



IBM Case Foundation 5.2.1 Process Design

F245
Course Abstract

Course description

This course provides training in using Process Designer to create workflow definitions that can be used either in Case Foundation or Case Manager applications.

Duration

4 days.

Delivery Method

Instructor-led (Classroom or online).

Audience

- **Workflow authors** who are responsible for designing and building workflow definitions in an IBM Case Foundation or IBM Case Manager development environment.

Prerequisites

Before attempting this course, it is recommended that you have the following skills:

- Familiarity with Windows 2008 operating systems.
- General knowledge of P8 Platform security concepts.
- General workflow terminology:
 - Workflow.
 - Workflow definitions.
 - Queues.
 - Rosters.
- Start a P8 Platform system.
- Familiarity with P8 Platform interfaces, including:
 - Administration Console for Content Platform Engine.
 - IBM Content Navigator.
 - Process Configuration Console.
 - Process Designer.
 - Process Administrator.
 - Process Tracker.
- Recommended training: IBM Case Foundation 5.2.1: Introduction (F230G).

Course Objectives

The following course objectives are listed by unit:

- **Unit 1: Workflow Design Essentials**
 - Create a workflow definition using Process Designer.
 - Use workflow properties and step parameters in a workflow definition.
 - Build simple and complex expressions to calculate property values and direct work.
 - Use a variety of step types to build a workflow definition.
 - Use subscriptions to launch workflows automatically from an initiating attachment.
- **Unit 2: Security**
 - Inspect workflow system security settings.
 - Identify and resolve workflow system security-related issues.
 - Configure security for a workflow system.
- **Unit 3: Routing Work**
 - Use conditions to direct the flow of work.
 - Create a parallel process in a workflow.
 - Create workflow group.
 - Define participant voting for a step.
 - Use a submap.
 - Identify system default submaps.
 - Resolve business process exceptions.
 - Create a workflow hierarchy.
- **Unit 4: Control Workflow Progress**
 - Add milestones and logging to a workflow.
 - Establish workflow and step deadlines.
 - Control processing times and delays.
 - Add checkpoint processing to a workflow.
- **Unit 5: External Communication**
 - Use a DbExecute step in a workflow to integrate with an external database.
 - Identify Component Integrator concepts and components.
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 - Integrate a CE_Operations component in a workflow.
 - Integrate a Java component in a workflow.
 - Invoke a Web Service in a workflow.

Topics

This course includes the following topics:

Create a workflow definition

Process Designer

The Process Designer Design mode interface

Workflow maps

Example workflow map

Add an activity step to a map

Draw a route

Step menu commands

Workflow definition file

Save a workflow definition

Workflow definitions in the object store

Configure workflow properties

Workflow properties

Workflow and database fields

Using data fields as step parameters

What are system fields?

Roster and event log properties

Guidelines for working with Process Designer

Explore workflow step types

Step palettes

Assemble a custom step palette

Step types and the BPM Palette

Overview of activity step properties

Activity type

System steps

Add a system step to a map

Example: Assign system step

Termination steps

Build expressions

What is an expression?

Data types and arrays

Expression Builder

Literals and operators in expressions

Functions

Data type conversion

Expression examples

Database fields (Exposed data fields)

Exposed Data fields window

Assignment

Assignment before and after a step

Example: Assign F_Comment after step completion

Limitation of the Assign system function

Launch workflows with subscriptions

Methods of launching a workflow

Attachments

Initiating attachment

Overview of a workflow subscription

Create a workflow subscription

Example subscribed events

Property mapping in a workflow subscription

Security overview

Layers of security

Object store security

Isolated region security

Workflow system security groups

In-baskets

Application spaces

Roles

Avoid security conflicts

Security configuration

About isolated region security

Control access to queues

Control access to rosters

Control access to rosters: recommended practice

Roster and queue security settings

How to configure queue and roster security

Conditional routing

Conditional routing

Step responses

Route properties

Step routing information

Example: Route based on participant responses

Parallel processing

Modeling parallel execution

Example: Simple parallel processing

Collection and data merge types

How data merging works

Example: Data merging in a multi-participant step

Rules for creating valid workflow maps (1)

Rules for creating valid workflow maps (2)

Use of TerminateBranch system function

Use of an unassigned step

Manage participation

Workflow participants

Workflow groups

Example: Dynamic assignment of workflow groups

System-provided workflow group: F_Trackers

System-provided workflow group: F_Originator

Set participant privileges

Participant voting

Example: Counting responses

Work with submaps

Why is this lesson important to you?

Unit objectives

Using submap steps

Define a new submap

Example: Using a submap step

Implicit and explicit return from a called map

Default system maps

Workflow termination

Override a system map

Handle workflow exceptions

Business process exceptions
Malfunction map and the Conductor queue
Override the Malfunction system map
Using Return in a Malfunction map
Workflow troubleshooting and recovery
Example: Workflow exception

Workflow inheritance

Using workflow inheritance
Inherited elements
The base workflow
Workflow Preferences for inheritance
Create a workflow hierarchy
Override an inherited map

Milestones and logging

Milestones and workflow progress
Milestone levels and messages
Define and use a milestone
Example: Milestone display in Process Tracker
Example: Milestone display in Track Work Item page
Using event logs
Log system function
Example: Logging a data field

Workflow deadlines

Workflow deadline
Step deadline
Step deadline expiration
Participant notification
Using workflow and step deadlines

Timers and delays

Timer functions
Begin and end timers
Suspend and resume timers
Expired timers

Design considerations for using timers

Delay system function

Checkpoints

Rollback behavior in a workflow

Checkpoint system functions

Specify where processing resumes

Example: Using a checkpoint

Design considerations when using checkpoints

External database integration

DbExecute system function

Example: Using DbExecute

DbExecute step parameters

Parameter data types

Prerequisite administrative task

Considerations when using DbExecute

Component integrator architecture

Purpose of component integration

Component integrator

Component Manager Frameworks

Deciding on a Component Manager Framework

Component behavior

Types of components

Content Extended Operations: CE_Operations

Java adapter

Java Message Service (JMS) adapter

Using components

Prepare the system for component use

Component step

What is a queue operation?

Operation parameters

Use a component step in a workflow definition

CE_Operations component

CE_Operations component

CE_Operations - use case scenarios

Web services

XML Web Service

Web services example

Web services in Process Designer

Web services architecture

Steps to invoke a Web Service

Define an Invoke partner link

Use Invoke step in a workflow map

Example: Invoking a Web Service

Other considerations when using Invoke