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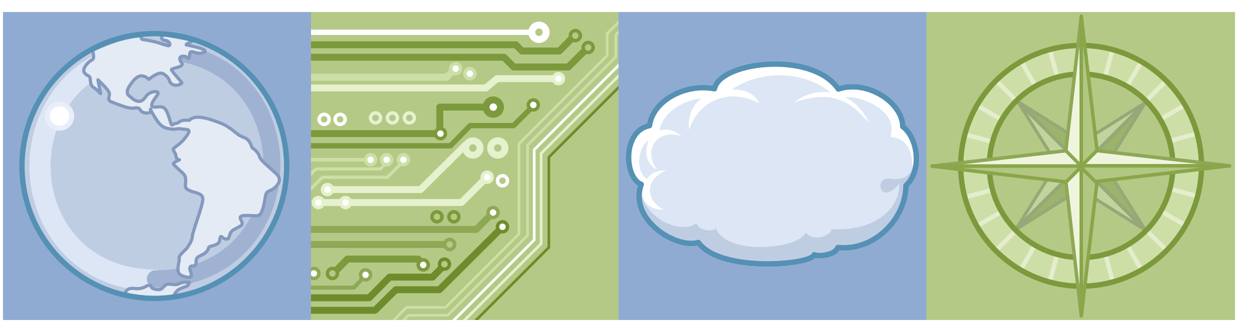
IBM Training

Student Notebook

IBM Case Foundation 5.2.1 Configure the Workflow System

Course code F231 ERC 1.0



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Contents

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Course description

IBM Case Foundation 5.2.1 Configure the workflow system

Duration: 1.5 days

Purpose

This course is designed to teach you how to configure a workflow system in IBM Case Foundation 5.2.1. F231 covers:

- The skills that are needed to configure a workflow system to support FileNet workflow applications.
- The skills that are needed to configure an IBM Content Navigator desktop for workflow.

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.

Anyone who administers or develops workflows.

Prerequisites

Prior knowledge that is required:

- Basic knowledge of organization's business process applications.
- Basic knowledge of database technology.
- PCs, networks, and their organization's server operating systems at the expert level.
- General knowledge of IBM FileNet P8 Platform.
- Prerequisite courses:
  - F115G IBM FileNet Content Manager 5.2: Implementation and Administration
  - F230G IBM Case Foundation 5.2.1: Introduction

Objectives

After completing this course, you should be able to:

- Understand a workflow system and its function.
- Create and configure a workflow system to support FileNet workflow applications.
- Create and configure an isolated region.
- Create isolated region objects.
- Expose data fields.
- Define indexes for queues and rosters.
- Create and configure in-baskets and roles.
- Configure Content Navigator for workflow.
- Configure a web application and step processor.

Contents

- Workflow system concepts
  - What is a workflow system?
  - What is the purpose of a workflow system?
  - Workflow system components
    - Connection points
    - Isolated regions
- Configure a workflow system
  - Create a workflow system
  - Configure a workflow system
  - Workflow system properties
  - Runtime Options
  - Language Packs
  - Web Applications
  - DbExecute Connections
  - Remote Servers
  - Isolated Regions
  - Advanced workflow system properties
- Configure an isolated region and region objects.
  - Create an isolated region and connection point
  - Queues, rosters and event logs

  - Application spaces
  - Roles and in-baskets
  - Verify region configuration
  - Export a region
  - Import a region
- Expose data fields.
  - Workflow data fields
  - User fields
  - System data fields
  - Expose data fields
  - Expose system data fields
  - Expose user fields
- Define indexes
  - Purpose of indexes
  - What to consider before defining an index
  - Simple and composite indexes
  - Create an index
  - Manage indexes
- Configure in-baskets and roles
  - Create an in-basket in a work queue
  - Create in-baskets in user queues
  - Configure the Columns and Labels
- Configure Content Navigator for workflow
  - Purpose of a Content Navigator desktop
  - Create an IBM Content Navigator desktop
  - Configure the desktop for workflow
  - Register the process applets plug-in
  - Configure the desktop to open Process Designer and Process Tracker
- Configure a web application and step processor
  - What is a web application?
  - Web applications and isolated regions
  - Configure a web application
  - What is a step processor?

  - Types of step processors
  - Configure a step processor
- Appendix
  - Solutions to Exercises
  - Start and Stop System Components
  - Troubleshooting

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 SPVC modules, or full 5 day courses delivered as instructor lead training. Here is a list of the modules organized by roles. Some of the modules apply to multiple roles.

Solution Architect

- Introduction
- Workflow security

Workflow system administrator:

- Introduction
- Configure the workflow system
- Workflow security
- Maintain the workflow system
- Manage Work in Progress
- Migrate and deploy workflow applications
- Component Integration
- Workflow Analysis tools

Workflow Author:

- Introduction
- Configure the workflow system
- Workflow security
- Introduction to Workflow design
- Workflow Design Basics
- Data Control in Workflow
- Flow Control in Workflow
- Control of Multiple Workflows
- Component Integration
- Use a Component in a Workflow
- Web Services
- Migrate and deploy workflow applications
- Workflow Analysis tools

Application developer:

- Introduction
- Workflow security
- Introduction to Workflow design
- Workflow Design Basics
- Data Control in Workflow
- Flow Control in Workflow
- Component Integration
- Use a Component in a Workflow

Agenda

Day 1

Welcome
Lesson 1.1: Workflow system concepts
- Checkpoint Exercises

Lesson 1.2 - Configure a workflow system
- Demonstration: Explore a workflow system
- Exercise: Prepare your system for the student exercises
- Exercise: Create a workflow system
- Exercise: Explore and configure the workflow system
- Exercise: Create a database connection

Lesson 1.3 - Configure an isolated region and region objects
- Demonstration: Create a connection point and isolated region
- Demonstration: Create isolated region objects
- Exercise: Create a connection point and isolated region
- Exercise: Create isolated region objects

Lesson 1.4 - Expose data fields
- Demonstration: Expose data fields
- Exercise: Expose data fields

Lesson 1.5 - Define indexes
- Demonstration: Define an index for a queue
- Exercise: Define indexes

Day 2

Lesson 1.6 - Configure in-baskets and roles
- Demonstration: Create and configure in-baskets and roles
- Exercise: Create and configure an in-baskets
- Exercise: Create and configure a roles

Lesson 1.7 - Configure Content Navigator for workflow
- Demonstration: Create a desktop and configure it for workflow
- Demonstration: Configure a desktop to run Process Designer and Process Tracker
- Exercise: Create and configure a Content Navigator desktop for workflow
- Exercise: Configure the desktop to start Process Designer and Process Tracker
- Exercise: Test the New Loans Processing workflow

Lesson 1.8 - Configure a web application and step processor
- Demonstration: Deploy a custom step processor
- Demonstration: Configure a custom launch step processor
- Exercise: Deploy and configure a custom step processor
- Exercise: Test the custom step processor in a workflow

Unit 1. IBM Case Foundation 5.2.1: Configure the workflow system

What this unit is about

This unit explains how to configure a workflow system. It starts with workflow system concepts, then goes into details of how to configure a workflow system and all its components. It is intended for workflow system administrators as well as workflow authors.

What you should be able to do

After completing this unit, you should be able to:

- Create and configure a workflow system to support FileNet workflow applications.
- Create an isolated region.
- Define isolated region objects to support workflow applications.
- Expose data fields to support workflow applications.
- Configure indexes to provide efficient search and sorting of work in a workflow system.
- Create and configure in-baskets and roles.
- Configure Content Navigator for workflow.
- Configure a web application and step processor.

How you will check your progress

- Knowledge checkpoint exercises and hands on labs

References

IBM FileNet P8 Platform V5.2.1 Documentation

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

IBM Content Navigator V2.0.3 documentation

http://www.ibm.com/support/knowledgecenter/SSEUEX_2.0.3/contentnavigator_2.0.3.htm

IBM Case Foundation 5.2.1: Configure the workflow system

Unit objectives

After completing this unit, you should be able to:

- Create and configure a workflow system to support FileNet workflow applications
- Create an isolated region
- Define isolated region objects to support workflow applications
- Expose data fields to support workflow applications
- Configure indexes to provide efficient search and sorting of work in a workflow system
- Create and configure in-baskets and roles
- Configure Content Navigator for workflow
- Configure a web application and step processor

Figure 1-1. Unit objectives F2311.0

IBM Case Foundation 5.2.1: Configure the workflow system

Unit lessons

This unit contains these lessons:

- Lesson 1: Workflow system concepts
- Lesson 2: Configure a workflow system
- Lesson 3: Create and configure an isolated region and region objects
- Lesson 4: Expose data fields
- Lesson 5: Define indexes
- Lesson 6: Configure in-baskets and roles
- Lesson 7: Configure Content Navigator for workflow
- Lesson 8: Configure a web application and step processor

Figure 1-2. Unit lessons F2311.0

Notes:

This unit has eight lessons. Do these lessons in the sequence presented.

Workflow system concepts

Configure a workflow system

Create and configure an isolated region and region objects

Expose data fields

Define indexes

Configure in-baskets and roles

Configure Content Navigator for workflow

Configure a web application and step processor

Lesson 1.1. Workflow system concepts

Lesson

Workflow system concepts

Why is this lesson important to you?

- As a workflow administrator, you are responsible for defining and configuring the workflow system to run FileNet workflow applications.
- As a workflow author, you design and implement FileNet workflow applications.
- To do these tasks effectively, you need to understand what a workflow system is and what it provides for FileNet workflow applications.

Figure 1-3. Workflow system concepts F2311.0

Workflow system concepts

Activities that you need to complete

- Identify workflow system concepts
- Identify workflow system components

Figure 1-4. Activities that you need to complete F2311.0

Notes:

Activities that you need to complete in this lesson.

Workflow system concepts

What is a workflow system?

- A logical structure that contains
  - A collection of isolated regions
    - Each isolated region contains the queues, rosters, and event logs necessary to create and process workflows
- Associated with one object store
  - Uses the same schema

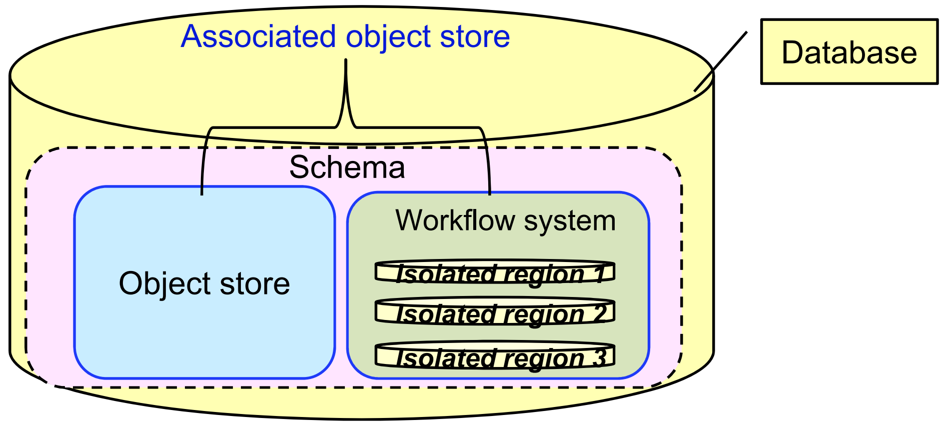


Figure 1-5. What is a workflow system? F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Administering>Administering Content Platform Engine>Defining the workflow system>Workflow systems

A workflow system is:

- A logical structure that contains one or more isolated regions.
  - Stores the information that is required to support workflow processing
    - Running instances of workflows
    - Work item processing
    - Event logging
    - Statistics collection
- Associated with one object store, collocated in the same database under the same schema.

The diagram shows how the workflow system and the object store share a common schema in the database. The workflow system contains the isolated regions.

Each object store can contain only one workflow system.

Important

A workflow system can be used to process objects (documents, ...) or service workflow events from any object store, it is not restricted to the object store that it is associated with.

Workflow system concepts

What is a workflow system? (2)

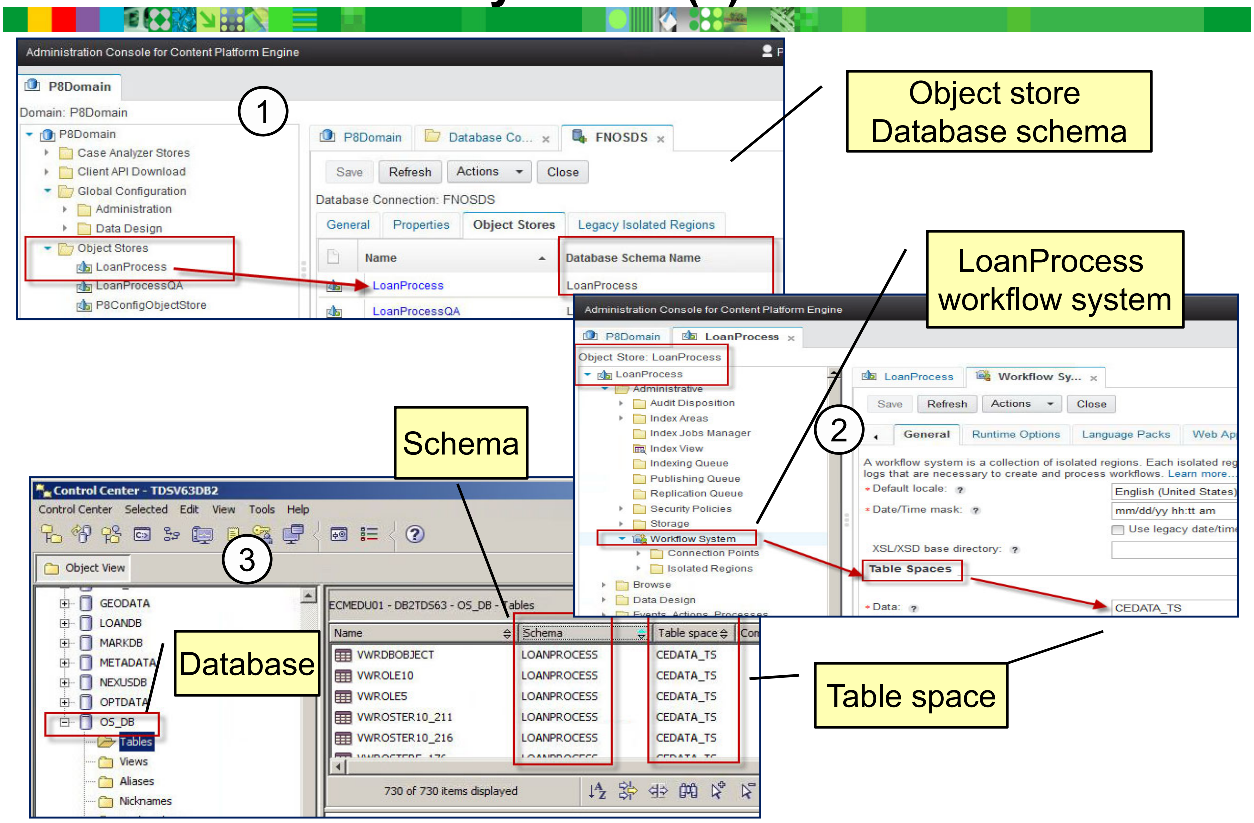


Figure 1-6. What is a workflow system? (2) F2311.0

Notes:

The screen captures show you how to view the workflow system properties with Administration Console for Content Platform Engine and schema and tables in the DB2 database.

Each screen capture shows:

1. The Administration Console for Content Platform Engine, displaying the expanded object stores, and showing the object store “LoanProcess” and its database schema name.
2. The administration console with the “LoanProcess” object store open, showing the workflow system and the database table space name.
3. The IBM DB2 Control Center showing a few of the database tables for the LoanProcess workflow system.
    a. Notice that the schema name matches the schema name for the object store (screen capture #1).
    b. Notice that the table space name matches the table space name for the workflow system (screen capture #2).

Workflow system concepts

Workflow system components

- Workflow system properties
  – Properties common to all isolated regions in the workflow system
- Connection points
  – Connect a client application to an isolated region
- Isolated regions
  – Logical subdivision of the workflow system
  – Used to separate work areas for specific groups of users and workflow applications

Figure 1-7. Workflow system components F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Administering>Administering Content Platform Engine>Defining the workflow system>Workflow systems

Workflow systems have three main components:

- Workflow system properties
  - Properties that are common to all isolated regions in the workflow system.
- Connection points
  - Used by client applications to connect to an isolated region.
- Isolated regions
  - A logical subdivision of the workflow system.
  - Used to separate work areas for specific groups of users and workflow applications.

Workflow system concepts

Workflow system properties

- Workflow system properties
  - System-wide options for a workflow system
  - Properties are grouped:
    - General
    - Runtime Options
    - Language Packs
    - Web Applications
    - DbExecute Connections
    - Remote Servers
    - Isolated Regions
    - Advanced

Figure 1-8. Workflow system properties F2311.0

Notes:

A workflow system contains system-wide properties that can be configured. You use either the Administration Console for Content Platform Engine or the Process Configuration Console to configure the properties.

Information

The Administration Console for Content Platform Engine is the new web administration tool, introduced with IBM Case Foundation 5.2.0. The Process Configuration Console is the legacy workflow system configuration tool that is still supported. All of the materials in this unit use the Administration Console for Content Platform Engine. There are still references, in the IBM Knowledge Center, to the Process Configuration Console. The information is still applicable because both tools organize the data in similar ways.

The properties are grouped, and displayed as tabs in the workflow system properties page:

- General – Default locale, Date/Time mask, Workflow system security groups, ...

- Runtime Options – System-wide settings that enable/disable workflow system features.
- Language Packs – Add language packs for email notification.
- Web Applications – Define the server base URL for web applications.
- DbExecute Connections – External database connection to allow execution of stored procedures.
- Remote Servers - Configure email server, email notifications, configure Rules Listener.
- Isolated Regions – Lock/Unlock, Initialize existing isolated regions.
- Advanced – Fine-tune your workflow system.

The workflow system properties will be covered, in more detail, in the next lesson.

Workflow system concepts

Connection points

- Connection points
  - Identify and provide access to an isolated region.
- A client application, such as IBM Content Navigator
  - Use the connection point to connect to an isolated region to process workflows.
- An isolated region can have multiple connection points.

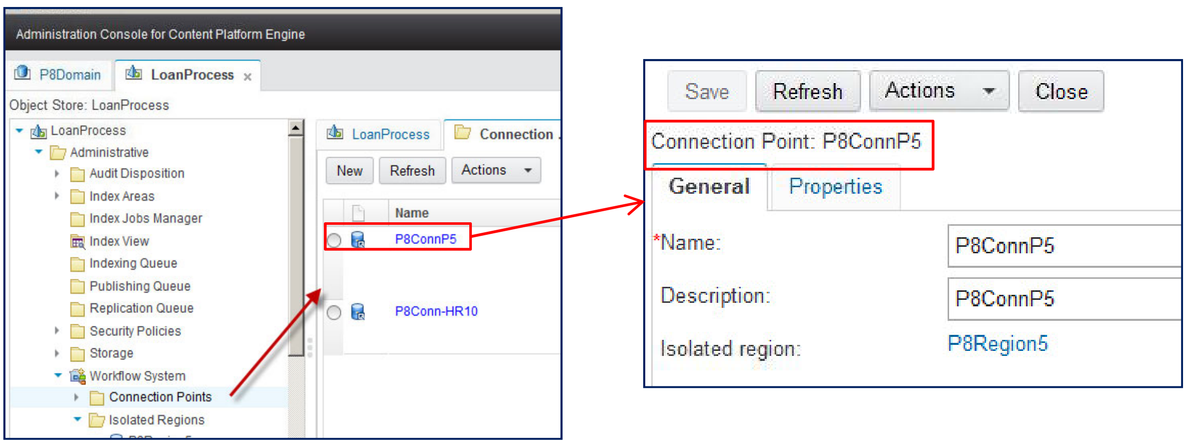


Figure 1-9. Connection points F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Administering>Administering Content Platform Engine>Defining the workflow system

Connection points are used by an application to connect to an isolated region. For example, an IBM Content Navigator desktop or a custom application.

Connection points replace the router process that is used in releases before IBM Case Foundation 5.2.0.

Connection points are defined in the Content Engine API (the PEConnectionPoint and IsolatedRegion classes) and persisted in the Global Configuration Data (GCD) on the Content Engine.

You can define multiple connection points that point to the same isolated region. Use this feature to define a unique connection point for each workflow application but still use the same workflow system isolated region.

The screen capture shows general properties of the connection point, P8ConnP5.

Workflow system concepts

Isolated regions

- Contain
  - Queues
  - Rosters
  - Event logs
  - Application spaces
- A workflow system can contain up to 1000 isolated regions
  - Identified by a number 1 - 999.
  - Region 0 is reserved of system data

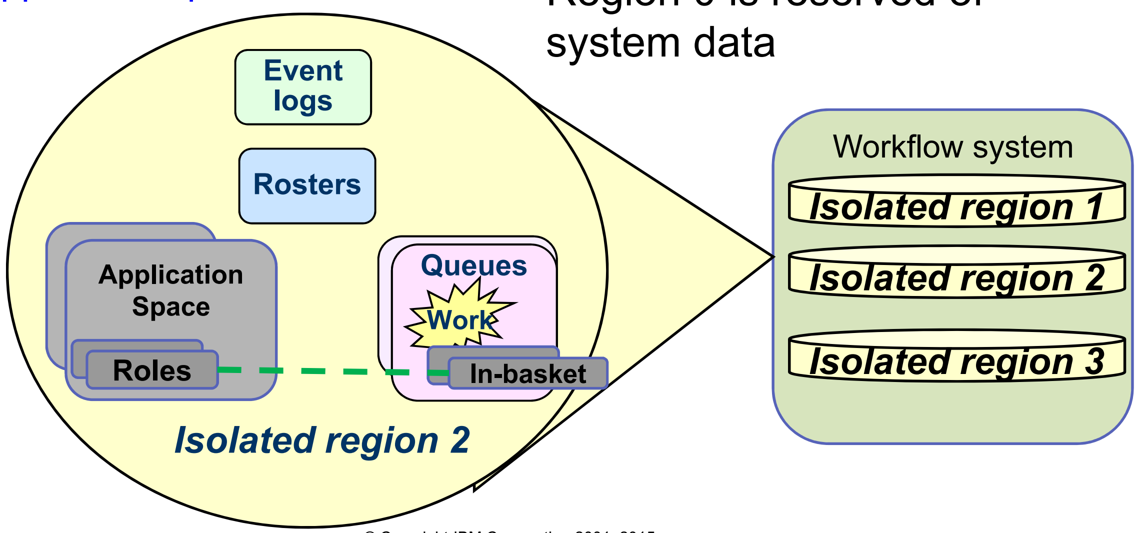


Figure 1-10. Isolated regions F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Integrating workflow into document management>Configuring the workflow system>Getting started with Process Configuration Console>Queue, roster, and event log properties

An **isolated region** is a logical subdivision of the workflow system that contains the queues, event logs, rosters, and application spaces.

As illustrated in the diagram on this page, an isolated region is a logical workflow system structure that is used to maintain separate work areas for specific groups of users.

An isolated region contains queues, rosters, application spaces, and event logs.

A default version of these region objects is created when the region is initialized.

> A workflow author or workflow system administrator can add and configure more of these region objects to support workflow applications. Work items cannot cross the boundaries of an isolated region.

A workflow system can contain up to 1000 isolated regions, although a client application can access only one isolated region at a time.

Each isolated region has a unique identifier, which is a number in the range 0 - 999.

Isolated region 0 contains system data and is reserved for system software use. Isolated regions 1 - 999 can be defined.

Workflow system concepts

Isolated region objects: Queues and In-baskets

- Queues
  - Organize the flow of work
  - Contain active work items that are waiting to be processed.
    - Work items move from queue to queue as they are processed.
  - Types of queues
    - User queues – work items that are waiting to process by an individual
    - Work queues – work items that more than one user or an automated process, can process.
    - Component queues – Allow processing of a workflow step by an external entity
- In-baskets
  - Filtered view of a queue
  - Display work items appropriate for a specific role
  - Defined inside the queue

Figure 1-11. Isolated region objects: Queues and In-baskets F2311.0

Notes:

Help paths

FileNet P8 Platform 5.2.1>Administering>Administering Content Platform Engine>Defining the workflow system>Coordinating workflow design>Workflow options>Defining queues>Workflow queues

FileNet P8 Platform 5.2.1>Administering>Administering Content Platform Engine>Defining the workflow system>Coordinating workflow design>Workflow options>In-baskets

This slide looks at the isolated region objects, queues, and in-baskets.

Queues

- Organize the flow of work and contain active work items, waiting to be processed.
- Work items move from queue to queue as they are processed.

There are three types of queues:

- User queues
- Work queues

- Component queues

User queues hold work to process by a specific individual.

When an isolated region is initialized, two default user queues are created, Inbox and Tracker. More inboxes cannot be created.

- **Inbox** is the queue that holds work items that are waiting to process by an individual user.
- **Tracker** is a queue for tracker items that are assigned to a specific user. For example, a workflow manager would want to view and possibly modify all processing work items for all the members of the department.

Work queues hold work to process by more than one user or an automated process. Workflow system administrators or workflow authors can add and configure work queues. No work queues are configured by default.

Component queues enable processing of a workflow step by an external component, such as Java or Java Message Service (JMS). Workflow system administrators or workflow authors can add and configure component queues. Component queues are discussed in another unit. No component queues are configured by default.

In-baskets

Provide a filtered view of a queue that allows a workflow author or workflow system administrator to filter the work items and the data fields, for a specific user.

The client application, IBM Content Navigator, requires that in-baskets be defined to perform work. There is no capability to view the entire queue from an IBM Content Navigator desktop, as was the case with the previous client applications, Workplace, and Workplace XT.

The extra configuration step lets you adjust the work items and data fields to display, depending on the role of the user.

Workflow system concepts

Isolated region objects: Application spaces

- Application spaces
  - Organize the resources for a client application that uses a workflow
  - Contains roles that are defined for the workflow application
  - Each role is associated with one or more in-baskets

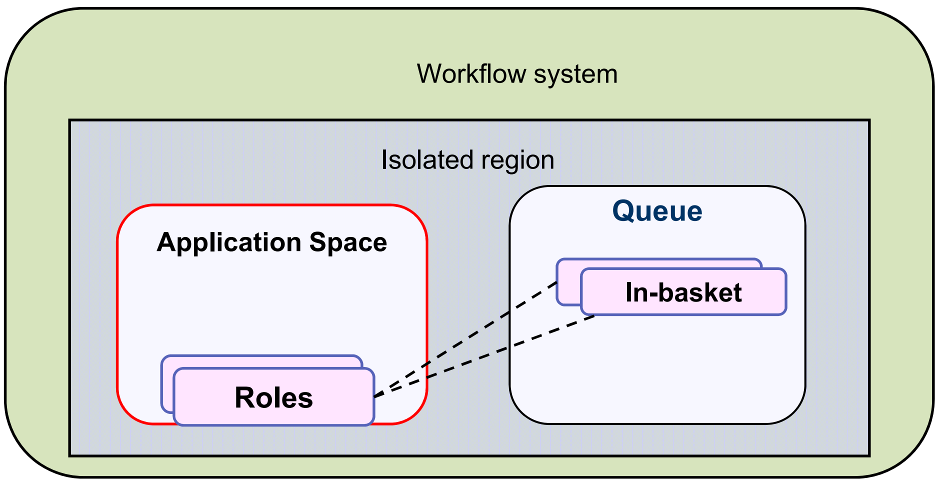


Figure 1-12. Isolated region objects: Application spaces F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Integrating workflow into document management>Configuring the workflow system>Manage application spaces>About application spaces, roles, and in-baskets

An application space is a way of organizing the resources for a custom application that contains workflows.

An application space contains:

- Roles, such as Clerk, Approver, to organize the types of users who process different types of activities in the application.

You assign in-baskets to the roles. The in-basket is a filtered view of the work items in a queue, which is assigned to a specific role.

The diagram shows the architectural relationship between:

- A workflow system
- An isolated region

- An application Space and the defined Roles
- A Queue and the defined in-baskets

Create and configure an isolated region and region objects

Isolated region objects: Application spaces (2)

- An IBM Content Navigator desktop requires an application space, role, and in-baskets to list work items to be processed.

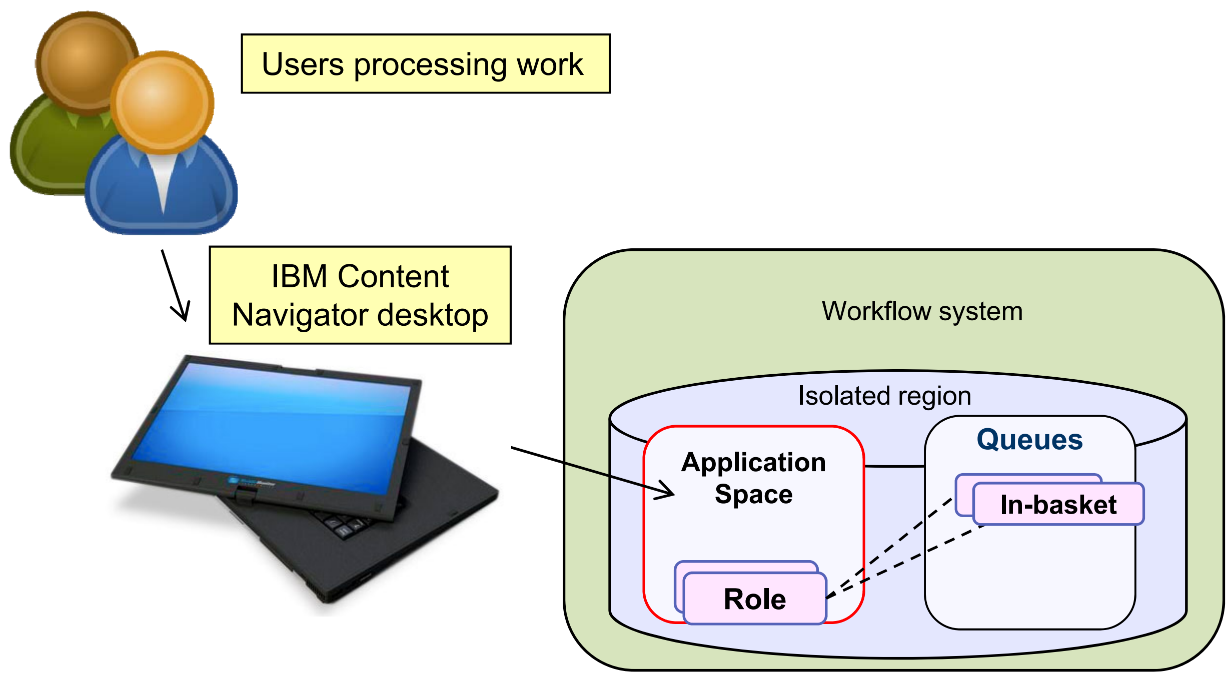


Figure 1-13. Isolated region objects: Application spaces (2) F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Integrating workflow into document management>Configuring the workflow system>Manage application spaces>About application spaces, roles, and in-baskets

IBM Content Navigator desktops are assigned application spaces, which contain roles that point to in-baskets. The applications spaces, roles, queues, and in-baskets must be defined in the isolated region before the user can view and process work items in a workflow application.

Information

Application spaces are not new but not used much in releases prior to IBM Case Foundation 5.2.0.

Starting with IBM Case Foundation 5.2.0, IBM Content Navigator desktops are used as the default client application for workflow processing, instead of Workplace and Workplace.

The diagram shows users who are connected to an IBM Content Navigator desktop, which is associated with an Application Space. The application space is contained in a specific isolated region, which is contained in the workflow system.

Workflow system concepts

Isolated region objects: Rosters

- Rosters
  - Keep track of work in progress
  - Provide an efficient way to locate specific active workflows
    - Contain location information about workflows and work items
  - Each workflow definition is configured to use only one roster

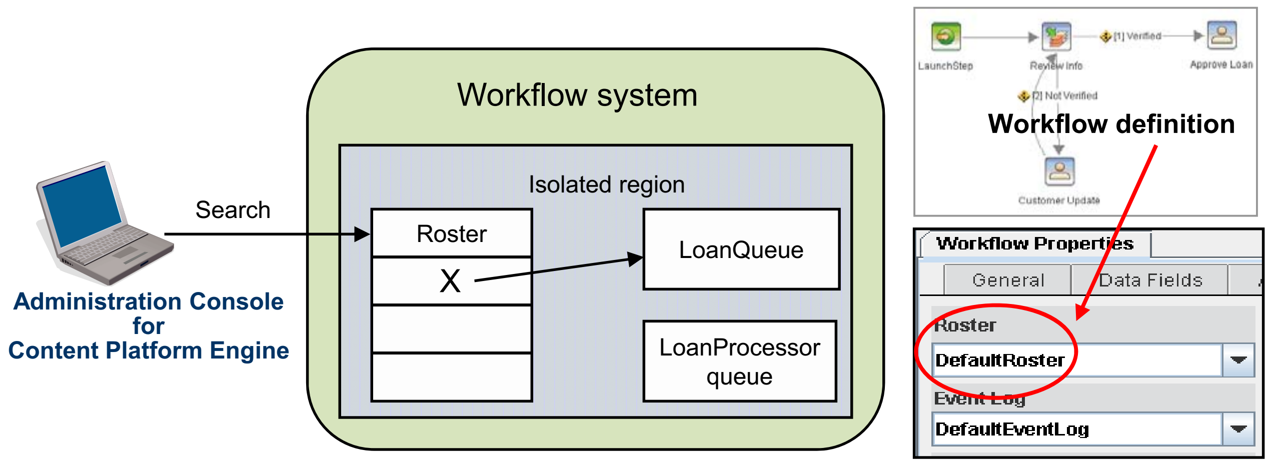


Figure 1-14. Isolated region objects: Rosters F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Administering>Administering Content Platform Engine>Defining the workflow system>Coordinating workflow design>Workflow options>Defining queues>Creating workflow rosters

Queues contain work items. Rosters contain references to work items that can be used to search for work.

When you initialize an isolated region, a roster that is called DefaultRoster is automatically created for that isolated region. The workflow author can use the configuration tool, within the Process Designer application, to configure more rosters for the workflow applications. More rosters can speed the search for work by allowing for a more precise search.

The lower right screen capture shows the Workflow Properties tab, with the Roster setting of DefautlRoster assigned to the workflow definition. When the workflow is launched, an entry is added to the designated roster table in the workflow system, center diagram, and the work item is queued to the first step in the workflow. The roster entry, points to the queue that currently contains the work item, LoanQueue. The Administration Console for Content Platform Engine can be used to search the roster to locate the work item in progress.

Workflow system concepts

Isolated region objects: Event logs

- Event logs
  - Record each event that occurs in the running workflows
  - Contain a record of specific system or workflow-related events
  - Provide useful information for tracking workflow activity

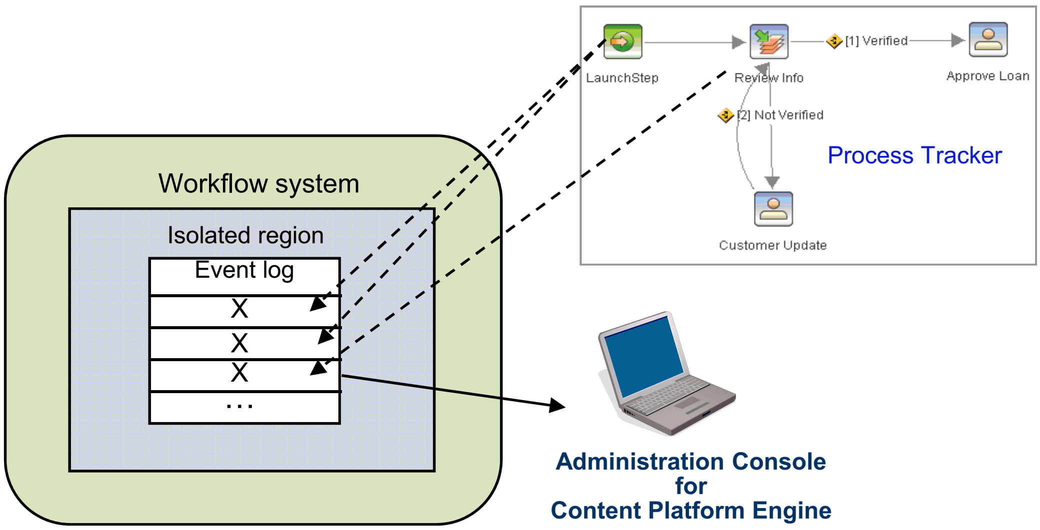


Figure 1-15. Isolated region objects: Event logs F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Administering>Administering Content Platform Engine>Defining the workflow system>Coordinating workflow design>Workflow options>Managing event logs

An event log is assigned to every workflow definition. When the workflow is launched and processed step-by-step, one or more events are added to the event log for each step. The Process Tracker view, of the workflow in progress, is generated with the event log information.

The Administration Console for Content Platform Engine or the Process Administrator tool can be used to search the event log for information about running workflows.

The screen capture on the upper right, shows the Process Tracker with a workflow in progress. The diagram on the left shows the Event log, contained in the isolated region. Each step in the workflow definition, points to an event log entry.

Information

Before the IBM Case Foundation 5.2.1 release, the Process Configuration Console was used to create and configure new event logs and the Process Administrator tool was used to search the event logs.

Workflow system concepts

Default isolated region

- Objects that are created when a new region is initialized

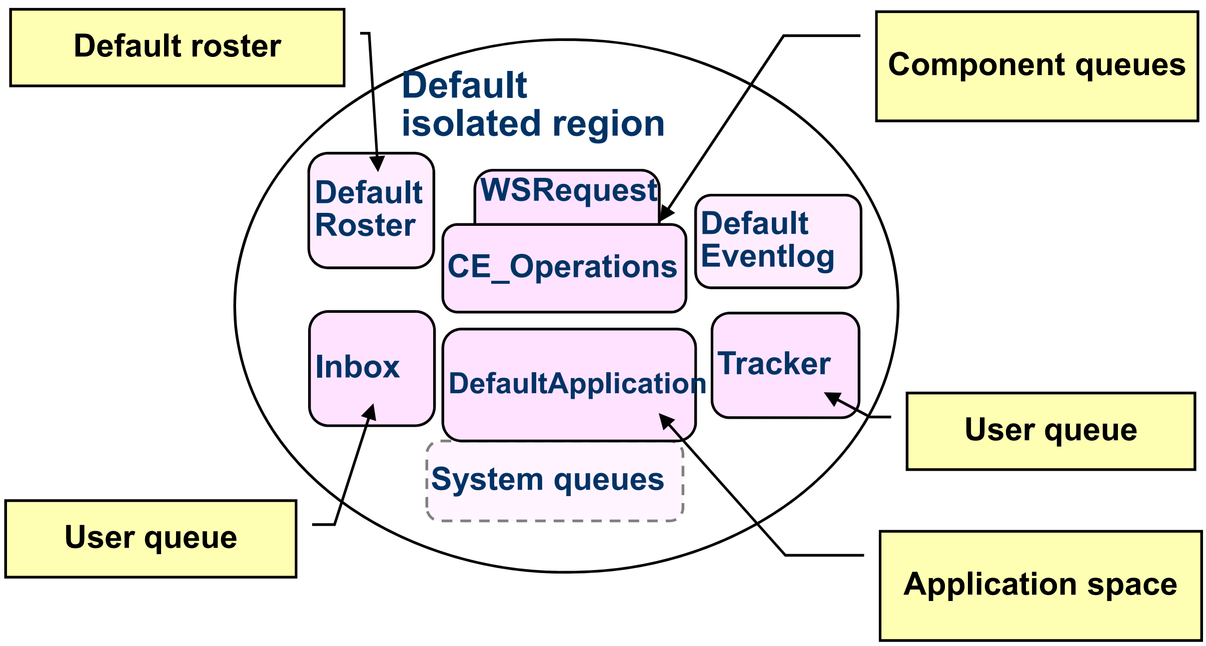


Figure 1-16. Default isolated region F2311.0

Notes:

The diagram shows an isolated region immediately after initialization.

- The user queues (Inbox and Tracker), two component queues, and several system queues are created at initialization.
- Workflow rosters hold location and information about all workflows and work items in a region. DefaultRoster is the roster that is created at initialization.
- An event log is a table that contains a record of system- or workflow-related events. DefaultEventLog is the event log created at initialization.
- An application space in an isolated region is used to contain resources, such as roles and in-baskets. DefaultApplication is the application space that is created at initialization.
- System queues are used by the Process services for processing work.
- Two component queues:
    - CE_Operations, which uses the built-in component that connects to the Content Engine API.

- WSRequest, which enables process orchestration web services (not supported by IBM Content Navigator).

Workflow system concepts

New region objects

- Why create a queue (work or component)?
  – To accommodate design requirements
  – To direct work to a group of users, a machine, or an automated process
- Why create a workflow roster?
  – To enable fast, efficient search for work
  – To distribute the workflow data into logical groups
- Why create an event log?
  – To meet a design requirement to view workflow history reports by workflow or type of work

Figure 1-17. New region objects F2311.0

Notes:

Why create new region objects in addition to the default region objects?

Why create a queue?

- Workflow authors need to accommodate design requirements.
- Workflow authors need to direct work to a specific group of users, a machine, or an automated process.

Why create a roster?

- Enable fast and efficient search for work.
- Distribute the workflow data into logical groups.
- Workflow authors need to create and configure more rosters if the workflow application requires searching for work across a subset of workflows. This type of search can be done efficiently and quickly by users with custom applications and by workflow administrators that use the New Workflow Search feature in the Administration Console for Content Platform Engine.

- If you need to do a general search for work on large systems, the roster search is much more efficient than searching through all the queues for a specific work item.
- The trade-off to more efficient retrieval of roster objects is that you cannot perform work on them, and they contain less information than the actual work item.

Scenario for event logs

A bank associates all loan process workflows with an event log, called LoanLog. This log separates the log data for loan applications from the log data for other internal administrative events. In this way, queries for workflow history of loan applications can run more efficiently.

Workflow system concepts

Isolated region objects

- Objects that you can create and configure

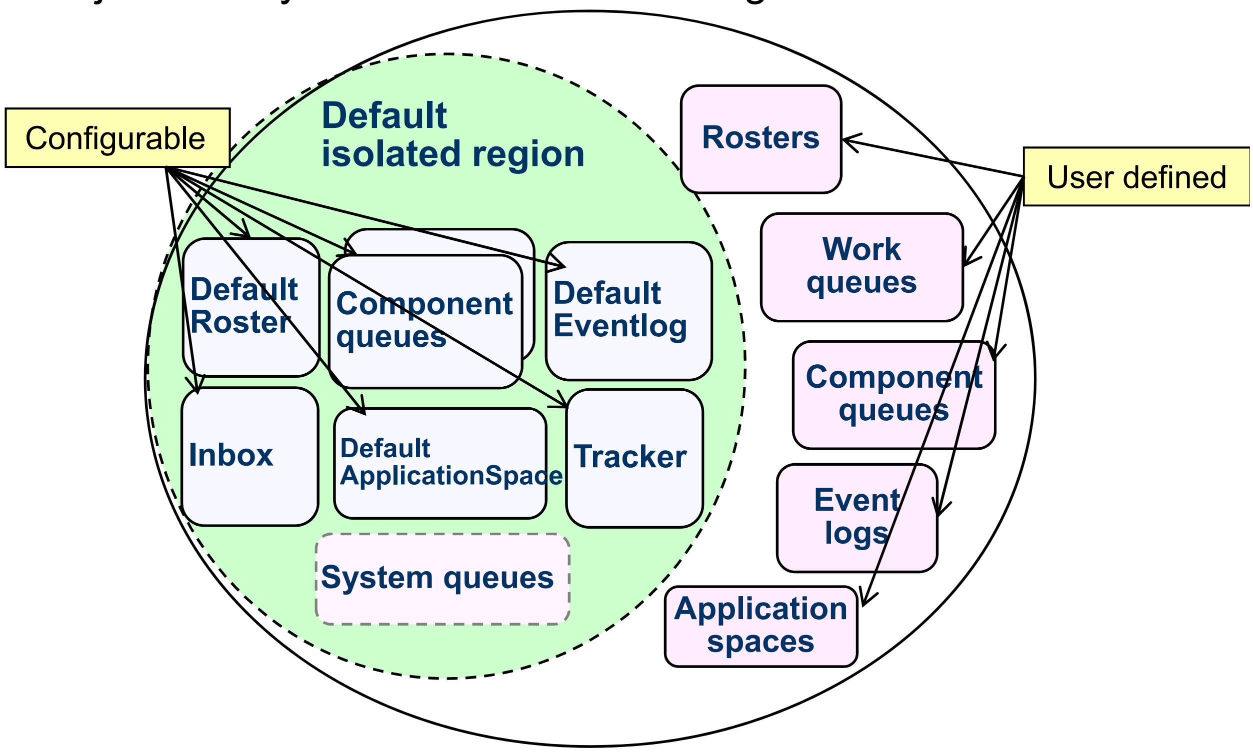


Figure 1-18. Isolated region objects F2311.0

Notes:

This diagram shows:

- All isolated region objects that are created at initialization, the left circle, highlighted in green with the title Default Isolated region.
- The workflow author or the workflow system administration, can create or configure more isolated region objects. The additional objects are the remaining squares, to the right, pointed to by the callout, User defined.

You can customize the default region objects

You can configure the properties of all the default region objects.

Workflow system concepts

Plan for isolated regions

- Number of isolated regions
  - Server performance might be better with fewer isolated regions.
- Reasons for multiple regions
  - Separate work by line of business
  - Separate work to secure access
- An IBM Content Navigator desktop can connect to only one isolated region at a time.
- Plan for customized isolated region objects
  - As specified by the workflow application design

Figure 1-19. Plan for isolated regions F2311.0

Notes:

It is important to plan for isolated regions.

Considerations during planning:

- Too many isolated regions can affect server performance.
- If you define multiple isolated regions, you can:
  - Separate work by line of business.
  - Separate work to secure access.
    - Separate regions provide more secure work separation than configuring security on rosters and queues within a single isolated region.
- Work cannot travel between isolated regions.
- An IBM Content Navigator desktop can connect to only one isolated region at a time.
  - You need a unique desktop for each isolated region or a custom application that recognizes multiple connection points.
- Plan what isolated regions you need for the workflow application.

- Production and development isolated regions cannot coexist on the same workflow system.
  - This configuration is not supported.
- If you want to analyze work across multiple isolated regions in Case Analyzer, some customization of the reports is required.

IBM Case Foundation 5.2.1: Configure the workflow system

Checkpoint: Identify workflow system concepts

1. What is a workflow system?
   a. A logical structure, which contains isolated regions.
   b. A database that contains isolated regions.
   c. A logical structure similar to an object store but used for processing workflows.
   d. Another name for an isolated region.
2. An object store can have multiple workflow systems.
   (T or F)?
3. Which of the following components are contained in an isolated region? (Select all that apply)
   a. Queues
   b. Event logs
   c. Application Spaces
   d. Connection points

Figure 1-20. Checkpoint: Identify workflow system concepts F2311.0

IBM Case Foundation 5.2.1: Configure the workflow system

Checkpoint: Identify workflow system concepts

4. What is the function of a work queue?
   a. Stores work items that are waiting to process by more than one user or an automated process.
   b. Stores work items that are waiting to process by an individual.
   c. Stores workflows that are waiting to process by more than one user or an automated process.
   d. Allows the processing of a workflow step by an external entity.
5. What is the function of a roster? (Select all that apply)
   a. Keep track of work in progress.
   b. Provide an efficient way to locate specific active workflows.
   c. Store work items that are waiting to process by an individual.
   d. Allows the processing of a workflow step by an external entity.

Figure 1-21. Checkpoint: Identify workflow system concepts F2311.0

IBM Case Foundation 5.2.1: Configure the workflow system

Checkpoint: Identify workflow system concepts

6. When an isolated region is initialized, a number of default region objects are automatically created. (Select all that apply)
   a. DefaultRoster
   b. DefaultApplication
   c. DefaultIn-basket
   d. DefaultQueue

Figure 1-22. Checkpoint solutions F2311.0

Notes:

The diagram shows a workflow system, isolated region, application spaces with roles, and queues with in-baskets. The objects are labeled with numbers to allow student to match the numbers to the correct labels.

IBM Case Foundation 5.2.1: Configure the workflow system

Checkpoint: Identify workflow system components

Match the component name in the table to the component in the diagram.

Component Name
Queue
Isolated region
Application space
Workflow system

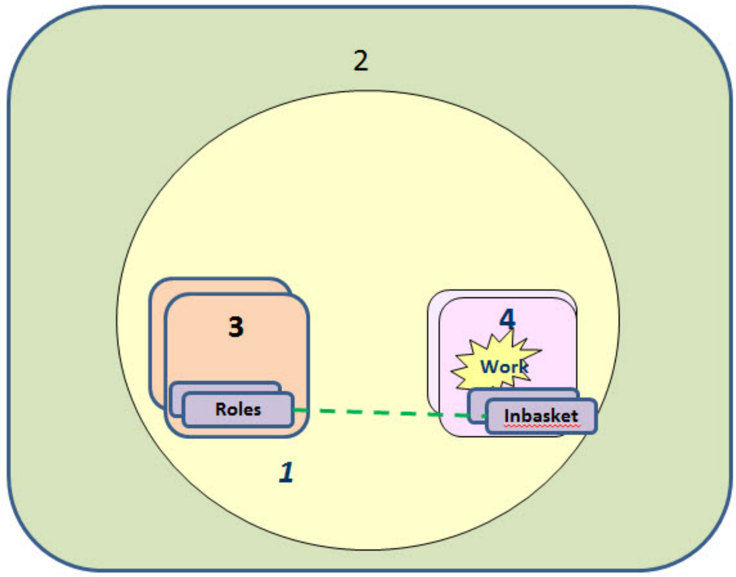


Figure 1-23. Checkpoint: Identify workflow system components F2311.0

Notes:

The diagram shows a workflow system, isolated region, application spaces with roles, and queues with in-baskets. The objects are labeled with numbers to allow student to match the numbers to the correct labels.

Workflow system concepts

Activities

In your Student Exercises

- Unit: Configure the workflow system
- Lesson: Workflow system concepts
- Activities:
  - Identify workflow system concepts
  - Identify workflow system components

Figure 1-24. Activities F2311.0

Notes:

Use your Student Exercises book to perform the activities that are listed.

Both activities are knowledge checkpoint activities and do not require your student system.

Identify workflow system concepts

Identify workflow system components

Lesson 1.2. Configure a workflow system

Lesson

Configure a workflow system

Why is this lesson important to you?

- As a workflow administrator, you are responsible for defining and configuring the workflow system to run FileNet workflow applications.
- As a workflow author, you design and implement FileNet workflow applications.
- To do these tasks effectively, you need to know how to create and configure a workflow system.

Figure 1-25. Configure a workflow system F2311.0

Configure a workflow system

Activities that you need to complete

- Prepare your system for the student exercises
- Create a workflow system
- Explore and configure the workflow system
- Create a database connection

Figure 1-26. Activities that you need to complete F2311.0

Notes:

Activities that you need to complete in this lesson.

Configure a workflow system

Purpose of the workflow system

- Container for isolated regions.

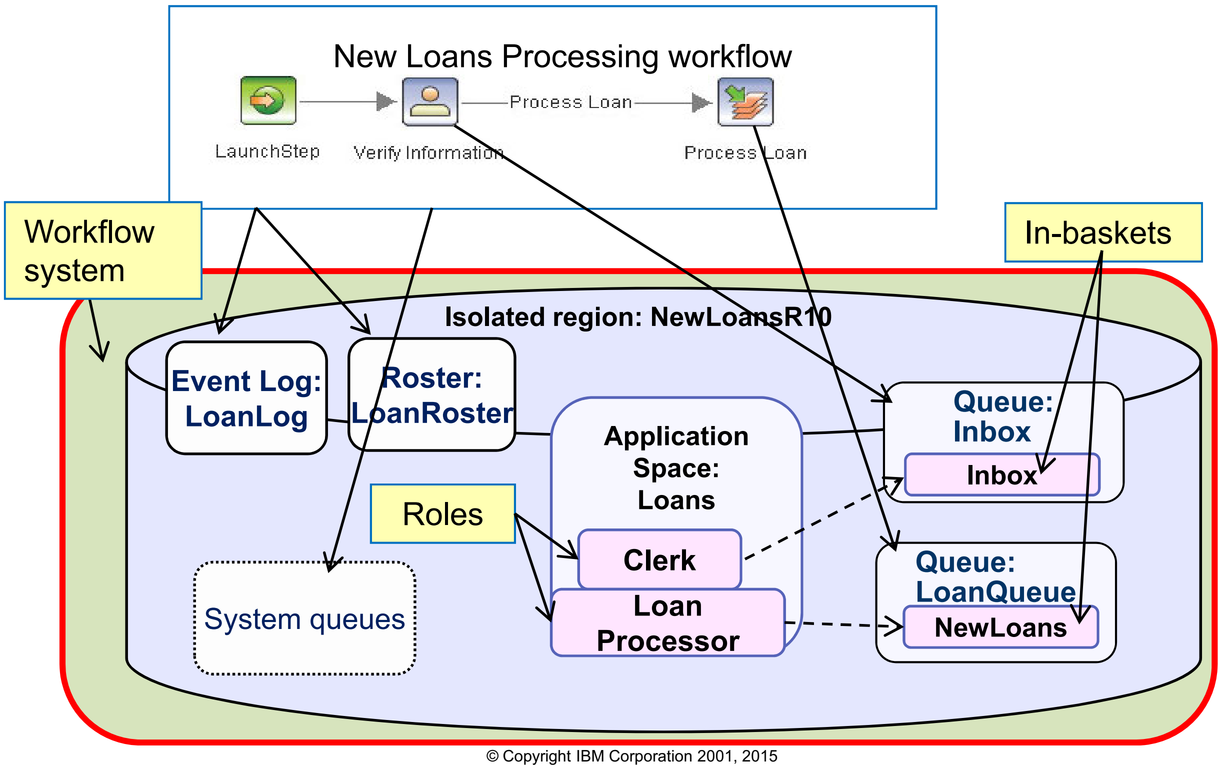


Figure 1-27. Purpose of the workflow system F2311.0

Notes:

The workflow system is a logical container for isolated regions, which provide the runtime environment for workflow applications.

The diagram has two basic parts:

1. The upper rectangle shows a simple workflow, New Loans Processing workflow, with three steps:
    - LaunchStep
    - Verify Information
    - Process Loan

    When you transfer a workflow, a runtime version of the workflow is stored in an isolated region, which is contained in a workflow system. Isolated region objects that the workflow application requires, such as queues, rosters, event logs, need to exist in the isolated region before transferring the workflow.

    When you launch the workflow application, the workflow instance and the work items are all stored in the isolated region, within the workflow system.

2. The lower rectangle shows a workflow system with the isolated region, NewLoansR10 and all the isolated region objects used in the New Loans Processing workflow.

In the next lesson, you learn how to create and configure all the isolated region objects that are shown in the diagram.

In this lesson, you create and configure the workflow system, highlighted in red, with a thicker outline.

Configure a workflow system

Plan the workflow system

- Before you create a workflow system, you need to:
  - Know which object store the workflow system is associated with
    - An object store can have only one workflow system
  - Determine the table space name or file group for the isolated region
    - If not specified, it is the same table space as the workflow system
      - For ease of administration, use the same table space
  - Determine the security groups that are granted
    - Administrative privileges
    - Configuration privileges
  - Determine the connection point name
  - Determine the isolated region name and number

Figure 1-28. Plan the workflow system F2311.0

Notes:

Help paths

FileNet P8 Platform 5.2.1>Administering>Administering Content Platform Engine>Defining the workflow system>Configuring the workflow system>Creating a workflow system

FileNet P8 Platform 5.2.1>Planning and preparing>Planning and preparing for FileNet P8 installation>Performing the required installation preparation tasks>Security administrator installation tasks>Creating Content Platform Engine directory server accounts>Creating the workflow system administrator

FileNet P8 Platform 5.2.1>Planning and preparing>Planning and preparing for FileNet P8 installation>Performing the required installation preparation tasks>Security administrator installation tasks>Creating Content Platform Engine directory server accounts>Creating workflow system groups

You need to plan the workflow system before you create it.

A workflow system is associated with an object store. If you do not already have an object store, then you need to create one.

Work with your database administrator to decide what table spaces or file groups to use, to store the isolated regions.

Information

Starting with Content Platform Engine 5.2.0 it is better to you use the same table space or file group for the object store and the isolated regions. Having distinct table spaces or file groups makes database administration more complicated.

Determine who has Administrative privileges on the workflow system.

- It is best to use an LDAP administrative group, rather than individual users.

Although it is not required, it is best to specify a Configuration group. If you do not specify a group, then anyone who has access to the workflow system is able to change the configuration.

Information

Workflow system security is covered in another unit.

You must create at least one connection point when you create the workflow system.

- Decide what name you want to use.
- Give the connection point a meaningful name. For example, use the name of the application or department uses the application (it is common to add the isolated region number or name, to the connection point name).

You must create at lease one isolated region when you create the workflow system.

- You need the name for the isolated region and the region number (1 – 999).

Configure a workflow system

Create a workflow system

- Use Administration Console for Content Platform Engine
  - Wizard guides you through the steps that must be completed.
    - Wizard flags errors if required information is not entered.

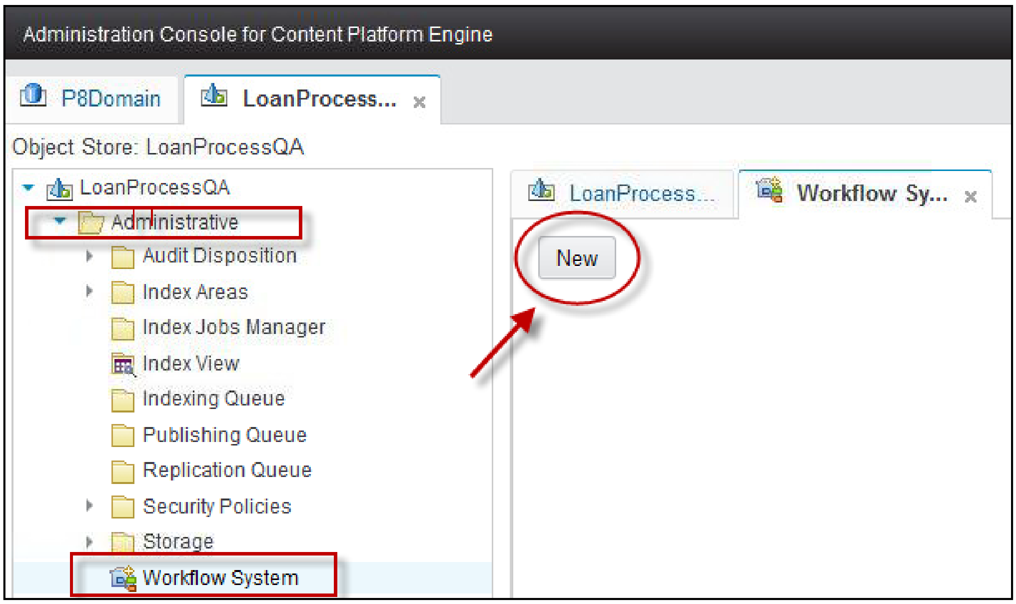


Figure 1-29. Create a workflow system F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Administering>Administering Content Platform Engine>Defining the workflow system>Configuring the workflow system>Creating a workflow system

You create a workflow system with the Administration Console for Content Platform Engine.

The create a workflow system wizard, guides you through the steps that you must complete.

The screen capture shows the steps to follow to create a workflow system.

> The Administration Console for Content Platform Engine is open to the object store, LoanProcessQA. Administrative > Workflow System is selected and **New** is clicked, which launches the create a workflow system wizard.

Configure a workflow system

Create workflow system wizard

- The wizard guides you through a series of screens to configure the new workflow system.
- List of properties that can be configured at creation (the asterisk indicates a required field):
  - * Default Locale: English (United States) default
  - * Date/TimeMask: mm/dd/yy hh:tt am
  - XSL/XSD base directory
  - Table spaces
    - * Data
    - Index
    - Blob
  - Workflow system security groups
    - * Administration group
    - Configuration group

Figure 1-30. Create workflow system wizard F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Administering>Administering Content Platform Engine>Defining the workflow system>Configuring the workflow system>Creating a workflow system

The wizard guides you through a series of screens to configure the properties of the workflow system.

Configure a workflow system

Create workflow system wizard (2)

- The wizard guides you through a series of screens that create the new workflow system.

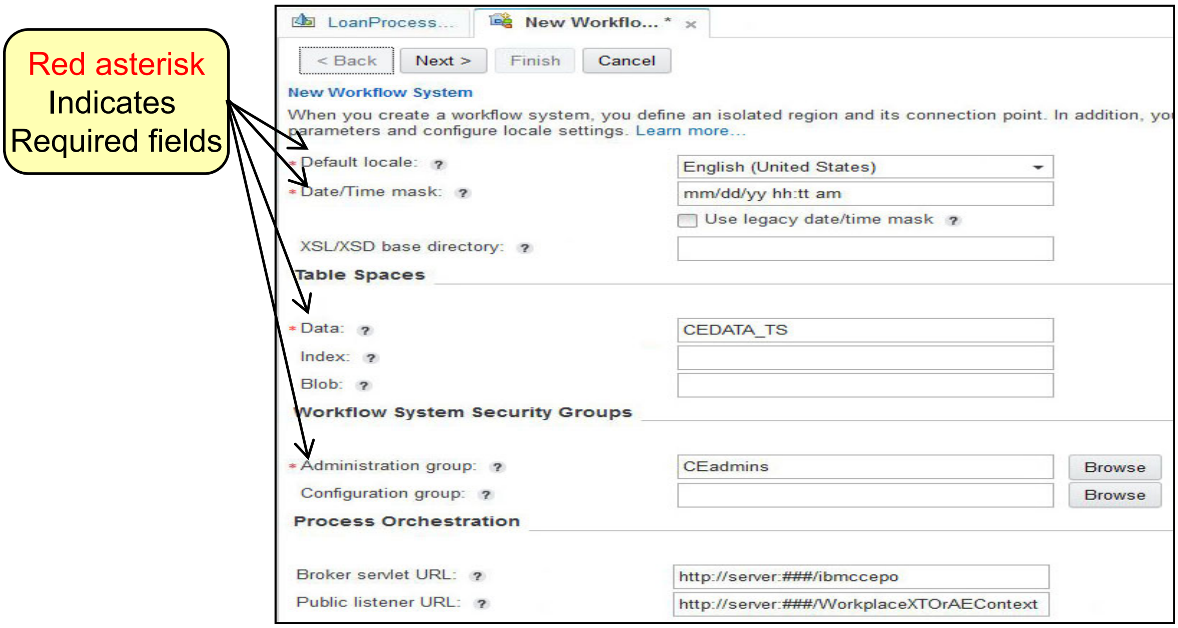


Figure 1-31. Create workflow system wizard (2) F2311.0

Notes:

Help paths

FileNet P8 Platform 5.2.1>Administering>Administering Content Platform Engine>Defining the workflow system>Configuring the workflow system>Creating a workflow system

FileNet P8 Platform 5.2.1>Administering>Administering Content Platform Engine>Defining the workflow system>Maintaining the workflow system>DateTime masks

The screen capture of the first screen the Create workflow system wizard displays. You can see the fields that it prompts you for. The required fields are:

- The default local – English (United States), default.
- The Date/Time mask – mm/dd/yy tt am, default
- Table Space Data – Table space name of where to store the workflow system data. Use the same table space as the object store. The table space must exist, so you need to work closely with the database administrator.
- Administration group - LDAP group or users that have administration privileges on the workflow system.

Note

The Next button is bold, indicating that it is enabled. Finish is disabled, indicating that it is not available yet. When you finish entering all the required values, Finish is enabled.

Configure a workflow system

Create workflow system wizard (3)

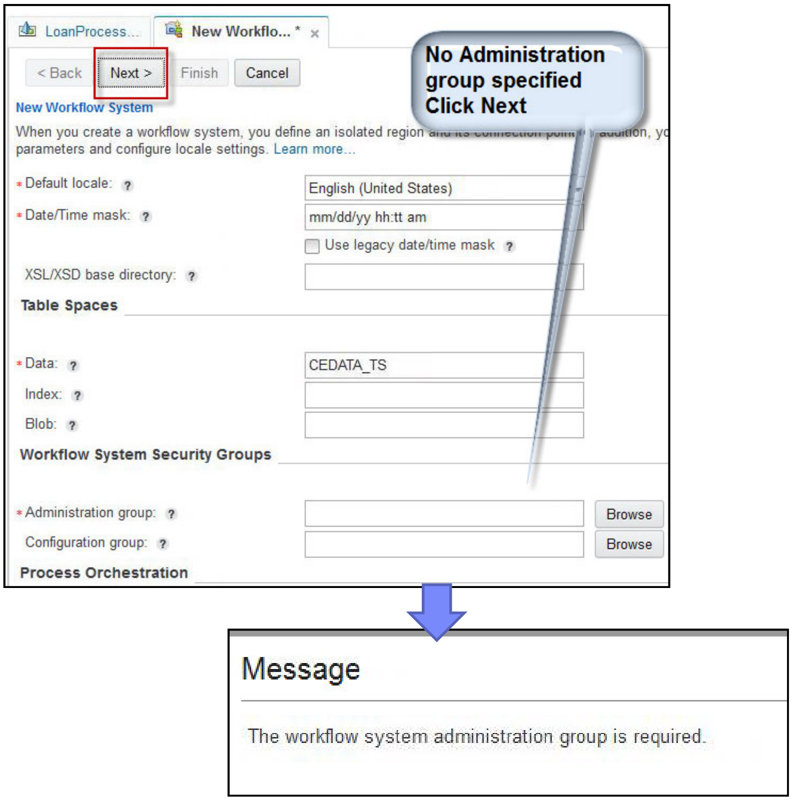


Figure 1-32. Create workflow system wizard (3) F2311.0

Notes:

When you click **Next**, the wizard does some validation checking on the information you enter. If you missed a required field or entered a value in an incorrect format, an appropriate error is displayed.

The screen capture shows the Create workflow system wizard and a message window, stating that the workflow system administration group is required. **Next,** was clicked before entering the workflow system administration group.

Configure a workflow system

Create workflow system wizard (4)

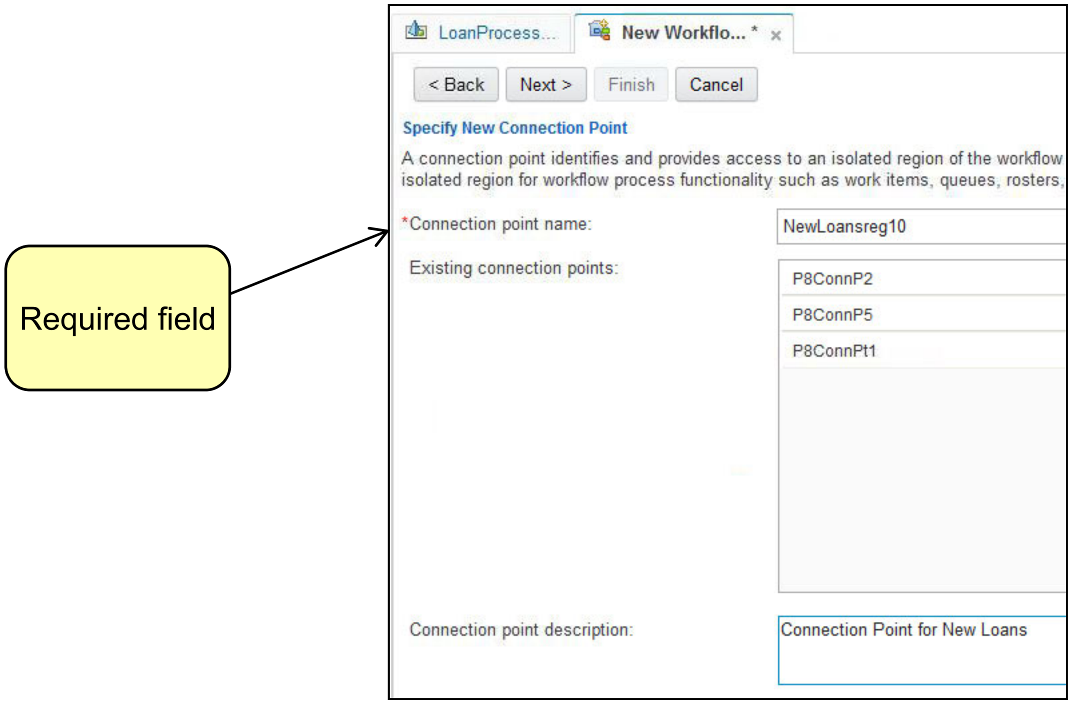


Figure 1-33. Create workflow system wizard (4) F2311.0

Notes:

The screen capture, shows the second screen of the wizard, which prompts for the connection point name, a required field. The connection point name must be unique. The wizard lists the existing connection points to assist you.

The connection point description is optional. After the connection point, you are prompted to create an isolated region to associate it to.

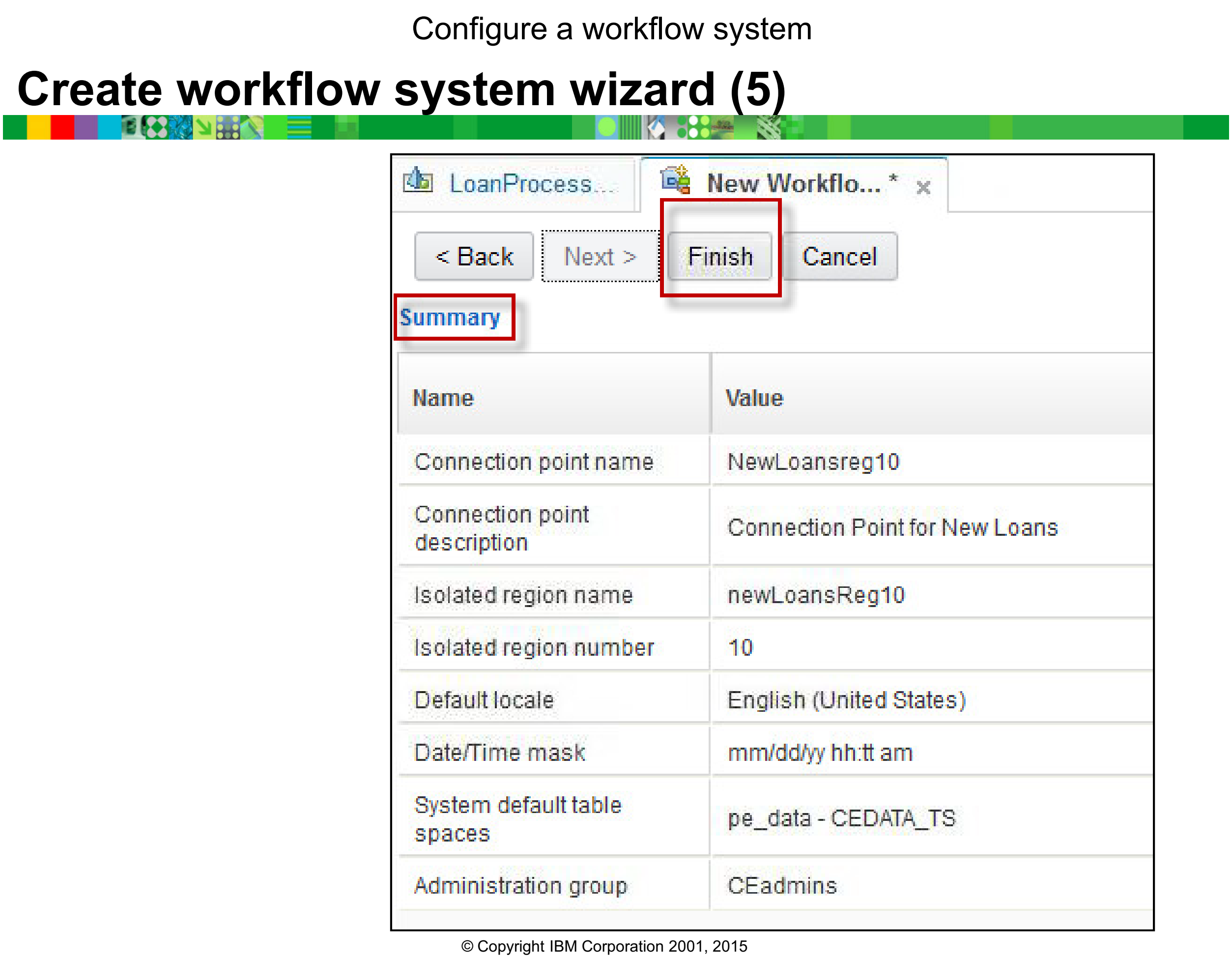


Figure 1-34. Create workflow system wizard (5) F2311.0

Notes:

The screen capture shows the summary screen, which shows all the values entered. Finish and the title of the window are highlighted with a red box.

Note

Finish is now bold, indicating that you can select it, and Next is disabled.

You can click Back or Cancel at any time.

When you click Finish:

- The workflow system is created with the values you specified
- The connection point is created.
- The isolated region is created and initialized.

Configure a workflow system

Configure the workflow system

- Workflow system properties
  - System-wide options for a workflow system
  - Properties are grouped into tabs

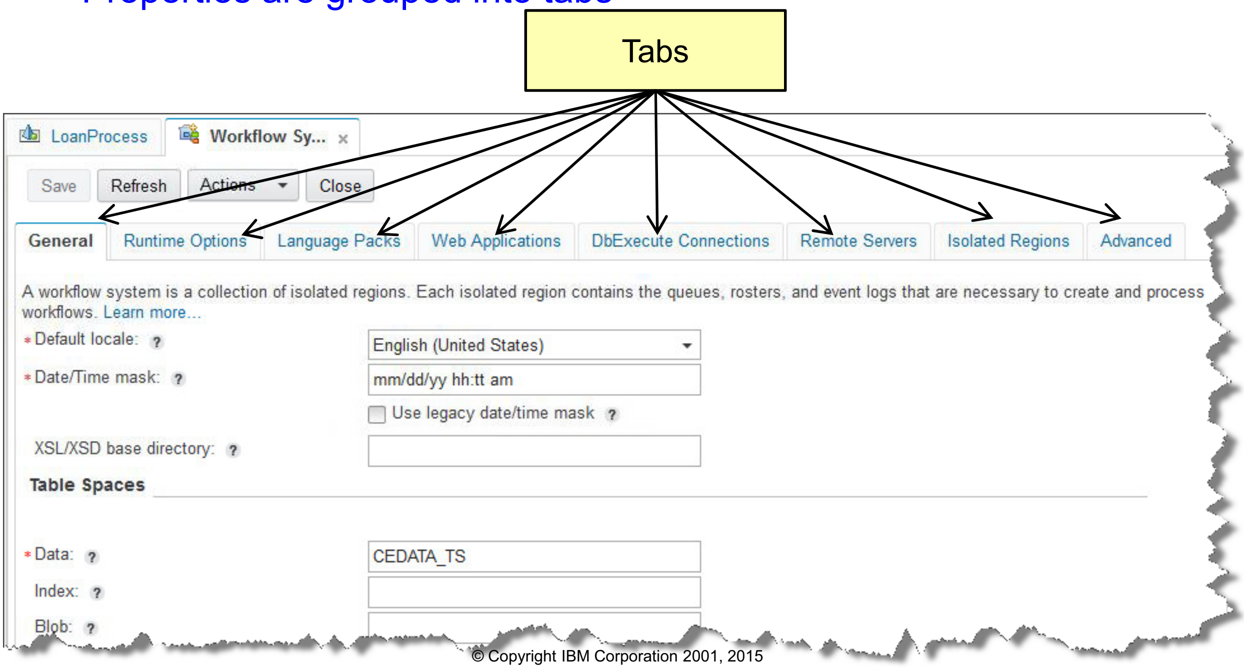


Figure 1-35. Configure the workflow system F2311.0

Notes:

After you create a workflow system. You can configure many workflow system properties.

You use either the Administration Console for Content Platform Engine or the Process Configuration Console to configure the properties.

Information

The Process Configuration Console is considered the legacy configuration tool. It is still supported in IBM Case Foundation 5.2.1.

The screen captures, which are shown in the next few slides, are using the Administration Console for Content Platform Engine.

The screen capture on this slide, shows the tabs available when you open a workflow system.

The properties are grouped as tabs:

- General

- Runtime Options
- Language Packs
- Web Applications
- DbExecute Connections
- Remote Servers
- Isolated Regions
- Advanced

In the next few slides, you explore each of the tabs.

Configure a workflow system

Workflow system properties: General

- Identical to first Create workflow system wizard screen.
- Use to modify values after creation.

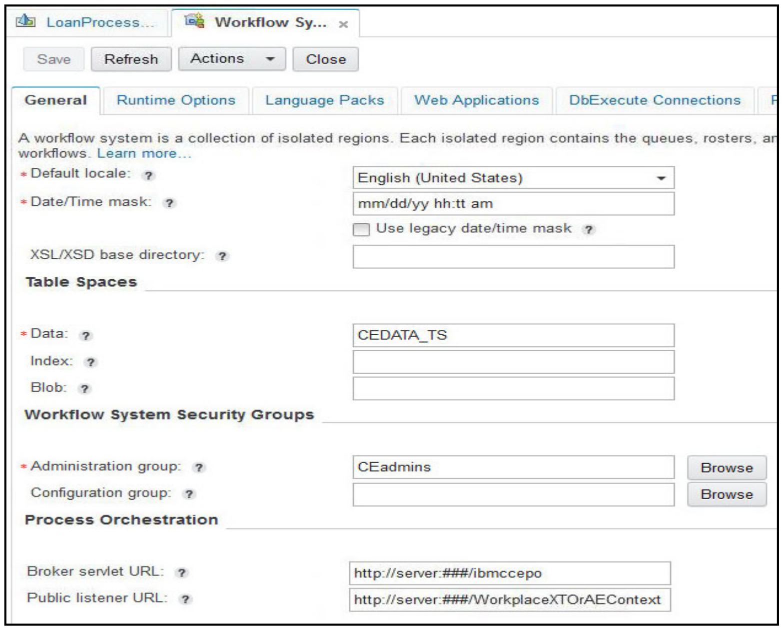


Figure 1-36. Workflow system properties: General F2311.0

Notes:

The General tab displays a screen identical to the first screen displayed by the “Create a workflow system” wizard. You can use this screen to modify many of the values or add new values.

The screen capture shows the General tab of the workflow system.

Configure a workflow system

Workflow system properties: Runtime Options

- Set system-wide settings that determine the features available for the workflow system

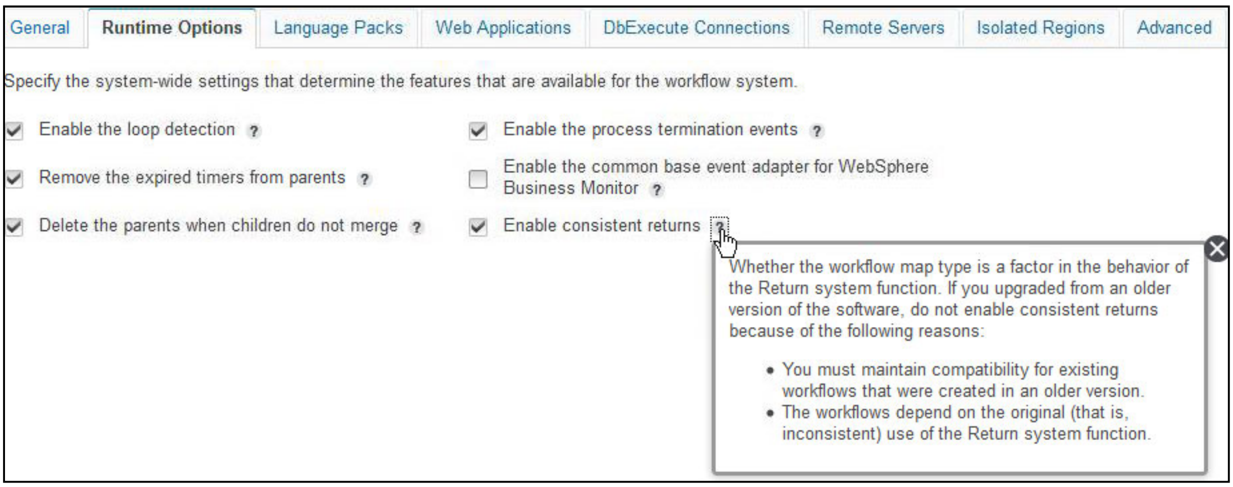


Figure 1-37. Workflow system properties: Runtime Options F2311.0

Notes:

In the Runtime Options tab you can enable or disable, system-wide, workflow system features.

The screen capture shows the Runtime Options tab, of the workflow system, with the default values that are set when you create a workflow system.

You can hover over the question mark, to the right of each item to get more information about the item.

Configure a workflow system

Workflow system properties: Language Packs

- Language packs contain translated templates
  - Used for email notification of workflow activity
- You must have at least one language pack to enable email notification.

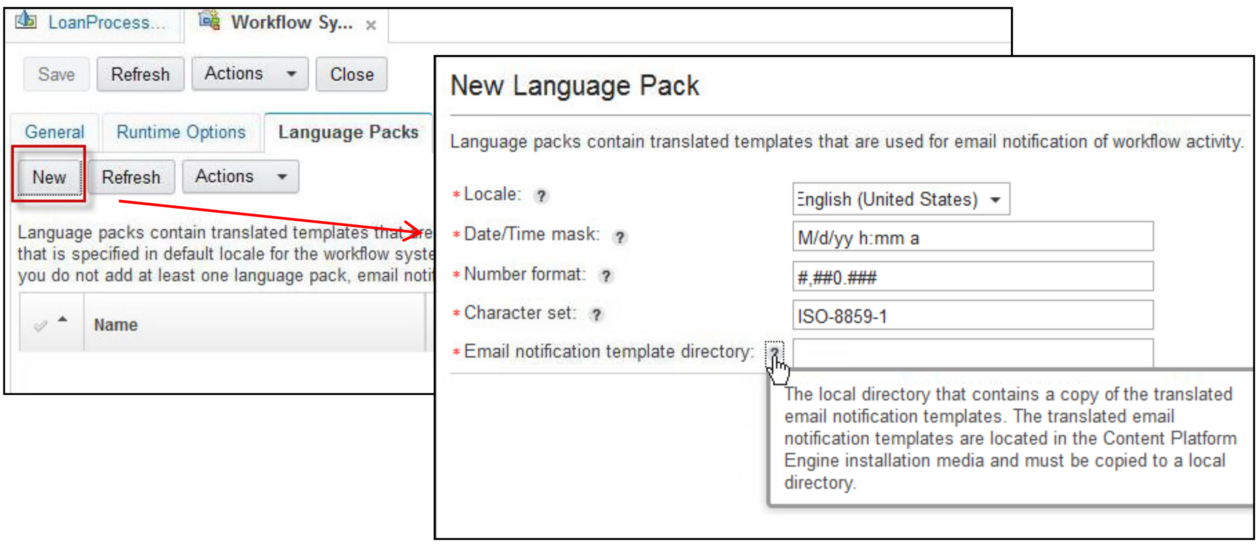


Figure 1-38. Workflow system properties: Language Packs F2311.0

Notes:

In the Language Packs tab, you can define language packs that contain translated templates for use with email notification.

The screen captures show you the Language Packs tab, on the left, and the screen that displays when you click **New**, on the right, to add a language pack.

The path to the translate email notification templates on the Content Platform Engine installation media:

<*CPE_install_path*>\tools\PE\msg\en supports English (United States)

The directory <*CPE_install_path*>\tools\PE\msg can be copied to a local directory or used from the installation location.

Configure a workflow system

Workflow system properties: Web Applications

- Define the server base URL for web applications that are used in the workflow system

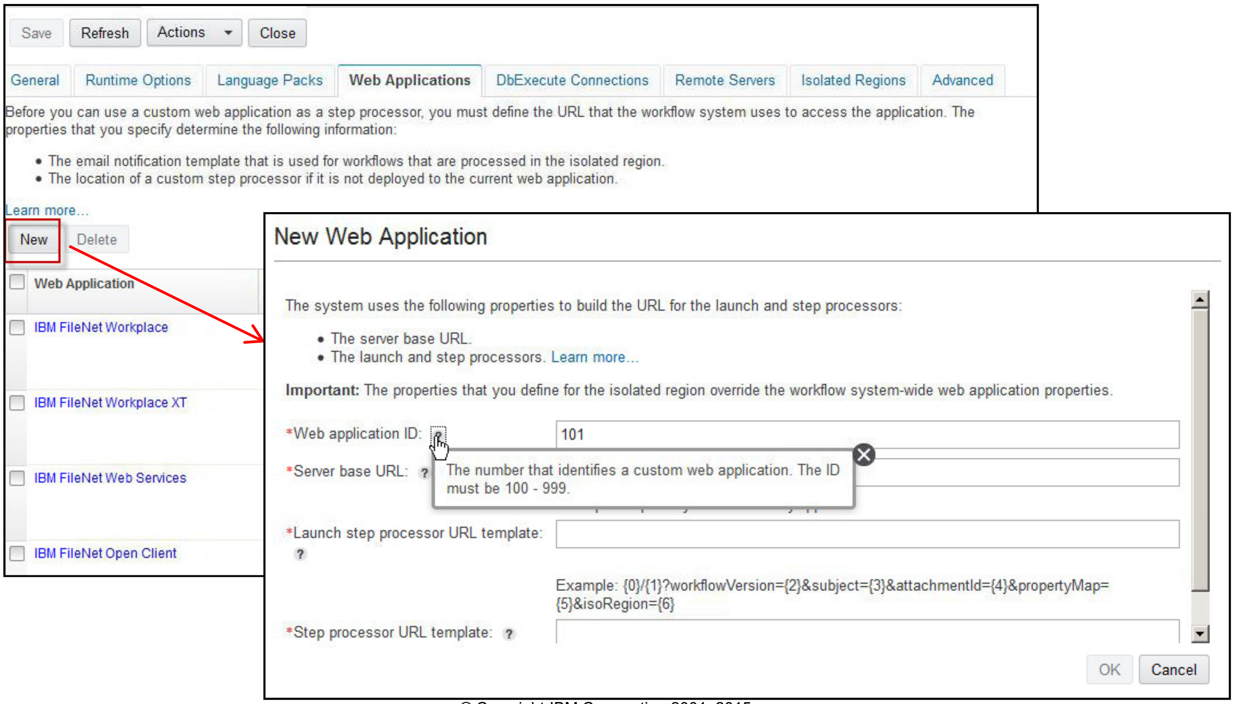


Figure 1-39. Workflow system properties: Web Applications F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Administering>Administering Content Platform Engine>Defining the workflow system>Configuring the workflow system>Managing the workflow system>Configuring web applications

Before you can use a custom web application as a step processor, you must define the URL that the workflow system uses to access the application.

In the Web Applications tab, you can configure new web applications and define the Server base URL.

The screen captures show the Web Applications tab of the workflow system. **New** is clicked, highlighted in a red box, and the New Web Application window is displayed, on the right.

Configure a workflow system

Workflow system properties: DbExecute Connections

- Enable a workflow to access and run a stored procedure in an external database.

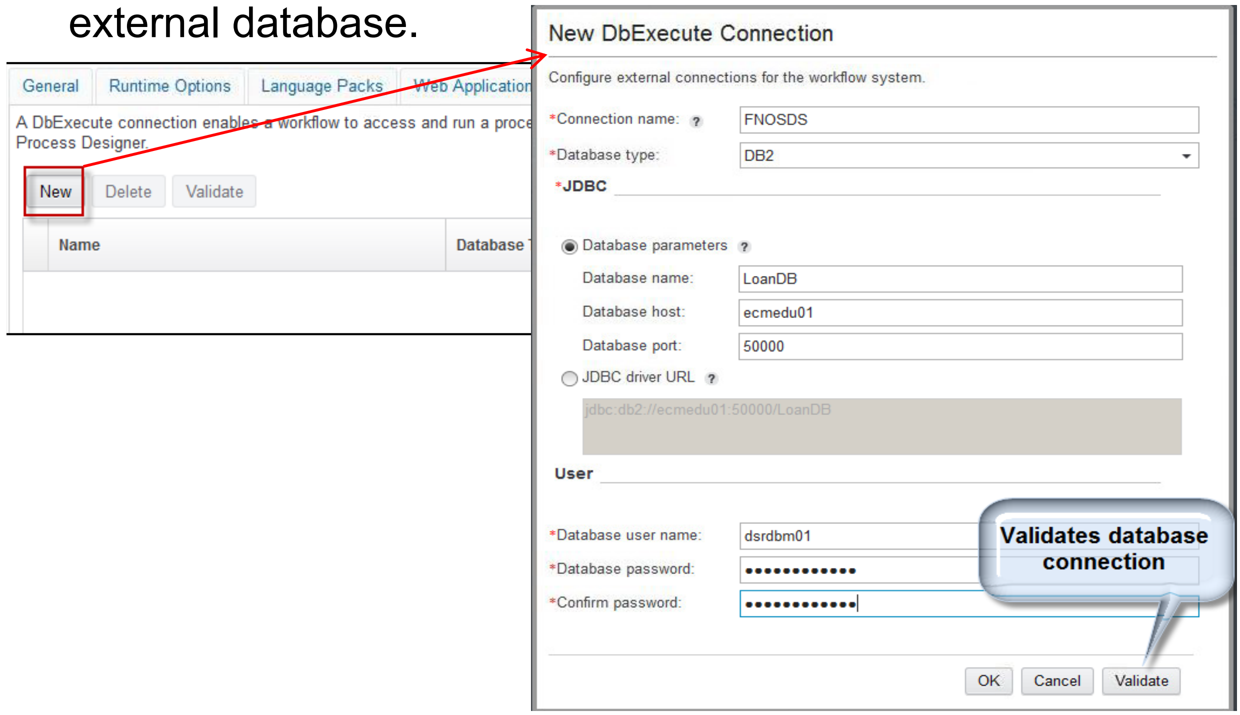


Figure 1-40. Workflow system properties: DbExecute Connections F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Administering>Administering Content Platform Engine>Defining the workflow system>Configuring the workflow system>Managing the workflow system>Setting DbExecute connections

In the DbExecute Connections tab, you define external database connections.

DbExecute connections allow a workflow to run stored procedures from an external database.

The screen captures show you an example of creating a new DbExecute Connection. Notice the **Validate** button, which validates that the system can connect to the database successfully.

Important

Before you can define a DbExecute connection, you need to ensure that you have the database driver defined in the application server. For example, in WebSphere Application Server, the JDBC provider defines the jdbc driver for the database.

Configure a workflow system

Workflow system properties: Remote Servers

- Configure the email server for email notification
- Configure the email notification settings

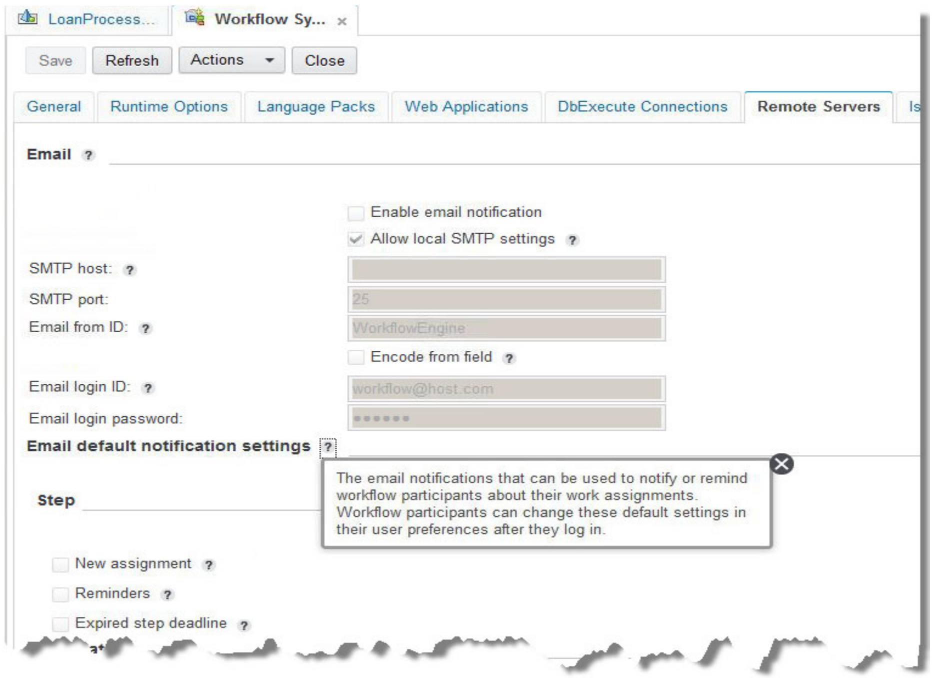


Figure 1-41. Workflow system properties: Remote Servers F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Administering>Administering Content Platform Engine>Defining the workflow system>Configuring the workflow system>Enabling email notification for workflow activity

Use the Remote Servers tab to configure remote servers such as:

- Email servers
  - Enable email notification and configure the email server.
    - Configure the SMTP mail server, including login ID and password
    - Set email default notification settings
- Rules Listener
  - Used to configure the Rules Connectivity Framework
- Legacy Component Manager
  - Used to configure Component Managers from IBM Case Foundation releases before 5.2.x.

Reminder

You can hover over a question mark, on a specific item, to get more information of the type of information expected.

The screen capture shows the Remote Servers tab of the workflow system.

Configure a workflow system

Workflow system properties: Isolated Regions

- Perform actions on existing isolated regions

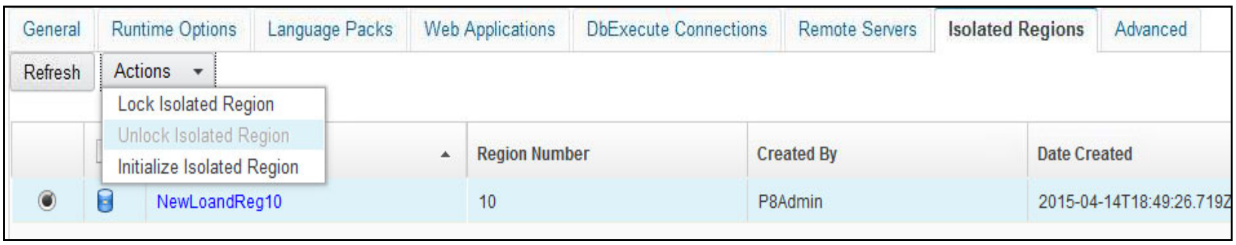


Figure 1-42. Workflow system properties: Isolated Regions F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Administering>Administering Content Platform Engine>Defining the workflow system>Maintaining the workflow system>Managing isolated regions>Initializing an isolated region

In the Isolated Regions tab, you can perform actions on existing isolated regions

- Lock/Unlock Isolated Region
- Initialize Isolated Region

The screen capture shows the Isolated Regions tab with the Actions menu selected. Two actions are displayed.

Important

When you create an isolated region, it is automatically initialized.

Configure a workflow system

Workflow system properties: Advanced

- You can fine-tune your workflow system.

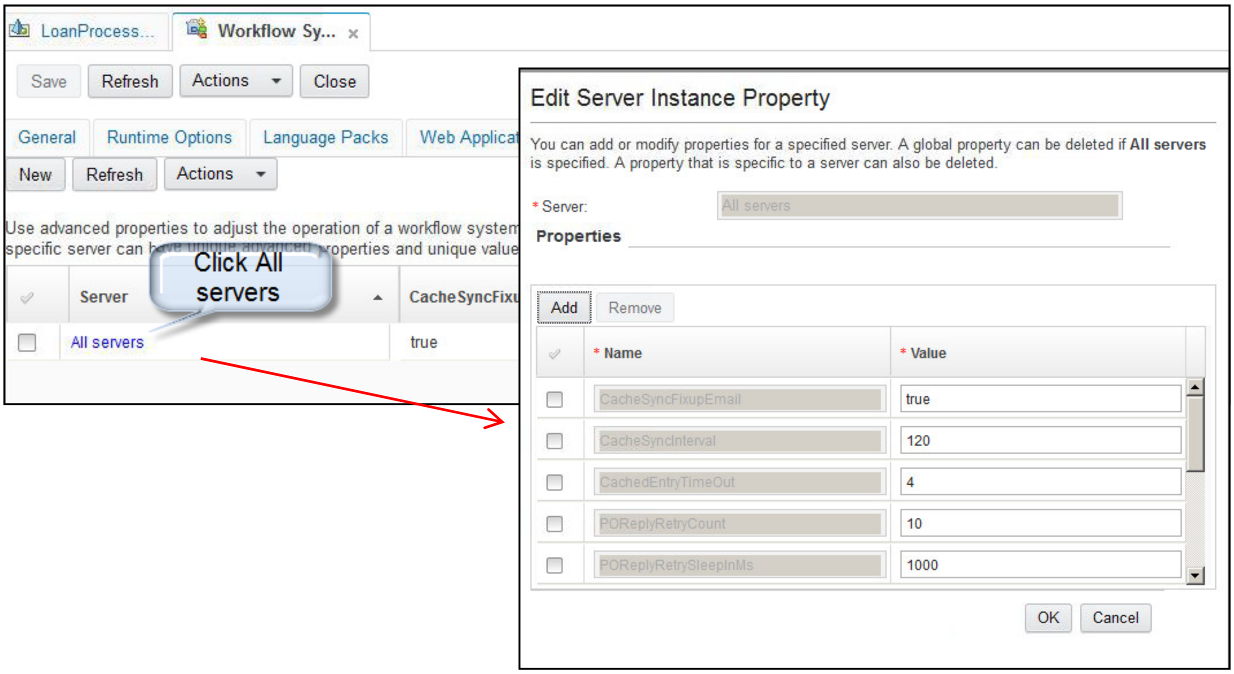


Figure 1-43. Workflow system properties: Advanced F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Administering>Administering Content Platform Engine>Defining the workflow system>Maintaining the workflow system>

In the Advanced tab, you can fine-tune your workflow system. You can specify properties that apply to all the servers or specific servers, within a site.

When you click a server entry, a screen displays to add, or edit existing advanced properties.

> The screen capture, on the left shows the Advanced tab of the workflow system. The screen capture, on the right, shows the Edit Server Instance Property window, which displays when you click **All servers**.

Refer to the IBM Knowledge Center topic for details on all the advanced properties.

Configure a workflow system

Demonstrations

- Explore a workflow system

Figure 1-44. Demonstrations F2311.0

Notes:

Demonstration notes

Demonstration

Start the system components (If possible, do this ahead of time, unless you want to walk students through the system start, takes 15-20 minutes.)

1. Start the student system.
2. Log in as `Administrator`/`passw0rd`
3. Start the Windows Task Manager and wait for the system to settle down.
4. Open the **WebSphere Admin** folder on the desktop and launch, **Start Server1.bat,** wait until the command prompt window disappears.

Explore the workflow system demonstration.

1. Launch Administration Console for Content Platform Engine (Log in information: `p8admin`/`IBMFileNetP8`)
    a. Select LoanProcess > Administrative > Workflow System

2. Select General tab
   a. Hover over the Default locale question mark.
   b. Hover of the Workflow System Security Groups question mark. Click the Learn more link.
3. Select Runtime Options
   a. Point out the settings that are configured by default.
   b. Pick a couple of the question marks to hover over.
4. Select Language Packs
   a. Explain that you configure Language packs that contain templates that are used for email notification of workflow activity.
   b. Click New
      - Locale: English (United States)
      - Email notification template directory: C:\Program Files\IBM\FileNet\ContentEngine\tools\PE\msg\en (Hint: Open a Windows Explorer window, browsing to the path and copy and paste the path into the wizard).
   c. Click OK.
   d. Click Save.
5. Select Web Applications
   a. Scroll through the web applications.
   b. Explain that you define the Server Base URL for a web application so that a workflow author can use the web application in a step processor.
   c. Select IBM Content Navigator as the default application.
   d. Click Save.
6. Select DbExecute Connections
   a. Click New to show the New DbExecute Connection wizard.
      - Connection name: `LoanDB`
      - Database type: `DB2`
      - Database name: `LOANDB`
      - Database host: `ecmedu01`
      - Database port: `50000`
      - (Point out the JDBC driver URL that is create from the database parameters. Instead of entering each parameter individually, you can select the JDBC driver URL option and enter the URL directly).
      - Database user name: `dsrdbm01`
      - Database password: `IBMFileNetP8`
   b. Click **Validate**

   c. Click **Cancel**
   d. Explain that you configure a connection to a database to allow a workflow step to run a stored procedure in an external database.
7. Select Remote Servers
   a. You configure an email server to support email notifications of workflow activities.
   b. You can also configure the email notification settings.
   c. You configure the Rules Listener for Rules connectivity framework, if your workflows use an external business rules system.
   d. You configure a Legacy Component Managers here –for FileNet systems before IBM Case Foundation 5.2.0.
8. Select Isolated Regions
   a. Notice that there is one isolated region that is defined, P8Region 5.
   b. Open the isolated region.
      - All the properties of the isolated region are displayed. The same screen is displayed if you click Workflow System > Isolated Regions > P8Region5
      - Details on the properties of an isolated region are covered in another demonstration.
   c. Close the P8Region5 window.
9. Select Advanced
   a. Fine-tune the operation of the workflow system.
   b. Scroll to the right and show the various properties.
   c. Click All Servers – to show how you would edit the values.
10. Close the Workflow System.

IBM Case Foundation 5.2.1: Configure the workflow system

Exercise introduction

Prepare your system for the student exercises

- In this lab exercise, you will:
  - Start the system components.
  - Verify that the system is functional.

Create a workflow system

- In this lab exercise, you will:
  - Create a workflow system in the LoanProcessQA object store with the Administration Console for Content Platform Engine.
  - Verify the workflow system created.

Explore and configure the workflow system

- Explore the workflow system created.
- Configure the workflow system.

Create a database connection

- Create and test a DbExecute connection.

Figure 1-45. Exercise introduction F2311.0

Notes:

Exercise introduction slide. Review each of the exercises and the objectives.

Configure a workflow system

Activities

In your Student Exercises

- Unit: Configure the workflow system
- Lesson: Configure a workflow system
- Activities:
  - Prepare your system for the student exercises
  - Create a workflow system
  - Explore and configure the workflow system created
  - Create a database connection

Figure 1-46. Activities F2311.0

Notes:

Use your Student Exercises book and your student system to perform the activities that are listed.

Lesson 1.3. Create and configure an isolated region and region objects

Lesson

Configure an isolated region and region objects

Why is this lesson important to you?

- As a workflow administrator, you are responsible for defining and configuring isolated regions to support FileNet workflow applications.
- As a workflow author, you design and implement FileNet workflow applications.
- To do these tasks effectively, you need to know how to create and configure isolated regions and region objects.

Figure 1-47. Configure an isolated region and region objects F2311.0

Create and configure an isolated region and region objects

Activities that you need to complete

- Create a connection point and isolated region
- Create isolated region objects
  – Create a queue
  – Create a roster, an event log, and an application space
  – Explore isolated region objects with vwtool
  – Explore the workflow system database tables

Figure 1-48. Activities that you need to complete F2311.0

Notes:

Activities that you need to complete in this lesson.

Create and configure an isolated region and region objects

Purpose of the isolated region

- Provides the runtime environment for workflow applications.

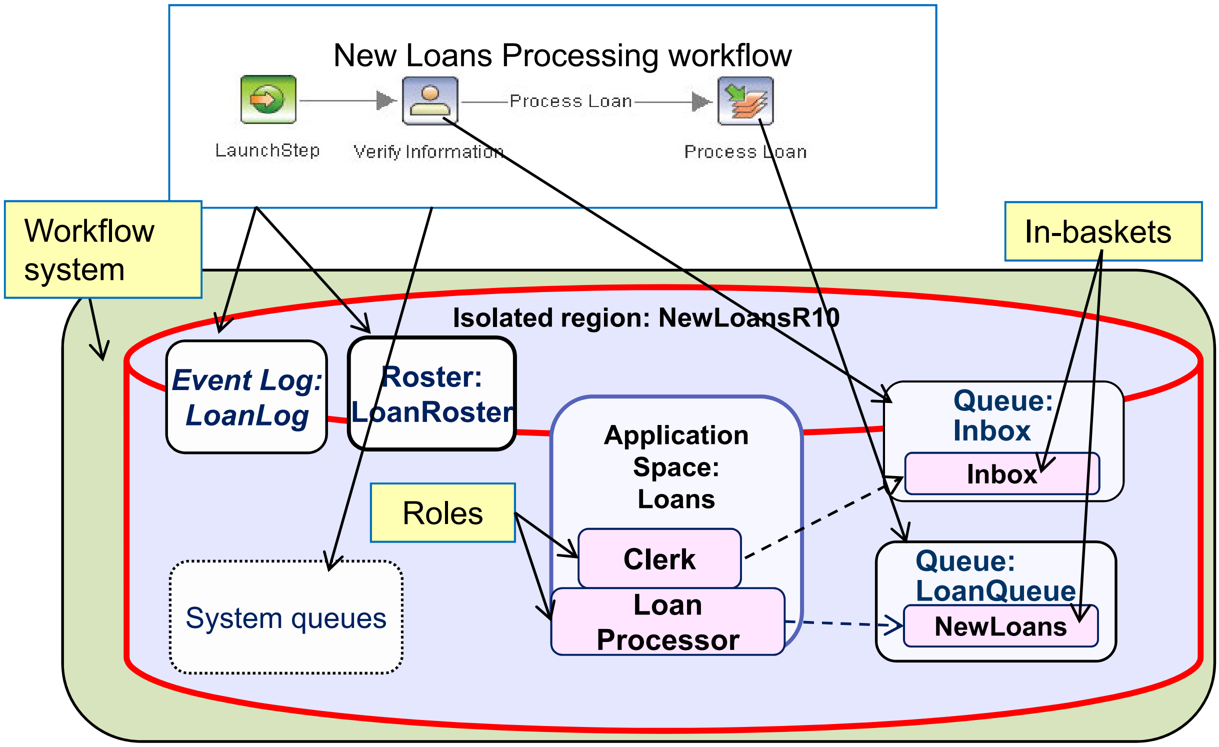


Figure 1-49. Purpose of the isolated region F2311.0

Notes:

An isolated region provides the runtime environment for a workflow application. When you transfer a workflow definition, the system generates an executable version of the workflow definition and stores it in the isolated region. When you launch the workflow, all the work items are stored in the isolated region, within the appropriate isolated region objects.

The lower diagram shows the isolated region with a red thicker outline. The isolated region is contained in the workflow system.

Create and configure an isolated region and region objects

Create extra connection point and isolated region

- Connection points connect to an isolated region.
- Each isolated region can have one or more connection points.

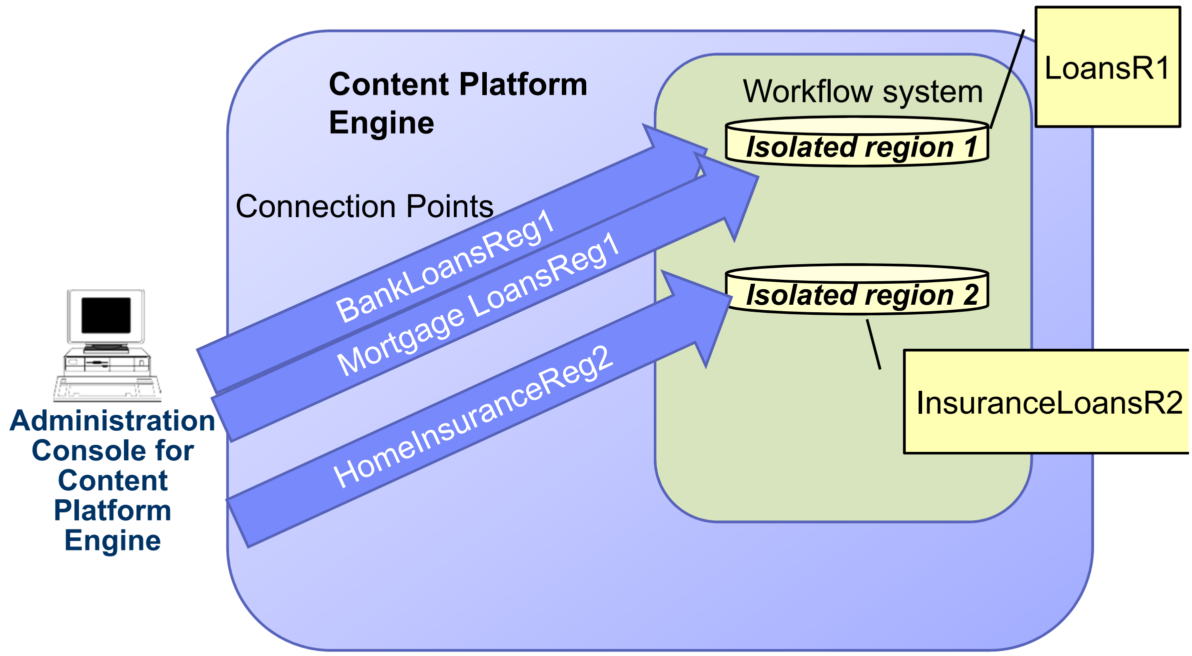


Figure 1-50. Create extra connection point and isolated region F2311.0

Notes:

Help path

Content Foundation 5.2.1>Administering>Administering Content Platform Engine>Defining the workflow system>Configuring the workflow system>Creating extra connection points and isolated regions

Connection points are used by a client application to connect to an isolated region, for example, an IBM Content Navigator desktop. You create a connection point with the Administration Console for Content Platform Engine. Multiple connection points can reference the same isolated region, so you can create aliases or easily remembered names for different business needs or applications.

When you create a connection point, you create an isolated region at the same time.

Client applications, such as the Administration Console for Content Platform Engine or an IBM Content Navigator desktop, connect to an isolated region with the connection point.

The diagram shows the administration console connected to two isolated regions.

- Isolated region 1, LoansR1, has two connection points, that point to it:

    - BankLoansReg1
    - MortgageLoansReg1
- Isolated region 2, InsuranceLoansR2, has one connection point, HomeInsurangeReg2.

Create and configure an isolated region and region objects

1. Create new connection point and isolated region

- Create a connection point
  - With Administration Console for Content Platform Engine

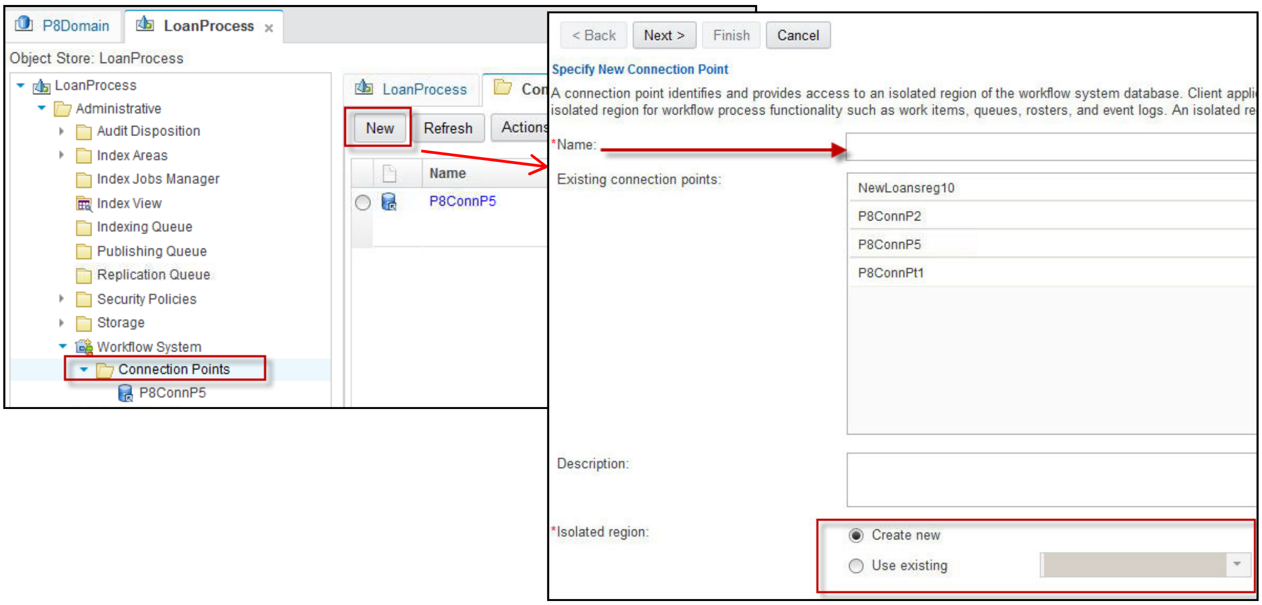


Figure 1-51. 1. Create new connection point and isolated region F2311.0

Notes:

You create more connection points and isolated regions with the Administration Console for Content Platform Engine.

The screen capture, on the left, shows the administration console with the LoanProcess object store open. The nodes, **Administrative > Workflow System** are expanded and the node, **Connection Points** is selected.

When you click **New,** the screen capture on the right is displayed. You create a connection point, enter the name of the connection point, then either create an isolated region or use an existing isolated region.

Create and configure an isolated region and region objects

Create isolated region objects

- Use Administration Console for Content Platform Engine to create region objects:
  1. Select the appropriate node for the new object under the isolated region node:
     - Application Spaces
     - Event Logs
     - Rosters
     - Work Queues
  2. Click New on the toolbar.
  3. Enter a unique name for the object and an optional description.
  4. Click Next.
  5. Click Finish.

Figure 1-52. Create isolated region objects F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Integrating workflow into document management>Configuring the workflow system>Isolated regions

Review: In Lesson 1.1, you learned that an isolated region is a logical subdivision of a workflow system that contains the application spaces, queues, event logs, rosters, and so on.

The workflow author is responsible for planning and defining the isolated region objects, during design and development of the workflow application. The workflow system administrator might be required to create isolated region objects in a non-development environment. It is common to provide an export of the isolated region, that contains all the objects, which can be imported into a new environment.

You follow the same basic steps to create all the isolated region objects.

a. Select the node for the region object you want to create.

b. Click New on the toolbar.

c. Enter a unique name for the region object and an option description.

d. Click Next.

e. Click Finish.

Note

The creation of Component Queues is covered in another course.

Create and configure an isolated region and region objects

Configuration options for isolated region objects

	Queues	Rosters	Event logs	Application Spaces
General	X	X	X	X
System Fields	X	X	X	
User Fields	X	X	X	
Indexes	X	X	X	
Security	X	X		X
Operations	X			
In-Baskets	X			
Roles				X
Custom Attributes				X

Figure 1-53. Configuration options for isolated region objects F2311.0

Notes:

Help paths

FileNet P8 Platform 5.2.1>Integrating workflow into document management>Configuring the workflow system>Getting started with Process Configuration Console>Queue, roster, and event log properties

FileNet P8 Platform 5.2.1>Administering>Administering Content Platform Engine>Defining the workflow system>Coordinating workflow design>Workflow options>Defining queues>Workflow queues>Defining operations

FileNet P8 Platform 5.2.1>Administering>Administering Content Platform Engine>Defining the workflow system>Coordinating workflow design>Workflow options>In-baskets

FileNet P8 Platform 5.2.1>Administering>Administering Content Platform Engine>Defining the workflow system>Coordinating workflow design>Workflow options>In-baskets>Defining roles

The table shows the configuration options available for each type of isolated region object.

The first column lists the tabs available when you configure an isolated region.

General – Properties that are defined at creation time, for example name and description. For the isolated region objects, only the description can be changed after creation.

System Fields –You can expose system fields available for use in a search filter or index.

User Fields – You can expose workflow data fields for use in a search filter or index.

Indexes – Facilitate and speed-up searches

Security – You can set security levels on queues, rosters, and application spaces. This controls ability to view and process work items. Security is covered in another unit.

Operations – Define an operation and its input and output parameters.

In-Baskets – Filter work items in a queue. Only items that are appropriate for a specific role are displayed.

Roles – Organize users and groups who process different types of activities in an application, by the function they perform. For example, Clerk, Approver.

Custom Attributes – Define metadata for the application space, so client applications can customize the user experience.

In the next few slides, you see how to use the Administration Console for Content Platform Engine to configure the isolated region objects.

Create and configure an isolated region and region objects

Configure user queues and work queues

- Configurable options for queues

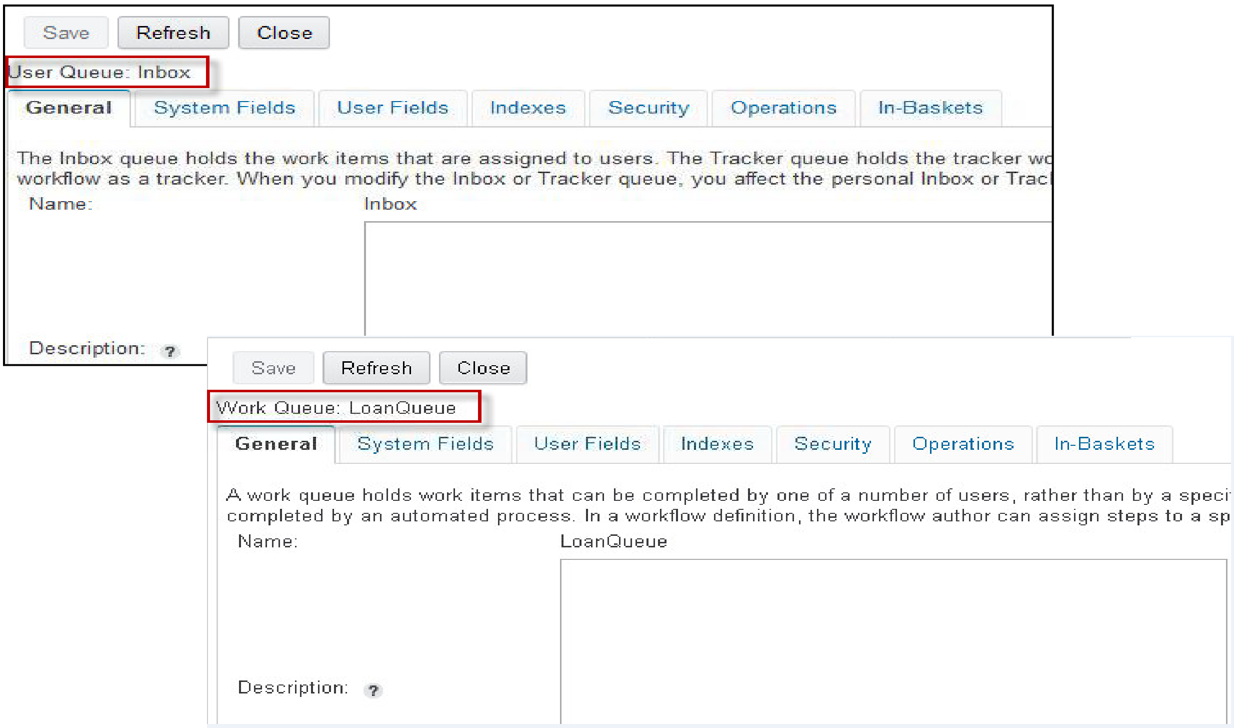


Figure 1-54. Configure user queues and work queues F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Integrating workflow into document management>Configuring the workflow system>Getting started with Process Configuration Console>Queue, roster, and event log properties

The two screen captures show the configurable options for a user queue, Inbox, upper left, and a work queue, LoanQueue, lower right.

Create and configure an isolated region and region objects

Configure event logs and rosters

- Configurable options for event logs and rosters.

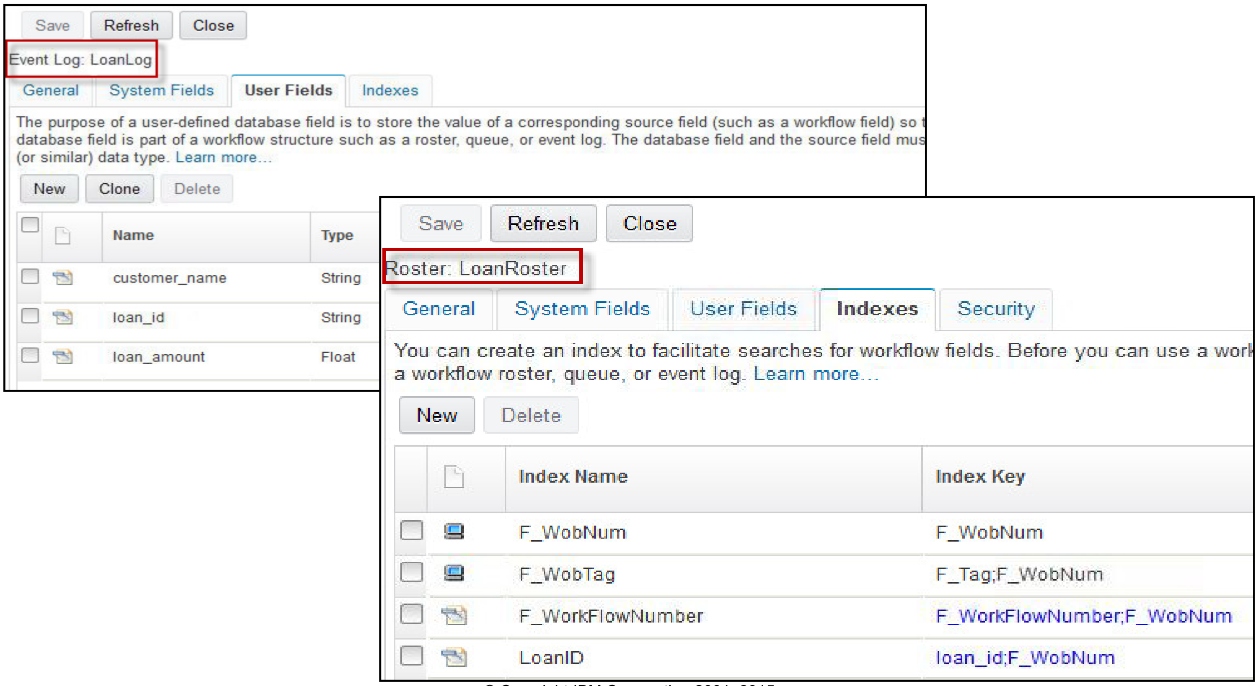


Figure 1-55. Configure event logs and rosters F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Administering>Administering Content Platform Engine>Defining the workflow system>Coordinating workflow design>Workflow options>Managing event logs>Configuring event logging options

The two screen captures show the configurable options for the event log, LoanLog, upper left, and the roster, LoanRoster, lower right.

The event log screen capture, on the upper left, has the User Fields tab selected, showing three user fields, customer_name, loan_id and loan_amount.

The roster screen capture, on the lower right, has the Indexes tab selected, showing the default indexes, and an extra index, LoanID, which was configured after the LoanRoster was created.

Create and configure an isolated region and region objects

Configure application spaces

- Configurable options for application spaces

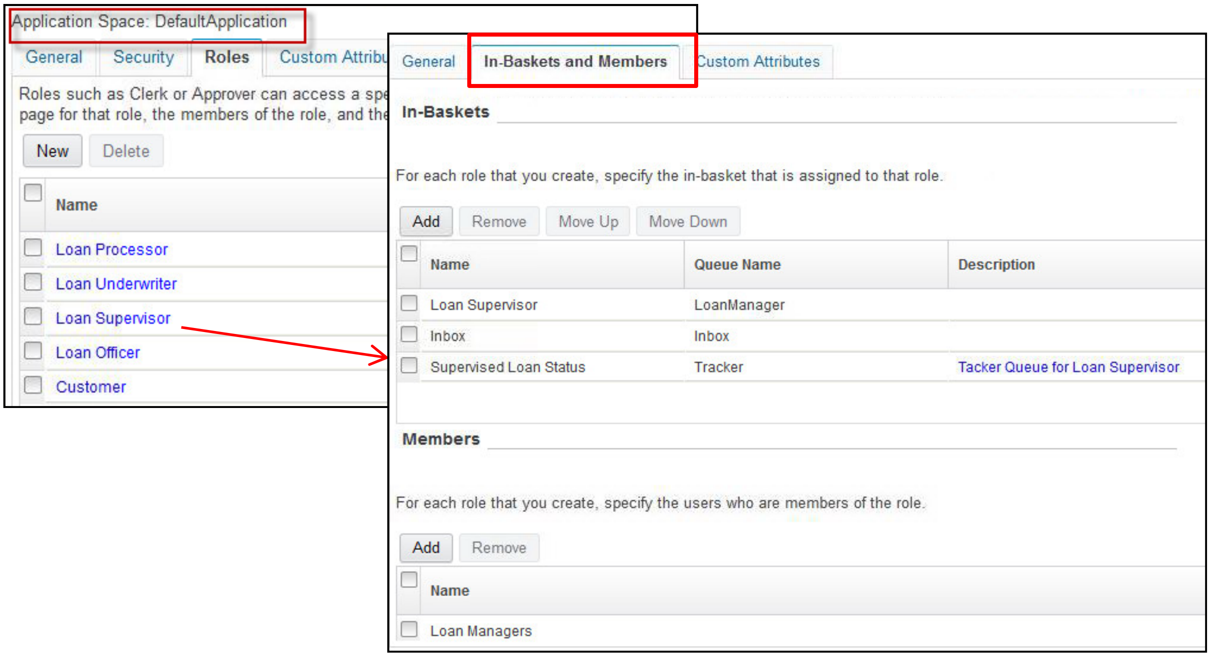


Figure 1-56. Configure application spaces F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Integrating workflow into document management>Configuring the workflow system>Manage application spaces

The two screen captures show the configurable options for an Application Space.

The screen capture on the left, shows the configurable options for the application space, DefaultApplication. Several roles are added. When you click the Loan Supervisor role, the screen on the right appears, where you can configure the role further. The In-Baskets and Members tab is selected. Notice that the Loan Supervisor in-basket is associated with the LoanManager queue. There is also an Inbox, which is a user queue and Supervised Loan Status, which is a Tracker user queue. The group, Loan Managers, is added as a member to this role. All users that are members of the LDAP group Loan Managers are members of the Loan Supervisor role.

Configuring an application space is covered in more detail in another lesson.

Create and configure an isolated region and region objects

Initialize an isolated region

- Use Administration Console for Content Platform Engine to:
  - Initialize an isolated region

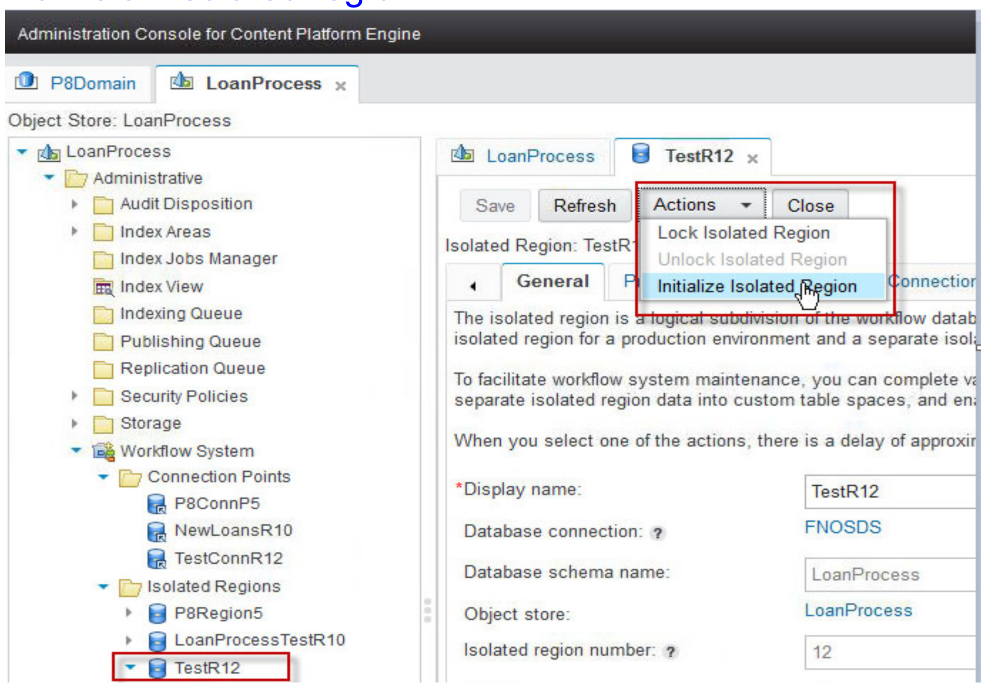


Figure 1-57. Initialize an isolated region F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Administering>Administering Content Platform Engine>Defining the workflow system>Maintaining the workflow system>Managing isolated regions>Initializing an isolated region

There can be times when you want to clean out all the configuration on an isolated region and start with a clean slate, as if you just created it. This situation is more common in development environments, but can occur in other environments as well.

There are a few isolated region objects, such as queues, which cannot be deleted, the only way to remove them is to initialize the isolated region.

Administration Console for Content Platform Engine provides an easy way to accomplish this task.

1. Open the object store that you want.
2. Expand **Administrative > Workflow System > Isolated Regions**
3. Select the region that you want to initialize.
4. Click **Actions > Initialize Isolated region**.

5. After it is done, click **Refresh**.

The screen capture shows the isolated region, TestR12. Initialize Isolated Region is selected from the Actions menu.

Important

Make sure any tabs, displaying region objects are closed, before initializing the region. If not, it can appear that region objects are left behind when they are not. If you get in this situation, close any open tabs for the region objects and click **Refresh** on the isolated region properties screen.

Create and configure an isolated region and region objects

Delete an isolated region

- Use Administration Console for Content Platform Engine
  - Delete the last connection point to an isolated region.

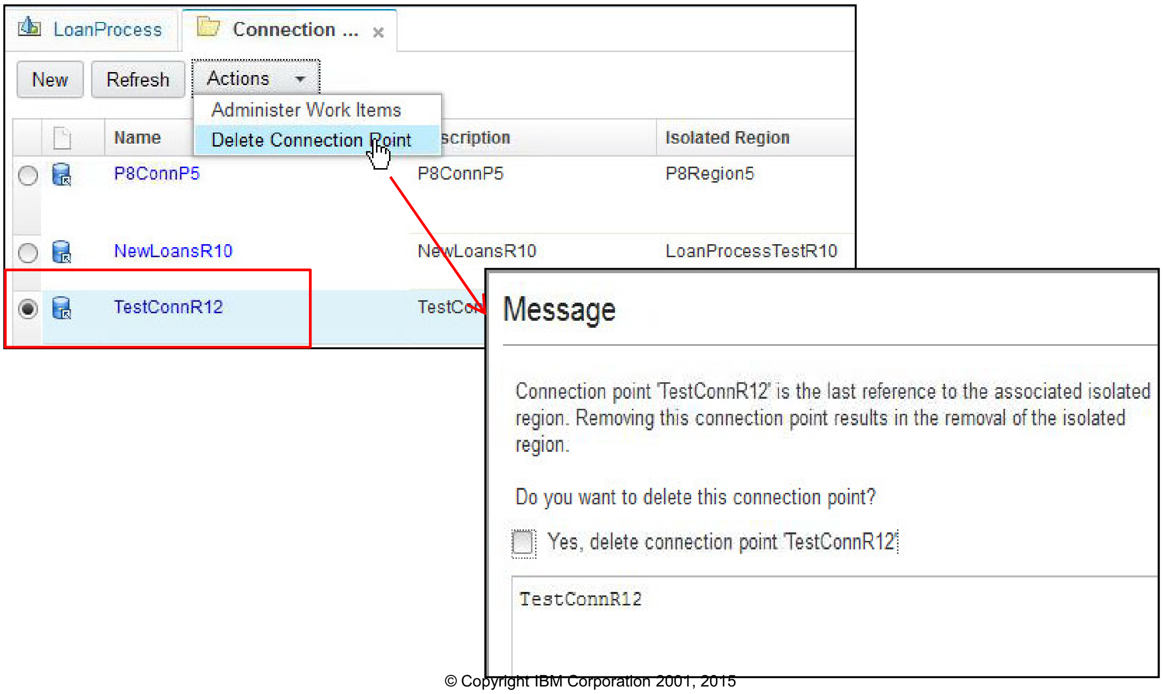


Figure 1-58. Delete an isolated region F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Administering>Administering Content Platform Engine>Defining the workflow system>Maintaining the workflow system>Managing isolated regions>Deleting an isolated region or workflow system

You use the Administration Console for Content Platform Engine to delete an isolated region or a workflow system. When you delete the last connection point for an isolated region, you are prompted with a message that states that the connection point is the last reference to the associated isolated region. Removing the connection point results in the removal of the isolated region. You must click Yes to complete the deletion.

Information

New behavior, introduced in IBM Case Foundation 5.2.0.

Create and configure an isolated region and region objects

Delete a workflow system

- Use Administration Console for Content Platform Engine
  - Delete the last connection point to the last isolated region.

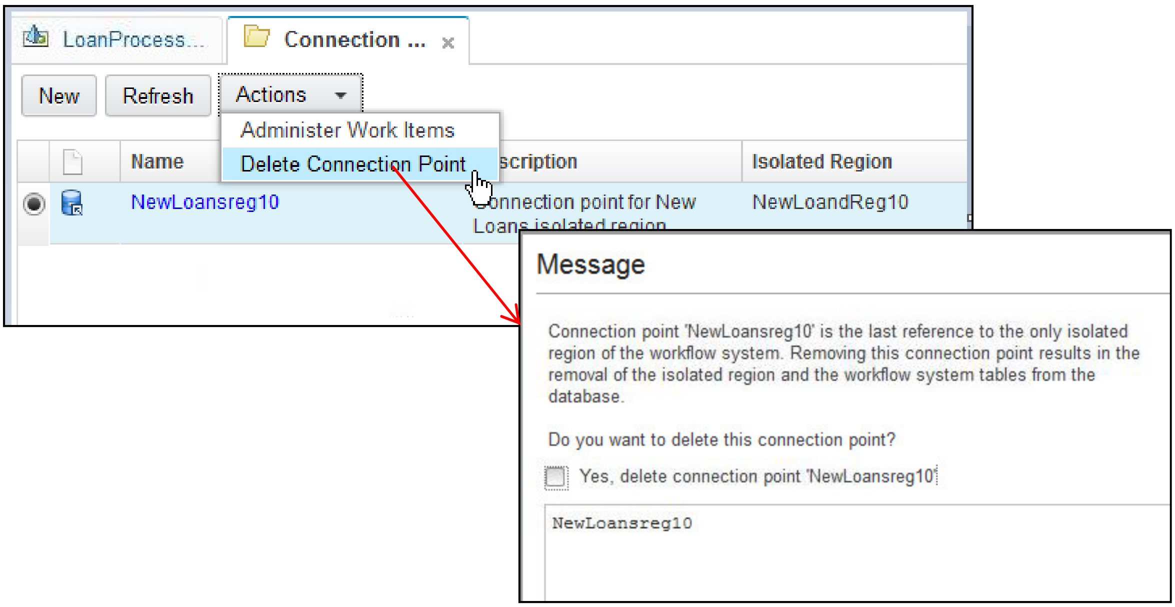


Figure 1-59. Delete a workflow system F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Administering>Administering Content Platform Engine>Defining the workflow system>Maintaining the workflow system>Managing isolated regions>Deleting an isolated region or workflow system

When you delete the last connection point to the last isolated region, you get a message that states that the connection point is the last reference to the only isolated region of the workflow system. Removing this connection point results in the removal of the isolated region and the workflow system tables from the database. You must click Yes to complete the deletion.

Important

Deleting the workflow system deletes any transferred workflows, processing workflows and work items. It does not delete the workflow definition files and class properties that are defined in the object store. In other words, deleting the workflow system deletes the runtime environment not the workflow definition.

Create and configure an isolated region and region objects

Export an isolated region configuration to XML

- Use the Process Configuration Console to:
  - Export all or specific components of an isolated region
    - Specific queues, rosters, event logs, application spaces
  - Quick method to back up your isolated region settings.

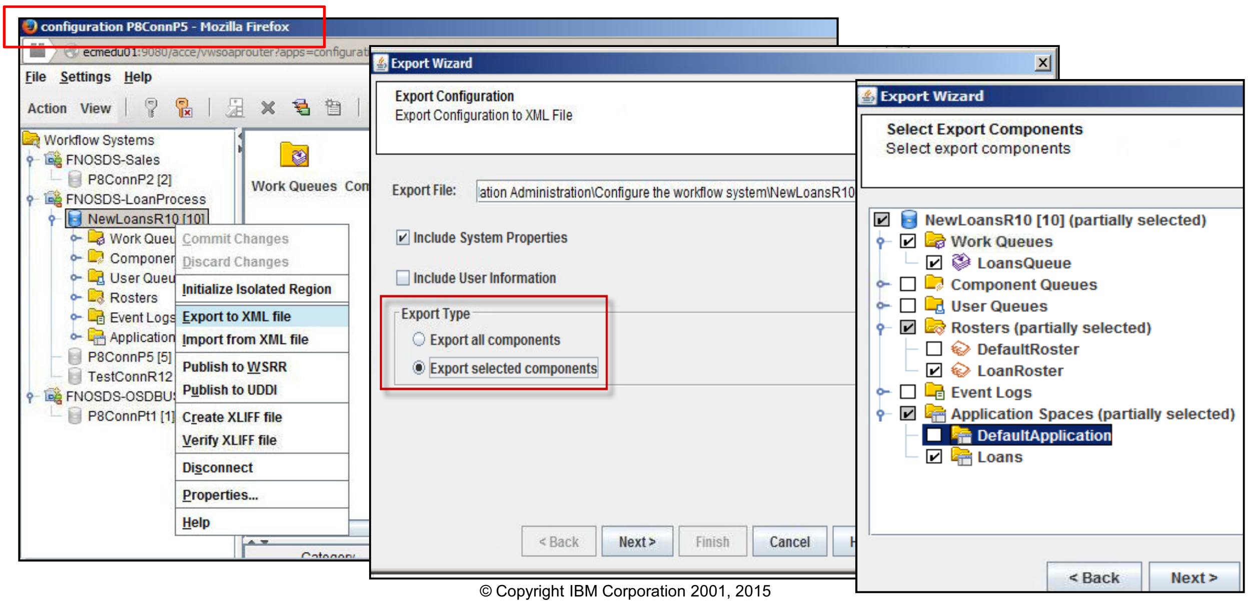


Figure 1-60. Export an isolated region configuration to XML F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Integrating workflow into document management>Configuring the workflow system>Isolated regions>Exporting the isolated region configuration to XML

The Process Configuration console can export the configuration of an isolated region to an xml file, which provides a quick method to back up your isolated region objects.

The screen captures, from left to right show:

1. The Process Configuration console, which is connected to the connection point P8ConnP5. Right-click the isolated region NewLoansR10 and select Export to XML.
2. The first screen of the Export Wizard, you (middle screen capture):
   - Specify the name of the export file that you want to create.
   - Select if you want to include System Properties and User Information.
   - Select if you want to export all components or selected components.

3. The second screen of the Export Wizard, displays if you selected to export selected components. You select what components to export. In this screen capture, the components that are selected are (right screen capture):
   - The work queue, LoanQueue
   - The roster, LoanRoster
   - The application space, Loans

To complete the export, you click **Next**. At the summary screen, you click **Finish**. The export file is located in the path you specified.

Important

Export is a quick method to save the configuration settings of an isolated region to an xml file for backup purposes or to import into another isolated region. This only works within a single FileNet P8 domain. FileNet Deployment Manager also supports the export and import of isolated region configuration settings, in the context a complete workflow application migration and it can handle importing into a different FileNet P8 domain. FileNet Deployment Manager is the best tool to use for workflow application migration. Migration and deployment of workflow applications is covered in another unit.

Create and configure an isolated region and region objects

Import an isolated region configuration from XML

- Use the Process Configuration Console to:
  - Import all or specific components of an isolated region

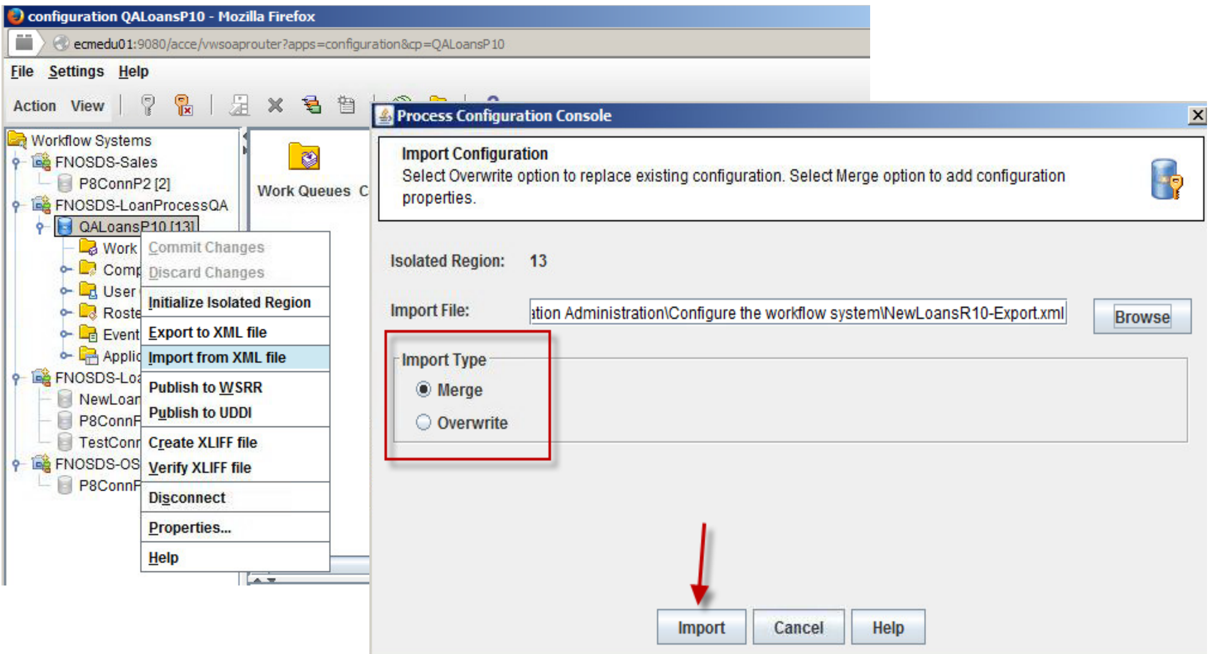


Figure 1-61. Import an isolated region configuration from XML F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Integrating workflow into document management>Configuring the workflow system>Isolated regions>Import configuration from XML

The Process Configuration console can also import the configuration of an isolated region from an exported xml file. A quick way to create an isolated region and configure it to match or closely match an existing isolated region.

The screen captures show:

1. The Process Configuration console, which is connected to the connection point QALoansP10.
   - Right-click the connection point.
   - Select Import from XML.
2. On the Import Configuration screen:
   - You browse to the XML export file that you want to import.

- You select if you want Merge or Overwrite. (Merge adds only new objects that do no exist. Overwrite replaces any existing objects.)
- You click **Import**.

Create and configure an isolated region and region objects

Isolated region objects in vwtool

- The following vwtool commands display isolated region objects and workflow database tables:
  - config
  - queueconfig
  - logconfig
  - rosterconfig
  - appspace
- Logical object names and physical table names are displayed.
  - The physical table name has the format:
    - *VW<object_type><region #>_ <table #>*
      - object_type: Roster, Queue, Log, ...
      - region #: The isolated region number
      - table #: unique number to uniquely identify the table
  - Examples: VWRoster5_254, VWQueue5_258, VWLog5_280

Figure 1-62. Isolated region objects in vwtool F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Administering>Administering Content Platform Engine>Defining the workflow system>Administrative tools>vwtool>Logical versus physical table names

There is another tool besides the Administration Console for Content Platform Engine that views the isolated region configuration. The command-line tool, vwtool. If you open a call with IBM Support, for a workflow issue, it is likely that the technical support consultant requests that you run vwtool to capture certain configuration information.

Certain queues, rosters, event logs, data fields, and indexes have both a logical name and a physical table name. The logical name is used for user reference only. It is the name that you enter when you create the object. You can use meaningful names, in the context of the application. The system creates unique physical table names that are mapped to the logical name so you do not need to worry about collisions with table names that exist in the database.

Create and configure an isolated region and region objects

Example: Using vwtool config command

- vwtool procedure

  1. Run the vwtool command:

     vwtool *<connection point>* [-v] [-Y] *[user]+[password]*

     <vwtool:#>

  2. To view the isolated region configuration details of the entire region.

     - Type **config**, at the prompt, <vwtool:#>**config**

  3. To exit the vwtool:

     <vwtool:#>**quit**

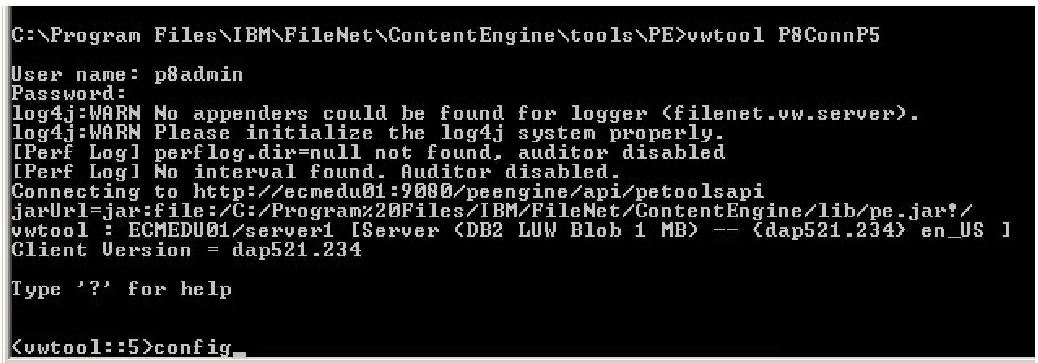


Figure 1-63. Example: Using vwtool config command F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Administering>Administering Content Platform Engine>Defining the workflow system>Administrative tools>vwtool>Start vwtool

To launch the vwtool command-line tool, you need to specify the connection point to connect to. The "Y' parameter, accepts the administrative username and password to use to connect to the specified connection point. Notice that the parameters are optional, if you include only the connection point, when you launch the tool, you are prompted for the username and password.

The command-line tool, vwtool, is covered in more detail in another unit.

The screen capture shows vwtool connected to the connection point, P8ConnP5. There are prompts for the username and password. At the vwtool prompt, the command, config, is typed.

Create and configure an isolated region and region objects

Demonstrations

- Create a connection point and isolated region
- Create isolated region objects

Figure 1-64. Demonstrations F2311.0

Notes:

Demonstration notes

Create a connection point and isolated region

1. Launch the Administration Console for Content Platform Engine and open the LoanProcess object store.
   a. Expand Administrative > Workflow System
2. Select Connection Points
3. Click **New**
   a. Data to complete the wizard:
      - Connection Point name: `NewLoansR10`
      - Isolated Region name: `LoanProcessReg10`
      - Isolated region number: `10`

Create isolated region objects

1. Create a work queue.
    a. Expand Isolated Regions > LoanProcessReg10
    b. Select **Work Queues**
    c. Click **New**
    d. Data to complete the wizard:
        - Queue name: `LoanQueue`
        - Description: `Queue to hold new loans`
2. Create a Roster.
    a. Select **Rosters**
    b. Click **New**
    c. Data to complete the wizard:
        - Roster name: `LoanRoster`
        - Description: `Roster for processing new loans`
3. Create an Application Space.
    a. Select **Application Spaces**
    b. Click **New**
    c. Data to complete the wizard:
        - Application space name: `Loans`
        - Description: `Application Space for processing new loans`

IBM Case Foundation 5.2.1: Configure the workflow system

Exercise introduction

Create a connection point and isolated region

- In this lab exercise, you will:
  - Create a connection point, which simultaneously creates the associated isolated region.

Create isolated region objects

- In this lab exercise, you will:
  - Create a queue.
  - Create a roster, event log, and application space.
  - Explore the isolated region objects with vwtool.
  - Explore the workflow system database tables.

Figure 1-65. Exercise introduction F2311.0

Notes:

Exercise introduction slide. Review each of the exercises and the objectives.

Configure in-baskets and roles

Overview of activities

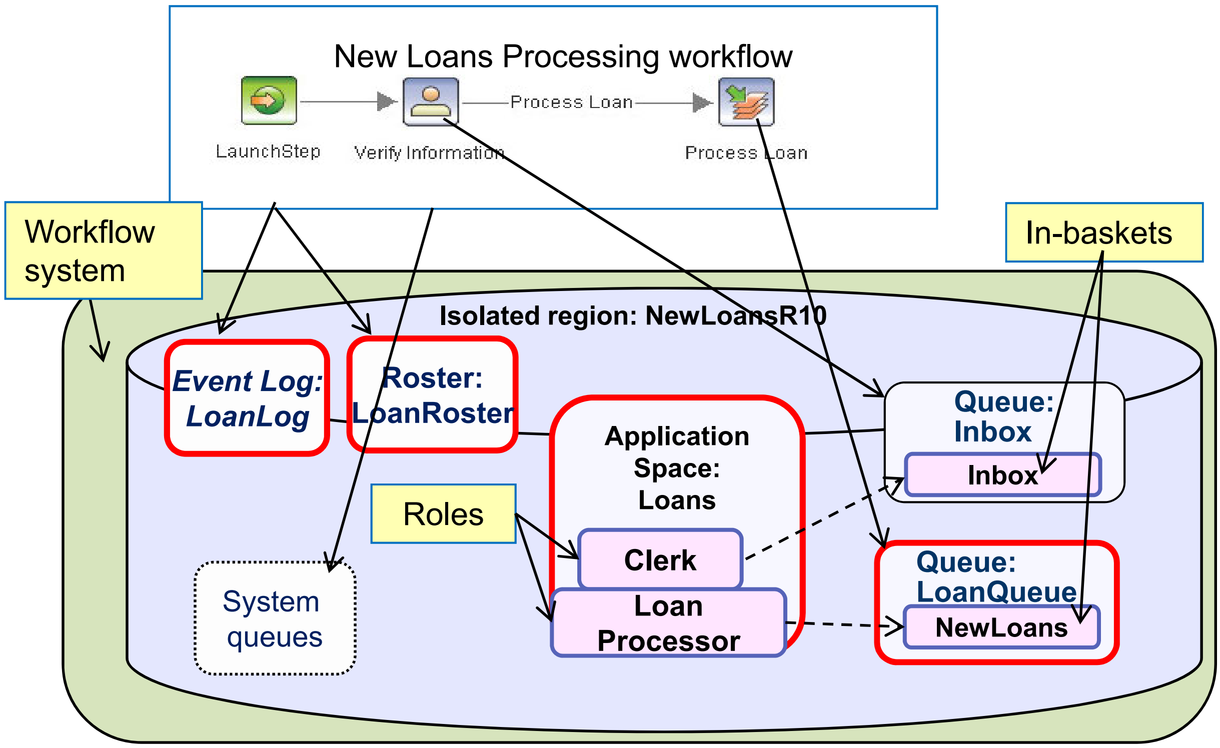


Figure 1-66. Overview of activities F2311.0

Notes:

You continue to build the isolated region objects that you need to transfer the workflow, New Loans Process workflow.

Here are the diagrams that were introduced in the previous lesson. The New Loans Processing Workflow in the top diagram. The workflow system, isolated region, and region objects that are required to transfer and process the workflow, in the bottom diagram.

In the exercises for this lesson, you create the isolated region objects, which are outlined in red with a thicker line.

- Work Queue: LoanQueue
- Event log: LoanLog
- Roster: LoanRoster
- Application space: Loans

Create and configure an isolated region and region objects

Activities

In your Student Exercises

- Unit: Configure the workflow system
- Lesson: Create and configure an isolated region and region objects
- Activities:
  - Create a connection point and isolated region
  - Create isolated region objects
  - Explore isolated region objects with vwtool
  - Explore the workflow system database tables

Figure 1-67. Activities F2311.0

Notes:

Use your Student Exercises book and your student system to perform the activities that are listed.

Lesson 1.4. Expose data fields

Lesson

Expose data fields

Why is this lesson important to you?

- It is common for workflow applications to have user fields, for example, loan_id and customer_name. Some are used for internal processing and some need to be exposed to facilitate searching and tracking changes in the event logs.
- As a workflow author or workflow system administrator, you need to know how to expose user fields in an isolated region.

Figure 1-68. Expose data fields F2311.0

Expose data fields

Activities that you need to complete

- Expose data fields

Figure 1-69. Activities that you need to complete F2311.0

Notes:

Activities that you need to complete in this lesson.

Expose data fields

Workflow data fields

- Workflow fields
  - All the user fields and system fields in a single workflow
  - Workflow properties usable in one or more workflow steps
- Field values
  - Stored in a binary format inside a work item
  - Not directly readable until opened in a step processor
- When the workflow is running
  - Field values are limited to the current workflow instance.
  - Field values can change as the workflow processes.
  - A field value set at one step is available in subsequent steps that use the same field.

Figure 1-70. Workflow data fields F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Integrating workflow into document management>Process applications concepts>Design and run workflows>Workflow and database fields

Workflow fields are all the user fields and system fields that are contained in a workflow. They are properties usable in one or more workflow steps.

The workflow field values are stored in a binary format, inside a work item, not directly readable until opened in a step processor.

When the workflow is running, the field values:

- Are limited to the current workflow instance
- Can change as the workflow processes.

A field value set at one step is available in subsequent steps that use the same field.

Expose data fields

User data fields

- User fields
  - Designed by the workflow author, and the application developer.
  - Configured in the isolated region by the workflow system administrator and the workflow author.
- User fields hold values that are used as follows:
  - By a participant or automated process at a step.
  - For conditional tests or decisions.
- A data field definition includes:
  - Name, data type, and an initial value.
  - In IBM Case Foundation, five data types are supported:
    - Boolean, Float, Integer, String, Time

Figure 1-71. User data fields F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Integrating workflow into document management>Configuring the workflow system>Getting started with Process Configuration Console>Queue, roster, and event log properties>Managing data fields

User fields are defined by the workflow author and the application developer, during the design of the workflow application.

User fields are configured within an isolated region by either the workflow author or the workflow system administrator.

Important

Exposing workflow fields adds to the system overhead, both in space and performance. Add them judiciously.

Expose data fields

System data fields

- System fields
  - Are data fields that the Process Services automatically define.
  - Are data fields that the system uses to process system functions.
  - Are queried and used by applications and administrators.
- Sample system fields
  - F_Subject
  - F_StepName
  - F_Locked
  - F_Overdue
  - F_TimeStamp (logs only)
  - F_WobNum
  - F_Originator
  - F_BoundUser
  - F_Tag
- Table in the IBM Knowledge Center describes all system fields:
  - Field name usage, data type
  - Whether the field must be exposed for system processing

Figure 1-72. System data fields F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Integrating workflow into document management>Process applications concepts>Design and run workflows>System fields definitions

By convention, all system field names have the following prefix: F_

These names are reserved.

Expose data fields

Exposed data fields

- Use Administration Console for Content Platform Engine to expose data fields in a queue, roster, or event log.
  - Some system fields are exposed by default.
- When you specify an exposed data field:
  - It can be used in searching and sorting of work items.
  - It adds a column to the physical table of the isolated region object.
  - It becomes accessible outside of a step processor.
- An exposed field
  - Is readable in its native format without opening the work item in a step processor.
  - Is available to use in a search filter to define an index, and to store information in an event log.
  - Is stored in a column of the table that is created for a queue.

Figure 1-73. Exposed data fields F2311.0

Notes:

Help paths

FileNet P8 Platform 5.2.1>Integrating workflow into document management>Configuring the workflow system>Getting started with Process Configuration Console>Queue, roster, and event log properties>Managing data fields

FileNet P8 Platform 5.2.1>Integrating workflow into document management>Configuring the workflow system>Getting started with Process Configuration Console>Queue, roster, and event log properties>Managing system fields

You can specify exposed data fields in a queue, roster, or event log. Exposing a data field makes it available for use in a search filter or when defining an index.

Exposing a data field makes it accessible outside of a step processor. Typically, the data field values in a work item are stored in a binary format inside the work item. You need to use a step processor to access the data field values. In contrast, when you specify an exposed data field, the data is stored with the work item outside of its binary container and in its native readable format (string, integer, Boolean). You can access the data field value without opening the work item in a step processor.

The workflow author selects the data fields to be exposed, based on the requirements of the workflow application.

Important

Exposed of data fields add to the system overhead, both in space and performance. Expose only the data fields that you need.

Expose data fields

Purpose of exposed data fields

- To perform system functions.
  - System requires certain exposed system fields.
- Allow use in search filters.
- Allow use in indexes.
  - Track, search, and sort on the field values.
- To allow other IBM Case Foundation components to use the fields.
  - Case Analyzer
  - Rules Connectivity Framework

Use exposed data fields in search criteria in the Administration Console for Content Platform Engine.

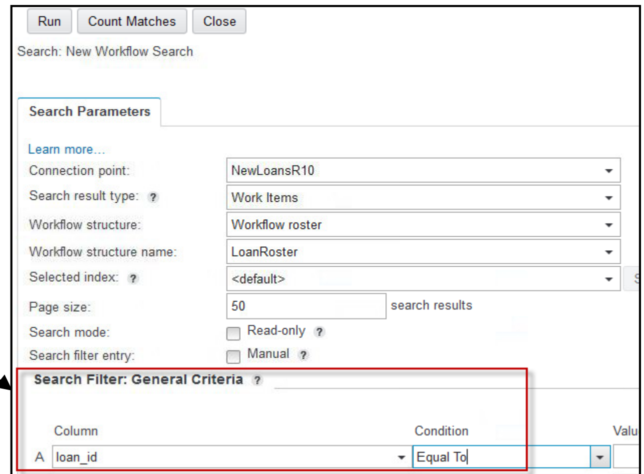


Figure 1-74. Purpose of exposed data fields F2311.0

Notes:

Exposed data fields can be used in search filters and indexes. Indexes are presented in the next lesson. IBM Case Foundation components, such as Case Analyzer and the Rules Listener, use exposed field values if they are configured for the system. Case Analyzer can read these values if they are exposed on the Event logs. External Web Services can receive parameters based on field values.

An example scenario for exposing a data field: The ABC Bank has a loan process application. In the ABC Bank customer portal, only a logged-in customer can see their own items, based on the customer ID. The workflow administrator exposes the customer_id data field in the LoanQueue work queue and creates an index for customer_id.

The screen capture on this page illustrates the exposed user field, loan_id, used in specifying the search filter criteria within a workflow search in the Administration Console for Content Platform Engine.

Expose data fields

How to expose system fields

- Use Administration Console for Content Platform Engine:
  1. Open the object store.
  2. Select the isolated region.
  3. Select the queue, roster, or log.
  4. In the System Fields tab, add the field name to the selected list.
  5. Save the changes.
- Most system fields are exposed by default for process services to function.
  – You cannot delete or modify system fields exposed by default.
  – Identified by the System symbol. 
- You can define more, exposed, system fields
  – For queues, workflow rosters, and event logs.

Figure 1-75. How to expose system fields F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Integrating workflow into document management>Configuring the workflow system>Getting started with Process Configuration Console>Queue, roster, and event log properties>Managing system fields

The System Fields tab for a queue, roster, or event log, in the Administration Console for Content Platform Engine, displays all the exposed system fields for the queue, roster, or event log. If you click Add in the System Fields tab, you get a list of the system fields that are not already exposed. You can remove any system fields that you add, but you cannot remove the system fields that are exposed by default.

The monitor icon indicates a mandatory, exposed system data field.

Information

Starting with IBM Case Foundation 5.2.1, most of the functions, provided by the Process Configuration Console, were added to the Administration Console for Content Platform Engine. The Process Configuration Console is still supported, for compatibility with an earlier versions. The IBM Knowledge Center still has sections that use the Process Configuration Console for isolated region configuration. The configuration of the isolated region objects is similar between the two tools, so you can still use the existing information in the IBM Knowledge Center with the Administration Console for Content Platform Engine.

Expose data fields

How to expose user fields

- Use Administration Console for Content Platform Engine:
  1. Open the object store.
  2. Select the isolated region.
  3. Select the queue, roster, or log.
  4. In the User Fields tab, click **New** or **Clone** to add the user field.
  5. Save the changes.
- Available for queue, workflow roster, and event log
  – You can add, change, or delete exposed user fields.
  – You cannot delete a field that is used by an index.

Figure 1-76. How to expose user fields F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Integrating workflow into document management>Configuring the workflow system>Getting started with Process Configuration Console>Queue, roster, and event log properties>Managing data fields

To expose a user field, you use the Administration Console for Content Platform Engine and follow the steps that are listed. The steps are almost identical to the steps you follow to expose system fields.

You can expose user fields to queues, rosters, and event logs.

Expose data fields

Define new user field

- In the User Fields tab, click **New**.
  - Enter the field name and data type.

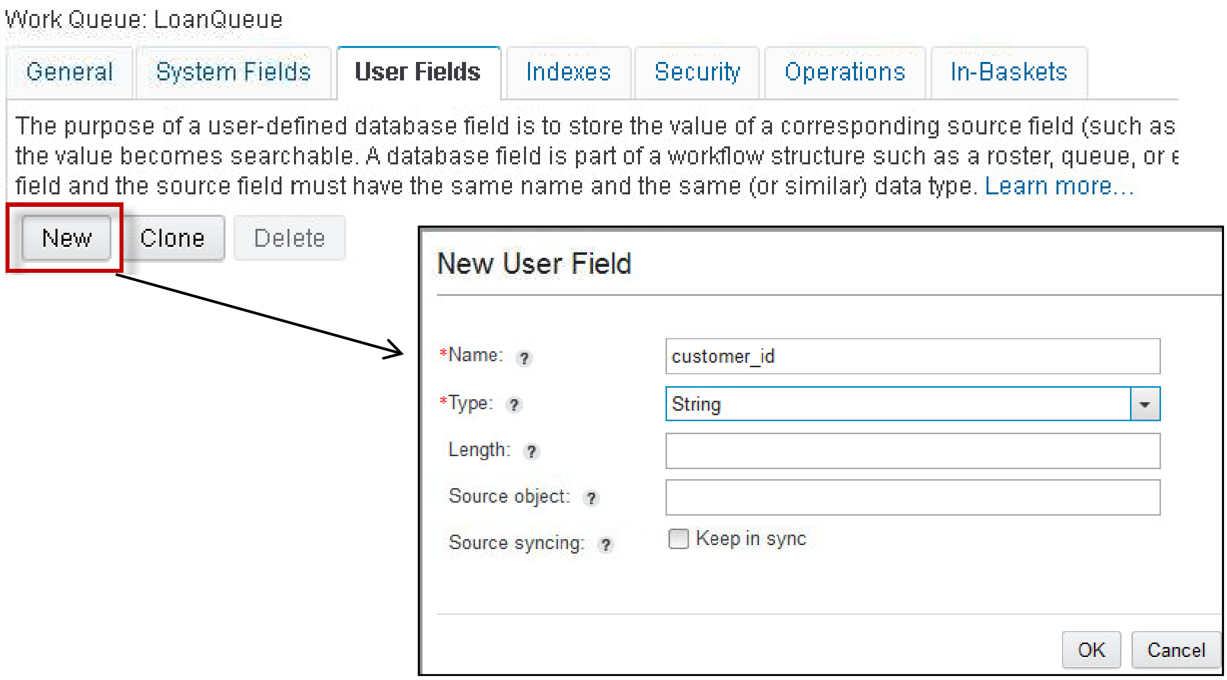


Figure 1-77. Define new user field F2311.0

Notes:

To add an exposed user field, click **New** in the User Fields tab. In the New User Field screen, enter the name of the field, and the data type. You can also define a length for the field. The **Source object** and **Source syncing** are only used by IBM Case Manager. Leave them blank for workflow applications.

The user field name must match the spelling and case of the workflow property name, as well as the data type. If you define a New user field, each data field is defined uniquely. Even if another object with the same display name exists, the two user fields are two distinct objects.

The screen capture, on the left, shows the LoanQueue with the User Fields tab selected. When you click **New**, the New User Field screen displays, on the right.

Expose data fields

Copy existing user fields

- In the User Fields tab, click **Clone**.
  - Select the data fields from the list.

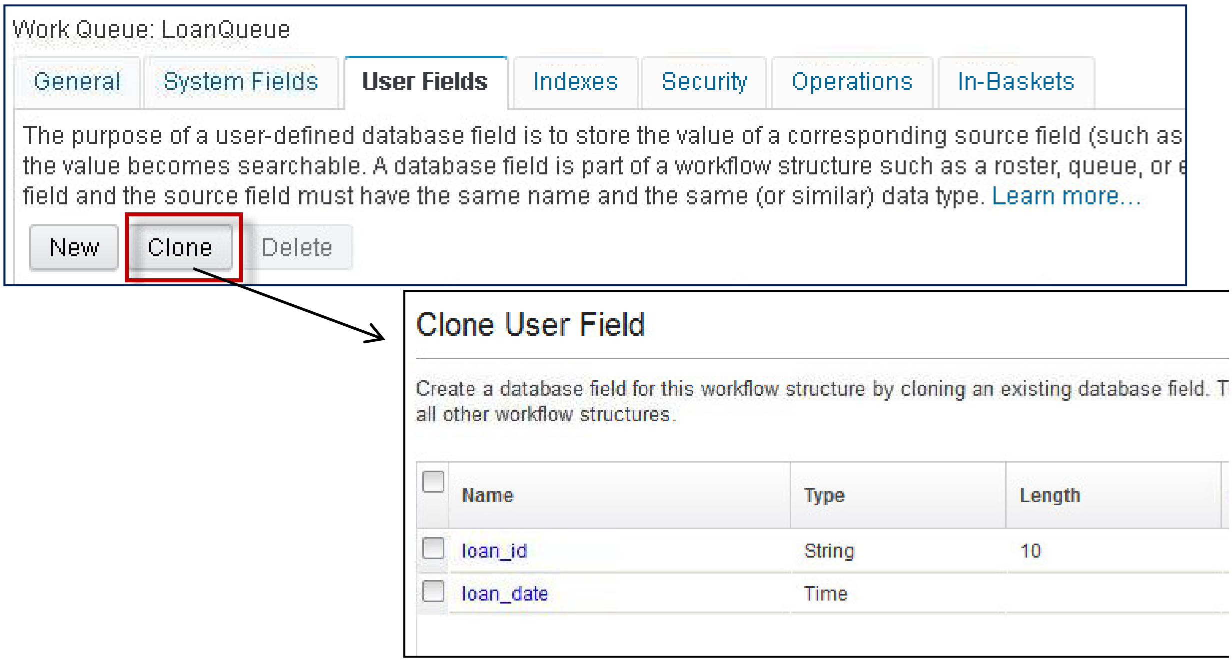


Figure 1-78. Copy existing user fields F2311.0

Notes:

To copy data fields that are exposed in another queue, roster or event log, click **Clone** in the User Fields tab.

Select the exposed data fields from the list and click OK.

Save your changes.

The screen capture, on the left, shows the LoanQueue with the User Fields tab selected. When you click **Clone**, the Clone User Field window is displayed, on the right, which lists the existing data fields that can be copied.

Expose data fields

Demonstrations

- Expose data fields.

Figure 1-79. Demonstrations F2311.0

Notes:

Demonstration notes:

This demonstration shows you how to expose data fields in a queue by using the Administration Console for Content Platform Engine.

1. Launch the Administration Console for Content Platform Engine and open the object store, LoanProcess.
2. Select the isolated region, LoanProcessR10.
3. In the region hierarchy, select the event log, LoanLog, that you previously created.
4. In the User Fields tab, add a data field to the list of Field Names by clicking **New**, and typing the field information in the New User Field window: `customer_name, String, 50`
5. Click OK.
6. Save your changes.
7. In the region hierarchy, select the queue, **LoanQueue**, that you previously created.
8. Copy an existing data field by clicking **Clone**.

9. In the Clone User Field window, click customer_name to view the details of the exposed data field and its usage.
10. Click OK or Cancel to close the Exposed Data Field Detail window.
11. Select the customer_name field and click OK to add it to the LoanQueue.
12. Save the changes.

IBM Case Foundation 5.2.1: Configure the workflow system

Exercise introduction

Expose data fields

- In this lab exercise, you will:
  - Expose system fields to the event log, LoanLog.
  - Expose user fields to the queue, LoanQueue.
  - Copy existing user fields to another isolated region object.
  - Verify the exposed user fields with vwtool.
  - Explore the database tables with DB2 Control Center.

Figure 1-80. Exercise introduction F2311.0

Notes:

Exercise introduction slide. Review each of the exercises and the objectives.

Expose data fields

Activities

In your Student Exercises

- Unit: Configure the workflow system
- Lesson: Expose data fields
- Activities:
  – Expose data fields.

Figure 1-81. Activities F2311.0

Notes:

Use your Student Exercises book and your student system to perform the activities that are listed.

Lesson 1.5. Define indexes

Lesson

Define indexes

Why is this lesson important to you?

- The loan processors are complaining that it is taking a long time to search for work.
- As a workflow administrator, you need to define an index to make searching more efficient.
- As a workflow author, it is important to understand what data fields make good indexes to ensure efficiency in the workflow application.

Figure 1-82. Define indexes F2311.0

Define indexes

Activities that you need to complete

- Define indexes

Figure 1-83. Activities that you need to complete F2311.0

Notes:

Activities that you need to complete in this lesson.

Define indexes

Purpose for indexes

- Indexes facilitate searching.
  - Indexes are helpful when queues and workflow rosters contain large numbers of work items.
  - Indexes determine the order in which work items, which are assigned to users, appear in their inboxes.

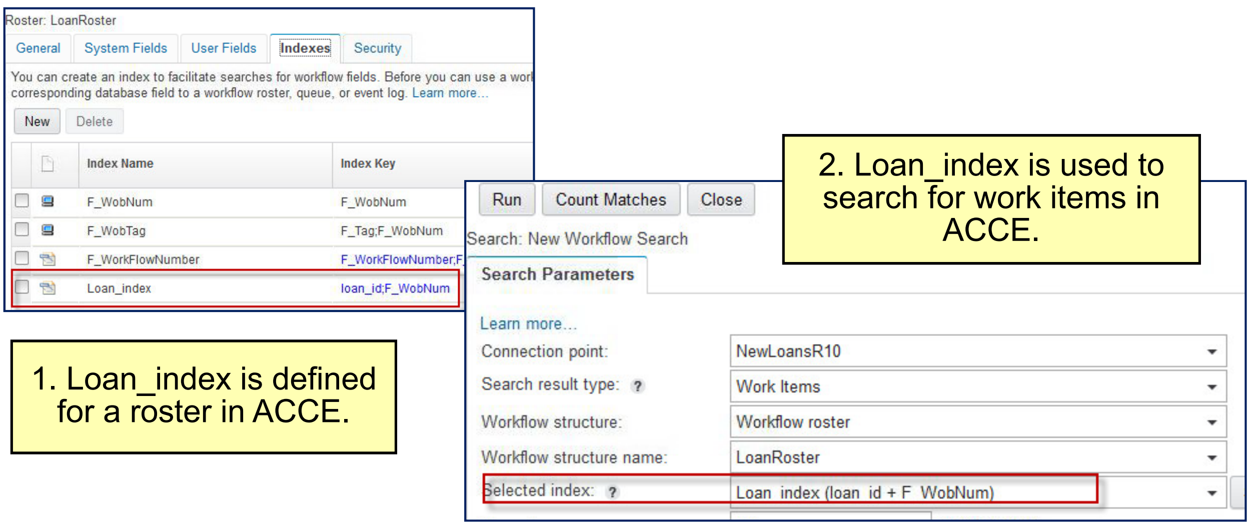


Figure 1-84. Purpose for indexes F2311.0

Notes:

Help path

Content Foundation 5.2.1>Administering>Administering Content Platform Engine>Defining the workflow system>Coordinating workflow design>Workflow options>Database fields and indexes>Managing workflow indexes

Indexes facilitate efficient searching.

Indexes, created in the Administration Console for Content Platform Engine, are available to use as search criteria in the administration console or the Process Administrator tool. The index facilitates a fast search and is especially helpful when queues and rosters contain large numbers of work items.

The screen capture on the left shows the Administration Console for Content Platform Engine (ACCE), with the Indexes tab selected. The red box, highlights the index that is called Loan_index, which is defined on a roster. After the index is defined, it can be used to search for work. The screen capture on the right shows the index, Loan_index, used to perform a roster search for work items in the New Workflow Search, available in the administration console.

Important

An index must not exceed the maximum index key size.

- Some system indexes appear with no index key fields defined. The fields that are indexed are not available for querying and are not displayed in the list.
- A roster index must contain the F_WobNum field. If this field is not included in your indexed fields, it is added.
- An event log index must contain the F_TimeStamp and F_SeqNumber fields. If these fields are not included in your indexed fields, they are added.
- Do not use F_QueueWPClassId as the first or only field for an index on a queue because the system uses this index internally for cases where two queues share a physical table.

Define indexes

How to create an index

- Use Administration Console for Content Platform Engine:
  1. Open the object store.
  2. Select the isolated region.
  3. Select the queue, roster, or log.
  4. In the Indexes tab, click New and enter the index name.
  5. Select the fields for the index (order is significant).
  6. Save the changes to the isolated region.
- System indexes are defined by default.
  – They are required for functioning of process services.
  – Example: PWDefaultOrder - index, on user queues, determines the order that work is displayed (can be modified).
- You can define more indexes.
  – Define them for queues, rosters, and event logs.
  – Use exposed fields as index key fields.

Figure 1-85. How to create an index F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Administering>Administering Content Platform Engine>Defining the workflow system>Coordinating workflow design>Workflow options>Database fields and indexes>Managing workflow indexes

You use the Administration Console for Content Platform Engine to create an index. The index name that you specify is a logical name. The Content Platform Engine assigns the physical index name to prevent conflict with existing index names and tables.

System (required) indexes are indicated with a System icon in the first column. System indexes begin with “F_”.

User indexes can have any name that the user chooses, within acceptable naming conventions.

Information

The index name must begin with a letter, contain only letters, numbers, or underscores, and be no more than 128 characters in length. Do not use names that start with F_ to avoid conflicts with FileNet P8 reserved names.

You can select a combination of system and user fields to include in an index.

The Inbox and Tracker queues have a special PWDefaultOrder index that sets the order in which work items are displayed in an in-basket. The default index key is F_EnqueueTime and can be modified.

Add only indexes that you need, too many indexes contribute to increased system overhead, both in space and performance.

Define indexes

Simple and composite indexes

- Simple indexes use one exposed field.
  - Search on index is more efficient than search that uses the exposed field.
  - When the index is used to retrieve work, it is presented in order of the data field.
- Composite indexes use more than one exposed field.
  - They have multiple keys.
  - The sequence of fields is important.
    - Most commonly accessed or most selective columns go first.

Figure 1-86. Simple and composite indexes F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Integrating workflow into document management>Process applications concepts>Administration and configuration>Restrictions>Maximum index key size

You can have simple or composite indexes. Simple indexes use one exposed field. Composite indexes use more than one exposed field.

Composite indexes can speed retrieval of data for search filters in which the filter conditions reference all or the leading portion of the columns in the composite index.

The sequence of the fields that are used in the composite index is important. Generally, the most commonly accessed data field goes first.

The maximum index size and the number of fields are based on the type of database that the workflow system uses. See the IBM Knowledge Center topic for specific restrictions.

Define indexes

Manage indexes

- Index expressions can be modified.
- Indexes can be deleted.
  - Indexes use system resources.
  - Remove indexes that are not used.
  - Indexes that use a data field must be deleted before the data field can be deleted.
- Exception: mandatory, system-defined indexes
  - Cannot be changed or deleted.
  - Indicated by the System symbol. 

Figure 1-87. Manage indexes F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Integrating workflow into document management>Configuring the workflow system>Getting started with Process Configuration Console>Queue, roster, and event log properties>Managing indexes

You can modify or delete indexes. The system defines a number of required system indexes. They are indicated by the monitor icon, which is shown.

Define indexes

Demonstrations

- Define an index for a queue.

Figure 1-88. Demonstrations F2311.0

Notes:

Demonstration notes

This demonstration shows you how to define an index for a queue by using Administration Console for Content Platform Engine.

1. Launch The Administration Console for Content Platform Engine, and connect to the isolated region, **LoanProcessR10**, within the LoanProcess object store.
2. In the region hierarchy, select the work queue, **LoanQueue**.
3. Click the **Indexes** tab and view the default indexes for the work queue.
4. Click **New** to create a new index.
5. Type an index name: `Customer_index`
6. Move the fields from the list of **Available Items** to the list of **Selected items**, `loan_id`, `customer_name`, `loan_amount`.
7. Click OK.
8. Save your changes.

9. Open vwtool and use the **queueconfig** command to verify the index that you defined.

Information

Make sure that the index keys, for the Customer_index, are listed in the correct order. You can multi-select from the available fields and click the right arrow to move them to the list of Keys. Use the up and down arrows on the right to order them.

IBM Case Foundation 5.2.1: Configure the workflow system

Exercise introduction

Define indexes

- In this lab exercise, you will:
  – Define indexes with exposed user fields.
  – View the indexes with vwtool.
  – Explore the database tables.

Figure 1-89. Exercise introduction F2311.0

Notes:

Exercise introduction slide. Review the exercise and the objectives.

Define indexes

Activities

In your Student Exercises

- Unit: Configure the workflow system
- Lesson: Define indexes
- Activities:
  - Define indexes.

Figure 1-90. Activities F2311.0

Notes:

Use your Student Exercises book and your student system to perform the activities that are listed.

Lesson 1.6. Configure in-baskets and roles

Lesson

Configure in-baskets and roles

Why is this lesson important to you?

- The client application requires that in-baskets and roles be defined to process a workflow.
- Workflow system administrators and workflow authors need to know how to create in-baskets and roles to allow for processing of workflow applications.

Figure 1-91. Configure in-baskets and roles F2311.0

Configure in-baskets and roles

Activities that you need to complete

- Create and configure in-baskets.
- Create and configure roles.

Figure 1-92. Activities that you need to complete F2311.0

Notes:

Activities that you need to complete in this lesson.

Configure in-baskets and roles

Purpose of in-baskets and roles

- In-baskets – filter work items in a queue for a specific role.
- Roles – Determine the specific work items that are assigned to and processed by specific users and groups.

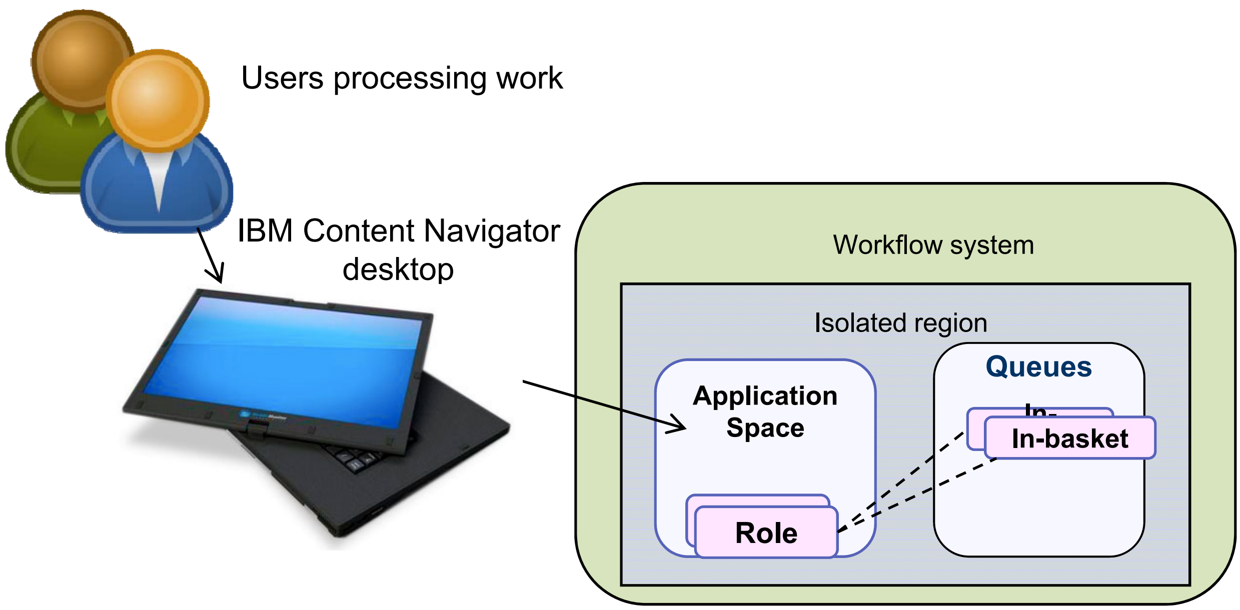


Figure 1-93. Purpose of in-baskets and roles F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Administering>Administering Content Platform Engine>Defining the workflow system>Coordinating workflow design>Workflow options>In-baskets

In-baskets provide a filtered view of a queue. Only items that are appropriate for a specific role are displayed. In-baskets are created within the context of a queue.

Roles determine the specific work items that are assigned to and processed by specific users and groups. For example, Loan Processor, Clerk. Roles are defined within the context of an application space. When you define a role, you assign:

- LDAP members to the role, either groups or individual users
- In-baskets

Important

The client application, IBM Content Navigator requires the use of roles and in-baskets in order to process work.

IBM Content Navigator desktops are assigned to application spaces, which contain the roles that are defined. Each role points to associated in-baskets, which must be defined in the isolated region, for the user to be able to view and process work items.

Information

Application spaces are not new, but were required by Workplace and Workplace XT, therefore not heavily used.

Starting with IBM Case Foundation 5.2.0, IBM Content Navigator desktops are the default client application for workflow processing.

Configure in-baskets and roles

How to create in-baskets

- Use Administration Console for Content Platform Engine to:
  - Open the isolated region.
  - Open the queue (user queue or work queue).
  - Select the In-Baskets tab.
- Click New
  - Provide the name and optional description.
  - Configure:
    - * Columns and Labels
    - Optional Filters
    - In-Basket Content
    - Custom Attributes

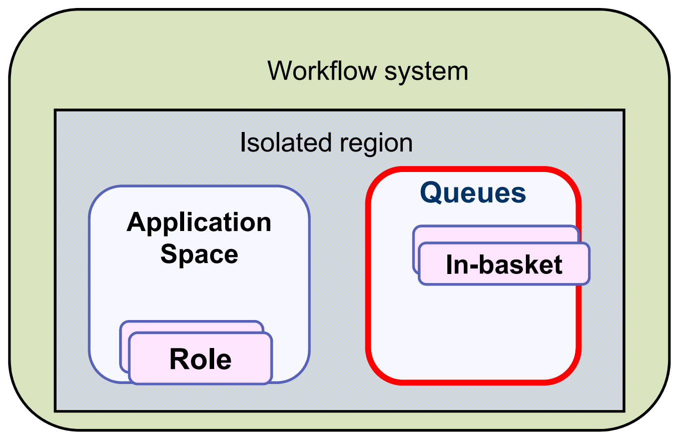


Figure 1-94. How to create in-baskets F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Administering>Administering Content Platform Engine>Defining the workflow system>Coordinating workflow design>Workflow options>In-baskets>Creating in-baskets

You use the Administration Console for Content Platform Engine to create in-baskets. In-baskets are a configurable attribute of a queue.

To create an in-basket you:

- Open the object store > workflow system > isolated region.
- Open the queue.
- Select the In-Baskets tab.
- Click **New**.
  - You must specify the name of the in-basket, an optional description and at least one field to display.
  - The rest of the configuration options can be set after creation.

The diagram shows a workflow system, with an isolated region and a queue, which is outlined in red with a thicker line, containing multiple in-baskets.

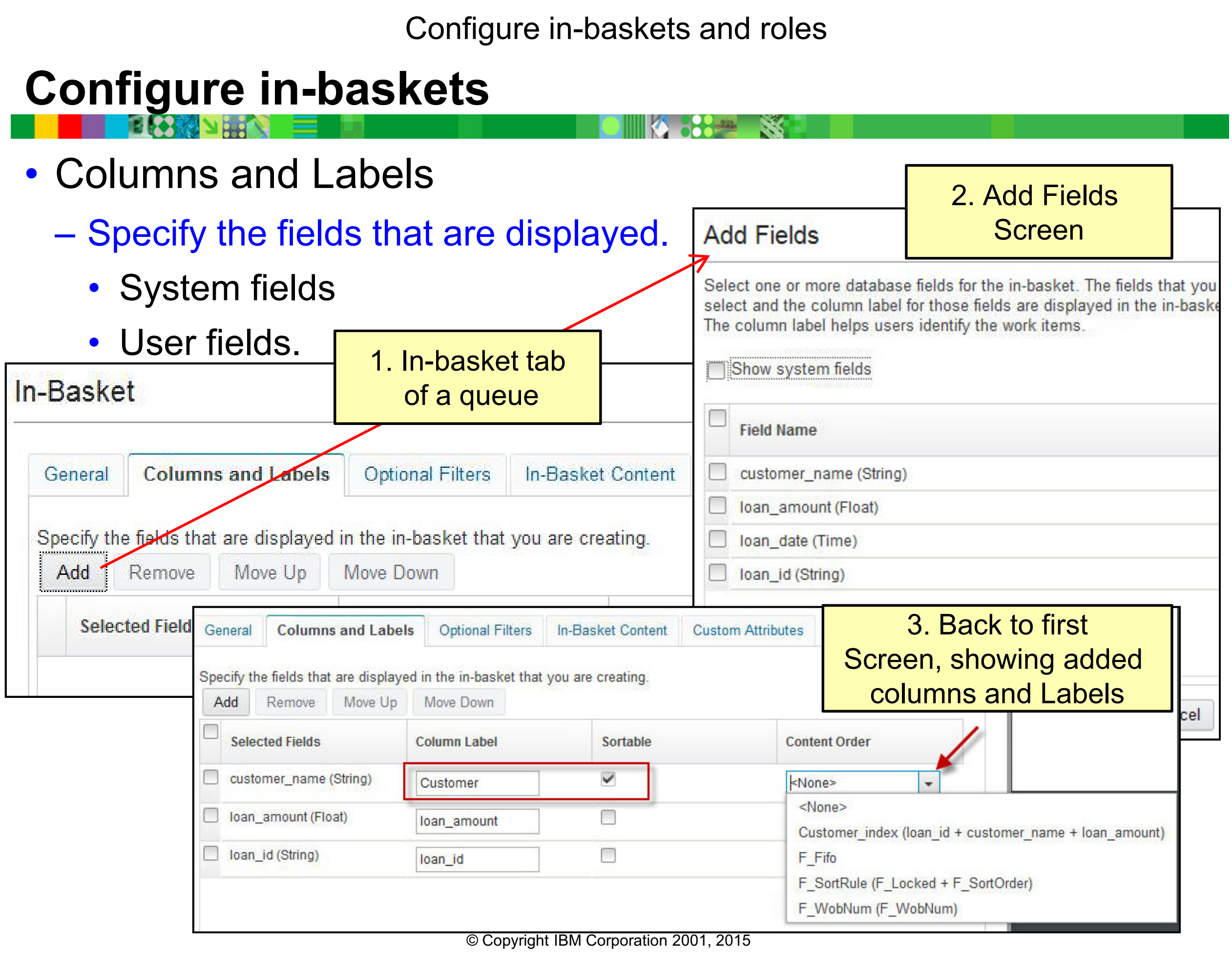


Figure 1-95. Configure in-baskets F2311.0

Notes:

The **Columns and Labels** tab allows you to add fields to display in the in-basket.

These are the fields and data values that the role, assigned to the in-basket, will see when processing work items.

1. The screen capture on the far left, shows the administration console, open to a an In-Basket, within a queue, with the Columns and Labels tab selected. You click Add.
2. The Add Fields screen is displayed, top right, allowing you to add system and user fields to display in the in-basket. Check the box to the left of the field name, to select the fields you want displayed.

Note

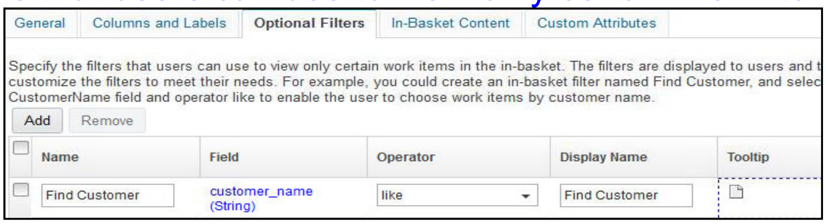
The list of non-system fields are the user fields that have been exposed in the queue.

3. After clicking OK on the Add Fields screen, the screen capture, on the bottom, is displayed, which is the same as the first screen, with the Columns and labels added. You can specify:
   - The Column Label
   - Whether or not the field is sortable
   - The Content order

Configure in-baskets and roles

Configure in-baskets (2)

- Optional Filters
  - Filters that users can use to view only certain work items



- In-Basket Content
  - Content displayed each time that a user runs a query.
    - Display all work items
    - Filter work items
- Custom Attributes
  - Used to define custom metadata for the in-basket.
  - Client applications can use to customize user experience.

Figure 1-96. Configure in-baskets (2) F2311.0

Notes:

There are more options for configuring in-baskets.

Optional Filters allow you to specify the filters that users can use to view only certain work items in the in-basket. The filters are displayed to users and they can customize the filters to meet their needs. For example, you can create an in-basket filter to enable the user to choose work items by customer name.

The screen capture shows a filter named, **Find Customer**, with:

- the field, **customer_name**
- The operator, **like**

In-Basket Content allows you to specify the content that is displayed in the in-basket each time a user runs a query. Users cannot change the filters at run time.

Custom Attributes allow you to add custom attributes to define custom metadata for the in-basket. Client applications can use this information to customize the user experience. For example, a client application might use custom attributes to refine what users can do in the in-basket such as the ability to assign work or move work to a personal in-basket.

Configure in-baskets and roles

How to create roles

- Use Administration Console for Content Platform Engine to:
  - Open the isolated region.
  - Open the application space.
  - Select the Roles tab.
- Click New
  - Provide the name, optional description, and URL of the home page.
  - Configure:
    - In-Baskets and Members
    - Custom Attributes

Figure 1-97. How to create roles F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Administering>Administering Content Platform Engine>Defining the workflow system>Coordinating workflow design>Workflow options>In-baskets>Defining roles

You use the Administration Console for Content Platform Engine to create roles. Roles are a configurable attribute of an application space.

To create a role you:

- Open the object store > workflow system > isolated region.
- Open the application space.
- Select the Roles tab.
- Click **New**.
  - You must specify the name of the role, an optional description and an optional URL for the home page of the role.
  - Select the **In-Baskets and Members** tab.

Configure in-baskets and roles

Add in-baskets and members to a role

- When you create a role you:
  - Add In-baskets to it.
  - Add Members to each role.

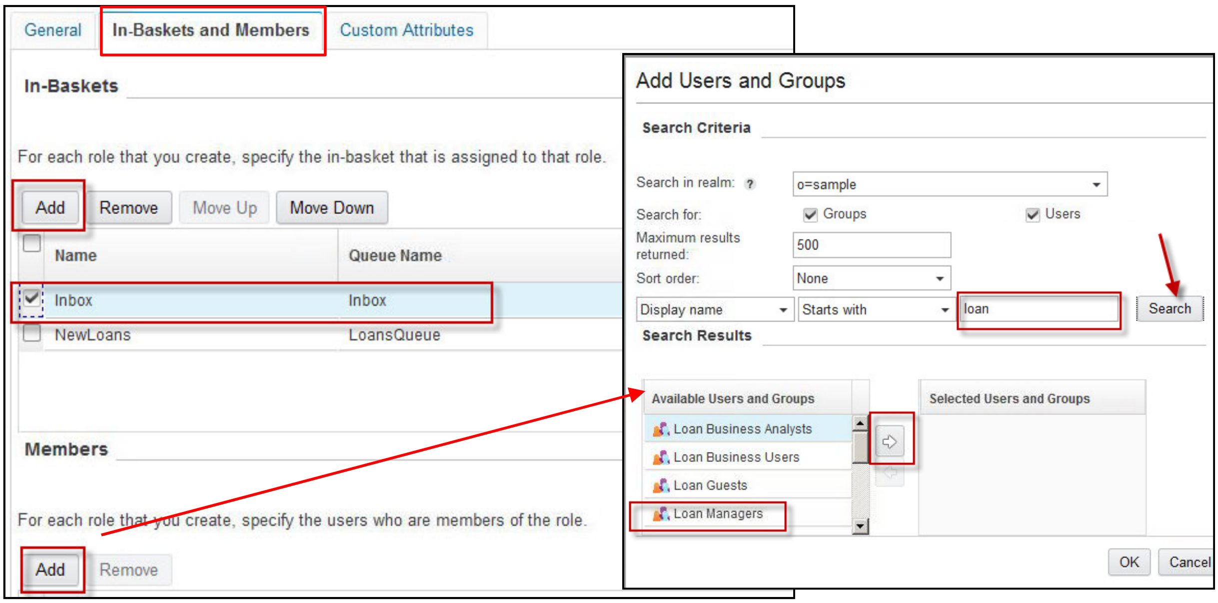


Figure 1-98. Add in-baskets and members to a role F2311.0

Notes:

In-Baskets and Members tab

You specify an in-basket to assign to the role. A role can have more than one in-basket.

The screen capture on the left, shows the administration console open to a role, with the In-Baskets and Members tab selected. In the in-baskets section, you click **Add** and add the in-baskets, Inbox and NewLoans.

Under the Members section, you select the LDAP users and groups to be added to the role. When you click **Add**, the **Add Users and Groups** window displays, screen capture on the right.

The Add Users and Groups window, allows you:

- To search your configured LDAP for users and groups.
- Select from the resulting list of **Available Users and Groups** and move them to the **Selected Users and Groups**.

Configure in-baskets and roles

Demonstrations

- Create and configure in-baskets and roles.

Figure 1-99. Demonstrations F2311.0

Notes:

Demonstration notes

Create and configure an in-basket

1. Launch Administration Console for Content Platform Engine
   a. Log in as the P8 Administrator:
      - user name: `p8admin`
      - password: `IBMFileNetP8`
2. Open the object store, **LoanProcess**.
3. Expand **Administrative > Workflow System > Isolated Region > LoanProcessR10 > Work Queues**
4. Select **LoanQueue**.
5. Select the **In-Baskets** tab.

6. Create the in-basket, NewLoans.
   a. Click **New**.
   b. Name: `NewLoans`
7. Configure the Columns and labels.
   a. Select the **Columns and Labels** tab.
   b. Click Add.
   c. Create the columns listed:

Selected Fields	Column Label	Sortable	Content Order
`customer_name`	`Customer`	yes	`F_SortRule(F_Locked + F_SortOrder)`
`loan_amount`	`Loan Amount`	yes	`F_SortRule(F_Locked + F_SortOrder)`
`loan_id`	`Loan ID`	no	none
`loan_date`	`Loan Date`	no	none

8. Select the **Optional Filters** tab.
   - Read the paragraph shown.
9. Select the **In-Basket Content** tab.
   - Accept the default of Display all work items
10. Select the **Custom Attributes** tab.
    - Read the paragraph shown.
11. Click **OK**.
12. Click **Save**.

Create and configure a role

1. Expand **Application Spaces**
2. Select **Loans**.
3. Select the **Roles** tab.
4. Click **New**.
   - Name: `Loan Processor`
   - In-Baskets and Members tab:
     - In-Baskets: Add
       - `NewLoans`
     - Members:
       - `Loan Processors, p8admins`
5. Click **OK**.

6. Repeat Step 5 - 6 with the values listed:
    - Name: `Clerk`
        - In-Basket: `Inbox`
        - Members: `olivia, p8admins`
7. Click **Save**.

IBM Case Foundation 5.2.1: Configure the workflow system

Exercise introduction

Create and configure in-baskets

- In this lab exercise, you will:
  - Create and configure an in-basket, **NewLoans,** for the work queue, LoanQueue.
  - Create and configure an in-basket, **MyWork,** for the user queue, Inbox.
  - Create and configure an in-basket, **Loans Status**, for the user queue, Tracker.

Create and configure roles

- In this lab exercise, you will:
  - Create and configure the roles:
    - **Loan Processor**
    - **Clerk**.

Figure 1-100. Exercise introduction F2311.0

Notes:

Exercise introduction slide. Review each of the exercises and the objectives.

Configure in-baskets and roles

Overview of activities

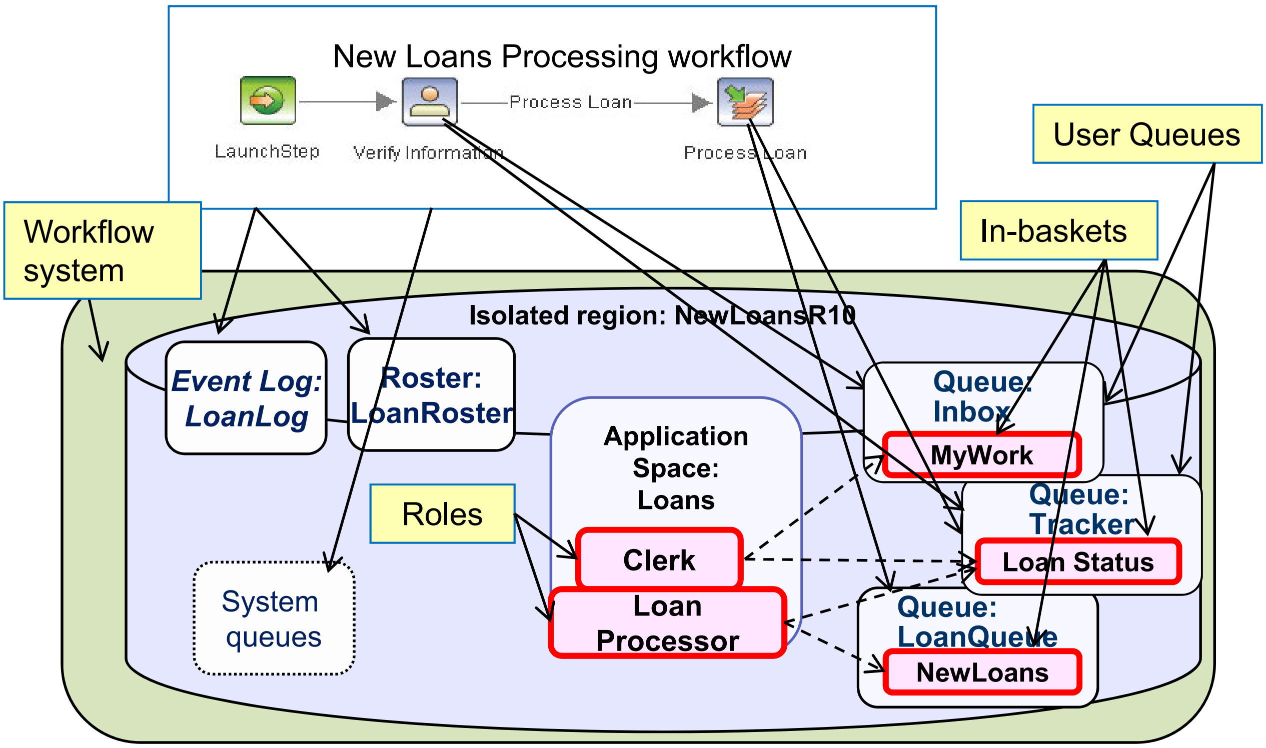


Figure 1-101. Overview of activities F2311.0

Notes:

The diagram is a review, from Lessons 3 and 4, which shows the workflow, **New Loans Processing Workflow**, in the top diagram, and the workflow system, isolated region and region objects required to transfer and process the workflow in the bottom diagram.

In Lessons 5 and 6, you exposed user fields and defined a few indexes.

In the exercises for this lesson you create and configure the final isolated region objects, in-baskets and roles, outlined in red with a thicker line.

You will create:

- Three in-baskets:
  - MyWork – in-basket for the user queue, Inbox.
  - Loan Status – in-basket for the user queue, Tracker.
  - NewLoans – in-basket for the work queue, LoanQueue.
- Two roles:
  - Loan Processor – points to the NewLoans and Loan Status in-baskets.

- Clerk – points to the MyWork and Loan Status in-baskets.

Configure in-baskets and roles

Activities

In your Student Exercises

- Unit: Configure the workflow system
- Lesson: Configure in-baskets and roles
- Activities:
  – Create and configure in-baskets.
  – Create and configure roles.

Figure 1-102. Activities F2311.0

Notes:

Use your Student Exercises book and your student system to perform the activities listed.

Lesson 1.7. Configure Content Navigator for workflow

Lesson

Configure Content Navigator for workflow

Why is this lesson important to you?

- An IBM Content Navigator desktop needs to be created and configured so users can process the New Loans Processing workflows.
- Workflow system administrators and workflow authors need to know how to create an IBM Content Navigator desktop and configure it so that it can be used as a client application for workflow authoring and processing.

Figure 1-103. Configure Content Navigator for workflow F2311.0

Configure Content Navigator for workflow

Activities that you need to complete

- Create and configure a Content Navigator desktop for workflow
- Configure the desktop to open Process Designer and Process Tracker
- Test the New Loans Processing workflow

Figure 1-104. Activities that you need to complete F2311.0

Notes:

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

Configure Content Navigator for workflow

Purpose of a Content Navigator desktop

- Web application that provides a user interface
- You can create several desktops
  – Configure each one differently by:
    - Appearance
    - Available features and repositories
    - Connection point

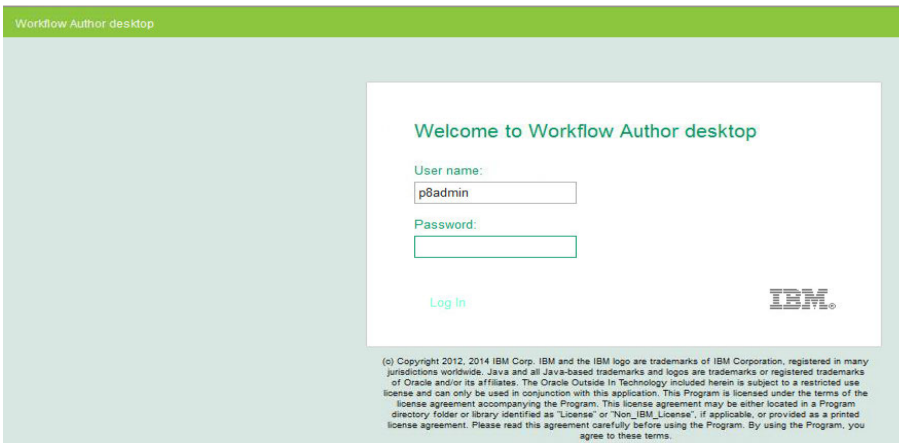


Figure 1-105. Purpose of a Content Navigator desktop F2311.0

Notes:

Help path

Content Navigator 2.0.3>Planning, installing, and configuring IBM Content Navigator>Administering IBM Content Navigator components>Configuring the IBM Content Navigator web client>Defining desktops>Desktops

A Content Navigator desktop is an instance of the Content Navigator web application, which provides a user interface for processing work items.

You can configure several desktops and configure each one differently by:

- Appearance
- Available features and repositories
- Connection point

Note

This lesson will focus on configuring a desktop for workflow. To learn more about configuring and customizing Content Navigator desktops refer to the IBM Content Navigator courses available or the IBM Content Navigator Knowledge Center.

The screen capture shows an example of an IBM Content Navigator desktop login window, the Workflow Author desktop.

Configure Content Navigator for workflow

Steps to configure a desktop for workflow - overview

1. Point a repository to a connection point
2. Create a Content Navigator desktop
3. Configure the desktop for workflow
4. Register the process applets plug-in - optional
   – Configure desktop to run Process Designer
   – Configure the desktop to run Process Tracker

Figure 1-106. Steps to configure a desktop for workflow - overview F2311.0

Notes:

Help path

Content Navigator 2.0.3>Planning, installing, and configuring IBM Content Navigator>Administering IBM Content Navigator components>Integrating IBM FileNet P8 workflows in IBM Content Navigator

There are three main steps required to configure a desktop for workflow:

1. Point an existing repository or new repository to the connection point that references the isolated region.
2. Create a Content Navigator desktop.
3. Configure the desktop for workflow.

Step 4 is an optional step that is only needed if you are creating a desktop that needs the ability to run the Process Designer or the Process Tracker tools.

In the next few slides you will cover each of these steps in more detail.

After completing the three steps, your Content Navigator desktop is ready to process work items in a workflow. It would be very common to create different desktops for specific roles. For example a desktop for:

- Workflow authors and developers (need ability to launch Process Designer and Process Tracker).
- Workflow managers or supervisors who track the progress of a workflow (need ability to launch Process Tracker)
- Clerk (only need ability to view and process work items for their specific role)
- Workflow administrators (need the Administration Console for Content Platform Engine and Content Navigator Administration tool features)

Configure Content Navigator for workflow

Point a repository to a connection point

- Use Content Navigator administration tool.
- Point an existing repository or a new repository to:

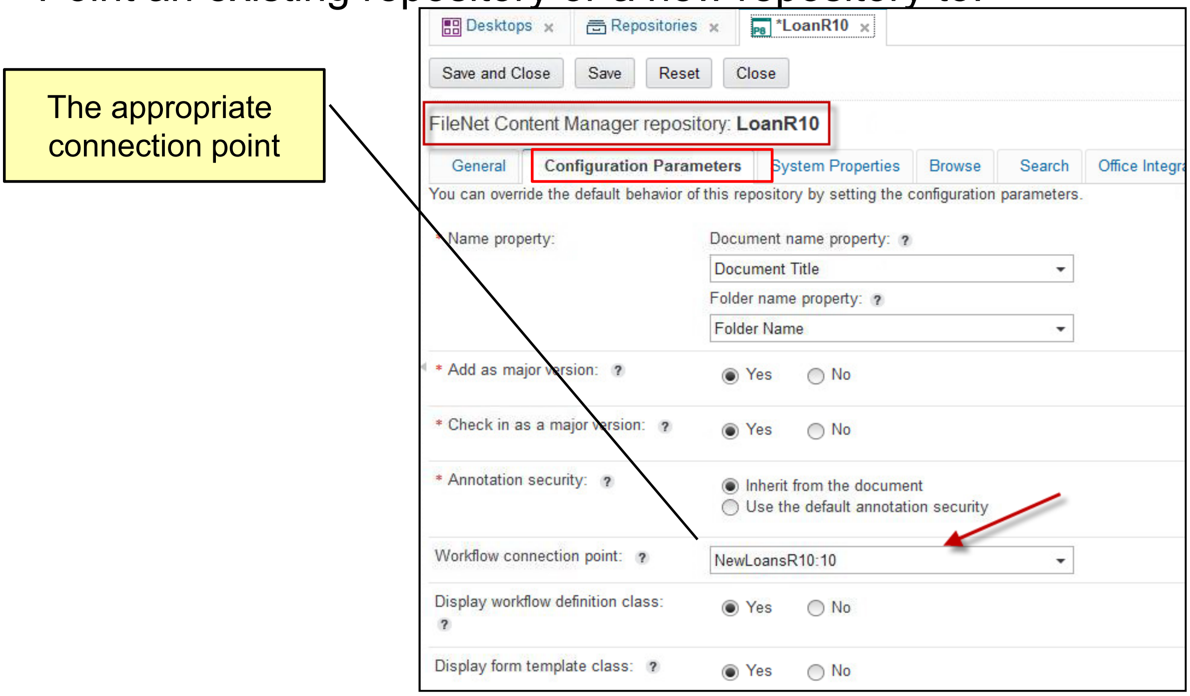


Figure 1-107. Point a repository to a connection point F2311.0

Notes:

Before you can create a desktop, you need to have a repository that points to the appropriate connection point. You can either use an existing repository or create a new repository. You can have multiple repositories for the same object store, each pointing to a different connection point.

The screen capture shows the IBM Content Navigator administration tool. A repository is being created, LoanR10, top red box, and the Configuration Parameters tab is selected, lower red box. The arrow points to the place where you specify the workflow connection point for the repository.

Configure Content Navigator for workflow

Create a Content Navigator desktop

- Use the Content Navigator administration tool
  - – Define the desktop

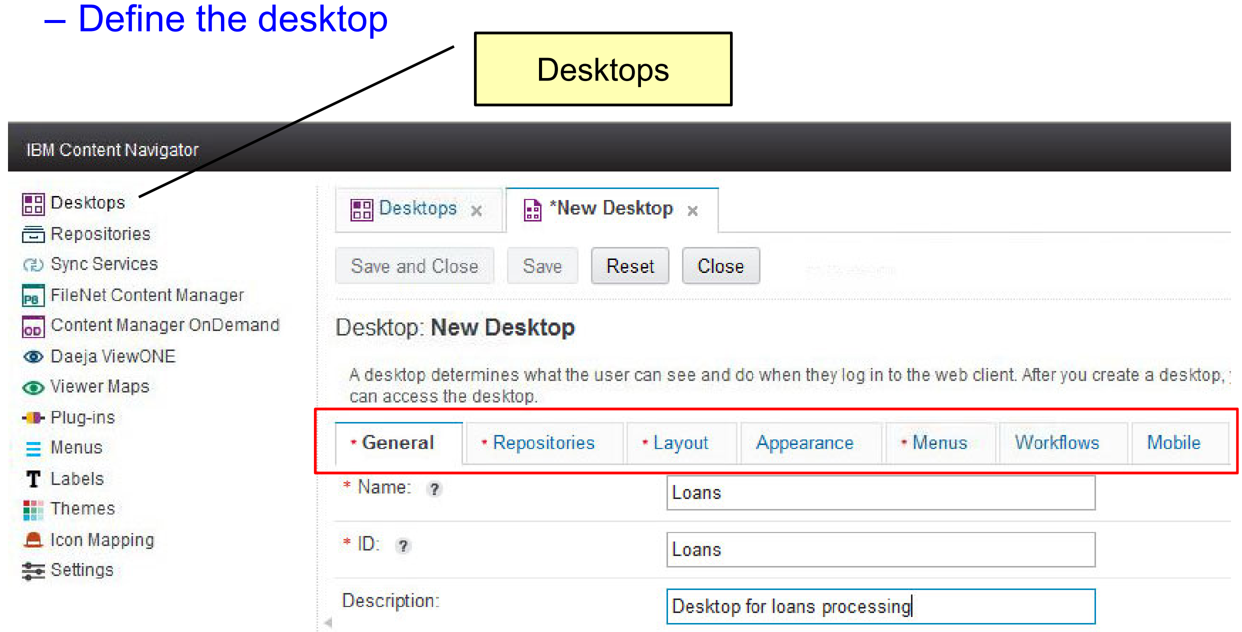


Figure 1-108. Create a Content Navigator desktop F2311.0

Notes:

Help path

Content Navigator 2.0.3>Planning, installing, and configuring IBM Content Navigator>Administering IBM Content Navigator components>Configuring the IBM Content Navigator web client>Defining desktops

You use the Content Navigator administration tool to define a new desktop.

The screen capture shows the New Desktop wizard. Notice the tabs displayed.

- General tab
  - Configure repository to use to authenticate users
- Repositories tab
  - Specify the repositories users can access
- Layout tab
  - Default features
    - Favorites, Browse and Search

    - Add Work feature to support processing work items.
  - Appearance tab
    - Customize the application name, theme color, etc.
  - Menus tab
    - Specify which menus users have access to and customize the menu actions.
  - Workflows tab
    - Specify which Application Spaces are displayed in the desktop.
  - Mobile tab
    - Configure the desktop for mobile devices.

Configure Content Navigator for workflow

Configure the desktop for workflow

- Steps that are required to configure the desktop for workflow

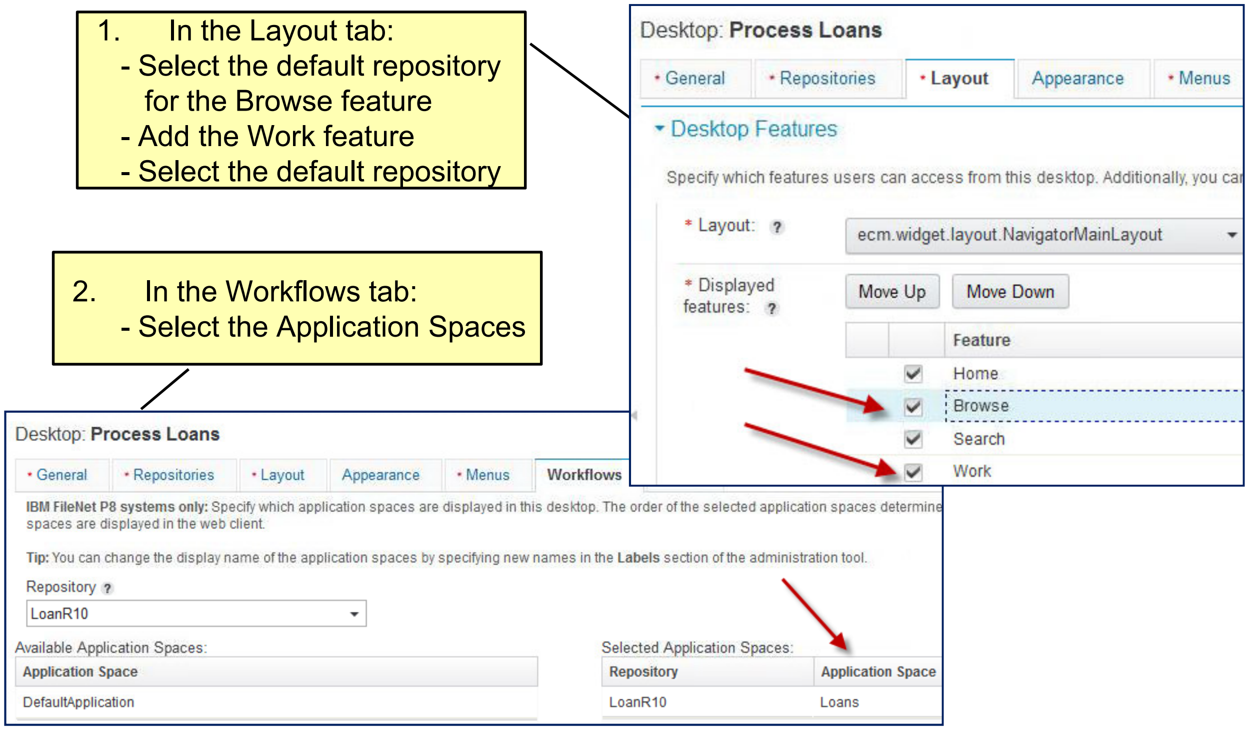


Figure 1-109. Configure the desktop for workflow F2311.0

Notes:

After you create the desktop, you need to configure it for workflow.

1. In the Layout tab you:
   - Select the Browse feature and select the default repository for the browse feature. It should be the repository that points to the connection point you want to use to process the workflows.
   - Add the Work feature.
   - Select the default repository.

The screen capture, on the top right, shows the Layout tab selected. The Browse feature is selected and the Work feature is added. When you select the Browse or Work Feature, a pane displays, on the right (not shown), allowing you to select the default repository to use for the feature.

2. In the Workflows tab:
   - Select the Application Spaces to display.

The screen capture, on the lower left, shows the Workflows tab selected and the Application Space, Loans selected.

Configure Content Navigator for workflow

Register the process applets plug-in

- Allows you to add a menu option for:
  – Process Designer & Process Tracker
- Use Content Navigator administration tool
  – Add a new plug-in
    - (JAR file path: http://CPE_server:port/peengine/plugins/CPEAppletsPlugin.jar)

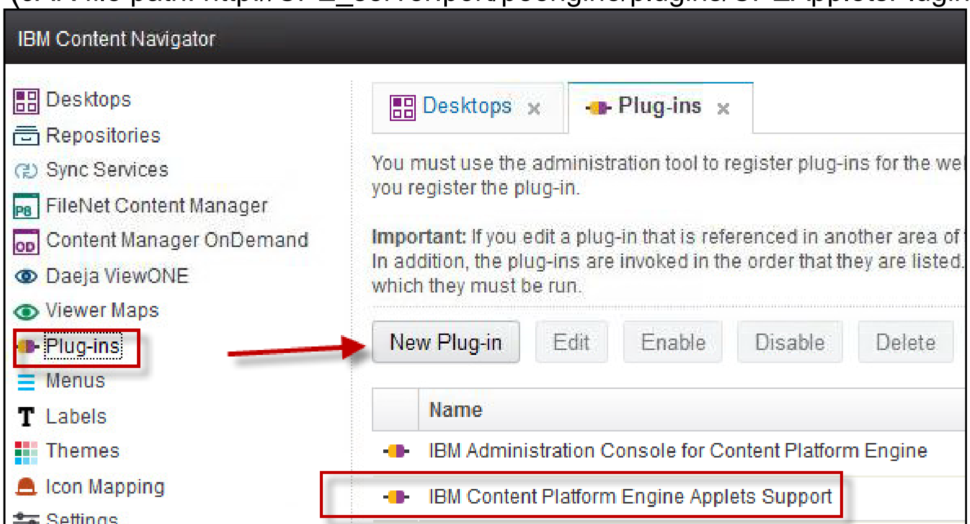


Figure 1-110. Register the process applets plug-in F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Administering>Administering Content Platform Engine>Defining the workflow system>Coordinating workflow design>Configuring the Process applets to run from IBM Content Navigator

You use the IBM Content Navigator administration tool to register the process applets plug-in, **IBM Content Platform Engine Applets Support**. After the plug-in is registered, you can add a menu option to open Process Designer and Process Tracker.

The screen capture shows, the Content Navigator administration tool, with the Plug-ins icon selected, highlighted with a red box. The Plug-ins tab opens, which shows the plug-ins available for this instance of the IBM Content Navigator application. A new plug-in was added, **IBM Content Platform Engine Applets Support**, highlighted with the red box, on the right.

Information

You only need to register the plug-in one time for each IBM Content Navigator instance.

Configure Content Navigator for workflow

Configure desktop to run Process Designer

- Add Process Designer to a menu
  - Under the Menus icon:
    - Copy an existing menu and give it a unique name
      - For example: Default repository folder context menu
    - Add the action, **Open Process Designer** to the Selected list

Add the new menu to the desktop
Under the Menus tab:
Set the menu to
the new menu

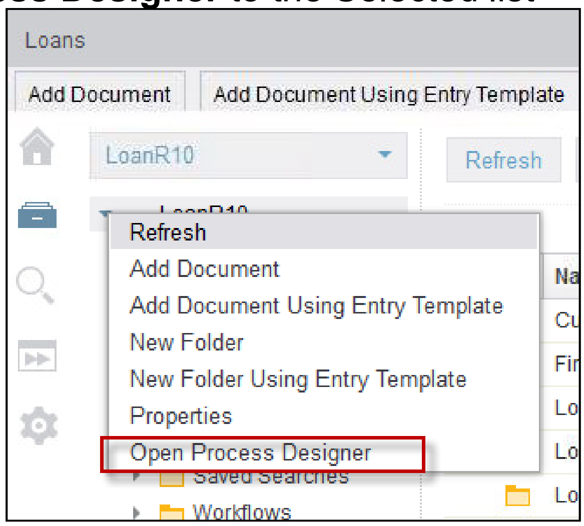


Figure 1-111. Configure desktop to run Process Designer F2311.0

Notes:

To configure a desktop to be able to launch Process Designer, you first have to define a new menu that adds the **Open Process Designer** action.

1. In the Content Navigator administration tool, you select the Menus node.
   a. It is easiest to choose an existing menu and copy it to a new name. For example, Copy the ***Default repository folder context menu*** and save it to a new name like, ***Custom repository folder context menu***. Then you add the Open Process Designer action to the selected list for the new menu.
2. After you configure the new menu, you need to add the new menu to the desktop.
   a. In the Content Navigator administration tool under the desktop > Menus tab, search for the ***Default repository folder context menu.***
   b. Use the dropdown selection arrow to choose the new menu, ***Custom repository folder context menu***.

The screen capture shows the results of configuring the new menu. The menu you get when you right-click the default repository from the desktop, shows the new action, **Open Process Designer**.

Important

When Process Designer opens it use the connection point of the default repository defined, for the Browse feature of the desktop.

Configure Content Navigator for workflow

Configure desktop to run Process Tracker

- Add Open Process Tracker to a menu
  - Under the Menus icon:
    - Copy the existing **Default FileNet work list toolbar**
    - Save it with a unique name
      - For example: Enhanced FileNet work list toolbar
    - Add **Open Process Tracker** to the Selected Menu list
- Add the new menu to the desktop
  - Under the Menus tab:

New menu item

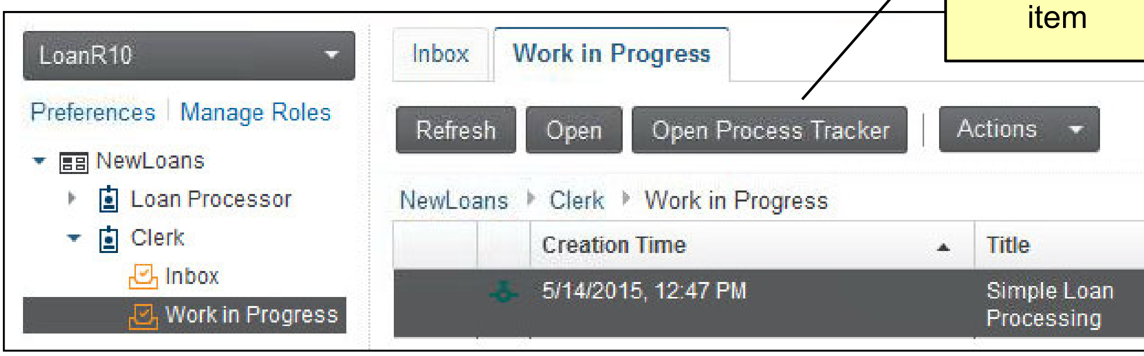


Figure 1-112. Configure desktop to run Process Tracker F2311.0

Notes:

The steps to configure a desktop to be able to launch Process Tracker are very similar. You first define a new menu that adds the **Open Process Tracker** menu item, then configure the desktop to use the new menu.

The difference is the menu you choose. For example: Copy the ***Default FileNet work list toolbar*** and save it to a new name like, ***Custom FileNet work list toolbar***.

The screen capture shows the results after performing the two steps, outlined in the previous slide. The Work in Progress in-basket is selected, showing one item in the tracker queue. A new button, **Open Process Tracker** is added to the available menu items.

This is just one possible place you can add the option to Open the Process Tracker. IBM Content Navigator makes it very easy to customize your desktop. For example, it might appear a bit redundant to have two Open options for the Process Tracker. The first Open button only displays historical information of the tracker item, Open Process Tracker opens the GUI applet. You could leave the ***Default FileNet work list toolbar*** and instead customize the Default tracker in-basket menu to add an option to Open the Process Tracker from the Actions menu.

Configure Content Navigator for workflow

Choose a menu

- Use Content Navigator Administration tool
  - Select the Menus node
    - Review the list of menus and read their descriptions

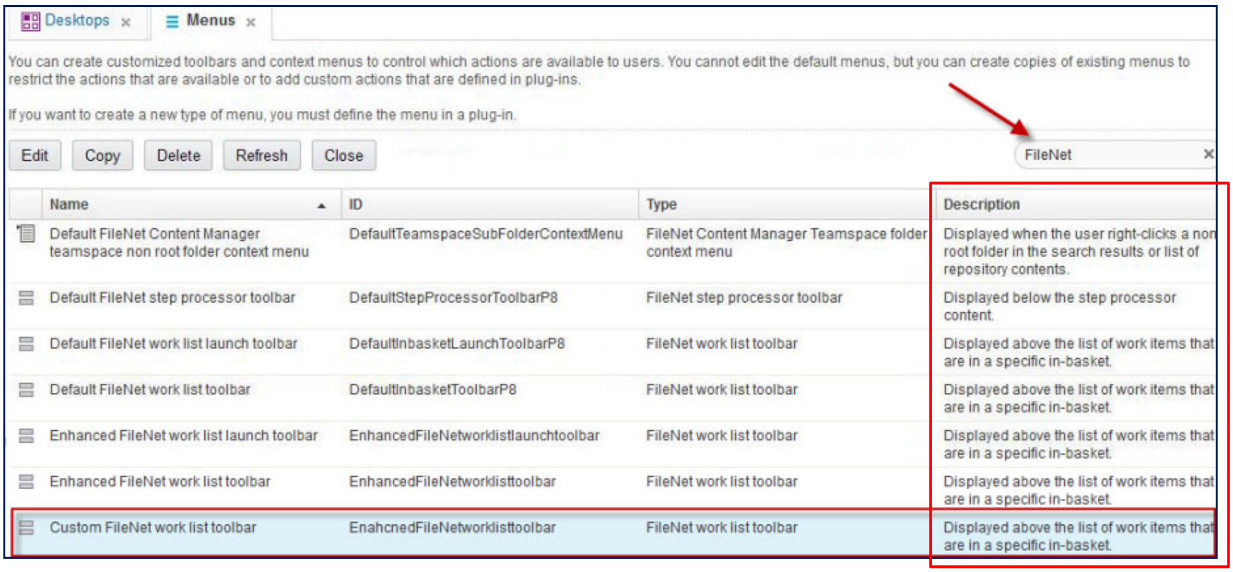


Figure 1-113. Choose a menu F2311.0

Notes:

How do you choose what menu to customize?

The easiest way is to open the Menus node, on the IBM Content Navigator Administration tool, and review the list of menus provided. You can copy and customize any of them. You can filter by a keyword to narrow down the list and read the description to understand how the menu is used.

The screen capture shows the IBM Content Navigator Administration tool, open to the Menus node. The Menus list is filtered by the keyword, FileNet.

The ***Custom FileNet work list toolbar*** is selected. The Description column is highlighted.

Configure Content Navigator for workflow

Demonstrations

- Create a desktop and configure it for workflow.
- Configure a desktop to run Process Designer and Process Tracker.

Figure 1-114. Demonstrations F2311.0

Notes:

Demonstration notes

Create a desktop and configure it for workflow

1. Use the IBM Content Navigator administration tool.
2. Create a new repository, **LoansR10**, and point it to the connection point, **NewLoansR10:10**.
3. Create a new desktop, **Process Loans**.
   a. In the **Layout** tab:
      - Add the Work feature.
      - Select the default repository (LoansR10).
   b. In the **Workflow** tab:
      - Select the application space, **Loans**.
4. Launch the new desktop and show the application space and in-baskets:
   - http://ecmedu01:9080/navigator/?desktop=ProcessLoans

5. If time permits, launch two instances of the New Loan Processing Workflow and use the Work view in the new desktop to view the work items in the Clerk Inbox.

Configure a desktop to run Process Designer and Process Tracker

Use the IBM Content Navigator administration tool to:

1. Register the process applets plugin.
    a. Add a new plug-in, IBM Content Platform Engine Applets Support.
        - (JAR file path: http://*CPE_server:port*/peengine/plugins/CPEAppletsPlugin.jar)
2. Modify an existing menu.
        1) Under the Menus icon (left navigation pane)
        1) Select an appropriate menu and copy it to a unique name, for example:
        1) Default repository folder context menu (Process Designer)
        1) Add Open Process Designer to the Selected Menu list, above the separator line
        1) Default FileNet work list toolbar (Process Tracker)
        1) Add Open Process Tracker to the Selected Menu list, above the separator line.
        2) Add the new menus to the desktop.
        3) Under the desktop Menus tab:
        4) Search for the existing menus and select the new menus you just created.

IBM Case Foundation 5.2.1: Configure the workflow system

Exercise introduction

Create and configure a Content Navigator desktop for workflow

- In this lab exercise, you will:
  - Create a Content Navigator repository.
  - Create a Content Navigator desktop.
  - Configure the desktop for workflow.

Configure the desktop to open Process Designer and Process Tracker

- In this lab exercise, you will:
  - Register the process applets plug-in.
  - Configure menus to open Process Designer and Process Tracker.
  - Configure the desktop to use the menus.

Figure 1-115. Exercise introduction F2311.0

Notes:

Exercise introduction slide. Review each of the exercises and the objectives.

IBM Case Foundation 5.2.1: Configure the workflow system

Exercise introduction(2)

Test the New Loans Processing workflow

- In this lab exercise, you will:
  - Open the Process Designer to validate and transfer the workflow.
  - Start a few instances of the workflow.
  - View and process work items and open the Process Tracker.
  - Customize the desktop to provide multiple options for Process Tracker.

Figure 1-116. Exercise introduction(2) F2311.0

Notes:

Exercise introduction slide. Review each of the exercises and the objectives.

Configure Content Navigator for workflow

Activities

In your Student Exercises

- Unit: Unit name
- Lesson: Lesson name
- Activities:
  – Create and configure a Content Navigator desktop for workflow
  – Configure the desktop to open Process Designer and Process Tracker
  – Test the New Loans Processing workflow

Figure 1-117. Activities F2311.0

Notes:

Use your Student Exercises book and your student system to perform the activities listed.

Lesson 1.8. Configure a web application and step processor

Lesson

Configure a web application and step processor

Why is this lesson important to you?

- The Information Technology (IT) department requires corporate branding for workflow launch steps in an existing workflow. As the workflow system administrator, you need to configure a custom launch step processor so that the workflow author can use it in the workflow and meet the IT standards.

Figure 1-118. Configure a web application and step processor F2311.0

Configure a web application and step processor

Activities that you need to complete

- Deploy and configure a custom launch step processor
- Test the custom step processor in a workflow

Figure 1-119. Activities that you need to complete F2311.0

Notes:

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

Configure a web application and step processor

What is a web application

- A web application consists of software and files that are deployed on an application server.
  - It defines a user interface that connects to process features and tools.
  - It serves users through a web browser.
- You can develop and define a custom web application for a workflow application.
- Example
  - IT develops a corporate-branded intranet web application.
  - Workflow author configures the server base URL in the workflow system properties and defines it as a custom step processor.
  - Users can process work on the intranet by using the custom web application.

Figure 1-120. What is a web application F2311.0

Notes:

Custom web applications are developed by programming teams and deployed to an application server. The workflow author's and workflow system administrator's tasks in this lesson are to:

- Configure the custom web application by entering the web application server URL in the workflow system properties.
- Define the custom step processor.

Configure a web application and step processor

Web applications and isolated regions

- IBM Content Navigator provides the platform for the default web applications for IBM Case Foundation 5.2.0+.
  - Define a Content Navigator desktop and point it to a connection point.
  - A desktop can point to only one connection point at a time.
- Why define a web application?
  - Provide a base URL for creating links to step processors.
  - To customize the user experience and allow users to process work.

Figure 1-121. Web applications and isolated regions F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Administering>Administering Content Platform Engine>Defining the workflow system>Configuring the workflow system>Managing the workflow system>Configuring web applications

Starting with IBM Case Foundation 5.2.0, IBM Content Navigator provides the platform for the default web applications. You create a desktop in the Content Navigator administration tool, as you saw in the previous lesson, and point the desktop to a specific connection point, to associate it with an isolated region.

Custom web applications can also be created to connect to a connection point.

Information

Prior to the Case Foundation 5.2.0 release, Workplace XT and Workplace were the default web applications. Workplace XT is still supported but is gradually being phased out.

Configure a web application and step processor

Configure a web application

- You configure a web application in the Administration Console for Content Platform Engine

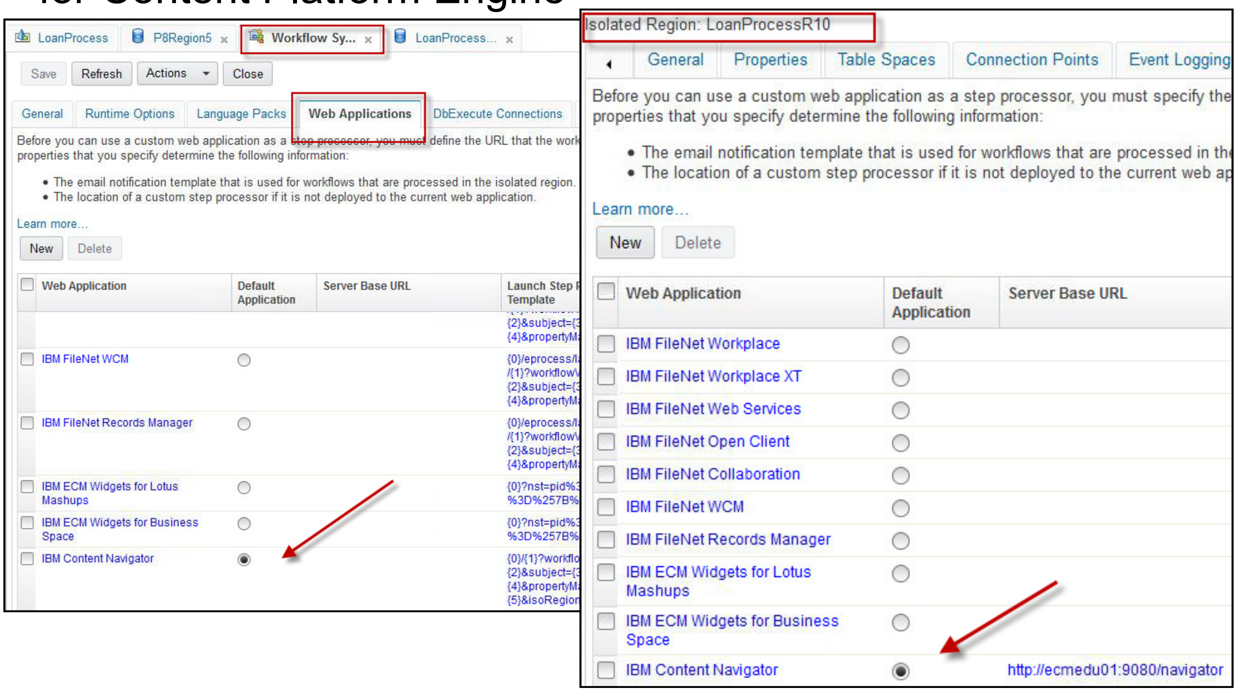


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Figure 1-122. Configure a web application F2311.0

Notes:

You configure web applications in the Administration Console for Content Platform Engine.

You can configure a web application in two places:

- Workflow system properties > Web Applications tab.
- Isolated region properties > Web Applications tab.

If you configure a web application as a workflow system property, the web application will apply to all the isolated regions in the workflow system. The screen capture on the left, shows the Web Applications tab for the workflow system. Notice that the Server Base URL has not been defined.

If you configure a web application as an isolated region property, it applies to that isolated region only and the value of the property will override the value of the workflow system property. The screen capture on the right, shows the Web Applications tab for the isolated region, **LoanProcessR10**. The Server Base URL is defined and will be the value used for the isolated region, **LoanProcessR10**.

Configure a web application and step processor

What is a step processor

- A step processor is an application which:
  - Provides a user interface for a workflow step.
  - Provides the information and resources to complete the step.
  - Allows users to process and complete work.

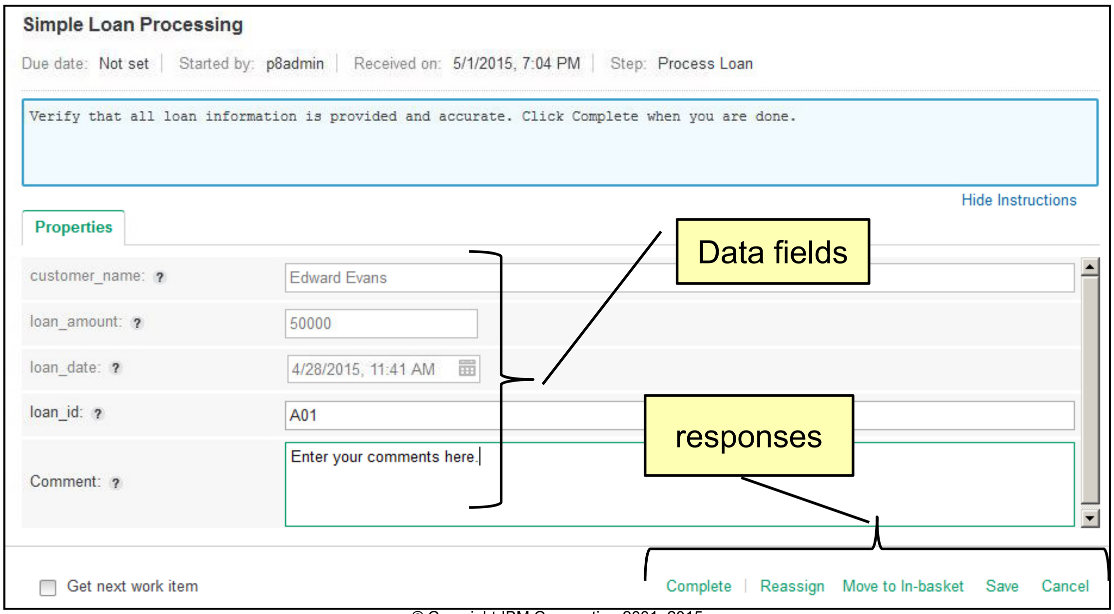

Figure 1-123. What is a step processor F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Integrating workflow into document management>Java step processor>About step processors

Companies usually create customized interfaces for performing and launching work.

A step processor is an application that provides the information and resources for a user to complete a step in a workflow. In a workflow definition, the workflow author specifies which step processor to use for each step. When a user opens a work item at run time, the step processor displays the necessary instructions, attachments, field values, response options, and other resources that the user needs to complete the work. A step processor can also accept input from the user.

The screen capture shows a step processor window for the **Simple Loan Processing** workflow. You see data fields that are exposed and the valid responses displayed.

Configure a web application and step processor

Types of step processor

- Step processor languages:
  - HTML
  - Java
- IBM Content Navigator provides two types of built-in step processors:
  - Launch processor
    - Used as the first step in in a workflow to start the workflow process.
  - Step processor
    - Provides a user interface for workflow steps that require user interaction

Figure 1-124. Types of step processor F2311.0

Notes:

Help path

FileNet P8 Platform 5.2.1>Integrating workflow into document management>Java step processor>About step processors

Step Processors can be written in HTML or Java.

IBM Content Navigator provides sample general-purpose step processors that are suitable for many workflow applications. In addition to step processors for user steps, there are sample launch processors that contain the resources a user needs to start a workflow.

You can use the step processors provided by Content Navigator as they are or copy them and modify them to create custom step processors. A developer can create custom step processors from scratch, but this is not done often.

Examples:

- Company employee and customer versions of step processors
- Customized launch step processors, such as one with corporate branding

Configure a web application and step processor

Configure a custom step processor

- Two steps required to configure a step processor.

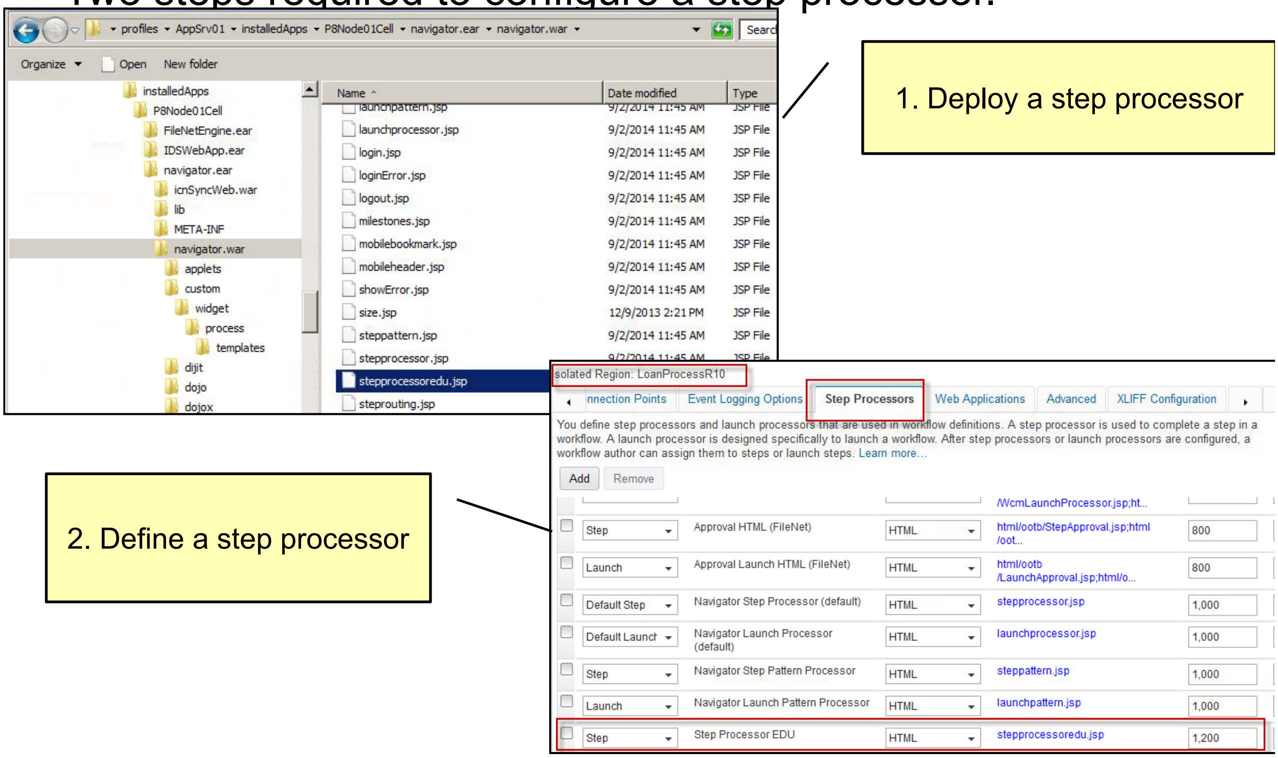

Figure 1-125. Configure a custom step processor F2311.0

Notes:

Help paths

FileNet P8 Platform 5.2.1>Integrating workflow into document management>Process applications concepts>Administration and configuration>Configuring a web application or custom step processor

FileNet P8 Platform 5.2.1>Administering>Administering Content Platform Engine>Defining the workflow system>Maintaining the workflow system>Configuring custom processors

As a workflow system administrator and a workflow author you will, on occasion, need to configure custom step processors.

Two steps are required:

a. Deploy/install the step processor on an application server.

  - The screen capture, on the left, shows the Content Navigator deployment location on the WebSphere Application server.
  - The stepprocessoredu.jsp, has been copied into the navigator.war folder.

- To deploy the custom step processor, you install it on the application server. The custom step processor can consist of multiple files. A developer generally creates the custom step processor and provides instructions for how to deploy it.

b. Define the step processor in the isolated region. You define the step processor with the Administration Console for Content Platform Engine, to make it available to use in a workflow step.

- The screen capture, on the right, shows the administration console open to the **Step Processors** tab, of the isolated region.
- The Step Processor EDU has been added.

Configure a web application and step processor

Demonstrations

- Deploy a custom step processor
- Configure a custom step processor

Figure 1-126. Demonstrations F2311.0

Notes:

Demonstration notes

Deploy the custom step processor

1. Start the **WebSphere Integrated Solutions Console** and stop the **navigator** application.
    - To start the WebSphere Integrated Solutions Console, open the WebSphere Admin folder, on the desktop, and click Administrative console server1.

    a. Log in as `p8admin`/`IBMFileNetP8`.

    b. Expand Applications > Application Types > WebSphere enterprise applications.

    c. Select **navigator** and click **Stop**.

    d. Minimize the WebSphere Integrated Solutions Console.

2. Copy the step processor to the navigator deployment directory.

    a. Copy **stepprocessoredu.jsp** into the <*navigator deployment*> directory.

    - <*WAS_install_path*>\profiles\AppSrv01\installedApps\P8Node01Cell\navigator.ear\navigator.war

b. Under the <*navigator deployment*> directory, create four subfolders: <*navigator deployment*>\custom\widget\process\templates

c. Copy **StepProcessorEDULayout.js** into the **process** directory.

d. Copy **StepProcessEDULayout.html** into the **templates** directory.

3. Start the navigator application.

a. Maximize the WebSphere Integrated Solutions Console.

b. Start the navigator application.

c. Log out and close the WebSphere Integrated Solutions Console.

4. Show the configured Web Applications for the workflow system.

a. Launch the Administration Console for Content Platform Engine.

b. Open LoanProcess > Administrative, and select Workflow System.

c. Open the **Web Applications** tab.

d. Point out the IBM Content Navigator web application.

5. Show the configured Web Applications for the isolated region.

a. Select the isolated region, **LoanProcessR10**.

b. Open the Web Applications tab.

c. Point out the IBM Content Navigator web application, notice the **Server Base URL**.

Register a step processor

1. Launch the Administration Console for Content Platform Engine.

2. Expand > LoanProcess > Administrative > Isolated Regions > LoanProcessR10.

1) Open the isolated region.

2) Select the Step Processors tab and add a new step processor. You will need to provide:

3) Type: Launch

4) Name: `StepProcessor EDU` (This will be the name listed in Process Designer).

5) Language: `HTML`

6) Location: `stepprocessoredu.jsp`

7) Width: `1200` (used only if step processor is designed to open in a window).

8) Height: `800` (used only if step processor is designed to open in a window).

9) Class name – leave blank (used for Java step processors only).

d. Click **Save**.

IBM Case Foundation 5.2.1: Configure the workflow system

Exercise introduction:

Deploy and configure a custom launch step processor.

- In this lab exercise, you will:
  - Verify the required web application.
  - Deploy a custom launch step processor.
  - Configure a custom launch step processor.

Test the custom step processor in a workflow.

- In this lab exercise, you will:
  - Add the workflow definition.
  - Start the workflow to test the launch step processor.

Figure 1-127. Exercise introduction: F2311.0

Notes:

Exercise introduction slide. Review each of the exercises and the objectives.

Configure a web application and step processor

Activities

In your Student Exercises

- Unit: Unit name
- Lesson: Lesson name
- Activities:
  - Deploy and configure a custom launch step processor.
  - Test the custom step processor in a workflow.

Figure 1-128. Activities F2311.0

Notes:

Use your Student Exercises book and your student system to perform the activities listed.

IBM Case Foundation 5.2.1: Configure the workflow system

Unit summary

Having completed this unit, you should be able to:

- Create and configure a workflow system to support FileNet workflow applications
- Create an isolated region
- Define isolated region objects to support workflow applications
- Expose data fields to support workflow applications
- Configure indexes to provide efficient search and sorting of work in a workflow system
- Create and configure in-baskets and roles
- Configure Content Navigator for workflow
- Configure a web application and step processor

Figure 1-129. Unit summary F2311.0