Lesson: Assignment of data fields

Overview

Why is this lesson important to you?

You are designing an IBM FileNet BPM solution. Your workflow requires use of data. You must assign data fields so that tasks can be processed with the necessary data. You must control access to workflow data at each step. You must test the workflow to verify the changes.

Activities

- Assign data fields and control access to data: Challenge
- Assign data fields and control access to data: 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.

User accounts

Type	User ID	Password
FileNet Workplace XT	filenetadmin	IBMFileNetP8

Note

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

Assign data fields and control access to data: Challenge

Challenge

Modify the Prepare Loan Map submap of the Loan Processing workflow that you created in the previous lesson. Add an exposed data field to workflow properties and use the field as a step parameter in two steps of the workflow. Assign fields before step execution and after completion. Use the data in the table to complete this activity.

Data

Item	Value
Previous document title in object store for checkout	LoanProcess > Workflows > Loan Processing - Expressions
New document title in object store for check in	LoanProcess > Workflows > Loan Processing - Assignment
Exposed field	• Name: `loan_id` • Add as a step parameter to the LaunchStep (R/W) and Confirm Rate and Payment
Add to Workflow Properties Data Fields	• purchase_price (float)
LaunchStep Parameters	Add to Available Parameters: • purchase_price [Read/Write] • down_payment [Read/Write] • loan_id [Read/Write]
LaunchStep Assignments	Assignment After Completion: • Name: `loan_amount` • Expression: `purchase_price - down_payment` (This assignment must be the second assignment after completion.)
Get Rate and Payment step properties	Assignment After Completion: • Name: `status` • Expression: `F_Comment` Prompt for the status parameter: `Enter current status of loan processing.`

Item	Value
Confirm Rate and Payment step properties	Assignment Before Execution: • Name: `F_Comment` • Expression: `status` Add to Selected Parameters: • status [Read]
Correct Information step properties	Assignment After Completion: • Name: `F_Comment` • Expression: `status`

Verification

- You must launch and process the workflow through to completion.
- At run time, the loan_amount field must contain the calculated value of purchase_price minus down_payment at the Get Rate and Payment step.
- At run time, the value of the status and Comments fields at the Confirm Rate and Payment step must be assigned with the comments that you enter in the Get Rate and Payment step.

Assign data fields and control access to data: Walkthrough

Introduction

This exercise gives you familiarity with assigning data fields and controlling access to data in a workflow.

Procedure 1: Use an exposed data field and define field usage

In this procedure, you use an exposed data field, loan_id. In Process Configuration Console, the loan_id field was previously configured for you as an exposed data field on the LoanRoster and on several queues, including LoanCustomer. The loan_id field contains a unique identifier for the loan. In a production environment, the value of such a unique identifying field might be automatically generated at run time by a software program. In this class example, you enter the value manually.

Because loan_id is configured as an exposed field, the field can be used for searching and sorting work items.

In this procedure, you add the exposed field to the Launch Step and to the Confirm Rate and Payment step, which is assigned to the LoanCustomer queue.

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 you saved in the previous exercise.
   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 - Expressions

   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 - Expressions solution.pep

   e. Explore the workflow definition to refamiliarize yourself with the process flow.

      In this activity, you work with the Prepare Loan Map submap. The Process Loan and Complete Loan submap steps are assigned to the EMPTY MAP submap, which contains no steps. Therefore, the Process Loan Map and Complete Loan Map submaps are not executed. This technique is used to save time when you are testing the workflow.

3. View details of exposed data fields.
   a. In Workflow Properties, select the Data Fields tab.
   b. Click Exposed Data Fields located in the far right corner of the Data Fields tab.
   c. Select the loan_id field in the list of exposed fields.
   d. Click Details.

   A list is displayed of all queues, rosters, and event logs in which the loan_id field is exposed. Notice that LoanRoster and LoanCustomer are included in the list.

   e. Click Close to close the Field Name Details window.
4. Add an exposed field to Workflow Properties.
   a. In the Exposed Data Fields window, verify that the loan_id field is selected.
   b. Click Add (right arrow) to move loan_id to the list of Selected Fields.
   c. Click OK to close the Exposed Data Fields window.

   Notice that loan_id appears in the list of data fields and is now available for use as a step parameter.
5. Use the Field Usage window to specify loan_id as a step parameter and assign access rights.
   a. Select the loan_id data field in the Workflow Properties Data Fields tab.
   b. Click Field Usage located in the far right corner of the Data Fields tab.

   The Field Usage window allows you to specify the steps where a data field is used as a parameter, including the access rights.

   c. Verify that loan_id is selected in the Field Name field and that Workflow is selected in the Submap field.
   d. Use the Add icon (single right arrow) to move LaunchStep from the list of Available Steps to Selected Steps.
   e. Verify that [R/W] is specified as the access rights next to LaunchStep.
   f. Select Prepare Loan Map from the list of submaps.
   g. Use the Add icon to move Confirm Rate and Payment from the list of Available Steps to Selected Steps.
   h. In the Access Rights field, select Read.

   Tip: You must click Read in the Access Rights field to confirm that the access right is set.

   i. Click Close to close the Field Usage window.

6. Add two more workflow data fields and specify field usage.

   a. In the Data Fields tab, add two additional data fields as shown in the following table. Accept default values for all other parameters.

Data Field Name	Type	Expression
purchase_price	Float	0.0
down_payment	Float	0.0

   b. Select the purchase_price data field.

   c. Click Field Usage.

   d. Move LaunchStep from the list of Available Steps to Selected Steps.

   e. Under Field Name, select down_payment.

   f. Move LaunchStep from the list of Available Steps to Selected Steps.

   g. Click Close to close the Field Usage window.

Procedure 2: Assign fields before and after step execution

1. Define an assignment after completion of LaunchStep and change the assignment order.

   a. On the Workflow main map, select LaunchStep.

   b. In the properties pane, click Assignments > After Completion.

      Notice that two assignments are defined.

   c. Under Field Assignments, use the following information to add an additional field assignment in the third position in the list.

Name	Expression
loan_amount	purchase_price - down_payment

   d. Select the row that contains the new assignment.

      Tip: Be sure that you have selected the entire row and not only one field. You might need to press Enter to select the entire row after you click the row.

   e. Click Move Up (up arrow) to move this assignment to the second position.

   f. Verify that the field assignments appear in the following order:

Name	Expression
F_Subject	F_Subject + customer_name
loan_amount	purchase_price - down_payment
status	"Start processing loan for " + customer_name + " with amount " + convert(loan_amount, string) + " for " + numbertostring(loan_term) + " years."

   g. Click the General tab.

h. Remove loan_amount from the list of Selected Parameters.

The value of loan_amount is calculated in the field assignment and is not entered by the user.

Tip: Depending on your screen size, the list of parameters might be difficult to view and work with. You can use the small up and down arrows located at the top left corner of the object properties pane to maximize and minimize this pane to adjust your view of the properties. Or, you can click the Modify button (pencil icon) in the Parameters area to open a separate window that allows you to add and remove Step Parameters.

2. Define an assignment after completion of the Get Rate and Payment step.

   a. On the Prepare Loan Map submap, select the Get Rate and Payment step.

   b. In the properties pane, click Assignments > After Completion.

   c. Under Field Assignments, use the following information to assign the field.

Name	Expression
`status`	`F_Comment`

3. Define a prompt for the monthly_payment parameter of the Get Rate and Payment step.

   a. Click the Parameters tab.

   b. In the list of Selected Parameters, select monthly_payment.

   c. In the Prompt field, type the following text:

```
Calculate based on current interest rate
```

4. Define an assignment before execution of the Confirm Rate and Payment step and add a parameter.

   a. Select the Confirm Rate and Payment step.

   b. In the properties pane, click Assignments > Before Execution.

   c. Under Field Assignments, use the following information to assign the field.

Tip: You must type `F_Comment` in the Name field. You cannot select it from the list of fields because F_Comment is a system field

Name	Expression
`F_Comment`	`status`

   d. Click the Parameters tab.

   e. Add the following parameter to the list of Selected Parameters: • status [Read]

5. Define an assignment after completion of the Correct Information step.

   a. Select the Correct Information step.

b. In the properties pane, click Assignments > After Completion.

c. Under Field Assignments, use the following information to assign the field.

Name	Expression
`F_Comment`	`status`

Procedure 3: 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.

   c. Complete the “Checkin Workflow Definition” wizard using the following information.

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

   d. Click OK in the Check workflow name window, if it is displayed.

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: `Joe Jenkins`
   - down_payment: `25000.`
   - loan_date: <a future date and time>
   - loan_id: `J1234`
   - loan_term: `30`
   - purchase_price: `220000.`

   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 = 'J1234'`

c. Verify that your work item appears in the results pane and is in the LoanOfficer queue.

The work item followed the “Valid” route to the Get Rate and Payment step because you entered valid LaunchStep parameters.

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

   a. In the results pane, select the row containing the work item in the LoanOfficer queue.

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

   c. In the Get Rate and Payment step processor window, verify that the value of the loan_amount field is 195000.

   In the Assignment After Completion of the Launch Step, you specified that loan_amount equals the purchase_price less the down_payment.

   d. Hover the mouse pointer over the monthly_payment field name.

   Notice that the prompt that you defined in Procedure 2 is displayed.

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

   f. Type the following text in the Comments field:

   `Rate and payment are confirmed.`

   g. Click Complete.

5. 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 step assignments you defined in Procedure 2.

   e. Click Complete.

6. 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 LoanUnderwriter queue.

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

   d. Verify that the status field contains the following text: "`Rate and payment are confirmed.`"

e. Verify that the F_Comment field is empty.

The F_Comment field is reset to null at every step unless you explicitly assign it.

f. Click Complete.

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

h. Verify that the work item is no longer listed in the results pane.

7. 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.

d. Close Process Designer.

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