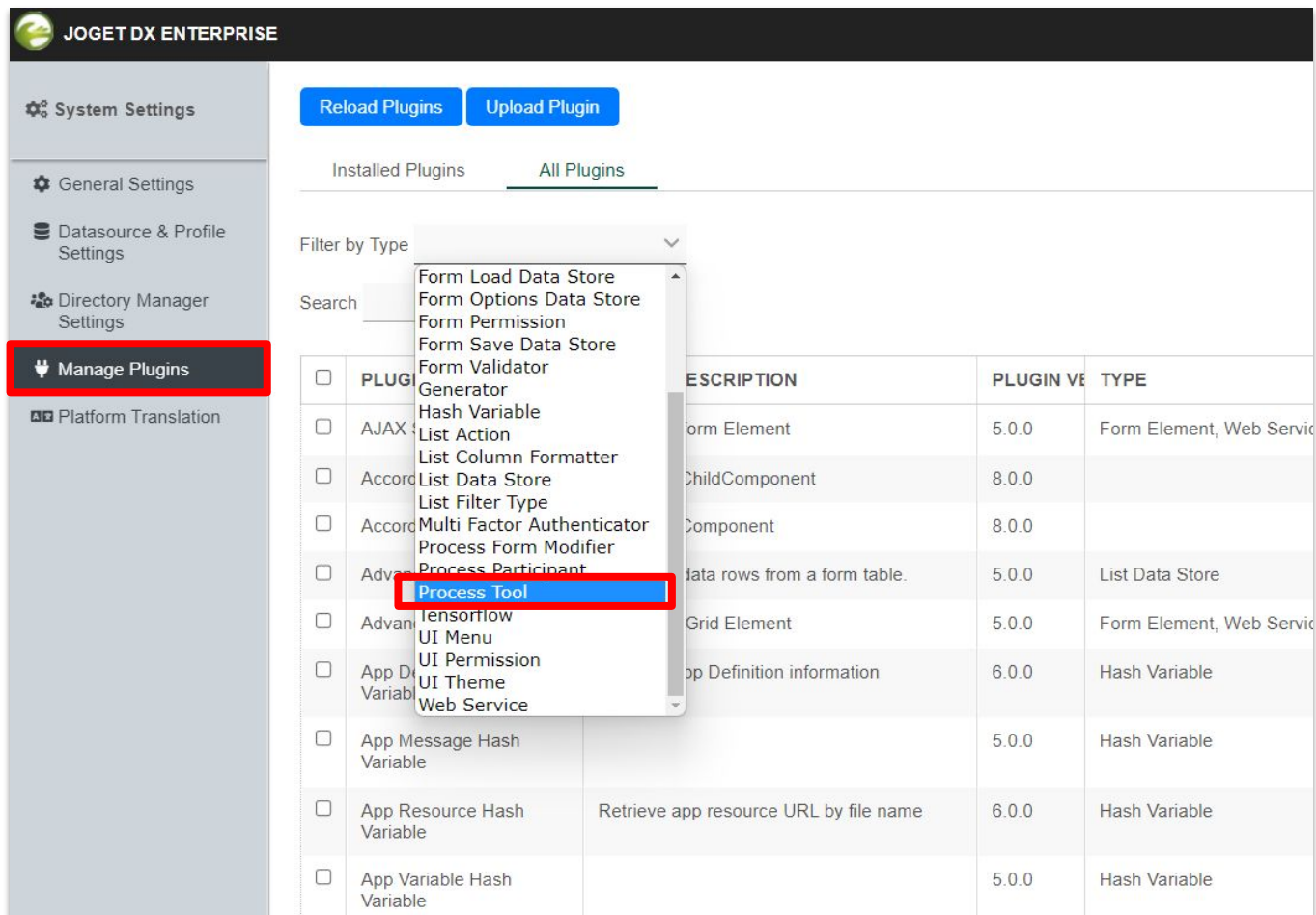


What Does It Mean?

- Being a plugin, it means that it is possible to add/extend the default functionalities of what we already have.

Locating Available Process Tool Plugins

- System Settings –> Manage Plugins –> Process Tool



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System Settings

General Settings

Datasource & Profile Settings

Directory Manager Settings

Manage Plugins

Platform Translation

Reload Plugins Upload Plugin

Installed Plugins All Plugins

Filter by Type

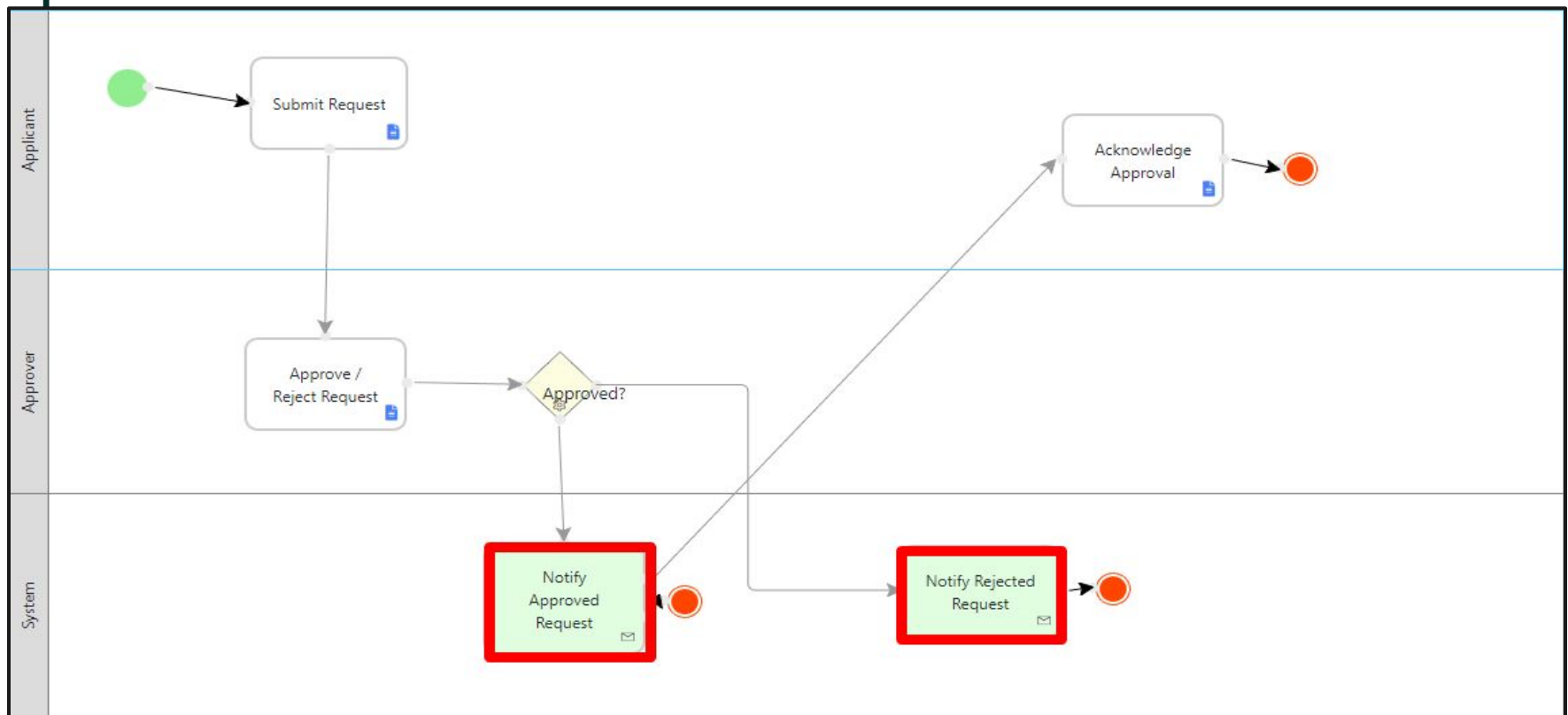
Search

Form Load Data Store
Form Options Data Store
Form Permission
Form Save Data Store
Form Validator
Generator
Hash Variable
List Action
List Column Formatter
List Data Store
List Filter Type
Multi Factor Authenticator
Process Form Modifier
Process Participant
Process Tool
Tensorflow
UI Menu
UI Permission
UI Theme
Web Service

PLUG	DESCRIPTION	PLUGIN VE	TYPE
<input type="checkbox"/> AJAX	Form Element	5.0.0	Form Element, Web Service
<input type="checkbox"/> Accord	ChildComponent	8.0.0	
<input type="checkbox"/> Accord	Component	8.0.0	
<input type="checkbox"/> Adv	data rows from a form table.	5.0.0	List Data Store
<input type="checkbox"/> Advan	Grid Element	5.0.0	Form Element, Web Service
<input type="checkbox"/> App D	App Definition information	6.0.0	Hash Variable
<input type="checkbox"/> App Message Hash Variable		5.0.0	Hash Variable
<input type="checkbox"/> App Resource Hash Variable	Retrieve app resource URL by file name	6.0.0	Hash Variable
<input type="checkbox"/> App Variable Hash Variable		5.0.0	Hash Variable

What Is a Process Tool?

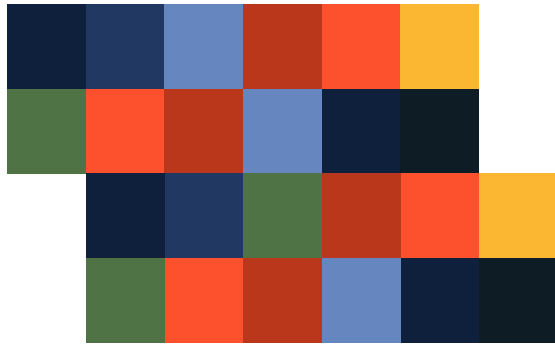
- Process Tool plugin is used as part of the process flow – mapped to the Tool entity in a process flow.



Chapter Review

We have learnt to:

1. Understand Process Tool Plugin and being part of the Joget ecosystem.
2. Able to list down available Process Tool Plugins in the system.



Chapter 2

Using the Email Tool In Process

Just In Case...

NOTE:

This chapter is continuing from Module 5 chapter 3.

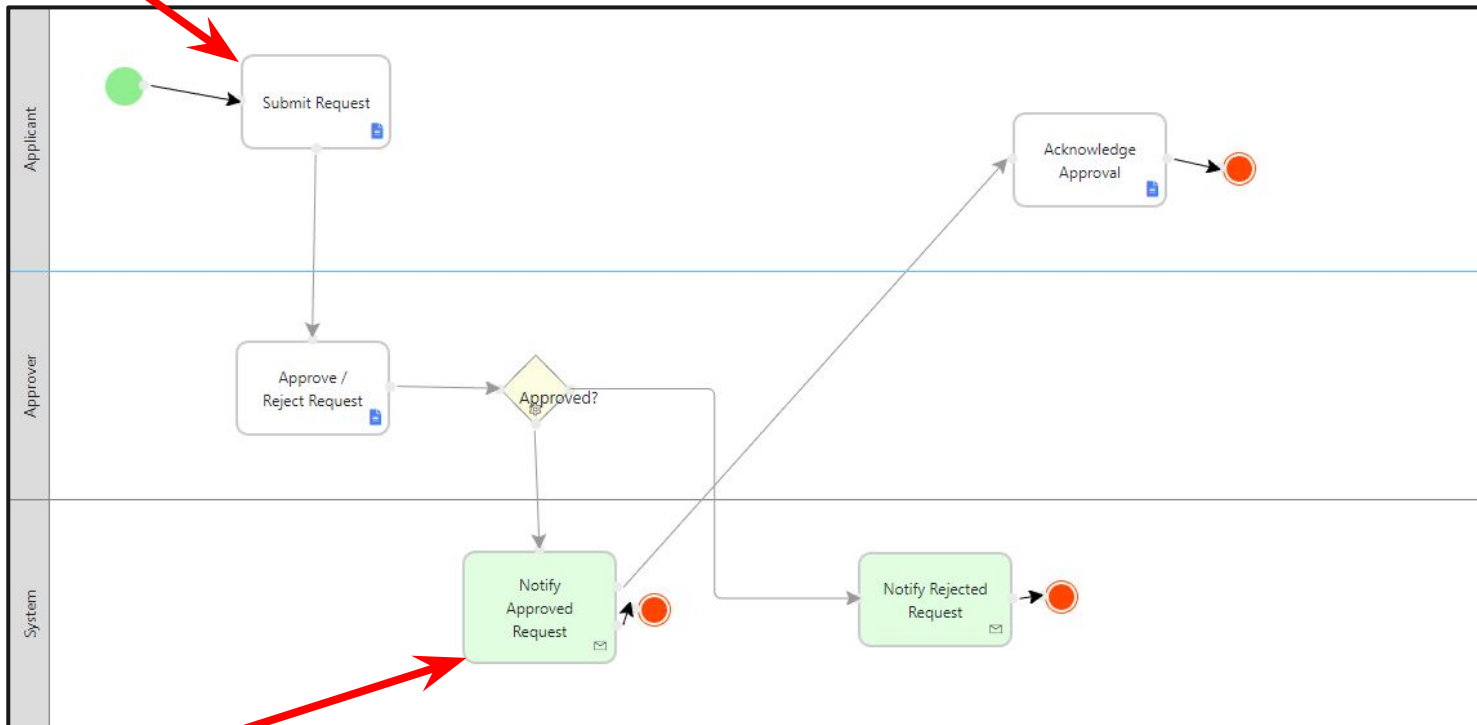
Please check application **5.3.jwa**

Email Tool – Process Tool Plugin

- Email Tool is one of many Process Tool plugins available.
- Process Tool plugins are extensible through Joget's Plugin architecture.

Note About the Mapping

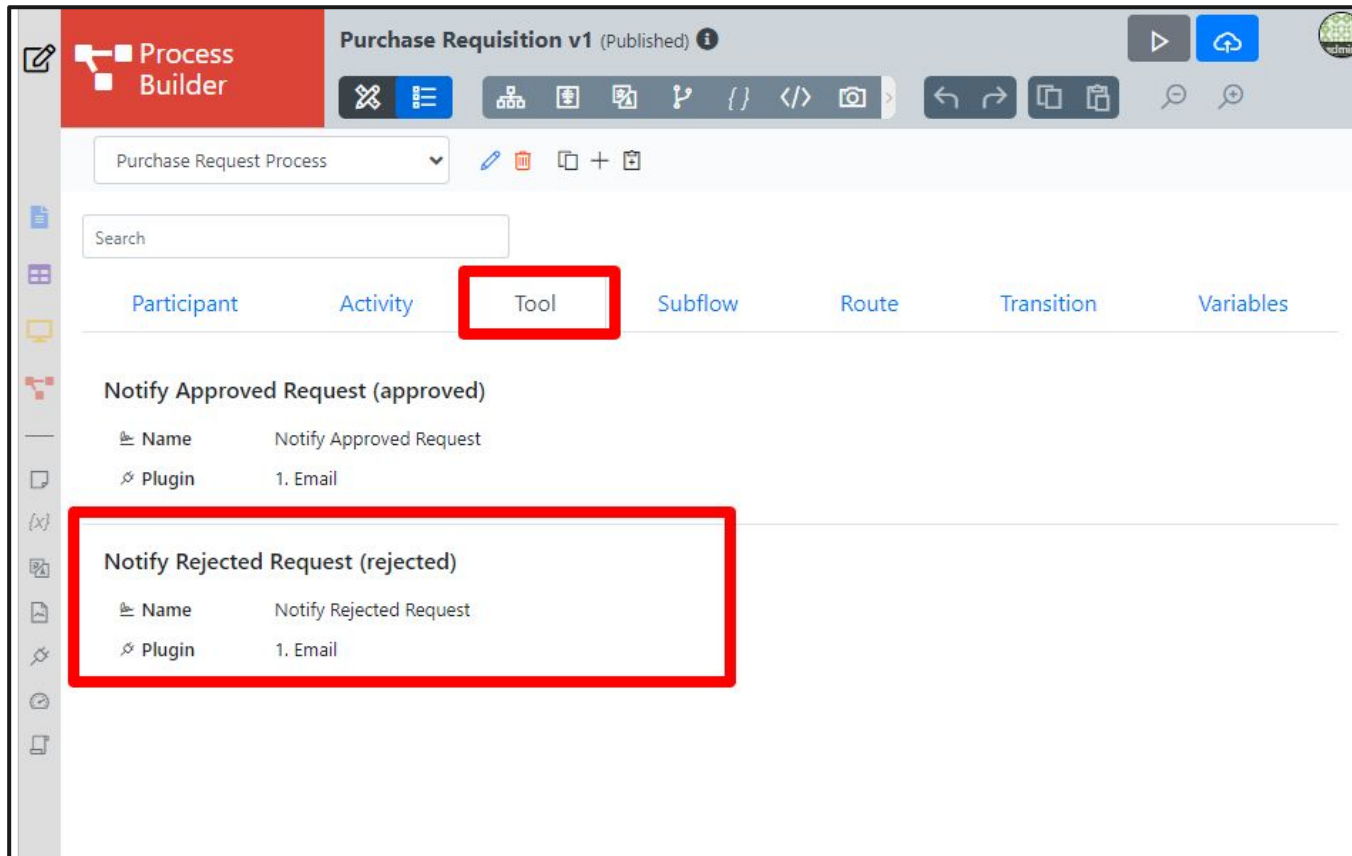
- Activity is mapped to Form



- Tool is mapped to Process Tool

Adding the Email Tool

- On “Map Tools to Plugins”, click on “Add/Edit Plugin” for “Notify Rejected Request” tool.

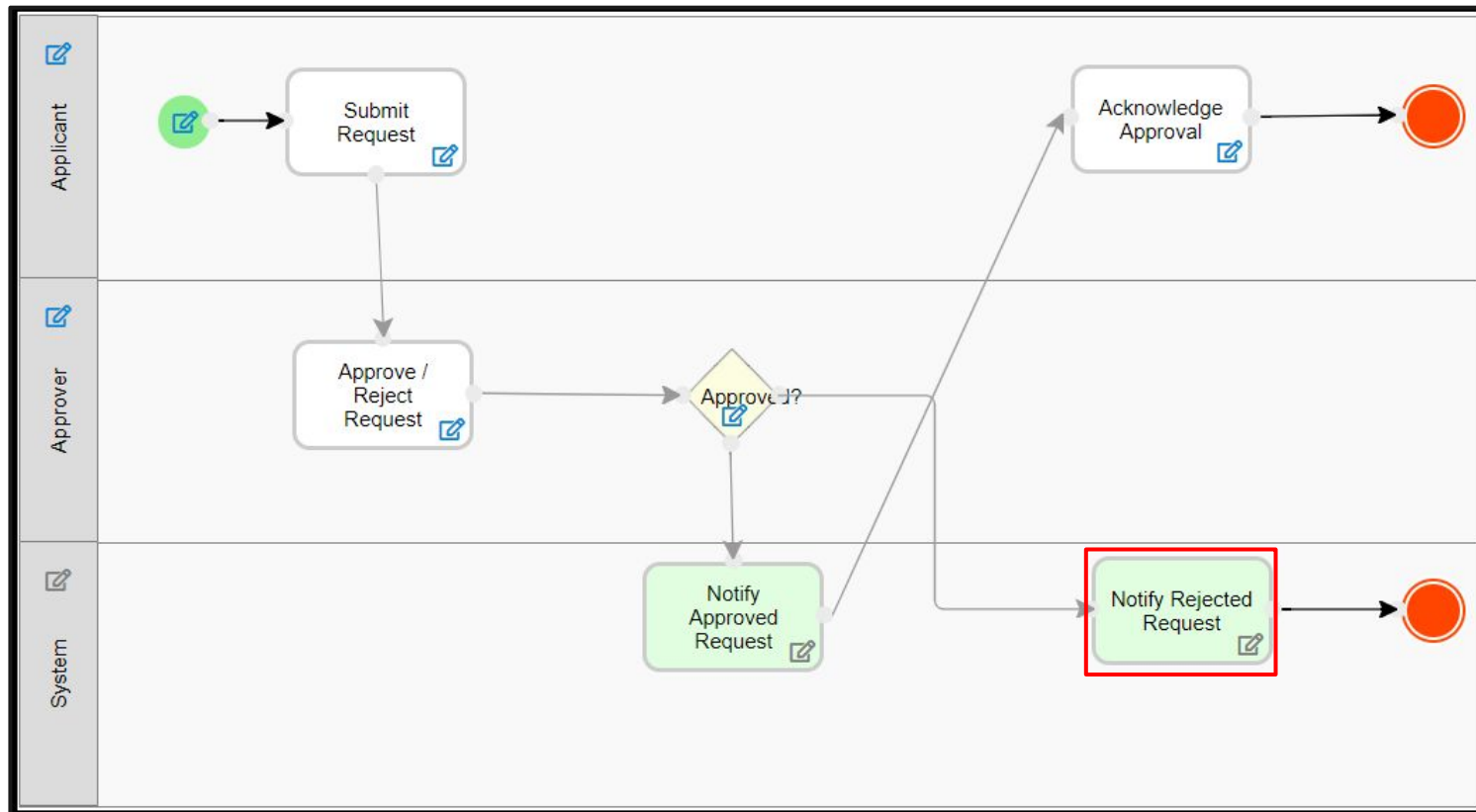


The screenshot displays the Joget Process Builder interface for a process titled "Purchase Requisition v1 (Published)". The "Tool" tab is selected and highlighted with a red box. Below the tabs, two tool configurations are listed:

- Notify Approved Request (approved)**
 - Name: Notify Approved Request
 - Plugin: 1. Email
- Notify Rejected Request (rejected)** (highlighted with a red box)
 - Name: Notify Rejected Request
 - Plugin: 1. Email

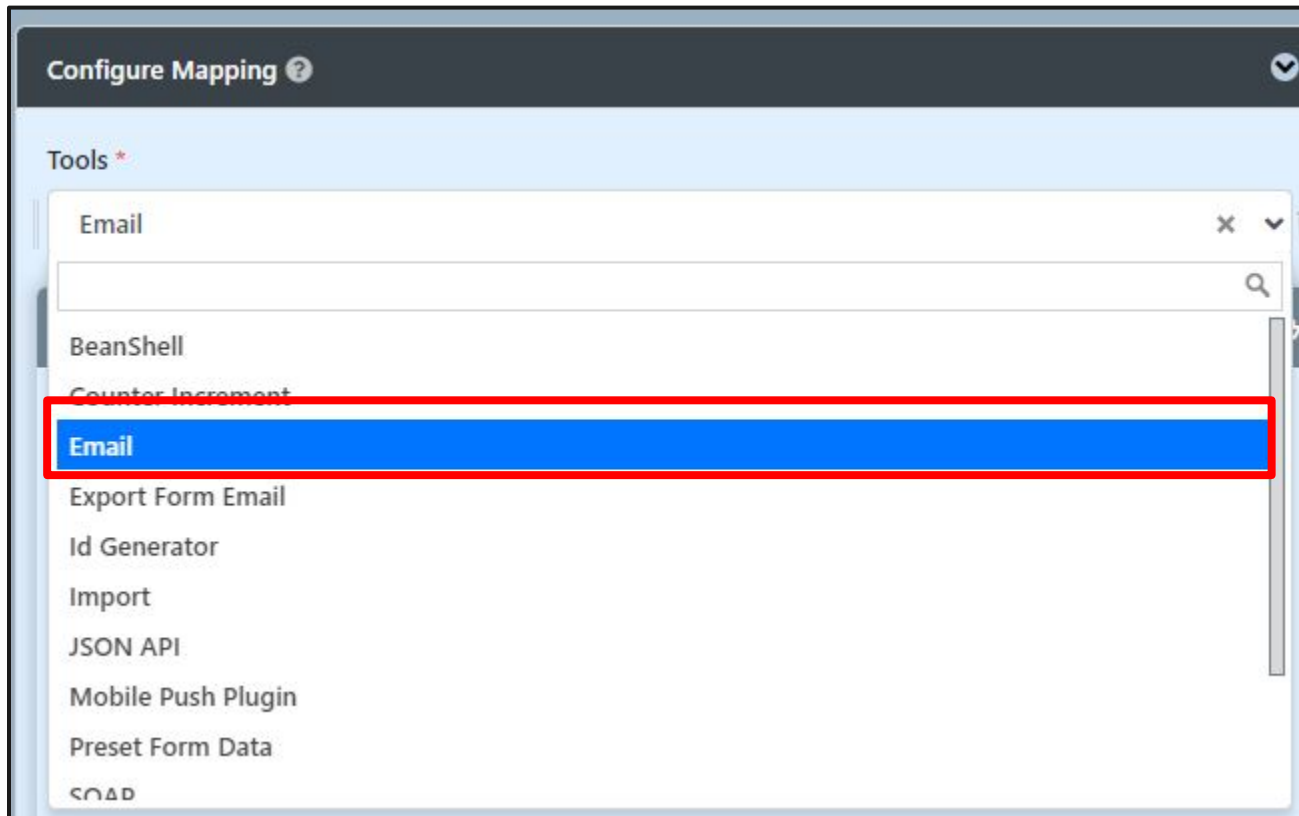
Alternative Tool Plugin Mapping

- Click on “Configure Mapping” and click on “Notify Rejected Request” tool.



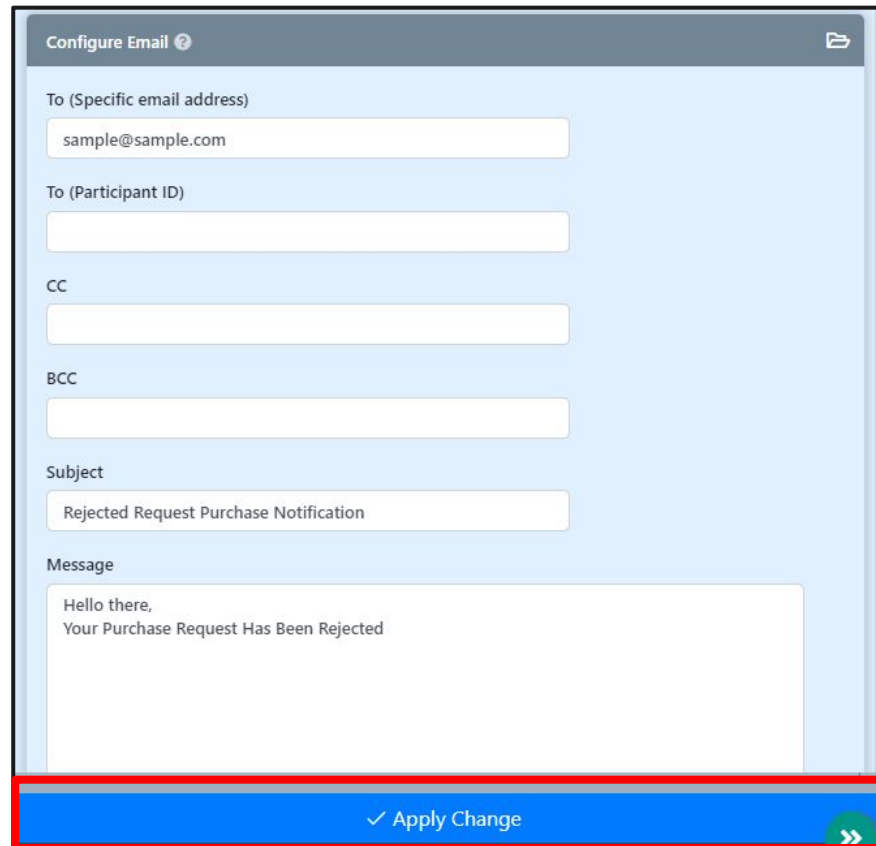
Configuring the Email Tool

- Select “Email Tool” from the available Process Tools.



Configuring the Email Tool

- Set up your mail information.
- Click “Next” to set up the email server.



Configure Email ?

To (Specific email address)
sample@sample.com

To (Participant ID)

CC

BCC

Subject
Rejected Request Purchase Notification

Message
Hello there,
Your Purchase Request Has Been Rejected

✓ Apply Change

Configuring the Email Tool

- Set up the email server.

SMTP Settings

From ?

sample@sample.com


SMTP Host ?

smtp.gmail.com

SMTP Port ?

587

Security ?

TLS 

SMTP Username

SMTP Password

.....

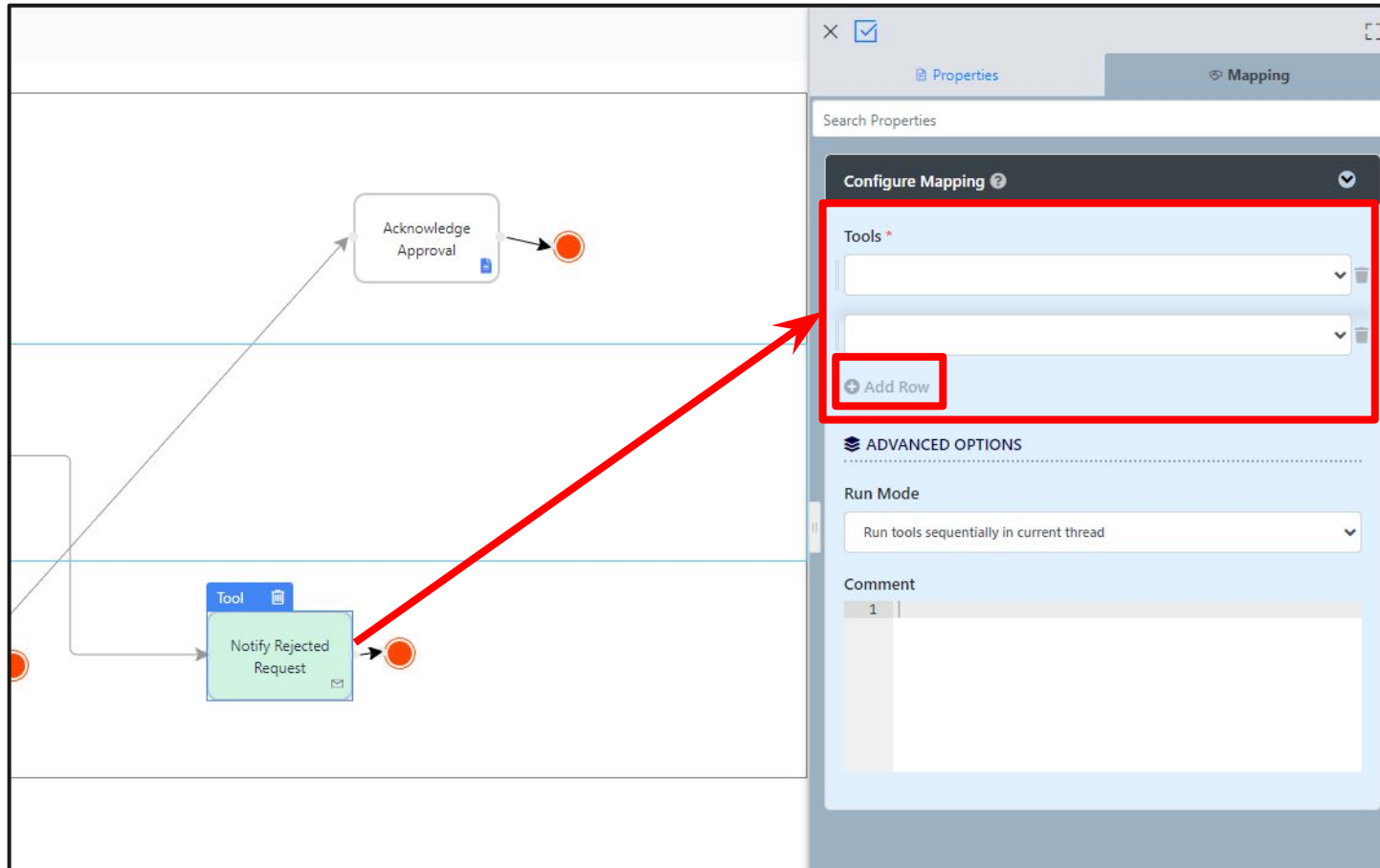
Multi Tools

Multi Tools provide the ability to run multiple process tool plugins in a single tool bubble of a process design, with the option of multi-threading support. This greatly reduces the effort and time needed to achieve a multiple tools parallel execution process design.

Reference:

<https://dev.joget.org/community/display/DX8/Multi+Tools>

Multi Tools



The screenshot displays the Joget workflow editor interface. On the left, a workflow diagram shows a process flow with two parallel paths. The top path leads to an 'Acknowledge Approval' task, and the bottom path leads to a 'Tool' block labeled 'Notify Rejected Request'. A red arrow points from the 'Tool' block to the 'Add Row' button in the 'Configure Mapping' panel on the right.

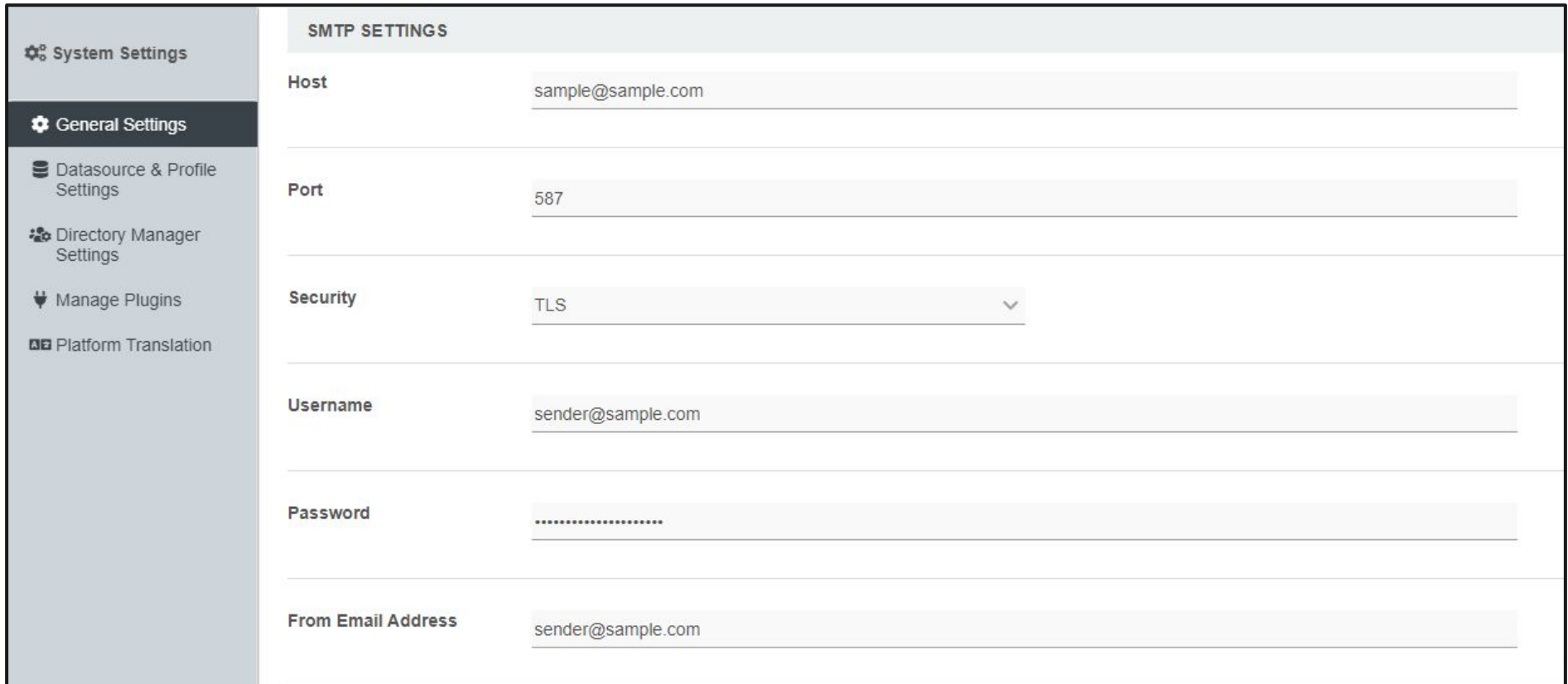
The right panel, titled 'Mapping', contains the 'Configure Mapping' section. This section includes a 'Tools *' list with two empty rows and an 'Add Row' button. Below this, the 'ADVANCED OPTIONS' section is visible, showing 'Run Mode' set to 'Run tools sequentially in current thread' and a 'Comment' field.

Good To Know

- Try the SMTP settings with an email client (e.g Outlook, Thunderbird) before using it with Email Tool.
- Make sure that your firewall allows outgoing email messages to be sent from Java.exe

Good To Know

- Email settings can be set in System Settings for better maintainability.



The screenshot displays the 'System Settings' interface. On the left is a sidebar with navigation links: 'System Settings' (selected), 'General Settings', 'Datasource & Profile Settings', 'Directory Manager Settings', 'Manage Plugins', and 'Platform Translation'. The main content area is titled 'SMTP SETTINGS' and contains the following fields:

SMTP SETTINGS	
Host	sample@sample.com
Port	587
Security	TLS
Username	sender@sample.com
Password
From Email Address	sender@sample.com

Exercise 1

- Test out the Beanshell Tool functionality by going through the Workflow Process.
 - Print out the process approval status (Approved/Rejected) using the Beanshell Tool.

```
import org.joget.commons.util.LogUtil;  
  
LogUtil.info("test","This Request Has Been Approved");
```

Tip: Common Mail Servers

Googlemail - Gmail		Server:	Authentication: Port:	
SMTP Server (Outgoing Messages)	smtp.gmail.com		SSL	465
	smtp.gmail.com		StartTLS	587
POP3 Server (Incoming Messages)	pop.gmail.com		SSL	995
	Please make sure, that POP3 access is enabled in the account settings. Login to your account and enable POP3.			

Outlook.com		Server:	Authentication: Port:	
SMTP Server (Outgoing Messages)	smtp.live.com		StartTLS	587
POP3 Server (Incoming Messages)	pop3.live.com		SSL	995

Yahoo Mail		Server:	Authentication: Port:	
SMTP Server (Outgoing Messages)	smtp.mail.yahoo.com		SSL	465
POP3 Server (Incoming Messages)	pop.mail.yahoo.com		SSL	995

Source: <http://www.arclab.com/en/amlc/list-of-smtp-and-pop3-servers-mailserver-list.html>

Chapter Review

We have learnt to:

1. Map a Process Tool to a Process Tool Plugin
2. Configure Email Tool Plugin



Chapter 3

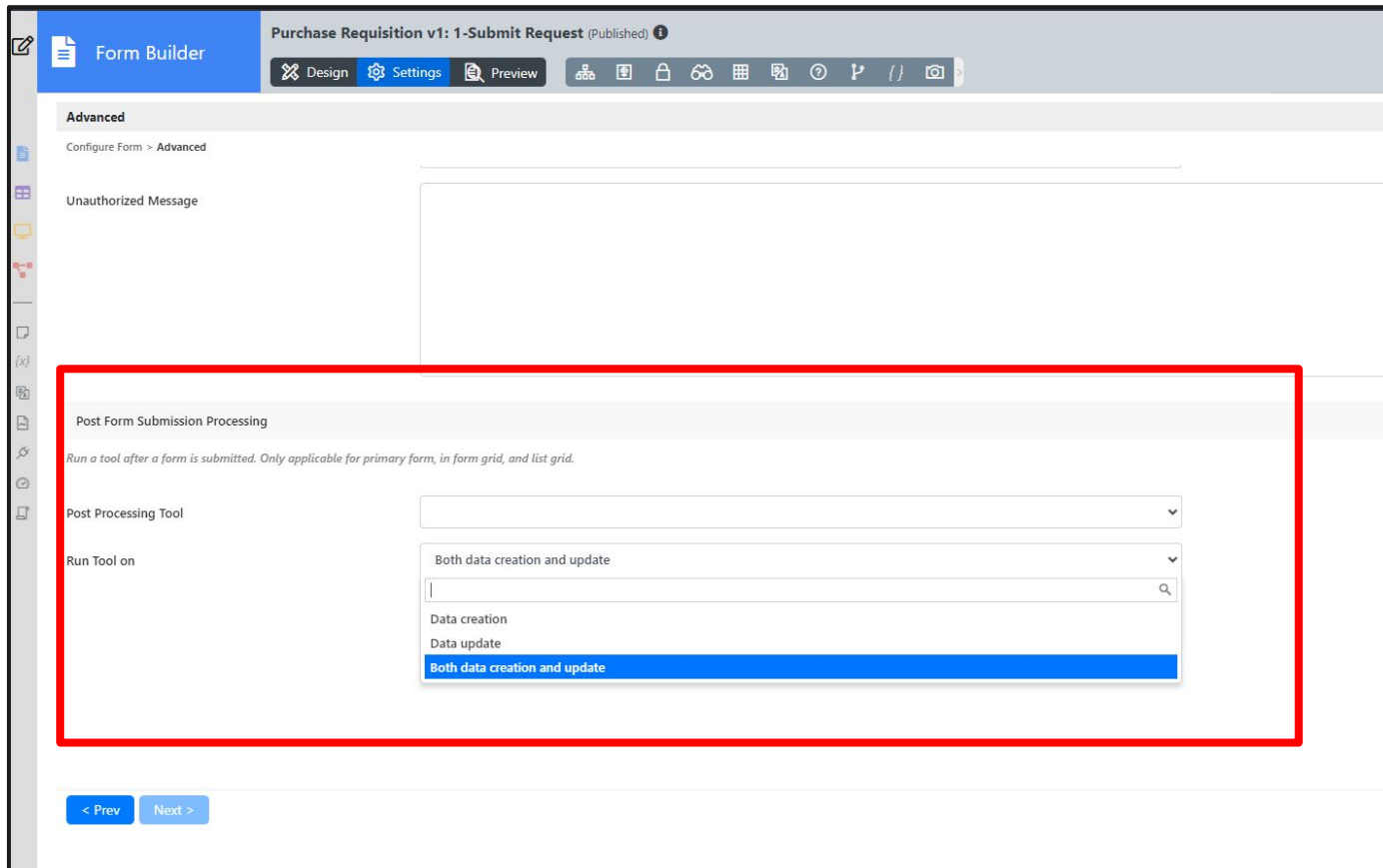
Using Process Tool in Post Form Submission Processing

Form Post Submission Processing

- Introduced in version 5, a Process Tool plugin is also known as a Form Post Submission Processing plugin.
- A Process Tool plugin can be attached to an individual form and invoked upon form submission.

Form Post Submission Processing

- In Form's properties, **Post Form Submission Processing** settings can be found.

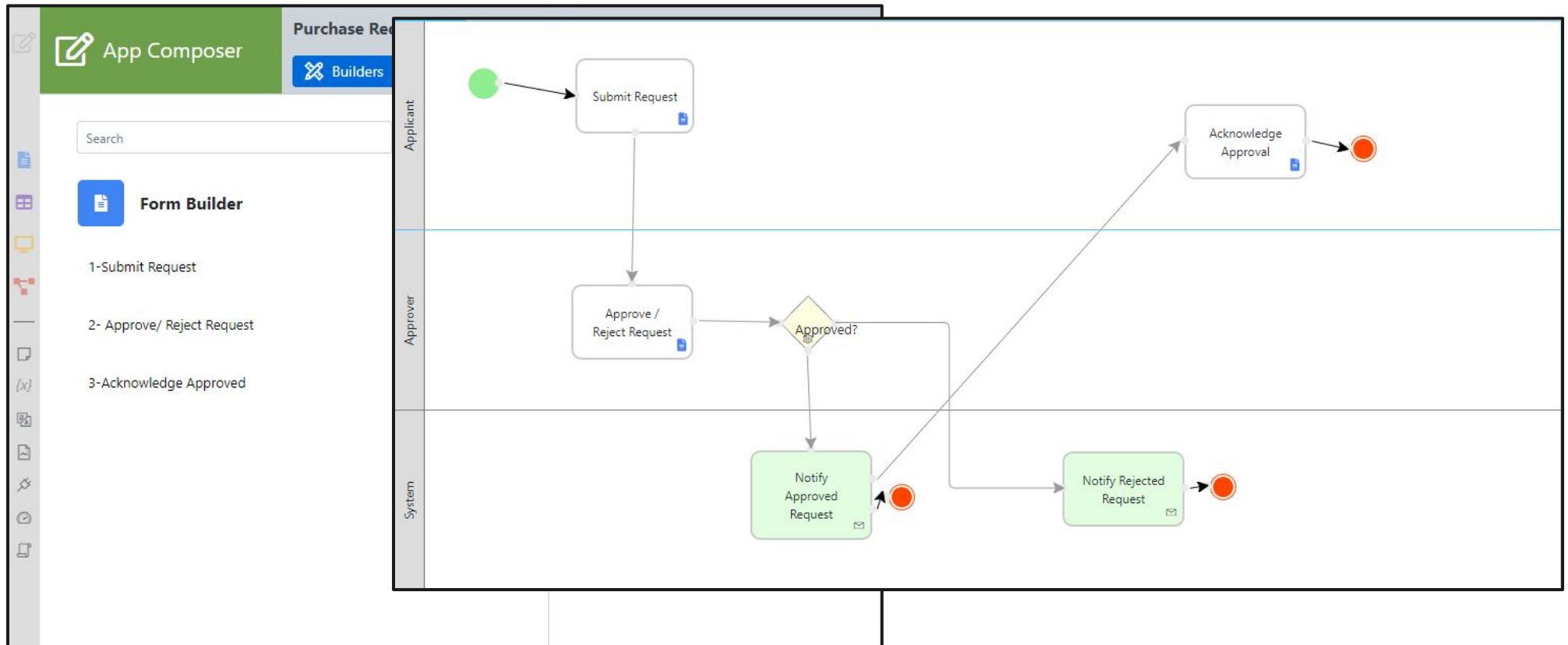


The screenshot displays the Joget Form Builder interface for a form titled "Purchase Requisition v1: 1-Submit Request (Published)". The "Settings" tab is active, and the "Advanced" section is expanded. Within the "Advanced" section, the "Post Form Submission Processing" settings are highlighted with a red rectangle. The settings include:

- Post Processing Tool:** A dropdown menu with a downward arrow.
- Run Tool on:** A dropdown menu with a search icon, showing the following options:
 - Both data creation and update
 - Data creation
 - Data update
 - Both data creation and update (highlighted in blue)

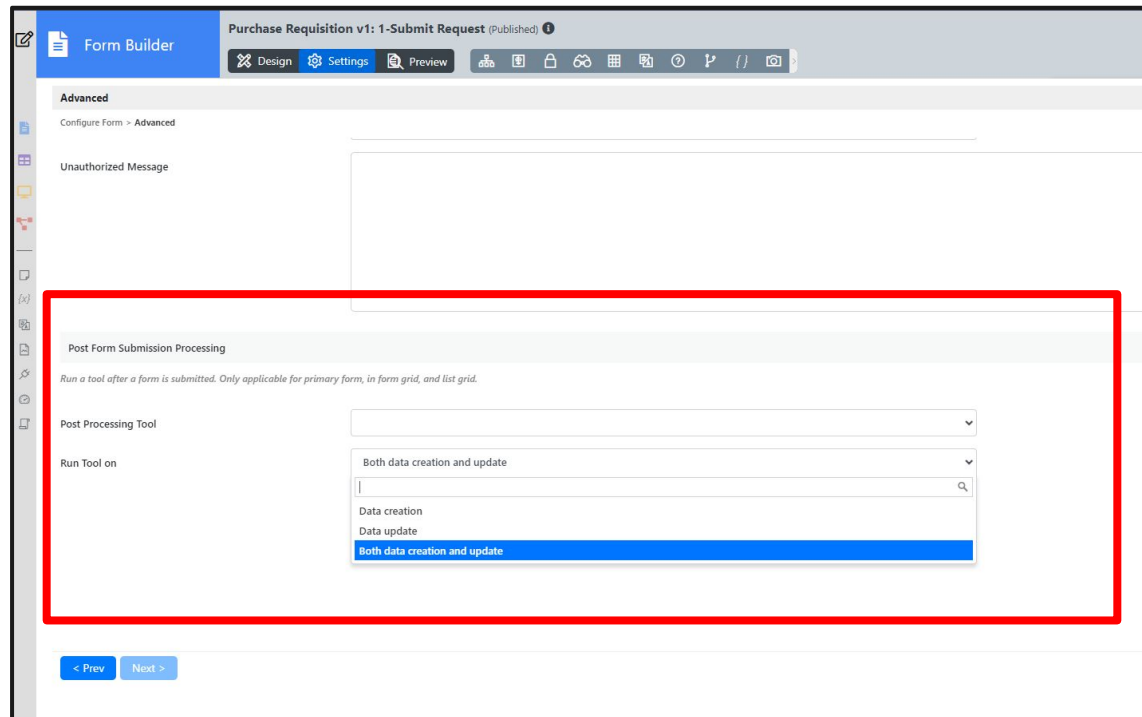
At the bottom of the interface, there are navigation buttons: "< Prev" and "Next >".

Identify the Form To Apply To



Add Process Tool To the Form

- In the form identified, open the form in the Form Builder.
- Go to the properties, configure the **Post Form Submission Processing** settings.



The screenshot displays the Joget Form Builder interface for a form titled "Purchase Requisition v1: 1-Submit Request (Published)". The interface includes a top navigation bar with "Design", "Settings", and "Preview" tabs. The "Settings" tab is active, and the "Advanced" section is expanded. Within the "Advanced" section, the "Post Form Submission Processing" settings are highlighted with a red rectangle. This section includes a "Post Processing Tool" dropdown menu and a "Run Tool on" dropdown menu. The "Run Tool on" dropdown is open, showing options: "Both data creation and update" (selected), "Data creation", and "Data update". Below the dropdowns, there are buttons for "< Prev" and "Next >".

Form Builder

Purchase Requisition v1: 1-Submit Request (Published)

Design Settings Preview

Advanced

Configure Form > Advanced

Unauthorized Message

Post Form Submission Processing

Run a tool after a form is submitted. Only applicable for primary form, in form grid, and list grid.

Post Processing Tool

Run Tool on

Both data creation and update

Data creation

Data update

Both data creation and update

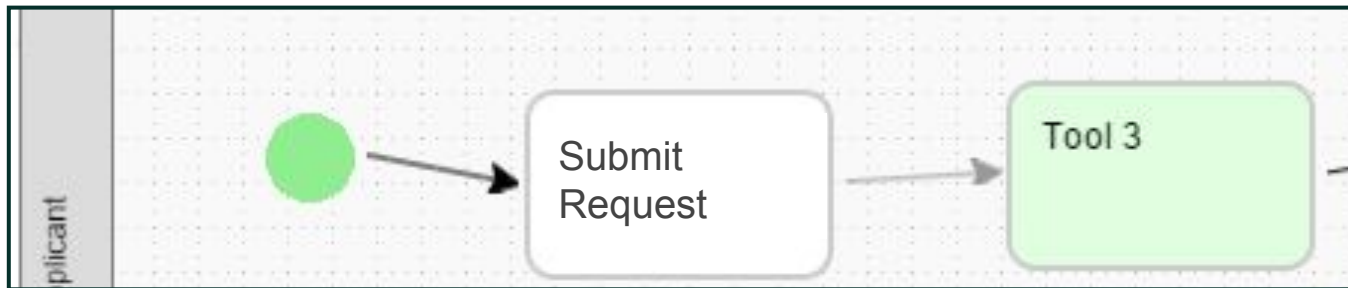
< Prev Next >

Which Processing Tool to choose?

- You may choose any Process Tool plugin of your preference or re-use the Email Tool that you have learned earlier.

Discussion

- If there's a Process Tool mapped to a Form (Submit Request) and there's a Tool (Tool 3) to be followed after in the process flow, which tool executes first?



Discussion

- With the ability to add a Process Tool to individual form, there seems to be a continuation/flow by having the form itself. What's the significance of having it versus having the Process Tool in a Workflow Process?

Materials

Completed App with the optional exercises can be obtained from the file **6.3.jwa**.

Module Review

- Understand Process Tool Plugin and being part of the Joget ecosystem.
- Able to list down available Process Tool Plugins in the system.
- Map a Process Tool to a Process Tool Plugin.
- Map a Form to a Process Tool Plugin.
- Configure Email Tool Plugin.

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