Lesson: Milestones and logging

Overview

Why is this lesson important to you?

You are designing an IBM FileNet BPM solution and you need to control logging and display of status messages for an executing workflow. Workflow participants need information on workflow status at specified points in a workflow. Management wants a log kept with key information on process status for each workflow. You add milestones and logging to your workflow definition. You must test the workflow to verify the changes.

Activities

- Add milestones and logging to a workflow: Challenge
- Add milestones and logging to 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.

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.

Add milestones and logging to a workflow: Challenge

Challenge

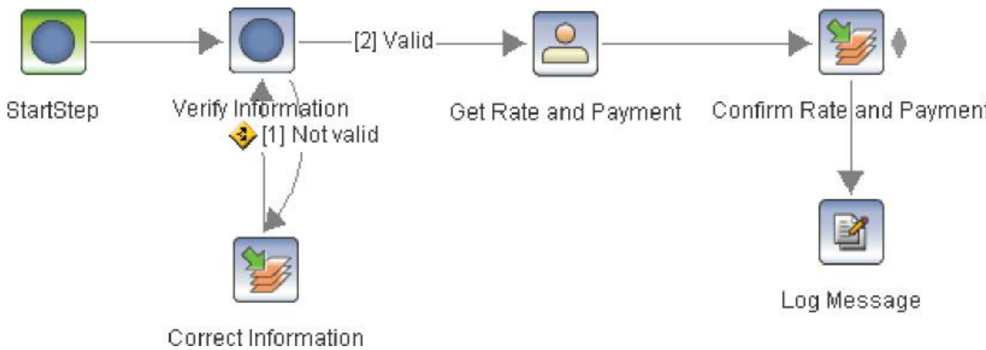
Modify your loan processing workflow definition from the previous lesson and add two milestones. Add a Log system step as the last step in Prepare Loan Map submap. Use the data in the table to complete this activity.

Data

Item	Value
Workflow definition file	Object store > LoanProcess > Workflow > Loan Processing Workflow - Parallel Process
New file name in the Object Store	LoanProcess > Workflows > Loan Processing Workflow - Milestones
Workflow data field	• Name: `LOAN_EVENT_TYPE` • Type: Integer • Expression: `2222`
Milestone 1 properties	• Name: `New Loan Received` • Level: `1` • Message: `status` • Assign to LaunchStep after completion
Milestone 2 properties	• Name: `Agreement of Terms` • Level: `1` • Message: `customer_name + " agrees to borrow " + convert(loan_amount, string) + " at " + convert(interest_rate, string) + " interest rate."` • Assign to Confirm Rate and Payment after completion
Confirm Rate and Payment step	Assignment After Completion • Name: `status` • Expression: `customer_name + " agrees to terms."`
Log system step properties	• Step Name: `Log Message` • Event Type Expression: `LOAN_EVENT_TYPE` • Event Message Expression: `status`

Verification

- You must launch and process the workflow through to completion.
- During execution, at the Update Product Database step the Order Received and Order Status milestones must be displayed in Process Tracker with the appropriate status messages.
- After completion of the workflow, the event log must contain an event type 2222 with the F_Text field containing the status of the loan.
- The Prepare Loan Map submap must look similar to the following diagram. This diagram contains a Log Message step and a milestone.



Add milestones and logging to a workflow: Walkthrough

Introduction

This exercise gives you practice in adding milestones and event logging to a workflow definition.

Procedure 1: Define and use milestones

1. On your student image, 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 lesson activity.
   a. In Workplace XT, 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 - Parallel Process
   d. Select “Open As Checkout” and click Open.

Important

This workflow definition file is the one 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 system:

C:\Labs\F145\Solutions\FlowControl\
Loan Processing Workflow - Flow - Parallel 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 submap.
   f. Click the Process Loan step on the Workflow map.
   g. In the Properties pane, select EMPTY MAP from the list in the "Select a map for the Submap" field.
   h. Click the Prepare Loan step on the Workflow map.
   i. In the Properties pane, select Prepare Loan Map submap from the list in the "Select a map for the Submap" field.
      In this activity, you work only 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 test a workflow.

3. Define new milestones in Workflow Properties.
   a. In Workflow Properties, click Milestones.
   b. Define a new milestone using the following information:
      - Name: `New Loan Received`
      - Level: `1`
      - Message: `status`
   c. Define a second milestone using the following information:
      - Name: `Agreement of Terms`
      - Level: `1`
      - Message: `customer_name + " agrees to borrow " + convert(loan_ amount, string) + " at " + convert(interest_rate, string) + " interest rate."`

4. Assign milestones to LaunchStep and to a step on the Prepare Loan Map submap.
   a. Select the LaunchStep step on the Workflow map.
   b. In step properties, click the Assignments tab.
   c. In the Milestone field, select New Loan Received from the list.

Information

A milestone message that is defined for a step after completion is set **after** the Assignments After Completion are executed. In this case, the status field in the LaunchStep assignments is assigned before the New Loan Received milestone is executed.

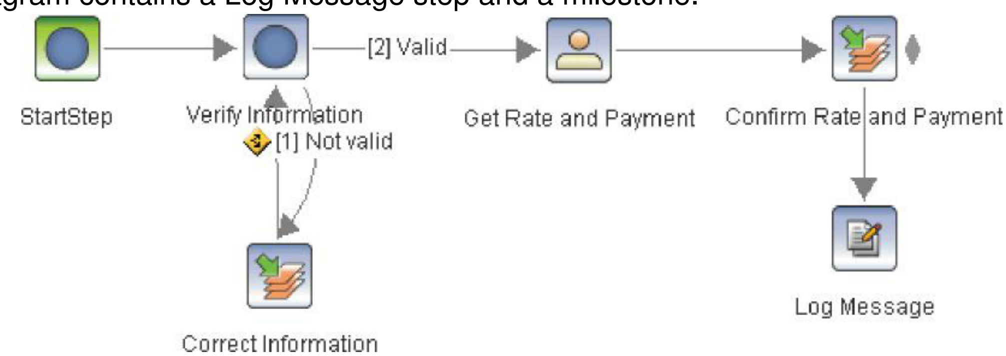
   d. On the Prepare Loan Map submap, select the Confirm Rate and Payment step.
   e. In the properties pane, click Assignments > After Completion.
   f. In the Milestone field, select Agreement of Terms from the list.
   g. Under Field Assignments, use the following information to assign a field.

Name	Expression
status	customer_name + " agrees to terms."

Procedure 2: Add a Log system step

1. Define a data field to hold the loan event type.
   a. In Workflow Properties, click Data Fields.
   b. Add a new data field using the following information:
      - Name: `LOAN _ EVENT _ TYPE`
      - Type: Integer
      - Expression: 2222
2. Drag a Log system step from the General System Palette to the Prepare Loan Map submap and position the step below the Confirm Rate and Payment step.
3. Set the Log step properties using the following information:

   - Step Name: `Log Message`
   - Event Type Expression: `LOAN_EVENT_ TYPE`
   - Event Message Expression: `status`
4. Draw a route from the Confirm Rate and Payment step to the Log Message step.
5. Verify that your Prepare Loan Map submap looks similar to the following diagram. This diagram contains a Log Message step and a milestone.



Procedure 3: Test the workflow definition

1. Validate, transfer, and launch the workflow definition.
   a. Validate the workflow and correct validation errors, if any.
   b. Click File > Launch Main Workflow.
   c. Click OK in the Check workflow name window, if it is displayed.
   d. Complete the “Checkin Workflow Definition” wizard using the following information:
      - Document Title: `Loan Processing Workflow – Milestones`
      - 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: `Sue Stanton`
      - down_payment: `12000.`
      - loan_date: <a future date and time>
      - loan_id: `S123`
      - loan_term: `15`
      - purchase_price: `255000.`
   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 = 'S123'`

   c. Verify that your work item appears in the results pane and is in the Inbox (0) queue assigned to olivia.

   Tip: The F_BoundUser system field contains the assigned user.

   The work item followed the “Valid” route to the Get Rate and Payment step because you entered valid LaunchStep parameters.
4. View milestone information and complete the Get Rate and Payment step.
   a. In the results pane, select the row containing the work item in the Inbox(0) 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 `243000.0`.

   In the Assignment After Completion of LaunchStep, loan_amount is assigned the value of purchase_price less down_payment.
   d. Under Views, click Milestones.
   e. Verify that one milestone is displayed in the list.

f. Under Actions, click Track Status to open Process Tracker.

g. Click the Milestones tab at the bottom of the Process Tracker window.

h. Review the milestone information.

i. Verify that the New Loan Received milestone message contains the value of customer_name, loan_amount, and loan_term from the launch step.

j. Close Process Tracker.

k. In the Task view of the step processor, type values of your choice in the interest_rate and monthly_payment fields.

l. Type the following text in the Comments field:

```
Rate and payment are verified.
```

m. 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 are verified.`"

   The F_Comment field is persisted from the previous step because of field assignment.

   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: "`Sue Stanton agrees to terms.`"

   e. Under Views, click Milestones.

   f. Verify that two milestones are displayed in the list.

   g. Verify that the Agreement of Terms milestone message contains the customer_name, loan_amount, and interest rate.

   h. Click Complete.

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

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

7. View event logging information in Process Administrator.

   a. Construct and execute a search of the event log using the following information.

      This search returns all items with F_Subject that begins with the text string "Milestone Example" and F_EventType equals 2222.

Search criteria	Value
Look for	Events
In	Event Log
Select one	LoanLog
Criteria	`loan_id = 'S123' and F_EventType = 2222`

   b. Click the Show/Hide Columns icon in the results pane and use the Column Selection window to add the F_Text field to the list of selected columns.

Note

In Process Administrator, you can change the order in which the columns are displayed in the results pane by using the Column Selection window.

Select a field name in the Selected Columns list and move its position up or down using the arrow icons.

The F_EventType and F_Text fields are easier to view if you adjust the column order to display these fields in the first and second columns.

   c. Verify that the F_Text field for the logged entry contains the following value: `"Sue Stanton agrees to terms."`

8. 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.