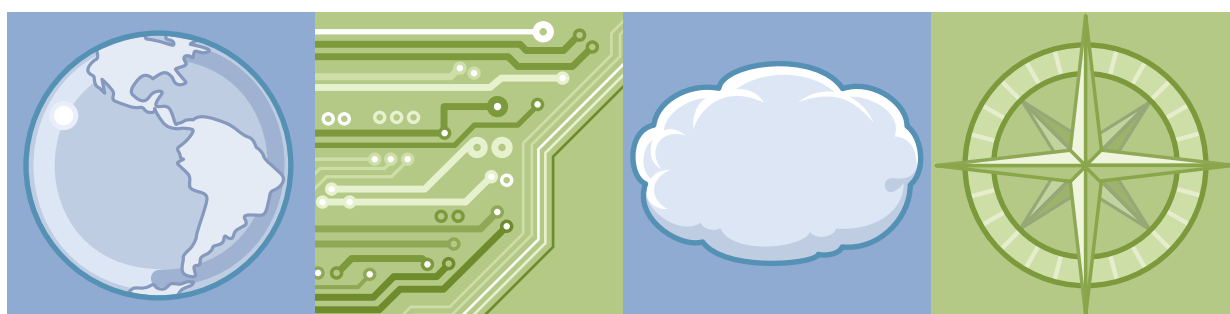**IBM**

IBM Training

Student Notebook

IBM Case Foundation 5.2.1 Introduction

Course code F230G ERC 1.0

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Course description

IBM Case Foundation 5.2.1 Introduction

Duration: 1/2 day

Purpose

This course introduces the features and components provided with IBM Case Foundation 5.2.1. F230 covers:

- Introduction to Basic elements of FileNet workflow applications.
- Introduction to the administrative tools used to administer FileNet workflow applications.
- IBM Case Foundation architecture.

Audience

Workflow System Administrator responsible for day-to-day operations of production FileNet Workflow applications and maintenance of the workflow systems.

Workflow Author responsible for designing and implementing FileNet workflow applications in the development environment. The Workflow Author prepares the workflow system objects for the FileNet workflow applications which typically provide advanced work management and process automation functions integrated with content management.

Prerequisites

- Experience with using Microsoft Window 7 Operating System.
- F115G IBM FileNet Content Manager 5.2: Implementation and Administration

Objectives

After completing this course, you should be able to:

- Understand workflow fundamentals.
- Understand the processing of FileNet workflow applications and how to use the administrative tools.
- Understand IBM Case Foundation architecture

Contents

- Workflow fundamentals
    - Understand fundamental FileNet workflow elements and how they are used in FileNet workflow applications.
- Workflow processing
    - Launch, process and track a workflow.
- IBM Case Foundation architecture
    - Identify functions of IBM Case Foundation components
    - Explore the Case Foundation components on the student system

Curriculum relationship

This section covers the courses planned for IBM Case Foundation 5.2.1. Refer to the IBM Training Paths for the curriculum relationship. The training paths will be updated as courses become available.

IBM Training Paths

`http://www-304.ibm.com/jct03001c/services/learning/ites.wss/us/en?pageType=page&c=a0000419`

The courses are available as single modules, provided as SPVCs, to provide flexibility for students, or full 5 day courses delivered as instructor lead training.

Individual modules organized by role:

All roles:

- Introduction
- Configure the workflow system
- Coordinating workflow design
- Workflow applications administration
- Migrating and deploy workflow applications
- Component Integration

Workflow system administrator:

- Maintaining the workflow system
- Manage Work in Progress
- Workflow Analysis tools

Workflow author and application developer:

- Introduction to Workflow design
- Workflow Design Basics
- Data Control in Workflow
- Flow Control in Workflow
- Control of Multiple Workflows
- Use a Component in a Workflow
- Web Services

Planned 5 day courses:

IBM Case Foundation 5.2.1 Workflow administration

- Configure the workflow system
- Coordinating workflow design
- Maintaining the workflow system
- Manage Work in Progress
- Workflow applications administration
- Component Integration
- Migrating and deploy workflow applications

IBM Case Foundation 5.2.1 Workflow Design

- Configure the workflow system
- Coordinating workflow design
- Workflow applications administration
- Introduction to Workflow design
- Workflow Design Basics
- Data Control in Workflow
- Flow Control in Workflow
- Control of Multiple Workflows

Agenda

Day 1

Welcome

Lesson 1: Workflow fundamentals

    Demonstration: View a workflow definition in the Process Designer tool

    Exercise: Identify workflow concepts

    Exercise: Prepare your system for the student exercises

    Exercise: Identify elements in a workflow definition

Lesson 2 - Workflow processing

    Demonstration: Launch a workflow

    Demonstration: Search for work items with the Process Administrator tool

    Demonstration: Explore the Process Tracker tool interface

    Demonstration: Search for work items with the New Workflow search feature

    Demonstration: Open the Process Tracker tool from an IBM Content Navigator desktop

    Exercise: Identify workflow concepts

Lesson 3 - IBM Case Foundation architecture

    Exercise: Identify functions of IBM Case Foundation components

    Exercise: Explore the IBM Case Foundation components of your student system

Unit 1. IBM Case Foundation 5.2.1 Introduction

What this unit is about

This unit introduces you to workflow fundamentals how they are used in IBM FileNet Workflow applications.

This course introduces the features and components provided with IBM Case Foundation 5.2.1. It is the first course in the series of courses available for IBM Case Foundation 5.2.1. It covers FileNet workflow fundamentals, workflow processing, and the administrative tools provided, and IBM Case Foundation architecture.

What you should be able to do

After completing this unit, you should be able to:

- Identify workflow concepts.
- Prepare your system for the student exercises.
- Identify elements in a workflow definition.
- Identify the workflow work management features.
- Identify the workflow automation and connectivity features.
- Review IBM Case Foundation component functionality.
- Identify IBM Case Foundation components.

How you will check your progress

- Successfully complete the activities in the Student Exercises book.

References

Knowledge Center for FileNet P8 Platform P8 5.2.1 Documentation

http://www.ibm.com/support/knowledgecenter/SSNW2F_5.2.1/com.ibm.p8toc.doc/welcome_p8.htm

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IBM Case Foundation 5.2.1 Introduction

Unit lessons

This unit contains these lessons:

- Workflow fundamentals
- Workflow processing
- IBM Case Foundation architecture

Figure 1-1. Unit lessons   F230G1.0

Notes:

Lessons in this unit

This unit has three lessons. After the first lesson, each lesson relies on information and skills taught in the prior lessons. For best results, do these lessons in the sequence presented.

Workflow fundamentals – In this lesson, you become familiar with fundamental workflow elements and how they are used in FileNet Workflow applications.

Workflow processing – In this lesson, you learn about how a workflow is processed. You launch, process, and track a workflow. You view the history of workflow processing event.

IBM Case Foundation architecture – In this lesson, you identify the architectural components of an IBM Case Foundation system and identify their functions.

Lesson 1.1. Workflow fundamentals

Lesson:
Workflow fundamentals
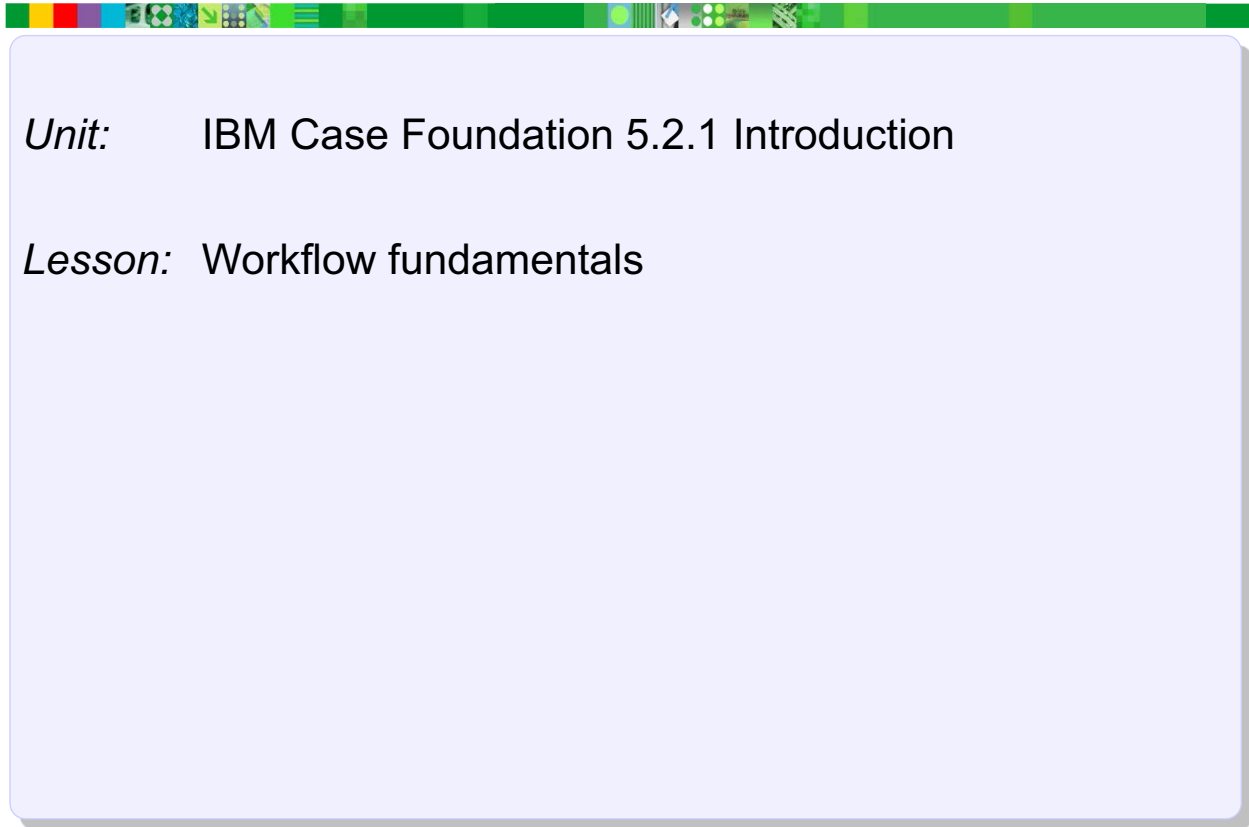
Unit: IBM Case Foundation 5.2.1 Introduction

Lesson: Workflow fundamentals

Figure 1-2. Workflow fundamentals   F230G1.0

Notes:

Lesson

Workflow fundamentals

Why is this lesson important to you?

- As a workflow administrator, you:
  - Help workflow participants locate work and complete workflows.
  - Respond to management decisions that require changes to workflows.
  - Gather information about workflow activity.
  - Migrate workflow applications between FileNet domains.
- As a workflow author you:
  - Design FileNet workflow applications.
  - Implement and test FileNet workflow applications.
  - Communicate workflow application details to the workflow administrator and possibly the developer.
- To do these tasks effectively, you need to be familiar with fundamental workflow elements and how they are used in FileNet workflow applications.

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Figure 1-3. Activities that you need to complete   F230G1.0

Notes:

These are the activities that you are going to perform in this lesson.

Workflow fundamentals

Activities that you need to complete

- Identify workflow concepts.
- Prepare your system for the student exercises.
- Identify elements in a workflow definition.

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Figure 1-4. Integrating workflow into document management   F230G1.0

Notes:

Help path

- IBM Knowledge Center for FileNet P8 Platform 5.2.1 > Integrating workflow into document management

Workflow fundamentals

Integrating workflow into document management

- IBM FileNet P8 Platform automates the routing and processing of work in an enterprise.
  - The Content Platform Engine (CPE) contains software and database structures that run and manage automated business processes.
  - A business process is implemented as a workflow definition.
- Users participate in the workflow as follows:
  - Steps in the workflow that are routed to the user.
  - Perform tasks that are required for a step.
- Workflow administrators and workflow authors:
  - Configure the workflow system.
  - Manage running workflows.
  - Help workflow participants.
  - Design and implement workflows.

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Figure 1-5. Workflows and workflow definitions   F230G1.0

Notes:

Help path

- IBM Knowledge Center for FileNet P8 Platform 5.2.1 > System Overview > Features > Workflow management > Defining business workflow

In order to support or deploy workflow applications, you must understand the difference between a workflow definition and an instance of a workflow.

Workflow

A workflow is an electronic package of a business process that includes routing and content information needed to process the work. In IBM FileNet P8 Platform, a workflow is managed by the Content Platform Engine, a core component of the IBM FileNet P8 Platform. The work consists of electronic objects sent to recipients (human participants or machines). At every point, the system tracks the work so that it cannot be lost.

Workflow definition

A workflow definition is stored in a FileNet P8 object store as an XML or XPDL file. A workflow author uses Process Designer to create the workflow definition. You can think of a workflow

definition as a processing template for creating workflows. The Content Platform Engine uses information from the workflow definition each time a workflow is launched.

A workflow definition is a file that specifies the following items:

- Steps required to accomplish a business process
- Routes that determine the sequence of steps
- Participants, fields, and attachments that are needed to complete each step
- Responses that the participant can choose

For example, a workflow definition was created that models a loan processing application. When John Smith, a customer, applies for a loan, a new workflow is created and launched using the workflow definition as a template. The workflow includes loan information applicable to John Smith's loan, such as data field values, attached documents, and so forth.

Multiple workflow definition

A workflow definition file that is stored as an XPDL file can be built to contain multiple workflow definitions. This multiple workflow definition file is known as a workflow collection.

Workflow authors use Process Designer to create workflow definition or collection files that are saved in a FileNet P8 repository. The files are versioned as the workflow definitions are modified.

Workflow fundamentals

Workflows and workflow definitions

- A workflow definition is a representation of a business process used as a template for creating workflows.
  - A workflow definition:
    - Represents a series of tasks, shown as steps, connected by routes.
    - Identifies activities, resources, participants, and conditions needed to process the work.
    - Stored as a .pep (XML) or XPDL file in a FileNet P8 repository.
- A workflow is a unique instance of a workflow definition.
  - Work done by individuals or resources, serially or in parallel, to accomplish a business process.
  - A workflow contains steps, properties, and routing information maintained in an executable form.
  - Each time a workflow is launched a new workflow instance is created by using the workflow definition as a template.

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Figure 1-6. Process Designer   F230G1.0

Notes:

Help paths

- IBM Knowledge Center for FileNet P8 Platform 5.2.1 > Integrating workflow into document management > Designing workflows > Running Process Designer

- IBM Knowledge Center for FileNet P8 Platform 5.2.1 > Integrating workflow into document management > Designing workflows > Running Process Designer > Getting started in Design mode > About defining a workflow

The screen capture on this page shows the Process Designer user interface. The interface has a menu of commands, a toolbar of commonly used commands, a map area to diagram a business process using steps and routes, and the object properties pane to configure the steps and routes.

Workflow authors can use Process Designer to do the following:

- Design workflow maps by adding steps and routes.

- Define required data fields for each step, such as loan ID or customer.

- Create placeholders for content-related attachments.

Process Designer is used by the workflow author, and application developer.

Process Designer has two modes of operation: Diagram mode and Design mode, Design mode is primarily used.

Starting with IBM Case Foundation 5.2.1, the Process Designer tool can be opened from an IBM Content Navigator desktop provided the process applets plug-in has been configured.

Note: The official name of the plug-in is "IBM Content Platform Engine Applets Support ", the plug-in is also commonly referred to as process applets plug-in, which will be the name used throughout this course.

In previous releases, you opened the Process Designer tool from Workplace or Workplace XT.

Workflow fundamentals

Process Designer

- Graphical tool used to design, test, and implement workflow applications
  - Define workflow maps, steps, and routes
  - Define data fields, attachments, milestones, route conditions, and so forth
  - Used by:
    - Workflow author
    - Application developer
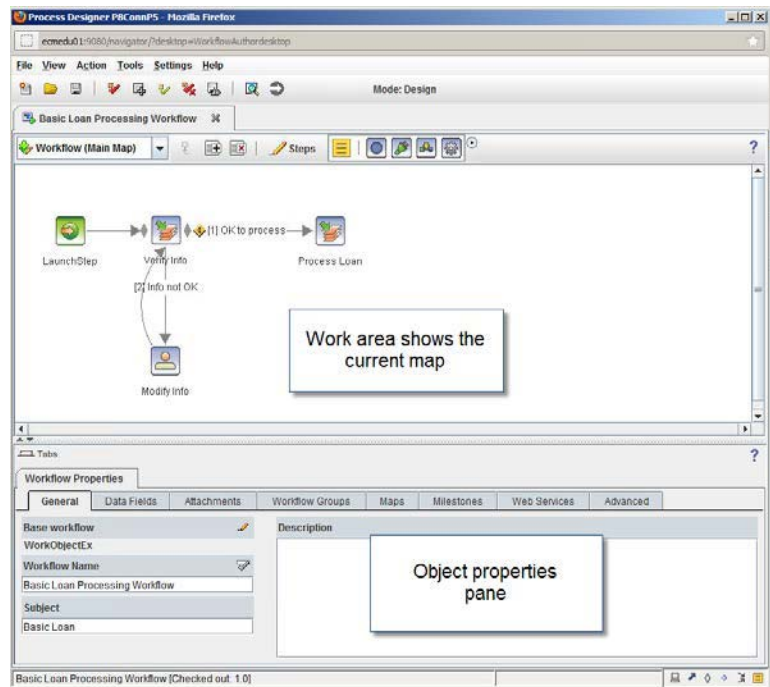
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Figure 1-7. Workflow maps   F230G1.0

Notes:

Help paths

- IBM Knowledge Center for FileNet P8 Platform 5.2.1 > Integrating workflow into document management > Process application concepts > Design and run workflows > About workflow maps

- IBM Knowledge Center for FileNet P8 Platform 5.2.1 > Integrating workflow into document management > Getting started in Design mode > Workflow map area for Design mode

- IBM Knowledge Center for FileNet P8 Platform 5.2.1 > Integrating workflow into document management > Designing workflows > About steps

In Process Designer, a workflow definition is built with steps and routes to define one or more workflow maps. The main map in a workflow is called the Workflow map.

A map might contain several different types of steps:

- A Launch step is the first step in a workflow.

- An activity step represents an activity in a workflow that will be processed by either one or more workflow participants or by a work queue.

- A submap step represents a call from the current workflow map to another map in the same workflow definition.

- A system step provides a way to include one or more IBM FileNet-supplied system functions.

- A component step makes it possible to route work to operations in custom Java or Java Message Service (JMS) components.

The diagram on this page shows an example main map from a workflow definition. The map contains a LaunchStep, four routes shown by arrows, and three steps. Two conditional routes are shown: *[1] Verified* and *[2] Not Verified*. When the workflow definition is launched, a workflow instance is created, using the workflow definition as a template, and processed based on the map.

Workflow fundamentals

Workflow maps

- Graphical representation of a workflow that shows the sequences of steps needed to complete the business process.
- Contain steps and routes
- Main map (called Workflow) and submaps
- Step types
  - Launch step
  - Activity participant step
  - Activity queue step
  - Activity unassigned
  - Submap step
  - System step
  - Component step
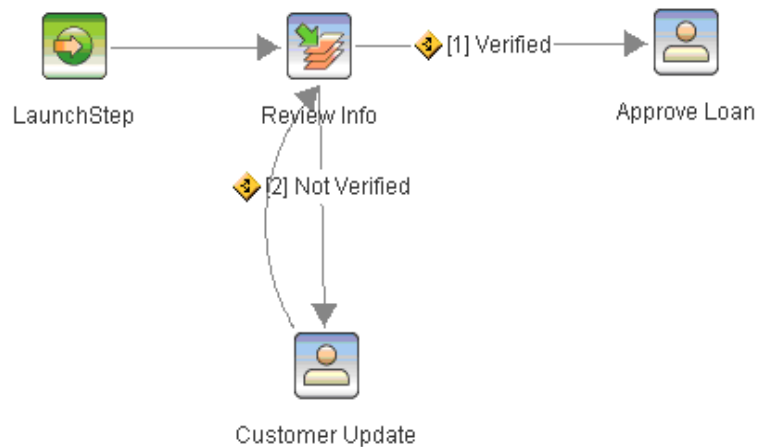
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Figure 1-8. Step and workflow properties   F230G1.0

Notes:

Help path

- IBM Knowledge Center for FileNet P8 Platform 5.2.1 > Integrating workflow into document management > Designing workflows> About steps > Working with steps > Specify step properties

Each step or route on a workflow map has properties assigned to it, which affect the behavior of the workflow during execution. The screen capture on this page shows the Process Designer object properties pane that is used to configure step or route properties in a workflow definition. The tabs displayed depend upon the type of step or route selected on the workflow map. You use the object properties pane to define and edit the workflow step or route properties.

In addition, the Workflow Properties tabs show the properties that apply to the entire workflow. In the Workflow Properties tab, the workflow author defines the name of the workflow, subject, data fields, attachments, workflow groups, milestones, and so forth.

Workflow fundamentals

Step and workflow properties

- Each step has properties that vary by step type.
  - General
  - Parameters
  - Routing
  - Assignments
  - Deadline
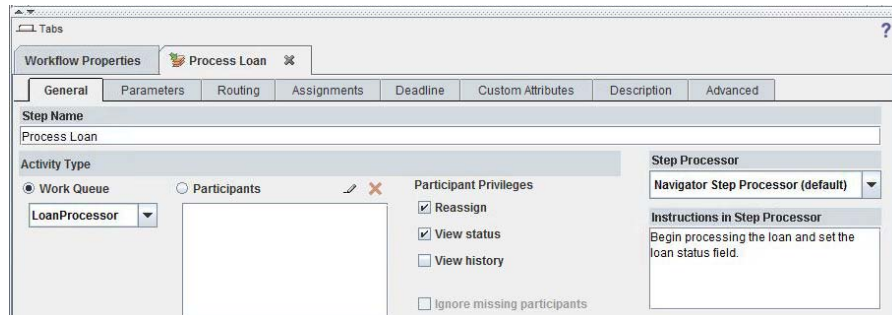
- Workflow Properties
  - Properties that are assigned to the entire workflow.
    - Name and subject
    - Attachments (documents, folders, custom objects)
    - Data fields
    - Other information that affects workflow behavior

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Figure 1-9. Work items   F230G1.0

Notes:

Help path

- IBM Knowledge Center for FileNet P8 Platform 5.2.1 > Integrating workflow into document management > Administering work items > About workflow and event searches > About workflows vs. work items

A **work item** is a collection of data and references to system information needed to process the work.

A work item is transitory. It ceases to exist after it is processed.

A work item is placed in a Workflow system queue during processing. The participants assigned to process a work item select the work item from the queue. (Queues are described on the next page.) A work item is the smallest individual piece of a workflow.

Each workflow has one or more work items associated with it, depending on the business process. For example, if a workflow has a step assigned to three participants (a multi-participant step), four work items are created for processing that step. One work item is placed in the Inbox queue of each of the three participants and the parent work item is placed in a Delay queue. After all three participants have completed the work, the work item data is updated in the parent work item. Then,
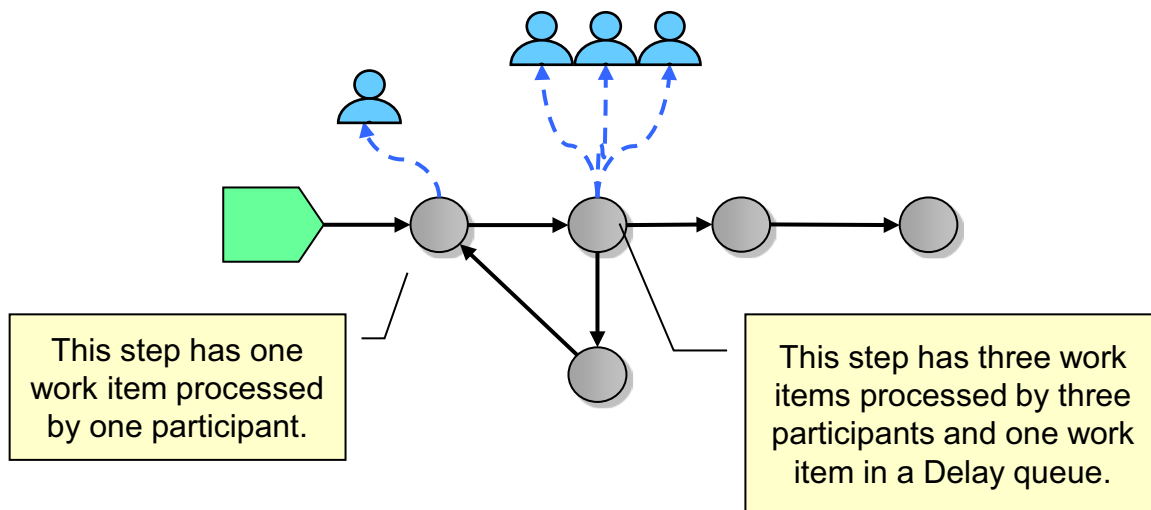
the parent work item moves to the next step in the workflow. This example is illustrated in the workflow map on this page.

Work items can be processed by various participants including enterprise users, customers, partners, or applications.

Workflow fundamentals

Work items

- Work items are units of work in a running workflow.
  - Work items contain the data and instructions needed for processing.
  - The system uses work items to keep track of the workflow process.
- One or more work items are associated with each step in a workflow.

This step has one work item processed by one participant.

This step has three work items processed by three participants and one work item in a Delay queue.

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Figure 1-10. Queues   F230G1.0

Notes:

Help paths

- IBM Knowledge Center for FileNet P8 Platform 5.2.1 > Administering > Administering Content Platform Engine > Administering the workflow system > Workflow structures
- IBM Knowledge Center for FileNet P8 Platform 5.2.1 > Integrating workflow into document management > Configuring the workflow system > Configuring workflow queues

Queues are specified in the workflow definition.

Example: A workflow participant who is a bank officer sees work in the LoanOfficer queue.

Work is managed in queues, which are database structures that hold work items.

For example:

- **User queues** hold work items assigned to and waiting to be processed by an individual or participant. The user queue provides users with tasks that users need to perform.
- **Tracker** holds tracker work items that reference the running workflows that are monitored by an individual that has been configured as a tracker.

- **Work Queues** hold work items that can be completed by a group of users, rather than a specific participant. A work queue also holds work items that can be completed by an automated process.

- **Component queues** hold work items that can be automated using external components, like Java classes.

- **System queues** hold work items that are being processed or waiting to be processed by a workflow system server process.

Workflow fundamentals

Queues

- A queue is a database structure where work items are held while awaiting processing by:
  - The system
  - Applications
  - Workflow participants (users or groups)
- Each workflow application uses multiple queues.
- The workflow author usually creates and configures queues.
- Types of queues:
  - User queue is for an individual (examples: Inbox, Tracker).
  - Work queue is for a group of users (examples: Clerk, Manager).
  - Component queue is for an external or custom entity (example: Java object or Java messaging component)
  - System queue is for a system activity (example: Delay).

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Figure 1-11. Workflow rosters   F230G1.0

Notes:

Help path

- IBM Knowledge Center for FileNet P8 Platform 5.2.1> Integrating workflow into document management > Configuring the workflow system > Configuring workflow rosters

A **workflow roster** (also referred to as a roster) is similar to a master index. It contains the current location and other configurable information about all active workflows and work items.

For each workflow definition, one workflow roster is assigned in the Workflow Properties in Process Designer. All workflows launched using the workflow definition use this assigned workflow roster.

DefaultRoster is the name of the default roster created by the system when an isolated region is initialized. The workflow author creates additional rosters as needed. When a workflow instance is created, it is assigned a unique workflow number and registered in the workflow roster associated with its workflow definition.

Example of multiple rosters

A roster with a unique name is created for each departmental group that uses a workflow application (for example, MarketingRoster, AccountingRoster, LoanRoster). Multiple rosters make it easier to search for and manage the work items for each department.

The Diagram represents work items maintained in Rosters and in Queues.

Workflow fundamentals

Workflow rosters

- A roster is a database structure used to keep track of work items.
- Each workflow application uses one workflow roster.
- A roster contains references to all running workflows and work items for the application.
    - Rosters provide an efficient way to search for specific work items.
    - Workflow authors create and configure rosters.
    - Workflow administrators use rosters to search for, process, and manage work items.
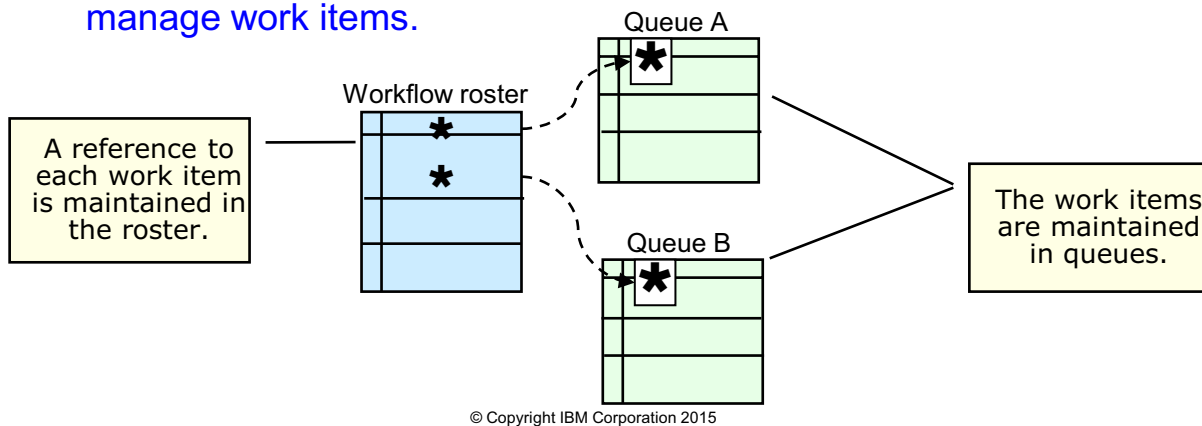
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Figure 1-12. Workflow history and analysis   F230G1.0

Notes:

Help paths

- IBM Knowledge Center for FileNet P8 Platform 5.2.1 > Integrating workflow into document management > Process application concepts > Events > About event logs

- IBM Knowledge Center for FileNet P8 Platform 5.2.1 > Defining the workflow system > Analyzing workflows > Workflow analysis tools > Case Analyzer

Event logs are database structures on the workflow system that collect workflow event information, such as work item creation, termination, begin service, and end service. Event logs are used in reports and tools to display workflow history.

IBM FileNet Case Analyzer services can be enabled and configured to collect statistical information gathered from the workflow system into Case Analyzer stores. Analytic tools, such as IBM Cognos Business Intelligence reports, Microsoft Excel spreadsheets (pivot charts) or IBM Cognos Real-time monitoring dashboards can then be used to generate reports that summarize information about active (running) workflows, as well as historical data. Case Analyzer services help you to analyze and manage workflow processes. Workflow data fields that are exposed on the event log can be read by Case Analyzer.

Case Analyzer services are covered in another course.

Workflow fundamentals

Workflow history and analysis

- History
  - Specific system or workflow-related events are useful for tracking workflow activity.
  - Workflow authors create and configure event logs and enable event logging in the Administration Console for Content Platform Engine.
  - Workflow administrators maintain and use event logs to view historical workflow information.
- Analysis
  - Use IBM FileNet Case Analyzer services to collect data from event logs to support workflow analysis.

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Figure 1-13. Milestones, deadlines, and timers   F230G1.0

Notes:

Help path

• IBM Knowledge Center for FileNet P8 Platform 5.2.1 > Integrating workflow into document management > Process applications concepts > Design and run workflows > Milestones

When the workflow definition is created, several options can be added to control user interaction and the timeliness and flow of steps processed in the workflow. This page discusses three of these control features: milestones, deadlines, and timers.

Workflow processing

Milestones, deadlines, and timers

- Milestones selectively expose the status of workflow steps.
  - Milestones expose status by step and by access level.
  - Users have access to necessary information when they need it.
- Deadlines set automated, time-based checks on steps, workflows, or both.
  - Each deadline is relative to a specified time.
  - A reminder can be sent for each deadline at a specified time.
  - If a deadline is reached, a specified submap can be launched.
- Timers are automated, time-based checks during workflows processing.
  - If a timer expires, a specified submap can be launched.
  - Multiple timers can be active within a workflow.

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Figure 1-14. Process connectivity features   F230G1.0

Notes:

Help path

- IBM Knowledge Center for FileNet P8 Platform 5.2.1 > System overview > Features > Workflow management > Connectivity

A workflow definition can make use of options to connect to external processes or services.

The diagram on this page shows an example process map containing a LaunchStep and three system steps that provide access to external programs from a workflow definition. The Component step can execute Java code, use CE_Operations to access content information on the Content Platform Engine, and put information into a Java Messaging queue. The Invoke step can call a web service to run and can receive information from the service. The DbExecute step can run a stored procedure in a database.

Workflow processing

Process connectivity features

- Process orchestration with XML Web Services
  - Can call a web service
  - Can create a workflow-based web service
- Database connectivity
  - Integrate FileNet workflow applications with existing databases
  - Retrieve, update, or record data with workflows
- Component integration (Java or JMS)
  - Used to hand off processing to existing business applications
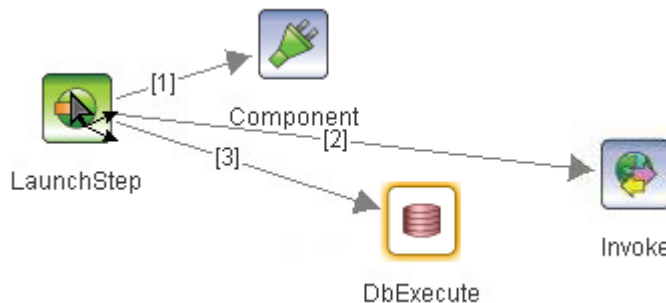
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Figure 1-15. Demonstrations   F230G1.0

Notes:

Demonstration notes:

This demonstration shows how to work with the elements of a workflow definition file in the Process Designer tool.

1. Open the Workflow Author desktop (IBM Content Navigator desktop) and login as the p8admin user.

2. Click the Loan Processing Workflow Collection file located in the LoanProcess object store > Workflows folder. Process Designer opens.

3. In Process Designer, notice the map area where the Workflow main map is displayed.

4. Notice the functional areas of the Process Designer tool:

   - Menu bar

   - Main tool bar

   - Map area

   - Workflow map

- Map tool bar with list of submaps.

- Object properties pane.

5. In the object properties pane, explore the Workflow Properties tabs. Notice the workflow name in the General tab.

6. Select the PrepareLoanMap submap from the map toolbar list of maps.

7. Select the Confirm Information step and notice that it is a Participant step.

    a. Verify that Participants is selected in the Properties Pane > General tab > Step Destination area.

    b. Verify that the participant name listed is LoanOfficers, a workflow group.

8. Select the Confirm Rate & Payment step and verify that it is a Work Queue step.

    a. Verify that Work Queue is selected in the Properties Pane > General tab > Step Destination area.

    b. Verify that the selected queue name is LoanCustomer.

9. In the Properties pane > Parameters tab, examine the lists of available and selected parameters.

10. Exit Process Designer and cancel the checkout.

Workflow fundamentals

Demonstrations

- View a workflow definition in the Process Designer tool.

Figure 1-16. Activities   F230G1.0

Notes:

Use your Student Exercises book to perform the activities listed.

Lesson 1.2.   Workflow processing

Workflow fundamentals

Activities

- In your Student Exercises
- Unit: IBM Case Foundation 5.2.1
             Introduction
- Lesson: Workflow fundamentals
- Activities:
  - Identify workflow concepts.
  - Prepare your system for the student exercises.
  - Identify elements in a workflow definition.

Figure 1-17. Workflow processing   F230G1.0

Notes:

Lesson:
Workflow processing

Unit: IBM Case Foundation 5.2.1 Introduction

Lesson: Workflow processing

Figure 1-18. Activities that you need to complete   F230G1.0

Notes:

These are the activities that you are going to perform in this lesson.

Lesson

Workflow processing

Why is this lesson important to you?

- Your IBM FileNet workflow application includes numerous workflow processing features. As a workflow administrator, you are responsible for administering work items during workflow processing. As a workflow author you build, and implement the application. You must know how to launch, process, and track a workflow and view history of workflow processing events.

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Figure 1-19. Workflow processing   F230G1.0

Notes:

This page summarizes what happens in the Content Platform Engine workflow system during workflow processing.

A workflow administrator and workflow author need to know this information in order to effectively use the workflow administrative tools, such as the Administrative console for Content Platform Engine, to configure, manage and process running workflows.

Workflow processing

Activities that you need to complete

- Launch, process, and track a workflow.

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Figure 1-20. How workflows are launched   F230G1.0

Notes:

Help path

- IBM Knowledge Center for FileNet P8 Platform 5.2.1> Integrating workflow into document management > Process applications concepts > Design and run workflows > About launching a workflow

Each workflow can be launched by the following:

- Event subscription – Example: A new loan is added to the LoanProcess Object Store. When the *creation* event occurs, a loan processing workflow is launched.

- An entry template – Example: An entry template is used to capture a customer's loan information as his loan application is added to the LoanProcess Object Store. During that process, the loan processing workflow is launched.

Custom code

A user – Example: Loan Processors can launch a credit check workflow to obtain credit information about a customer. They can launch this workflow manually through an IBM Content Navigator desktop.

Process Designer – Example: A workflow author is designing and configuring a workflow definition. To test the workflow, the author validates, transfers, and launches the workflow.

Other Applications – Example: IBM Enterprise Records Add-On provides a number of predefined workflows to do a task such as approve a Destroy action. Case Builder Runtime allows a case task to be launched which executes as a special type of workflow.

Workflow processing

- What happens when a workflow is launched
  - A work item is created and placed in the first queue, as designated by the workflow definition.
  - A reference to the workflow is created and maintained in a workflow roster.

- What happens while the work is processed
  - Work items move from queue to queue as defined by the workflow definition.
  - The workflow roster is updated as work items are processed.
  - Process events are recorded in an event log.

- What happens when the process is complete
  - The Terminate submap is called and run.
  - All work items are removed from the system.
  - A history of the work remains in an event log.

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Figure 1-21. Inboxes, work queues, and step processors   F230G1.0

Notes:

Help paths

- IBM Knowledge Center for FileNet P8 Platform 5.2.1 > Integrating workflow into document management > Process application concepts > Design and run workflows > About operations > Step processor concepts

- IBM Knowledge Center for FileNet P8 Platform 5.2.1 > Integrating workflow into document management > Java step processor

Example: A company with a department of clerks might have a *Clerical Department Work* queue, which is a group work queue.

Work is managed in queues, which are database structures that hold work items waiting to be processed.

- User queues:
  - Hold work items that are waiting to be processed by a specific user.
  - Called Inbox, by default, in IBM Content Navigator.

- Public queues or group queues:

- **-** Associated with a group of users.

- **-** Holds work items that are waiting to be processed by any user in the assigned group.

- Inboxes and work queues present and filter a user's or a group's work. Users can do the following tasks:

  - **-** Process work items.

  - **-** View workflow milestones and launched workflows.

- FileNet® P8 provides sample general-purpose step processors that are suitable for many workflow applications.

- Application developers can modify these step processors or create custom step processors with the Content Navigator toolkit including HTML pages, JavaScript and jsp.

Workflow processing

How workflows are launched

- Workflows are launched by:
  - Content services event subscription
  - Entry template
  - Custom code
  - User
  - Process Designer tool (testing during workflow development)
  - Other applications (Example: IBM Enterprise Records, Case Manager Client)
- Each workflow triggers the business activities for the steps in the process.

Figure 1-22. Case Foundation process tools - GUI   F230G1.0

Notes:

Case Foundation process tools

IBM Case Foundation provides several tools to assist in configuring and administering workflow processing.

This table shows the GUI tools available for administering the workflow system and work items in a processing workflow. The table is arranged by the task you need to do, the tool to accomplish it, the type of user that would use the tool, and where you open the tool from.

Starting with IBM Case Foundation 5.2.1, the Administration Console for Content Platform Engine (ACCE), provides the ability to open the Process Administrator tool. (Previous versions required Workplace XT or Workplace to open all the Java applets).

- New features added in IBM Case Foundation 5.2.1, avoid the need for the Process Configuration Console tool and the Process Administrator tool.
  - Workflow system configuration can be performed directly in ACCE.
  - Search for work items and events in a workflow system can be performed directly in ACCE.

Note: The Java applets cannot be opened from an IBM Content Navigator desktop configured with the ACCE plug-in feature, you must use the ACCE web application. The Process Administrator tool is a legacy tool that will eventually be deprecated in a future release.

The path to the PE tools, is specified as a Windows path in the table, because the student system, that you use for the exercises, has the Windows Operating System. If you are on a system with a Unix or Linux Operating system, just change the path to a Unix path (change forward slashes to back slashes).

Workflow processing

Inboxes, work queues, and step processors

- An Inbox holds work items that are to be processed by a specific user.

- A work queue holds work items that are to be processed by a specific user group or a custom program.

- A user interface, called a step processor, is associated with the Inbox and work queues.

- Step processors can be customized/modified:

  - With the IBM Content Navigator toolkit:

    - HTML page

    - JavaScript

    - JavaServer Pages (JSP)

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Figure 1-23. Case Foundation process tools – command line   F230G1.0

Notes:

Case Foundation process tools

This table shows the command line tools available for administering the workflow system. The table is arranged by the task you need to do, the tool to accomplish it, the type of user that would use the tool, and where to open the tool from.

The command line tools would primarily be used by the workflow administrator, however in a development environment where the workflow author and the application developer have administrative rights, it is possible that they would use these tools while developing and testing workflow applications.

The path to the PE tools, is specified as a Windows path in the table, because the student system, that you use for the exercises, has the Windows Operating System. If you are on a system with a Unix or Linux Operating system, just change the path to a Unix path (change forward slashes to back slashes).

Case Foundation process tools - GUI

What do you need to do?	Tool	Used by	Open from
GUI tools			
Configure a workflow system	ACCE	Workflow administrator	Web browser
Search for work items Perform actions on work items and data fields	Process Administrator (java applet)	Workflow administrator Workflow author with admin rights Application developer with admin rights	ACCE web tool Process Designer tools menu
	New workflow search	Workflow administrator Workflow author with admin rights	ACCE web tool ICN desktop with ACCE feature
Track status of work items during processing - Graphical representation of workflow. Troubleshoot a work item and perform actions on the work items and data fields.	Process Tracker (java applet)	Workflow administrator Workflow author Application developer	Process Administrator ICN desktop with process applets plug-in; any tracker inbasket
Track status of work items during processing - tabular. History of steps and milestones	ICN desktop - Work feature	Workflow author Application developer User (manager, supervisor)	Any tracker inbasket
Design, test and implement workflow applications	Process Designer (java applet)	Workflow author Application developer	ICN desktop with process applets plug-in ICN desktop Browse feature
Configure the Case Analyzer services	Case Analyzer Process Task Manager (PTM)	Workflow administrator	Windows cmd window: <CPE_install_path>\tools\PE\captm.bat

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Figure 1-24. Search for work in ACCE   F230G1.0

Notes:

Help path

- IBM Knowledge Center for FileNet P8 Platform 5.2.1 > Administering > Administering Content Platform Engine > Administering the workflow system > Retrieving work items

New Workflow Search

The screen capture on this page shows how to run a new workflow search from the Administration Console for Content Platform Engine (ACCE) and from an IBM Content Navigator desktop with the ACCE applet feature configured.

This is a new feature, introduced in IBM Case Foundation 5.2.1. (In previous releases Process Administrator was the only tool used for searching the workflow system).

The new workflow search is available on any object store that has a workflow system configured.

The feature is available from:

- The ACCE web application

- An IBM Content Navigator desktop with the ACCE plug-in configured.

Case Foundation process tools – command line

What do You need to do?	Tool	Used by	Open from
Command-line tools			
Analyze and modify various components of a workflow system	vwtool	Workflow administrator Workflow author Application developer	Windows cmd window: <CPE_install_path>\tools\PE\ vwtool.bat
View or delete unclaimed web services messages	vwmsg	Workflow administrator Workflow author Application developer	Windows cmd window: <CPE_install_path>\tools\PE\ vwmsg.bat
Prune event log data and tracker work items from a workflow system	pelog	Workflow administrator Workflow author Application developer	Windows cmd window: <CPE_install_path>\tools\PE\ pelog.bat

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Figure 1-25. Search for work in ACCE (2) F230G1.0

Notes:

Help paths

- IBM Knowledge Center for FileNet P8 Platform 5.2.1 > Administering > Administering Content Platform Engine > Administering the workflow system > Retrieving work items

- IBM Knowledge Center for FileNet P8 Platform 5.2.1 > Administering > Administering Content Platform Engine > Administering the workflow system > Retrieving work items > Search examples

Search interface

The screen capture on this page shows the search interface for the new workflow search.

It is very similar to the Process Administrator tool.

The two main differences are:

- You cannot search for workflows in the new workflow search, however there is no value in searching for workflows.

- You configure the properties you want displayed in the search results before you run the search.

Workflow processing

Search for work in ACCE

- Use Administration Console for Content Platform Engine to run workflow searches.
  - New feature introduced in FileNet P8 Platform 5.2.1
  - Available in any FileNet object store with a workflow system
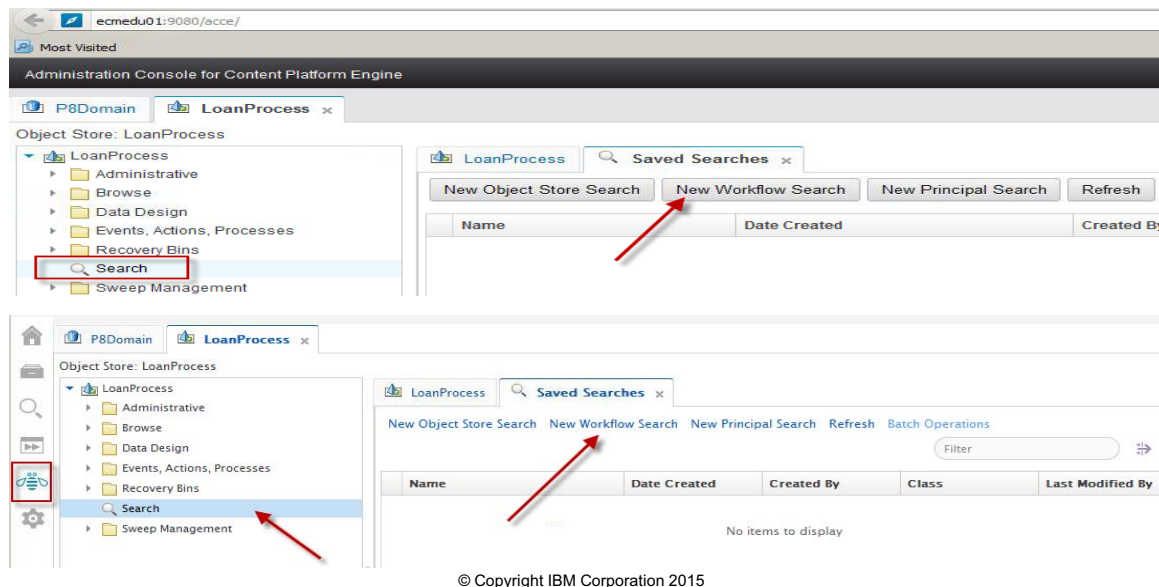
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Figure 1-26. Search for work in ACCE: Results   F230G1.0

Notes:

Search results

The screen capture on this page shows the search results returned.

The filter option can be used to focus on certain work items.

Only a few of the properties are shown on this screen capture. You can specify what properties to display and it what order in the search parameters tab.

Workflow processing

Search for work in ACCE (2)

Figure 1-27. Work item actions   F230G1.0

Notes:

Help path

• IBM Knowledge Center for FileNet P8 Platform 5.2.1 > Administering > Administering Content Platform Engine > Administering the workflow system

Work item actions

There are various actions available that can be done to a work item, provided you have the proper access rights. This screen capture shows the actions available, for example:

- Lock the work item

- Save or discard changes to the work item

- View the information stack

- Edit data field values

- Manage Workflow Groups

- Assign the work item to a different participant or workflow group

- Complete the work item

- Terminate the work item

- Unlock Work, locked by other users and queues

Workflow processing

Search for work in ACCE: Results

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Figure 1-28. Search for work in the Process Administrator tool   F230G1.0

Notes:

Help path

• IBM Knowledge Center for FileNet P8 Platform 5.2.1 > Integrating workflow into document management > Administering work items > Getting started > How Process Administrator is organized

User interface of the Process Administrator tool

The screen capture on this page shows the user interface of the Process Administrator tool. At the top, this user interface displays the search pane for setting search criteria and, at the bottom, displays the results pane for viewing search results. A separator bar permits you to change relative sizes of each pane depending on your needs.

Search pane

The search target specifies the kind of database object to be searched for. You can select from all objects for which you have security privileges.

The Find Now option starts the defined search.

The Search Count option returns a quick estimate of work items that meet the search criteria.

The New Search option clears the search criteria.

Results pane

The results of a search are displayed in the results pane in a tabular format. Depending on the options selected, each row in the table represents a workflow, a work item, or an event from the event log.

The information is displayed in sets of rows. You can view subsequent sets by clicking the Next Set icon on the results pane toolbar.

Separator bar

Use the separator bar to hide, display, or change the size of the search specification and results panes. Click the up arrow on the separator bar to hide the top pane and expand the bottom pane. Click the down arrow to do the reverse. To change the relative size of both panes, drag the bar up or down.

You learn more about advanced searching techniques for the Process Administrator tool in another lesson in this course.

You open the Process Administrator tool from the Administration Console for Content Platform Engine. You can open the Process Administrator tool for any object store that has a workflow system configured.

Work item actions
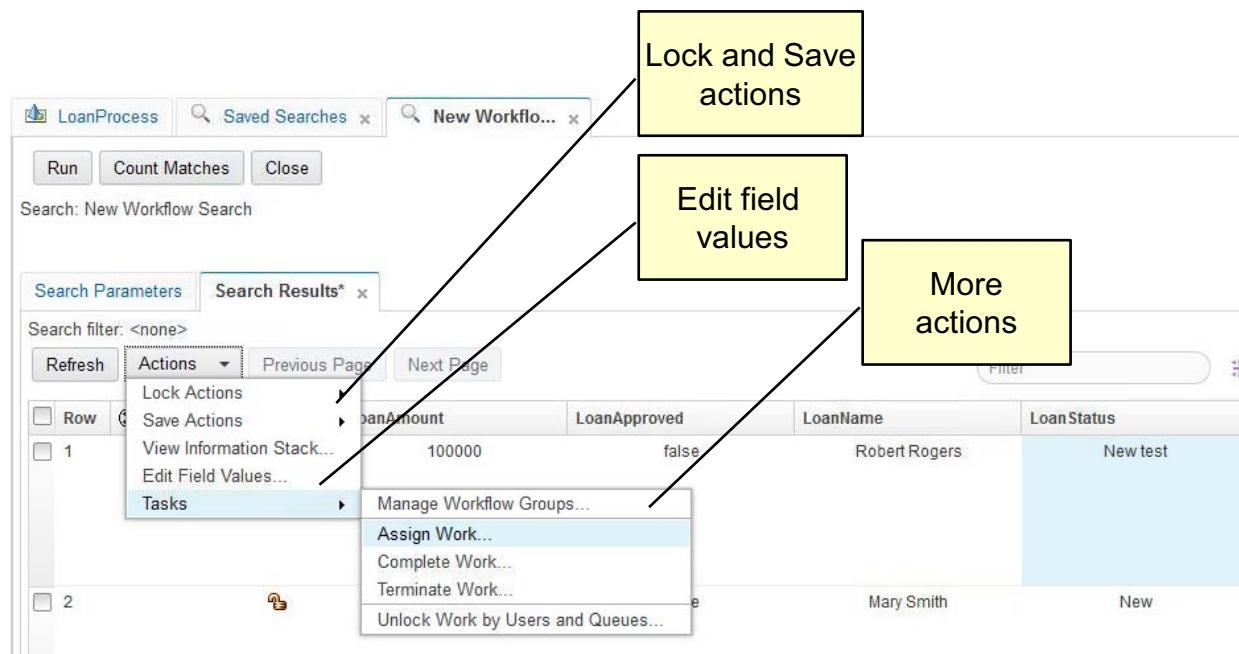
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Figure 1-29. Search targets   F230G1.0

Notes:

Help path

- IBM Knowledge Center for FileNet P8 Platform 5.2.1 > Integrating workflow into document management > Administering work items > About workflows and event searches

You can use the extensive search capabilities of the Process Administrator tool or the new workflow system search to perform precision searches by specifying an area to search and the workflow element that you want to locate.

This table lists the possible workflow system data structures to be searched under the *Area to search* column: workflow roster, user queue, work queue, system queue, and event log. The X symbol indicates the search targets (workflows, work items, events) that can be searched for each area.

If you select the Inbox or Tracker user queue, you can limit the search to work belonging to selected users. By default, work belonging to all users is searched when no users are selected. Use the Users tab to select specific users.

Your access rights to the workflow system structures determine, which target objects are available to select.

The new workflow search feature from ACCE supports all the searches that the Process Administrator tool supports except you cannot search for workflows, only work items and events.

Workflow processing
Search for work in the Process Administrator tool
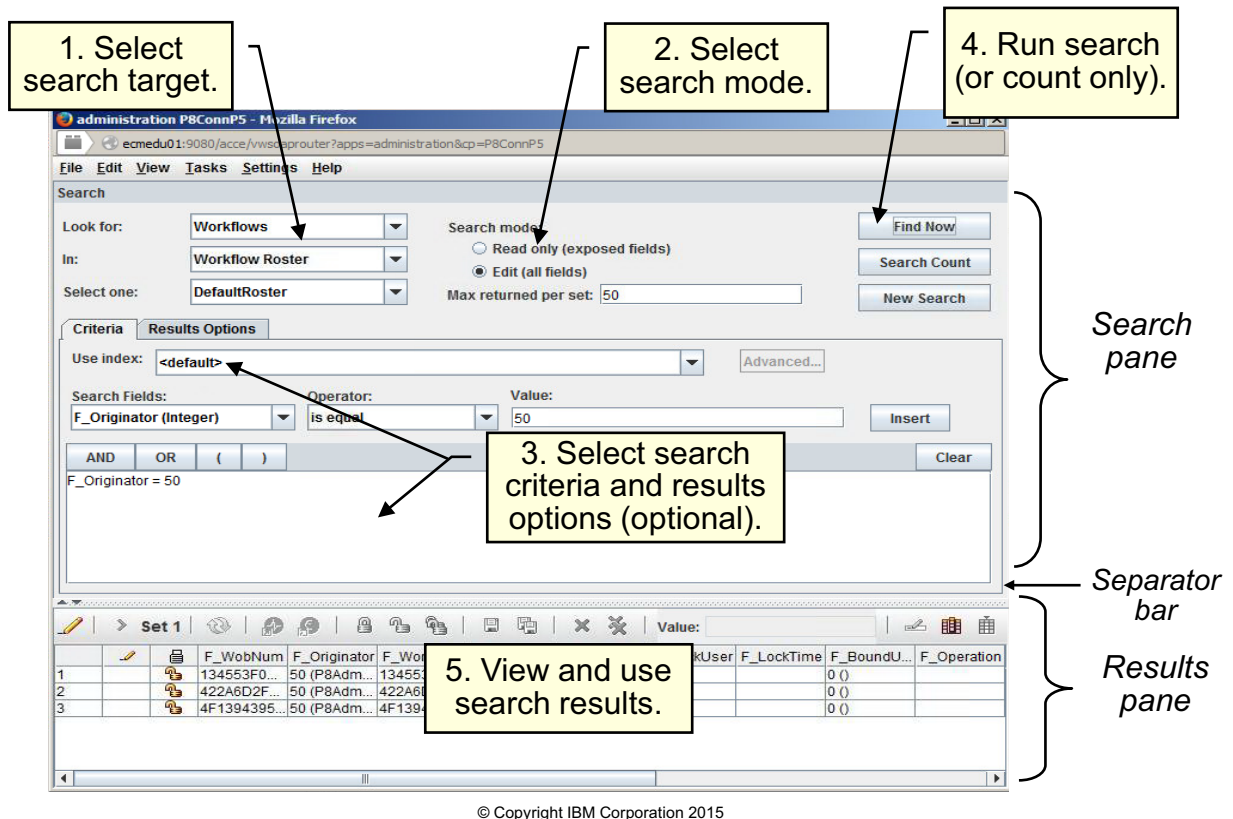
Figure 1-30. Viewing your work status   F230G1.0

Notes:

Help path

- IBM Knowledge Center for FileNet P8 Platform 5.2.1 > Integrating workflow into document management > Tracking work in progress

Use Process Tracker tool to monitor work status

The Process Tracker tool is a tool for viewing a graphical representation of a workflow that is currently in process, including property values at active steps and historical information. You can see which steps have been completed, when they were completed, and which steps are currently active. The Process Tracker is usually used by a manager, supervisor or administrator to keep track of work in progress or troubleshoot issues in a workflow.

Monitor work in Work feature

In an IBM Content Navigator desktop, Work feature> Open tracker in-basket - Task Tracker displays the items that you are assigned to track.

To view the workflow status, Double-click one of the items.

To open the Process Tracker, select the item, click Actions > Open Process Tracker.

Important Note: To use this feature, the process applets plug-in must be registered and configured on an IBM Content Navigator desktop.

Open Process Tracker tool from the Process Administrator tool search results

Use the Process Administrator tool to search for work items, in the search results pane, select the desired work item and click the Process Tracker icon.

Two views of Process Tracker available

Two views of the Process Tracker tool are available: a read-only view and a management view.

- **Read-only view for monitoring work—**The read-only view of Process Tracker is available for workflows that you have launched (including entry template workflows) and for workflows that you are assigned to process. In the read-only view, you can view, but not change, information about the workflow.

- **Management view**—In the management view of Process Tracker, you can change data field values, add and remove attachments, and complete work.

Workflow processing

Search targets

- Use New Workflow System searches or the Process Administrator tool to run precision searches.
    - Select the area to be searched and select the search target.
    - Available target objects are limited by your access rights.
    - For Tracker or Inbox, you can limit search to specific users.

Area to search	Search target		
	Workflows	Work items	Events
Workflow roster	X	X	
User queue		X	
Work queue		X	
System queue		X	
Event log			X

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Figure 1-31. View workflow status history   F230G1.0

Notes:

View the workflow status history

From any IBM Content Navigator desktop that has the Work feature configured.

The workflow status history shows:

- The steps that have been executed.
- The cycles, how many times a particular step has executed.
- The participant that processed/completed the step.
- The date and time the step was completed.
- The response selected for a step.
- Any comments that were added for a step.

Workflow processing

Viewing your work status

- Process Tracker tool – monitor work status
  - Provides a graphical map of a processing workflow.
  - Map contains current and historical information, including:
    - Which steps completed
    - When the steps completed
  - Two views available:
    - Management view and read-only view
- Ways to track
  - View workflow status history from ICN desktop.
    - Open Work View > Any tracker in-basket
  - Open the Process Tracker tool
    - Process Administrator tool – search results
    - IBM Content Navigator with process applets plug-in configured

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Figure 1-32. Open the Process Tracker tool   F230G1.0

Notes:

These screen captures show you the two ways to open the Process Tracker tool.

- From an IBM Content Navigator desktop that has the process applets plug-in configured and a customized Menu-Action that includes the action *Open Process Tracker*.
  - Select the desired work item, click Actions > Open Process Tracker.
- From the Process Administrator tool search results, you select the desired work item and click the Process Tracker tool icon.

Note: Prior to the IBM Case Foundation 5.2.1 release, the only way to open the Process Tracker tool was to use Workplace XT or Workplace.

View workflow status history

Figure 1-33. Process tracking   F230G1.0
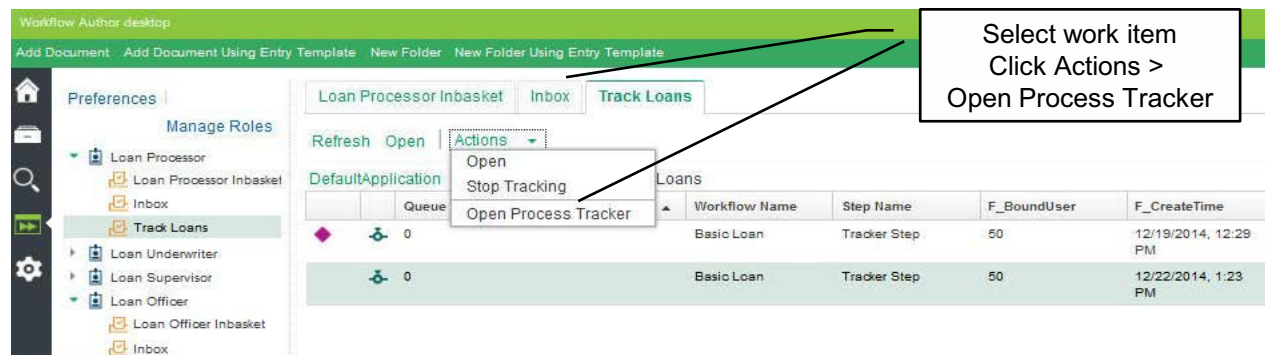
Notes:

Help path

* IBM Knowledge Center for FileNet P8 Platform 5.2.1 > Integrating workflow into document management > Tracking work in progress

The screen capture on this page shows a sample Process Tracker screen containing a workflow in progress. The check mark icon over the LaunchStep and Verify Info steps means that these steps were completed. The hourglass icon over the Modify Info step means that this the active step that is either waiting to be processed or being processed. The unlock icon means that the work is not currently being processed.

Process Tracker allows a workflow author, workflow administrator, or business manager to track the execution of a workflow at each step until all processing steps have completed. The information in Process Tracker is generated from the events that take place during the execution of the workflow. After the workflow terminates and the Process Tracker window is closed, all that remains are the event log messages saved in the event log. After the workflow terminates, the user can no longer open a visual picture of the workflow in the Process Tracker tool.

Open the Process Tracker tool

From Content Navigator desktop with process applets plug-in

From Process Administrator tool search results

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Figure 1-34. Process Tracker map   F230G1.0

Notes:

Help path

- IBM Knowledge Center for FileNet P8 Platform 5.2.1 > Integrating workflow into document management > Tracking work in progress > How Process Tracker is organized

Process Tracker map pane

The Process Tracker map pane displays the workflow map with the steps and routes that are defined for the workflow. The map also shows the current status of the workflow: steps that are in progress, steps that have not been visited, and steps that are locked.

Map symbols

Many symbols are used in the map pane of the Process Tracker tool to indicate the status of a step and the work item. For example, steps currently being processed are indicated with the "in progress" hourglass symbol. Steps that have been executed are indicated by the "completed" check mark.

For a complete listing of these Process Tracker symbols and their meaning, see the FileNet P8 help for Process Tracker:

- Integrating workflow into document management > Process Tracker > How Process Tracker is organized > Symbols used in Process Tracker

Locked and unlocked symbols

The currently active step is labeled with a symbol indicating if the work item is locked to a participant and in progress or is unlocked and awaiting processing. When a workflow participant opens and processes a work item, the work is locked to that user and other participants do not have access to the work item.
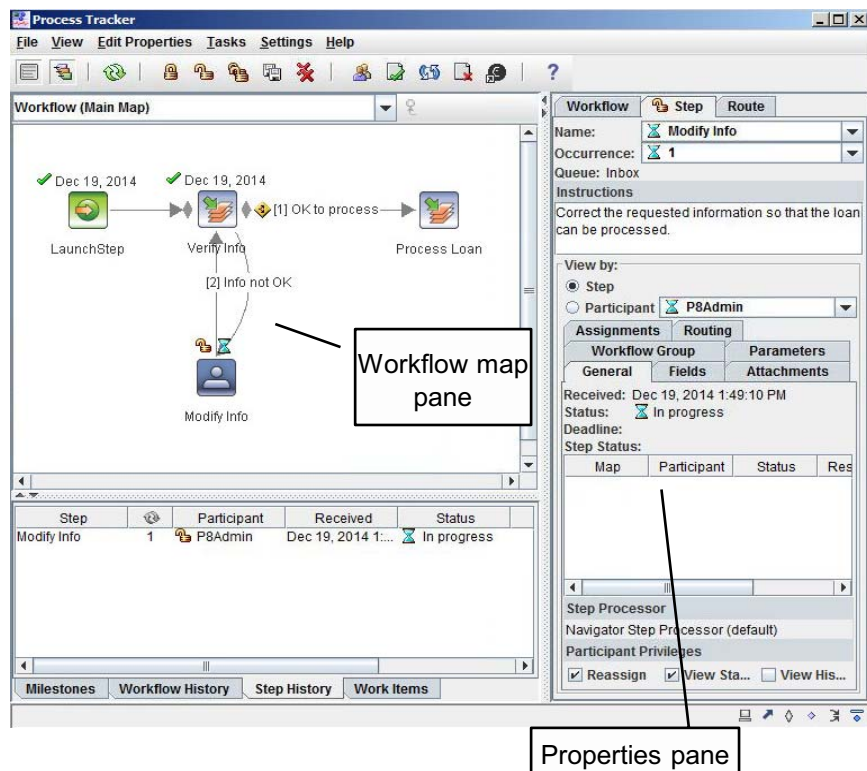
Workflow processing

Process tracking

- Process Tracker

  – View progress of workflows and work item tasks.

- Business purpose of process tracking

  – Address process bottlenecks.

  – Prevent delays.

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Figure 1-35. Process Tracker history pane   F230G1.0

Notes:

Four views in the history pane of Process Tracker

The history pane at the bottom of the Process Tracker window shows historical information about the workflow. Four tabs show different views of the history pane.

- The Milestones tab lists milestones defined for the workflow. A milestone that has been reached displays its specified message.

- The Workflow History tab lists steps that have executed on each map, both completed and in progress. Unvisited steps are not listed.

- The Step History tab displays historical information about the step that you select on the map. Only active steps and steps that have executed have information displayed about them. If an unvisited step is selected, no information is displayed in the Step History tab.

- The Work Items tab lists the step, status, and other information for all active work items in the workflow. If multiple participants are processing a step, more than one work item can be in a workflow.

If you double-click an item displayed in the Workflow History, Step History, or Work Items tab, a Status Details window opens.

Workflow processing

Process Tracker map

- Symbols used in the map pane indicate workflow status.

  – Step status can be completed, in progress, overdue, locked, or unlocked.

  – Date completed and number of step occurrences are given.

  – Unvisited steps are identifiable.

Active step not locked

Completed step

This step ran two times (indicated by symbol)
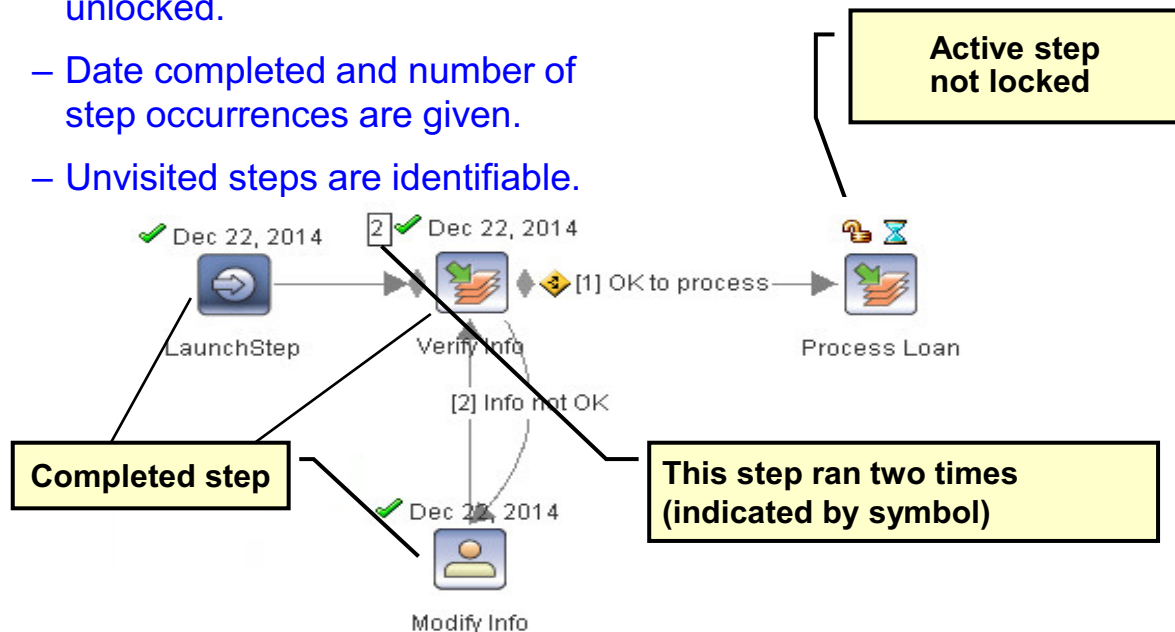
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Figure 1-36. Process Tracker tasks   F230G1.0

Notes:

Help path

- IBM Knowledge Center for FileNet P8 Platform 5.2.1 > Integrating workflow into document management > Tracking work in progress > About managing a workflow

Process Tracker tool provides the ability to perform actions on work items.

Possible actions include:

- Manage Trackers – add or remove trackers from a workflow (managers or supervisors that need to track the status of a workflow process).
- Complete Work – advances to the next step in the workflow.
- Assign/Reassign Work – assign work to a different group or participant.
- Terminate Work at a Step – terminates the step and calls the Terminate map.

Workflow processing

Process Tracker history pane

- Lower pane shows the history of milestones, workflow, steps, and status of all work items.

Column shows the number of occurrences of the step

Symbol indicates item status

Map	Step	⟳	Received	Status
Workflow	LaunchStep	1	Dec 22, 2014 1:23:53 PM	✔ Dec 22, 2014 1:23:53 PM
Workflow	Verify Info	1	Dec 22, 2014 1:23:53 PM	✔ Dec 22, 2014 1:24:22 PM
Workflow	Modify Info	1	Dec 22, 2014 1:24:22 PM	✔ Dec 22, 2014 1:24:45 PM
Workflow	Verify Info	2	Dec 22, 2014 1:24:45 PM	✔ Dec 22, 2014 1:25:09 PM
Workflow	🔒 Process Loan	1	Dec 22, 2014 1:25:09 PM	⌛ In progress

| **Milestones** | **Workflow History** | **Step History** | **Work Items** |

Figure 1-37. Demonstrations   F230G1.0

Notes:

Demonstration notes:

These demonstrations show how to launch a basic workflow and use the appropriate administrative tools to search and track the work items.

Launch a workflow

1. Open the P8 Admin console (IBM Content Navigator desktop) and login as the p8admin user.

2. Open LoanProcess > Workflows

3. Select Basic Loan Process Workflow and click Actions > Workflow > Launch Workflow

4. Enter values for Customer Name, LoanAmount and Comments

5. Click the Launch Workflow link.

Search for a work item with the Process Administrator tool and open Process Tracker.

1. Open ACCE.

2. Open the LoanProcess object store.

3. Expand Administrative > Workflow System > Connection Points.

4. Right click P8Conn5 and select Administer Work Items.

5. Search for work items in the DefaultRoster – explain the Process Administrator tool interface.

6. Open the Process Tracker tool for the work item waiting in the LoanOfficer Queue.

7. Explain the Process Tracker tool interface.

Explore the Process Tracker tool interface.

1. Explore the 3 main areas:

   - The workflow map pane.

     • Status of the workflow that is processing.

   - The properties pane.

     • Shows properties for the given step

     • Show the Fields tab – and maybe some of the other tabs – as you select different steps in the workflow. Modify one of the values.

   - The history pane.

     • 4 tabs (explore each tab with different workflow steps selected)

       - Milestones

       - Workflow history

       - Step history

       - Work items

   - The Main tool bar

     • Explore each of the icons and explain what they do.

   - Tasks Menu

     • Click on the Tasks menu and show the actions available (same actions that are provided with the main tool bar icons).

Search for a work item with the new workflow search feature.

(New Workflow Search can also be run from ACCE or an IBM Content Navigator desktop with the ACCE feature)

1. In ACCE, switch to the Search feature.

2. Click New Workflow Search, search for work items in DefaultRoster, click Run.

3. Open P8 Admin console.

4. Open ACCE feature.

5. Switch to the Search feature.

6. Click New Workflow Search, search for work items in DefaultRoster, click Run

---

Open Process Tracker from Workflow Author desktop.

1. Open Workflow Author desktop, login as p8admin.

2. Open the Work feature.

3. Expand the Loan Processor role and select Track Loans (Track Loans has been configured as a tracker in-basket).

4. Open the work item to see the tracker information.

5. You can also right-click the work item and select Open Process Tracker, to open the Process Tracker tool.

Process Tracker tasks

- Tasks menu
  - Shows the actions available on a work item.
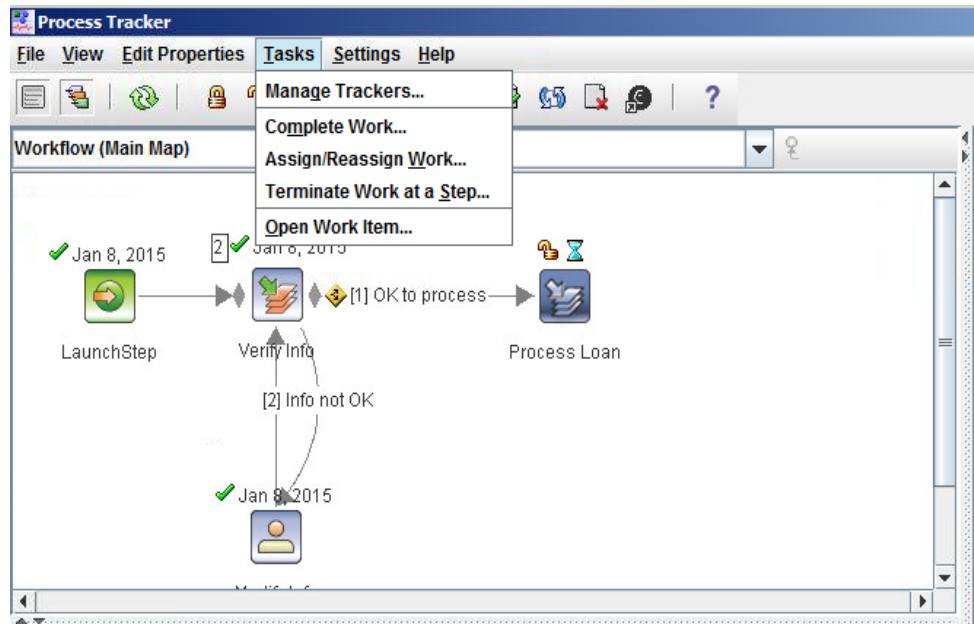
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Figure 1-38. Activities   F230G1.0

Notes:

Use your Student Exercises book to perform the activity listed.

Lesson 1.3. IBM Case Foundation architecture

Workflow fundamentals

Demonstrations

- Launch a basic workflow.
- Search for a work item with the Process Administrator tool and open the Process Tracker tool.
- Explore the Process Tracker tool interface.
- Search for a work item with the New Workflow search feature.
- Open the Process Tracker tool from an IBM Content Navigator desktop configured with the process applets plug-in.

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Figure 1-39. IBM Case Foundation architecture

F230G1.0

Notes:

Workflow processing

Activities

In your Student Exercises

- Unit: IBM Case Foundation 5.2.1 Introduction

- Lesson: Workflow processing

- Activities:

  – Launch, process, and track a workflow.

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Figure 1-40. Activities that you need to complete   F230G1.0

Notes:

These are the activities that you are going to perform in this lesson.

Lesson:
IBM Case Foundation 5.2.1 architecture

Unit:　　IBM Case Foundation 5.2.1 Introduction

Lesson:　IBM Case Foundation 5.2.1 architecture
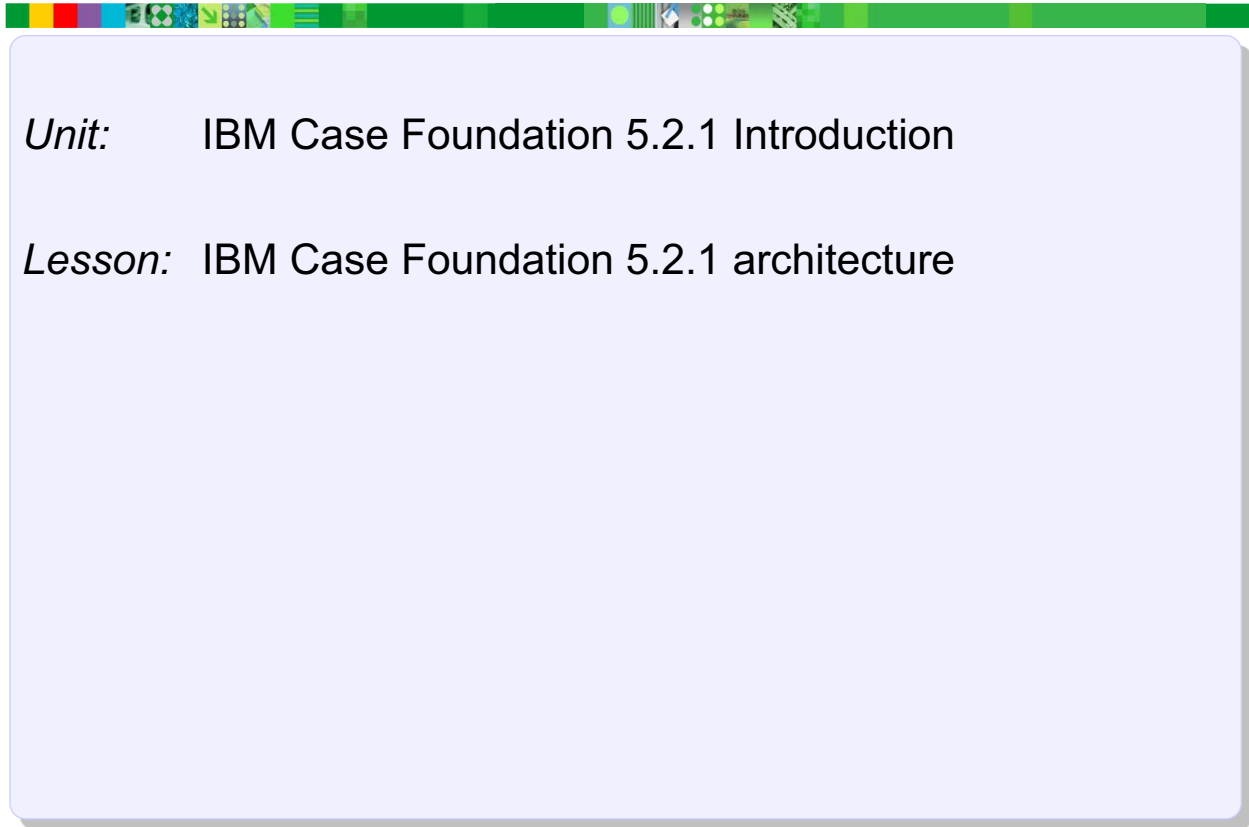
Figure 1-41. IBM Case Foundation components　　　　　　　　　　　　　　　　　　　F230G1.0

Notes:

IBM Case Foundation started with version 5.2.0. It is a new name for the old IBM FileNet Business Process Manager (BPM) product.

IBM Case Foundation is an add on product for IBM FileNet Content Manager.

Adding IBM Case Foundation to an IBM FileNet Content Manager system provides the following:

- Workflow analysis tools integration

    • Case Analyzer PTM used to configure the Case Analyzer services which are part of the Content Platform Engine now (as of IBM FileNet Content Manager 5.2.0).

    • Pre-configured templates that provide sample reports to use with:

        - IBM Real-time Monitoring

        - IBM Cognos Business Intelligence

        - Microsoft Excel Reports

- Process command line tools such as vwtool, pelog, etc.

- Process Java applets used to design, and administer workflows.

Lesson

IBM Case Foundation architecture

> Why is this lesson important to you?
>
> • Your IBM FileNet workflow application uses various components provided by IBM Case Foundation. As a workflow administrator it is important that you understand the architecture of IBM Case Foundation so you can maintain the workflow application effectively. As a workflow author, you need to understand the components available to you to facilitate the development and testing of your FileNet workflow application.

Figure 1-42. Architecture overview of FileNet P8   F230G1.0

Notes:

Help path

- IBM Knowledge Center for FileNet P8 Platform 5.2.1 > System Overview > FileNet P8 architecture > Content Platform Engine > FileNet P8 baseline architecture

The diagram on this page provides the high-level baseline architecture for a FileNet P8 system.

- Starting with the IBM Case Foundation 5.2.0 release, the Process Engine and the Content Engine were combined into a single engine, Content Platform Engine.

- Process Services, on the Content Platform Engine, provide software services for managing all aspects of business processes (also called workflows).

Note the client applications, IBM Content Navigator, Workplace and Workplace XT. Starting with IBM FileNet Content Manager and IBM Case Foundation V5.2.0, IBM Content Navigator was introduced as the new client. Workplace XT can still be used with IBM Case Foundation V5.2.1 but it is being phased out and eventually will not be supported.

IBM Case Foundation architecture

Activities that you need to complete

- Identify functions of IBM Case Foundation components.
- Explore the IBM Case Foundation components of your student system.

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Figure 1-43. Architecture overview of Process services   F230G1.0

Notes:

Help path

• IBM Knowledge Center for FileNet P8 Platform 5.2.1 > System Overview > FileNet P8 architecture > Content Platform Engine > Process Services

The diagram on this page illustrates the Process services, which are contained in the Content Platform Engine Java application and their integration with the data layer.

- SMTP server
  - Email notification integration is accomplished through an SMTP server.
- Queues, rosters, and event logs
  - As mentioned in the previous lesson, the workflow system tables contain the system configuration, queues, rosters and event logs for each isolated region.
  - This data is used during processing and tracking of workflows.
- Rules Listener

- **-** The Rules listener is used when you want to integrate business rules using the IBM FileNet Rules Connectivity Framework.

- **-** The other method to integrate rules is by configuring a web service to integrate with IBM Operational Decision Manager, which requires a separate license.

- Case Analyzer Stores

  - **-** The Analysis tools integrate with the Case Analyzer stores. Case Analyzer services, which is part of the Content Platform Engine, collects data from the event logs and stores the data in the Case Analyzer stores.

  - **-** This data can then be used, either directly or through OLAP cubes, generated from this data, by the analysis tools such as:

    - IBM Cognos Real-time Monitoring

    - IBM Business Intelligence

    - Microsoft Excel Reports

IBM Case Foundation components

- Workflow analysis tools integration
  - Case Analyzer Process Task Manager (PTM)
  - IBM FileNet Case Monitor
  - Case Analyzer SSAS Connector (Microsoft SQL Server Analysis Services Connector)
  - IBM Cognos Business Intelligence Project for FileNet Case Analyzer
  - IBM Case Analyzer reports for Microsoft Excel
- Process command-line tools
  - pelog
  - vwmsg
  - vwtool
- Process Java Applets
  - Process Designer
  - Process Administrator
  - Process Tracker

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Figure 1-44. Process Service on the Content Platform Engine   F230G1.0

Notes:

The diagram on this page illustrates that Process services are now contained in the Content Platform Engine FileNetEngine.ear (Java enterprise archive). Process services communicates with the workflow system tables, which contains the workflow queues, rosters, and event logs.

The process services provides workflow services on behalf of the workflow system. It updates the workflow system tables and is automatically started and stopped when the FileNetEngine application starts and stops.

IBM Case Foundation 5.2.x architecture

Architecture overview of FileNet P8
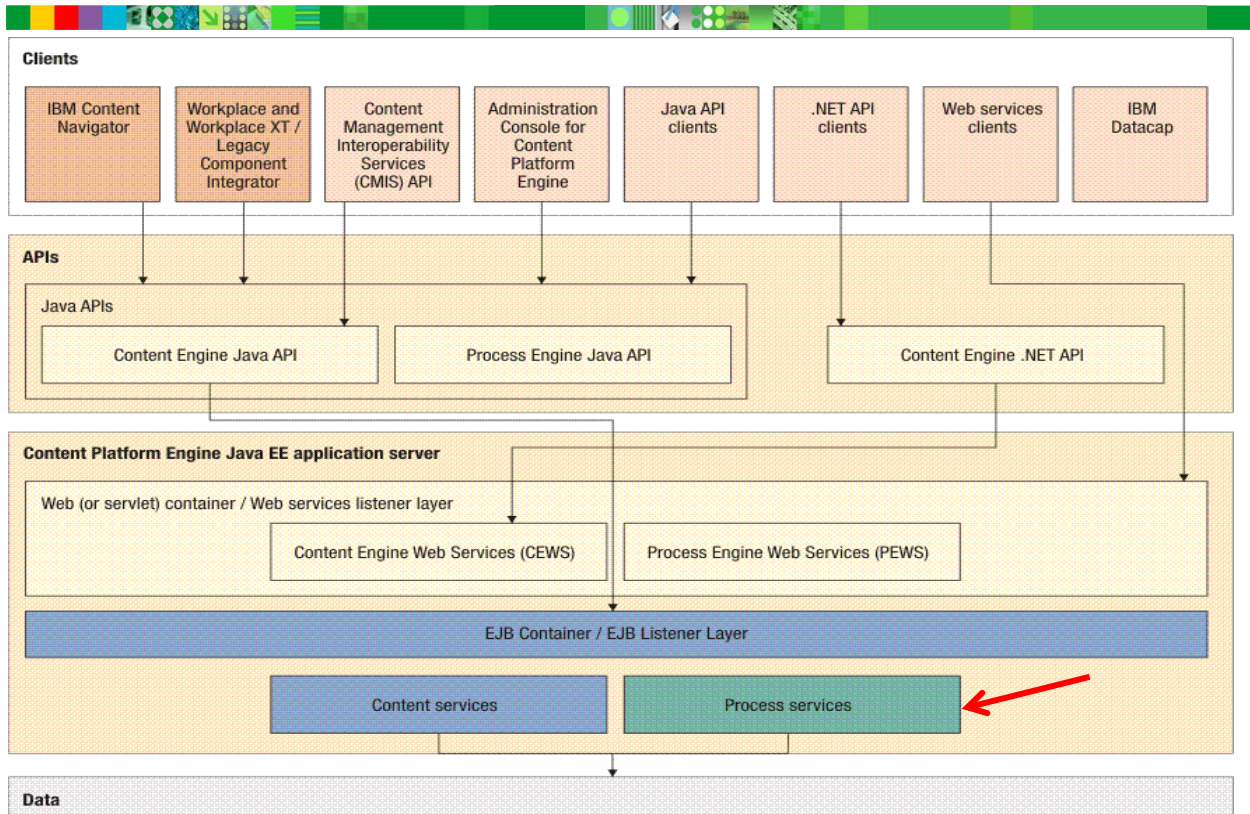
Figure 1-45. Workflow system tables   F230G1.0

Notes:

Help path

• IBM Knowledge Center for FileNet P8 Platform 5.2.1 > Administering > Administering Content Platform Engine > Defining the workflow system > Workflow systems

The workflow system tables or workflow system, contains the workflow system configuration information as well as running instances of workflows.

The diagram illustrates that the workflow system tables contains system configuration, queues, rosters, and logs, and communicates with the Content Platform Engine.

IBM Case Foundation 5.2.x architecture

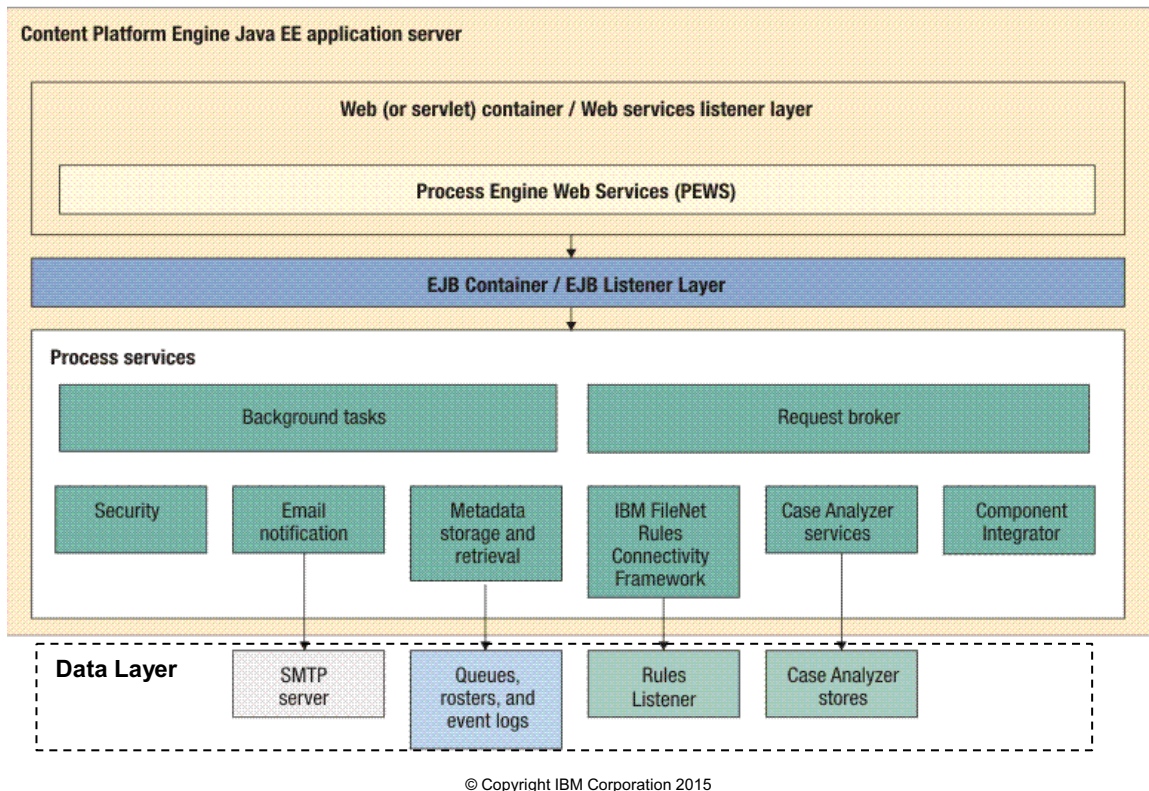# Architecture overview of Process services

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Figure 1-46. Component Integration   F230G1.0

Notes:

Help path

- IBM Knowledge Center for FileNet P8 Platform 5.2.1 > Integrating workflow into document management > Configuring a workflow system > Configuring workflow queues > Manage component queues > Creating a component queue

This page introduces Component Integration. Starting with IBM Case Foundation 5.2.0, component integration is part of the Content Platform Engine. This topic is covered in more detail in the module, "*Component Integration*".

The diagram shows that the component queue is configured on the workflow system. A Java component requires that the Java object be stored in a code module on the object store, containing the desired workflow system. A JMS component Queue Connection Factory is configured in the adapter properties.

Component queues make it possible to process a workflow step by using an external entity, such as a Java™ object or Java Message Service (JMS).

IBM Case Foundation 5.2.x architecture

Process Service on the Content Platform Engine

- Provides workflow functions for workflow applications
- Services provided by Content Platform Engine
  - FileNetEngine.ear
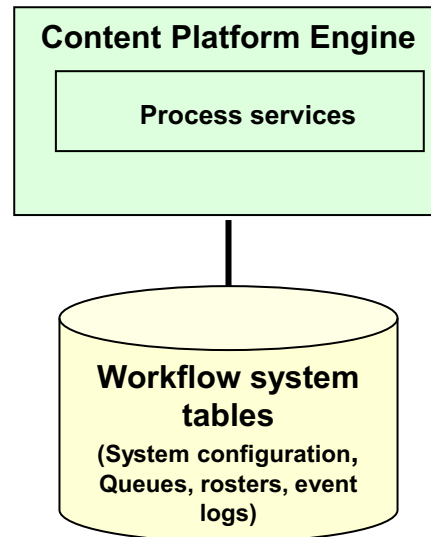
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Figure 1-47. Configure process-related services   F230G1.0
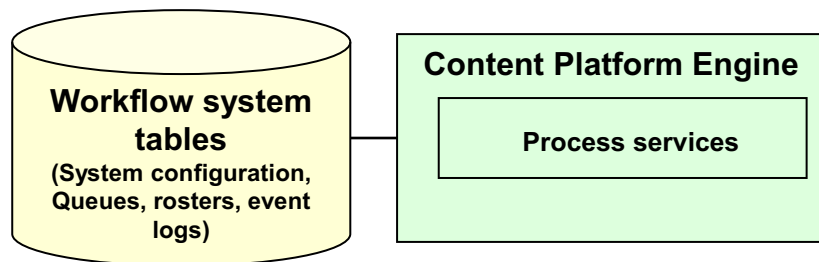
Notes:

Help path

- IBM Knowledge Center for FileNet P8 Platform 5.2.1 > Administering > Administering Content Platform Engine > Defining the workflow system > Configuring the workflow system > Managing the workflow system

This page provides a review. The administrator uses the Administration Console for Content Platform Engine to manage and configure process-related services.

IBM Case Foundation 5.2.x architecture

Workflow system tables

- Contained in the same database as the object store that it is associated with.
  - Supported on DB2, Microsoft SQL, or Oracle database
- Managed and administered from
  - Administration Console for Content Platform Engine (ACCE)
- Contains process regions with tables for these components:
  - Queues
  - Rosters
  - Event Logs
  - Application Space
  - Workflows
  - Work items

Workflow system tables
(System configuration, Queues, rosters, event logs)

Content Platform Engine

Process services

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Figure 1-48. Activities   F230G1.0

Notes:

Use your Student Exercises book to perform the activities listed.

IBM