Lesson: Control of workflow participants

Overview

Why is this lesson important to you?

You are designing an IBM FileNet BPM solution and you want to control how users participate in a workflow. You must design a workflow that uses dynamic assignment of participants at run time. You want to use participant voting to determine the next step in the workflow. You want to assign a tracker for a workflow. You must test the workflow to verify the changes.

Activities

- Control how users participate in a workflow: Challenge
- Control how users participate in a workflow: Walkthrough

Lesson dependency

You must have successfully completed the previous lesson activities.

Requirements

The activities in this unit assume that you have access to the student system configured for these activities.

Virtual student system

Connect to your student system to complete these lab activities. See the Readme First file on the Materials tab if you need instructions to connect to the student system.

System startup and system check

IBM FileNet P8 software services on your student system must be started. If you have not already started the IBM FileNet P8 software on your system, do the procedures in *Appendix A: System startup and system check* before proceeding with the lessons in this unit.

Perform a system check whenever you start up an IBM FileNet P8 system or start working on a system that is in an unknown state. These activities assume that you have performed a system check when you begin an activity session.

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User accounts

Type	User ID	Password
FileNet Workplace XT	filenetadmin	IBMFileNetP8
FileNet Workplace XT (member of Loan Officers LDAP group)	olivia, oscar	IBMFileNetP8
FileNet Workplace XT (member of Loan Managers LDAP group)	mabel, mac, mary, matt	IBMFileNetP8

Note

Passwords are always case-sensitive. User names are not case-senitive. Many user names use only lowercase letters on the student system.

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Control how users participate in a workflow: Challenge

Challenge

Define new workflow groups for loan officers and loan managers. Configure the Get Rate and Payment step for dynamic assignment of the participant from the loan officers group. Configure the Approve Loan Amount step for participant voting with a majority of votes from the loan managers group needed to follow the Approve route. Assign a tracker to the workflow. Use the data in the table.

Data

Item	Value
Previous document title in object store for checkout	LoanProcess > Workflows > Loan Processing - Assignment
New document title in object store for checkin	Loan Process > Workflows > Loan Processing - Participants
Workflow Groups	• F_Trackers - Participants: filenetadmin • loan_officer_group - Participants: <none> • loan_manager_group - Participants: Loan Managers (an existing LDAP group)
Get Rate and Payment step in Prepare Loan Map	Activity Type: Participants • `loan_officer_group` Assignment Before Execution: • Name: `loan_officer_group` • Expression: `if(loan_amount > 100000, {"olivia"}, {"oscar"})`
Approve Loan Amount step in Process Loan Map	Activity Type: Participants • loan_manager_group
Route conditions in Process Loan Map	• Approve route condition: `COUNT(Approve loan) > COUNT(Deny loan)` • Reject route condition: `COUNT(Approve loan) <= COUNT(Deny loan)`

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Verification

- You must launch and process the workflow through to completion.
- The Get Rate and Payment step must be assigned to the correct loan officer based on the loan_amount value that is calculated in the Launch step.
  - More than 100,000 = olivia
  - Less than or equal to 100,000 = oscar
- The workflow must follow the Approve route if the majority of loan managers approve the loan at the Approve Loan Amount step.

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Control how users participate in a workflow: Walkthrough

Introduction

This exercise gives you practice in assigning a workflow tracker, using workflow groups, and defining participant voting for a step.

Procedure 1: Assign a tracker for a workflow definition

1. On your student Windows XP system, log in to FileNet Workplace XT using the filenetadmin user account listed in the "Lesson Overview" section.
2. Open the loan processing workflow definition file that you saved in the previous activity.
   a. Click Tools > Advanced Tools > Process Designer.
   b. Click File > FileNet > FileNet Open/Checkout.
   c. Locate and select the following file:
   LoanProcess > Workflows > Loan Processing Workflow - Assignment
   d. Select **Open As Checkout** and click Open.

Important

This file is the workflow definition file that you built and saved to the object store in the previous lesson. If you did **not** successfully complete all steps in the previous lesson activity, then you must open the following starting file located on the local disk:

C:\Labs\F145\Solutions\DataControl\Loan Processing - Data - Assignment solution.pep

   e. If necessary, explore the workflow definition to re-familiarize yourself with the process flow.
   In this activity, you work with the Prepare Loan Map and Process Loan Map submaps.
   f. On the Workflow main map, select the Process Loan submap step.
   g. In the properties pane, select Process Loan Map from the list in the *Select a map for the Submap* field.
   To test the Process Loan Map submap, you must assign the Process Loan submap step to the Process Loan Map submap. You leave the Complete Loan submap step assigned to the EMPTY MAP submap, which contains no steps. Therefore, the Complete Loan Map submap is not executed. This technique is used to save time when you are testing the workflow.

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3. Assign a workflow tracker.
   a. Select the Workflow Properties tab.
   b. Click Workflow Groups.
   c. Select the F_Trackers workflow group.
   d. Click Modify in the Participants area.
   e. In the Participant Selection window, search for the filenetadmin user.
   f. Move the filenetadmin user to the list of Selected Users.
   g. Click OK to close the Participant Selection window.

Procedure 2: Add a dynamically assigned workflow group

1. Add two new workflow groups.
   a. In the Workflow Groups tab, select the field under F_Trackers and type the following name:

      `loan_officer_group`

   b. Select the field under loan_officer_group and type the following name:

      `loan_manager_group`

   c. Verify that the loan_manager_group is selected.
   d. Click Modify (the pencil icon) in the Participants area.
   e. Search for and add the Loan Managers group to the list of Selected Users.

      Tip: To view a list of LDAP groups beginning with the letter "L", select the Groups option, type `L`, and click Search.

   f. Click OK to close the Participant Selection window.
2. Change the Get Rate and Payment Activity Type.
   a. On the Prepare Loan Map submap, select the Get Rate and Payment step.
   b. In the General tab under Activity Type, select Participants and click Modify.
   c. In the Participant Selection window, select Workflow Groups.
   d. Move the loan_officer_group to the list of Selected Participants.
   e. Click OK to close the Participant Selection window.
   f. In the properties pane, click Assignments > Before Execution.
   g. Under Field Assignments, use the following information to assign the field.

Name	**Expression**
`loan_officer_group`	`if(loan_amount < 100000, {"olivia"}, {"oscar"})`

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Information

In the expression in step 2g, the braces ({ }) symbols are used to enclose the elements of an array. A workflow group is stored as a string array. In this assignment before execution, you assign a single element to the value of the loan_officer_group workflow group. At run time, if loan_amount is less than 100,000, Olivia is assigned to the group. Otherwise, Oscar is assigned to the workflow group.

Procedure 3: Define participant voting for a step

1. Change the Approve Loan Amount Activity Type and define it as a multiparticipant step.
   a. On the Process Loan Map submap, select the Approve Loan Amount step.
   b. In the General tab under Activity Type, select Participants and click Modify.
   c. In the Participant Selection window, select Workflow Groups.
   d. Add the loan_manager_group to the list of Selected Participants.
   e. Click OK to close the Participant Selection window.

Information

The Loan Managers LDAP group is assigned to the loan_manager_group workflow group. Loan Managers is configured as an LDAP group with four members: mabel, mac, mary, and matt. By assigning a step to the loan_manager_group, it becomes a multiparticipant step assigned to all four managers.

2. Modify conditions of outgoing routes from the Approve Loan Amount step.
   a. On the Process Loan Map submap, select the Approve route.
   b. Replace the existing route condition with the following.

      ```
      COUNT (Approve loan) > COUNT (Deny loan)
      ```

   c. Select the Reject route.
   d. Replace the existing route condition with the following.

      ```
      COUNT (Approve loan) <= COUNT (Deny loan)
      ```

Procedure 4: Test the workflow definition

1. Launch and save the workflow definition to the object store.
   a. Validate the workflow and correct validation errors, if any.
   b. Launch the workflow.

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c. Complete the "Checkin Workflow Definition" wizard using the following information.

- Document Title: `Loan Processing Workflow - Participants`
- Security: <Accept default values.>

2. Complete the Launch Step processor.

   a. In the Launch Step window, click Data Fields.

   b. In the Data Fields view, type the following values in the fields.

   - customer_name: `Mary Crow`
   - down_payment: `12000.`
   - loan_date: <a future date and time>
   - loan_id: `C234`
   - loan_term: `15`
   - purchase_price: `455000.`

   c. In the Attachments tab, assign an attachment of your choice to loan_document.

   d. Click Launch.

3. Use Process Administrator to locate the work item.

   a. In Process Designer, click Tools > Process Administrator.

   b. Construct and execute a filtered search of LoanRoster by using the loan_id exposed field and the data in the following table.

Search criteria	Value
Look for	Work Items
In	Workflow Roster
Select one	LoanRoster
Search mode	Edit (all fields)
Criteria	`loan_id = 'C234'`

   c. Verify that two items appears in the results pane: a tracker item and a work item in the Inbox(0) queue assigned to olivia.

   The work item followed the "Valid" route on the Prepare Loan Map to the Get Rate and Payment step because you entered valid LaunchStep parameters. The work item is assigned to olivia because loan_amount was calculated in the LaunchStep assignment after completion as 443,000, which is more than 100,000.

4. Open the work item in Tracker and verify that the correct manager was assigned to the workflow group.

   a. In the results pane, select the row containing the tracker item.

   b. Click Open Tracker on the results pane toolbar.

   c. Locate and select the Get Rate and Payment step on the Prepare Loan Map.

   d. View the step information shown in the Step tab in the properties pane.

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e. Verify that the work item is assigned to olivia and that the value of loan_amount is 443,000.

Tip: Use the various tabs in the Process Tracker Properties pane to view information about fields, attachments, workflow groups, and other elements.

f. Minimize Process Tracker.

5. Complete the Get Rate and Payment step from the Prepare Loan Map submap.

a. Return to the Process Administrator window.

b. In the results pane, select the row containing the work item in the Inbox(0) queue assigned to olivia.

c. Click Open Step Processor on the results pane toolbar.

d. Type values of your choice in the interest_rate and monthly_payment fields.

e. Type the following text in the Comments field:

`Rate and payment confirmed.`

f. Click Complete.

6. Complete the Confirm Rate and Payment step from the Prepare Loan Map submap.

a. In Process Administrator, click Find Now to reexecute the roster search.

b. In the results pane, select the row containing the work item in the LoanCustomer queue.

c. Click Open Step Processor on the results pane toolbar.

d. Verify that both the status and Comments fields contain the following text: `"Rate and payment confirmed."`

The F_Comment field is persisted from the previous step because of the assignment after completion for the Get Rate and Payment step.

e. Click Complete.

7. Complete the Approve Loan Amount step for four Loan Managers.

Because the value of loan_amount is greater than 400,000, the work item follows the "Over limit" route to the Approve Loan Amount step.

a. In Process Administrator, click Find Now to reexecute the roster search.

b. In the results pane, verify that there are four work items in the Inbox(0) queue assigned to the Loan Managers: mabel, mac, mary, and matt.

One work item is waiting in the Delay(0) queue. This item is an example of a multiparticipant step with four participants assigned to process work.

c. In the results pane, select the row containing the work item in the Inbox(0) queue assigned to mabel.

Tip: See the F_BoundUser column.

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d. Click Open Step Processor.

e. Select the "Approve loan" response.

f. Type a text comment of your choice in the Comments field.

g. Click Complete.

h. In Process Administrator, click Find Now to reexecute the search.

i. Repeat steps 7c through 7h for the remaining work items in the Inbox(0) queue assigned to mac, mary, and matt.

If you want, you can select "Deny loan" for one of the loan manager responses. However, make sure that, for at least three of the four loan managers, you select the "Approve loan" response.

Important

Do **not** process the work item in the Delay(0) system queue. This item is used by the system to merge results of the multiparticipant step. The processing of an item in the Delay queue causes the workflow to malfunction.

j. After completing the four work items in the Inbox(0) queue, click Find Now to re-execute the search.

8. View step history in Process Tracker.

a. Return to the Process Tracker window.

b. Click Refresh on the toolbar.

c. Select the Approve Loan Amount step on the Process Loan Map submap.

d. Click the Step History tab, if not already selected.

e. View the history of the responses for the four loan managers.

f. Explore other areas of the Process Tracker if you want.

g. Close Process Tracker.

9. Complete the Review Loan step from the Process Loan Map submap.

a. In Process Administrator, click Find Now to re-execute the roster search.

b. In the results pane, select the row containing the work item in the Loan Processor queue.

c. Click Open Step Processor.

d. Click Complete.

10. Complete the Authorize Loan step from the Process Loan Map submap.

a. In Process Administrator, click Find Now to reexecute the roster search.

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b. In the results pane, select the row containing the work item in the Loan Manager queue.

c. Click Open Step Processor.

d. Click Complete.

11. Complete the Set Loan Document Status step from the Terminate submap.

 a. In Process Administrator, click Find Now to reexecute the roster search.
 b. In the results pane, select the row containing the work item in the Loan Underwriter queue.
 c. Click Open Step Processor.
 d. Click Complete.
 e. In Process Administrator, click Find Now to reexecute the roster search.
 f. Verify that the work item is no longer listed in the results pane.

 The Tracker item remains in the Tracker queue and is marked complete (a check mark is displayed in the deadline status column). Later in this lab, you delete this obsolete tracker item.

12. Use the skills that you have learned to continue testing the workflow. For each case, verify the correct path is taken in the workflow process.

 Use Process Administrator and Process Tracker to help you monitor the workflow, as needed.

 a. Launch and test the workflow by assigning a loan_amount less than 100,000 and verify that the work item is sent to oscar at the Get Rate and Payment step.
 b. Launch and test the workflow by selecting the "Deny loan" response for the majority of Loan Managers at the Approve Loan Amount step.
 c. If necessary, troubleshoot and make modifications to your workflow definition.

13. When you have finished testing your workflow, delete all obsolete tracker items.

 a. In Process Administrator results pane, select all rows containing completed Tracker items.
 b. Click Tasks > Delete Work.
 c. Click OK in the Delete Work window.

14. Close all applications.

 a. Close Process Administrator.
 b. Return to Process Designer.
 c. If you have not already done so, check in your final version of the workflow definition. Otherwise, cancel the checkout.
 d. Close Process Designer.

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e. Log out of Workplace XT and close the browser.

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