

Course Exercises Guide

# IBM Datacap 9.0.1: Application Builder

Course code WF261 ERC 1.1



## **January 2020 edition**

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# Unit 1. Introduction to Datacap

## Estimated time

07:00 hours

## Unit overview

This unit contains these lessons.

### Lessons

[Lesson 1.1, "Datacap overview,"](#) on page 1-3

[Lesson 1.2, "Datacap process,"](#) on page 1-5

[Lesson 1.3, "Role-based Datacap clients,"](#) on page 1-7

[Lesson 1.4, "Architecture configurations,"](#) on page 1-9

[Lesson 1.5, "Architecture components,"](#) on page 1-11

[Lesson 1.6, "Datacap Desktop,"](#) on page 1-14

[Lesson 1.7, "Application design,"](#) on page 1-18

[Lesson 1.8, "Introduction to Datacap Navigator,"](#) on page 1-27

[Lesson 1.9, "Datacap web client \(Optional\),"](#) on page 1-40

## Requirements

The activities in this unit assume that you have access to the student systems configured for these activities.

## Do this first



### Important

If your student system contains two VMWare images, for this course, use the Server image for all the lab exercises.

1. If you are prompted to log in to the system, use:

Type	User ID	Password
Operating system	Administrator	passw0rd

2. Start the Datacap Server.
  - a. Click Start > All Programs > IBM Datacap Services > Datacap Server Manager.  
The Datacap Server Manager window is shown.
  - b. Click the Service tab.
  - c. Click Start in the lower left corner, to start the Datacap Server Service if it is not already started. The Start operation is disabled if it is already started.
  - d. When the status changes to running, click Close to close the Datacap Server Manager window.
3. Start WebSphere Application Server.
  - a. Open the “WebSphere Admin” folder on the Desktop.
  - b. Double-click the Start Server1.bat script file. It takes a few minutes for the Startup script to complete. When it is finished the command window closes.

It starts the IBM FileNet Content Manager, and the Content Navigator.

## System check

The activities in this unit assume that all system services are running when you begin an activity session. Perform a system check whenever you start an IBM FileNet Content Manager system or start working on a system that is in an unknown state.

Use procedures in Appendix A to check the following components:

1. FileNet P8 Content Platform Engine  
[Procedure 2, "Check the Content Engine,"](#) on page A-3
2. IBM Content Navigator  
[Procedure 5, "Check the IBM Content Navigator,"](#) on page A-4
3. Datacap Content Navigator  
[Procedure 6, "Check the Datacap Components,"](#) on page A-4
4. See Appendix A for additional procedures to Start, Check, and Restart components on the Student system.

# Lesson 1.1. Datacap overview

## Overview

### Why is this lesson important to you?

This lesson provides an overview of the business solution that IBM Datacap provides, and its capabilities.

## Activities

- [Quiz 1: Datacap overview](#), on page 1-4

## Quiz 1: Datacap overview

For each question, indicate the correct answer or mark the statement True or False.

1. Datacap supports both structured and unstructured documents.

### True or False

2. Which of the following descriptions apply to IBM Datacap? Select more than one option. Circle all that apply.
  - a. Automates capturing documents and the extraction of appropriate data.
  - b. Improves efficiency and optimizes business processes.
  - c. Supports compliance and Risk mitigation.
  - d. Reduces costs and speeds up the response.
  - e. Improves customer service.



### Note

Refer to [Appendix , "Lesson 1.1. Datacap overview: Quiz,"](#) on page 1-46 for answer keys to the questions.

---

# Lesson 1.2. Datacap process

## Overview

### Why is this lesson important to you?

This lesson provides an overview of Datacap process.

## Activities

- [Quiz 1: Datacap process](#), on page 1-6

## Quiz 1: Datacap process

For each question, indicate the correct answer or mark the statement True or False.

1. The Scanners and Multi-Functional Devices input channels support which of the following file types? Select more than one option. Circle all that apply.
  - a. TIFF
  - b. JPEG
  - c. TXT
  - d. HTML
  - e. PDF
  - f. DOCX
  - g. ZIP
2. Both one- and two-dimensional Barcodes are used for page recognition.

**True or False**

3. Datacap captured documents and data can be exported to content repositories or can be used in applications.

**True or False**

4. Which of the following items are Datacap page identification methods? Select more than one option. Circle all that apply.
  - a. Keyword
  - b. Batch Process
  - c. Pattern recognition
  - d. Fingerprint
  - e. Document export
  - f. Input channel



**Note**

Refer to [Appendix , "Lesson 1.2. Datacap process: Quiz,"](#) on page 1-47 for answer keys to the questions.

# Lesson 1.3. Role-based Datacap clients

## Overview

### Why is this lesson important to you?

This lesson provides an overview of different Datacap clients for different business roles.

## Activities

- [Quiz 1: Role-based Datacap clients](#), on page 1-8

## Quiz 1: Role-based Datacap clients

For each question, indicate the correct answer or mark the statement True or False.

1. Which one of the following items is not a Datacap client for business users to process a batch?
  - a. Datacap Navigator
  - b. Datacap Mobile
  - c. Datacap Desktop
  - d. Datacap FastDoc
  - e. Datacap Studio
2. Datacap FastDoc can be used to rapidly configure the Datacap applications and as a client to scan and verify the documents.

**True or False**

---



### Note

Refer to [Appendix , "Lesson 1.3. Role-based Datacap clients: Quiz,"](#) on page 1-48 for answer keys to the questions.

---

# Lesson 1.4. Architecture configurations

## Overview

### Why is this lesson important to you?

As a Datacap business analyst, application builder, or administrator you are involved in the configuring or maintaining your Datacap Capture system.

To do these tasks effectively, you must be familiar with the Datacap system components and architecture of the configuration variations for a Datacap Capture system.

## Activities

- [Quiz 1: Identify architecture configuration](#), on page 1-10

## Quiz 1: Identify architecture configuration

For each question, indicate the correct answer or mark the statement True or False.

1. Many production Datacap installations can be configured with a Single system configuration.

**True or False**

2. The most efficient and cost effective Datacap installations are client/server configurations where all software components are installed on dedicated servers.

**True or False**

3. Most production Datacap systems have some Datacap components that are installed on dedicated systems and some components on shared systems.

**True or False**

4. Consider the terms “Centralized Deployment” and “Distributed deployment”. Which of the following statements is correct.

a. Centralized and Distributed refer to how Datacap components are deployed across servers in a Datacap configuration.

b. Centralized and Distributed refer to geographic location of Datacap services and tasks.

5. Consider the scenario where all of the Datacap services are provided by servers that are in a single-server room. Scanning and verification tasks are done from a workstation or scanning stations throughout multiple buildings at the same physical address and all connected to the same LAN. What is the classification for this scenario?

a. Centralized.

b. Decentralized.

6. Consider the scenario where all of the Datacap servers are at one physical location. Scanning and verification tasks are done from the location and from remote locations that are connected over the Internet. What is the classification for this scenario?

a. Centralized.

b. Decentralized.



### Note

Refer to [Appendix , "Lesson 1.4. Identify architecture configuration: Quiz,"](#) on page 1-49 for answer keys to the questions.

# Lesson 1.5. Architecture components

## Overview

### Why is this lesson important to you?

As a Datacap business analyst, you build and deploy applications with the Datacap Capture system and communicate solution details to the solution architect, administrator, and users.

To do these tasks effectively, you must be familiar with the Datacap system components and architecture of the configuration variations for a Datacap Capture system.

## Activities

- [Quiz 1: Identify architecture components](#), on page 1-12

## User accounts

Type	User ID	Password
Operating system	Administrator	passw0rd
Datacap	admin	admin



### Note

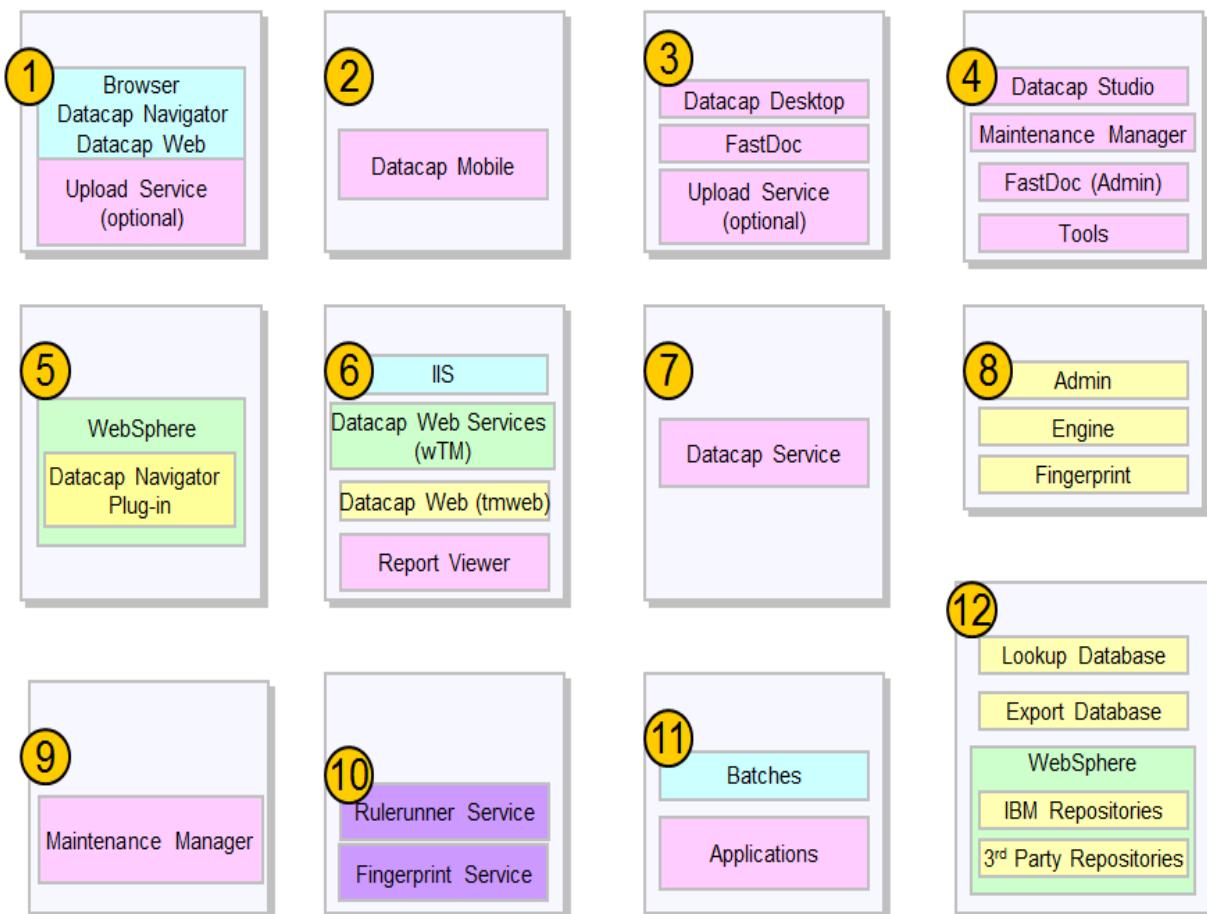
Passwords are always case-sensitive.

## Quiz 1: Identify architecture components

In the following table, enter the number that corresponds to the Datacap component name from the following Datacap system architecture diagram.

Number	Datacap component name	Number	Datacap component name
	Developer Workstation		Web Client Workstation
	Datacap Navigator Server		Datacap Web Server
	Database Server		Maintenance Manager Server
	Datacap Client Workstation		Mobile Device
	File Server		Datacap Server
	Rulerunner Server and Fingerprint Services Server		External Systems

Diagram of Datacap system architecture.



### Note

Refer to [Appendix , "Lesson 1.5. Identify architecture components: Quiz,"](#) on page 1-50 for answer keys to the questions.



# Lesson 1.6. Datacap Desktop

## Overview

### Why is this lesson important to you?

As a Datacap business analyst, you create capture workflows that are processed with the Datacap Desktop Client.

To do these tasks effectively, you must be familiar with the Datacap Desktop client.

## Activities

- [Exercise 1: Explore the Datacap Desktop interface](#), on page 1-15

## User accounts

Type	User ID	Password
Operating system	Administrator	passw0rd
Datacap	admin	admin



### Note

Passwords are always case-sensitive.

# Exercise 1: Explore the Datacap Desktop interface

## Introduction

In this activity, you open Datacap Desktop, and explore the client user interface.

## Procedures

[Procedure 1, "Open the Datacap Desktop," on page 1-15](#)

[Procedure 2, "Explore the Monitor view," on page 1-16](#)

[Procedure 3, "View Batch process shortcuts," on page 1-17](#)

If for any reason the image was restarted or the WebSphere Server and the Datacap Manager server are not running, follow the instructions at the beginning of the unit under the heading “Do this first” to restart these services.

### Procedure 1: Open the Datacap Desktop

1. Log in to Datacap Desktop.

a. Click Start > All Programs > IBM Datacap Clients > Datacap Desktop.

You can also use the “Datacap Desktop” shortcut on the Windows desktop.

b. Enter the following values for the authentication fields:

- User ID: admin
- Password: admin
- Station ID: 1

c. Click Start.

2. Select an Application to process.

a. From the upper left, click the list under “Applications”, and select an application to view.

Example: ExpenseDemo



### Troubleshooting

Expense8 application is not configured for this lesson. You can select all applications except Expense8.

3. Observe the “Task Shortcuts” in the left pane.

a. Notice that the “All” and “Background” shortcuts are visible.

b. Select different applications from the list.

c. Notice that the rest of the shortcuts vary based on what Tasks are defined in the application.

## Procedure 2: Explore the Monitor view

In this procedure, you explore the Monitor view of the Datacap Desktop.

1. Select the `ExpenseDemo` Application.
  - a. Click the “All” shortcut from the left pane.
  - b. In the right pane, a list of batches for the selected application is shown.
  - c. It provides a Monitor view for the batches. You can customize this view.
2. The “Status” column shows the status for a task as an icon, and the “Task” column specifies the task at which the batch is currently pending.
  - a. Hover over the status icon in the table to see the status name. Example: pending or hold.
3. Select (single click) a batch in the middle pane to preview.
  - a. The details for the batch are shown in the rightmost pane.



- b. The preview has two tabs: Details and Page View.
- c. Select each tab and check the display.

Resize or collapse the preview pane with the control at the upper right of the pane.



### Note

If you double-click the item, the item gets processed.

4. Adjust the column size and position.
  - a. Drag the individual column by header to change its relative position in the table.
  - b. Click a column header to sort by that column.
5. Specify which columns to show and clear the columns that you want to hide.
  - a. Click the “Select Columns” list.
  - b. Clear the following columns: “DCO File” and “Task Time”.
  - c. Verify that the columns that you cleared are not visible.
6. Filter the list with the filter criteria.
  - a. Select a value for the “Filter” field (Example: Queue ID).
  - b. Enter a value that is available in Queue ID column, (Example: 177) in the “By” field. Then, press Enter.
  - c. Check that only one item with the specified Queue ID is shown.
  - d. Optionally, test another criterion (Task = Verify).

### **Procedure 3: View Batch process shortcuts**

1. Select the ExpenseDemo Application to process.
  - a. From the upper left, click the list under “Applications”, and select an application to view.  
Example: ExpenseDemo
2. Select “VScan” from the left pane.
  - a. A new batch is opened, and you are prompted to select images to scan.
  - b. Scroll down and click Cancel to go back to the main page.
  - c. Click OK when you get the message that the Batch is canceled.
  - d. Click Stop to stay on the main page.
3. Leave the Datacap Desktop window for the next lesson.



#### **Note**

You are going to process a batch in Datacap Desktop in the Application Design lesson.

# Lesson 1.7. Application design

## Overview

### Why is this lesson important to you?

As a Datacap business analyst, you build and deploy applications with the Datacap Capture system and communicate solution details to the solution architect, administrator, and users.

To do these tasks effectively, you must be familiar with the design principles for the Datacap Application and how to process a batch.

## Activities

- [Exercise 1: Scan and process a batch](#), on page 1-19

## User accounts

Type	User ID	Password
Operating system	Administrator	passw0rd
Datacap Desktop	admin	admin



### Note

Passwords are always case-sensitive.

# Exercise 1: Scan and process a batch

## Introduction

This activity gives you the knowledge to Process a document batch in Datacap Desktop client.

## Procedures

[Procedure 1, "Run the VScan Task," on page 1-19](#)

[Procedure 2, "Run Profiler Task," on page 1-21](#)

[Procedure 3, "Review the Profiler Task Output," on page 1-21](#)

[Procedure 4, "Run the Verify Task," on page 1-22](#)

[Procedure 5, "Review the Verify Task Output," on page 1-22](#)

[Procedure 6, "Run the Export Task," on page 1-23](#)

### ***Procedure 1: Run the VScan Task***

The task in this procedure completes the page input.

1. If the Datacap Desktop is already opened from the previous lesson, skip to step 3.
2. Log in to Datacap Desktop.
  - a. Click Start > Programs > IBM Datacap Clients > Datacap Desktop.
  - b. Enter the following values for the authentication fields:
 

User ID: admin

Password: admin

Station ID: 1
  - c. Click Start.
3. Select an Application to process.
  - a. Select `ExpenseDemo` from the Applications list at the top of the left panel.
4. Scan a batch.
  - a. Select “VScan” from the Shortcut list.
  - b. Click the “Browse for Files to import” icon in the top of the middle pane.



- c. Go to C:\DC9-Lab Exercises\Expense
- d. Select the `car1.tif` image and click Open.

- e. Clear the “Scan multiple images” option.



### Note

If you select only one image, and select the “Scan multiple images” option (“expected”=0), it scans all of the images in the folder. If you select multiple images, the “Scan multiple images” option is selected automatically. The expected field is set to the number of the images that you selected.

- f. Click Scan.
- g. Verify that the image details are listed in the “Batch View” on the rightmost pane.
- h. The image is shown in the “Image View” on the leftmost pane.
5. Complete the batch scan.
  - a. Scroll down and click Submit.
  - b. Click OK to acknowledge the message that the Batch is completed.
6. Click Stop to stay on the main page.
  - a. Leave the Datacap Desktop open for the other procedures.

## Review the Scan Task Output

7. View results in the Batches folder:
  - a. Open Windows Explorer, go to the batches folder C:\Datacap\ExpenseDemo\batches.
  - b. Verify that the batch that you scanned created a folder with a name that has today's date in this format: <date.00000N> where N is a number.  
Example: 20150105.00000N
8. Check the VScan.xml file for the <date.00000N> batch.
  - a. Open the <date.00000N> batch folder.
  - b. Double-click the vscan.xml file to open it in a browser.
  - c. Click “Yes”, if you are prompted to allow the scripts to run.
  - d. Verify that the page you scanned is identified.
    - The Batch Type is “Expenses”.
    - The Document Type is not set yet.
    - The page type is “Other”.
  - e. Close the browser tab.

## Procedure 2: Run Profiler Task

The task in this procedure completes the page identification and document assembly.

1. Click the “All” shortcut from the Task Shortcut list in Datacap Desktop.
  - a. Select the batch that you created with today’s date and time. The Task name is “Profiler”.
  - b. Double-click the batch to process it.
  - c. Click OK to acknowledge the message that the Batch is finished.
2. The “All” shortcut is already selected. Verify that your batch is moved to “Verify” task.
3. Leave the Datacap Desktop open for the other procedures.



### Note

To run the “Profiler” task for all the pending batches, click the “Profiler” shortcut from the Task shortcut list. It automatically processes the pending batches. The user has options to stop a particular batch or to continue to process each of the next pending batches.

## Procedure 3: Review the Profiler Task Output

1. Open Windows Explorer and go to the C:\Datacap\ExpenseDemo\batches folder.
2. Check the Profiler.xml file for the <date.00000N> batch.
  - a. Open the <date.00000N> batch folder.
  - b. Double-click the Profiler.xml file to open it in a browser.
  - c. Click “Yes”, if you are prompted to allow the scripts to run.
3. Verify that the page type is identified as Rental\_Agreement.
4. Verify that the document type is identified as Car for the Rental\_Agreement page.

B	20150105.000002
	TYPE : Expenses
	STATUS : 0
	ScanOperator : admin
	ScanStation : 1
D	20150105.000002.01
	TYPE : Car
	STATUS : 0
P	TM000001
	TYPE : Rental_Agreement
	STATUS : 0

5. Close the browser tab.

## **Procedure 4: Run the Verify Task**

The task in this procedure completes the data validation and verification.

1. Click the “All” shortcut from the Task Shortcut list in Datacap Desktop.
  - a. Select the batch that you processed with today’s date and time. The Task name is “Verify”.
  - b. Double-click the batch to process it. You see the verify panel with field names and values.
    - You should not see any error here if you used the car image. There will be a green check mark next to each field.
    - If there were any errors or warnings they would likely be because of field validation errors or the character confidence threshold was exceeded for one or more characters.
    - You would validate and correct any errors and then click Submit.
  - c. Scroll down and click Submit.
  - d. Click OK to acknowledge the message “Validations failed. Override and continue?”.  
Note: You see in the next procedure why the validation failed message was raised.
  - e. Click OK to acknowledge the message “All documents are complete. Finish Batch?”.
  - f. Click OK to acknowledge the message that the Batch is finished.
2. The “All” shortcut is already selected. Verify that your batch is moved to “Export” task.
3. Leave the Datacap Desktop open for the other procedures.



### **Note**

To run the “Verify” task for all the pending batches, click the “Verify/Fix” shortcut from the Task shortcut list.

## **Procedure 5: Review the Verify Task Output**

1. In Windows Explorer, go to the C:\Datacap\ExpenseDemo\batches folder.
  - a. Open the <date.00000N> folder.
2. Check the Verify.xml file for Batch <date.00000N>.
  - a. Double-click the Verify.xml file to open it in a browser.
  - b. Click “Yes”, if you are prompted to allow the scripts to run.
  - c. Verify that the DATAFILE field has a value: tm00000n.xml  
Example: tm000001.xml
  - d. Close the file.

## **Procedure 6: Run the Export Task**

The task in this procedure completes the export of the data to a FileNet Content Manager repository.

1. Click the “All” shortcut from the Task Shortcut list in Datacap Desktop.
  - a. Select the batch that you processed with today’s date and time. The Task name is “Export”.
  - b. Double-click the batch to process it. It automatically processes the batch.
  - c. Click OK to acknowledge the Batch is completed message.
2. The “All” shortcut is already selected. Verify that your batch is removed from the list because all the processes are completed for your batch.
3. If the Export task completes successfully, go to step 5.
4. If the Export step fails it might be because the P8Admin password needs to be set.
  - a. Open the Datacap Application Manager from the desktop icon.
  - b. Select ExpenseDemo in the application column.
  - c. Click the Custom values tab.
  - d. For FileNetPassword Advanced value, type the password IBMFileNetP8.
  - e. Return to procedure 1 step 4 and process another batch to verify that the Export now works.
5. Close Datacap Desktop.



### **Note**

To run the “Export” task for all the pending batches, click the “Export” shortcut from the Task shortcut list. It automatically processes the pending batches. The user has options to stop a particular batch or to continue to process each of the next pending batches.

## **Review the Export Task Output**

6. In Windows Explorer, go to the C:\Datacap\ExpenseDemo\batches folder.
  - a. Open the <date.00000N> folder.
7. Check the Export.xml file for Batch <date.00000N>.
  - a. Double-click the `Export.xml` file to open it in a browser.
  - b. Click “Yes”, if you are prompted to allow the scripts to run.
  - c. Verify that the `FILEUPLOADED` entry has a value for the location of an `pdf` file.
  - d. Close the browser tab.
8. In the same folder as in Step 1a, check that a `pdf` file that contains your batch name is created.

## Check the export in the repository

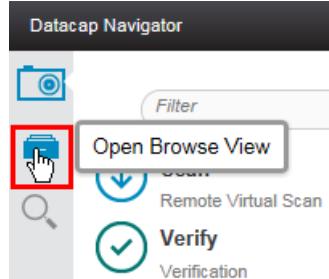
9. In the Internet Explorer browser, open the Datacap Navigator for business users.
  - a. Click the “DCN-Datacap” shortcut or enter the following URL:  
<http://ecmedu01:9080/navigator/?desktop=datacap>
  - b. Enter the following values:  
 User ID: admin  
 Password: admin
  - c. Click Login. The Datacap view opens.



### Note

The Datacap Navigator on the student image is configured to show the Browse and Search features; you can check the documents (that are exported into the repositories) directly in Datacap Navigator.

10. Click the “Browse View” icon (cabinet icon) on the left pane.



11. Login to the DCExport repository.

User ID: P8Admin  
 Password: IBMFileNetP8

12. Select the “DCExport” repository > “Expenses” folder from the left pane.
  13. Verify that you have an item that is listed with today’s date, and with the name: “MILLARD BRYAN” on the right pane.
    - a. Click the document to see the properties in the rightmost pane.
    - b. Verify that the properties contain values that were extracted from the scan image.
- The screen capture shows the document that is added to the repository, in Datacap Navigator.

The screenshot shows the Datacap Navigator interface. On the left is a tree view with nodes like DCExport, Air Receipts, Beneficiary F, CodeModule, Expenses (which is selected and highlighted with a red box), Rental Agre, and Saved Searc. In the center, there's a search bar with 'Name' and a dropdown menu. Below it, a list of documents is shown with their names: 20151124.000002-CarRental-MILLARD BRYAN, 20160519.000000-CarRental-MILLARD BRYAN, 20191211.000010-Air\_Receipt-MILLARD BRYAN, and 20191211.000010-Rental\_Agreement-MILLARD BRYAN. The last two are also highlighted with a red box. To the right is a preview area showing a document image and a properties panel. The properties panel has a red border and lists the following information:

Class:	Expenses
Document Title:	20191211.000010-Rental_Agreement-MILLARD BRYAN
Total:	260.05
Employee_Name:	MILLARD BRYAN
ReferenceNumber:	703142974
Date:	4/17/2010, 8:00 PM



### Note

The inset diagram in purple is a screen capture from the Datacap Desktop (Verify step) for comparison. It shows the values that are extracted from the original image.

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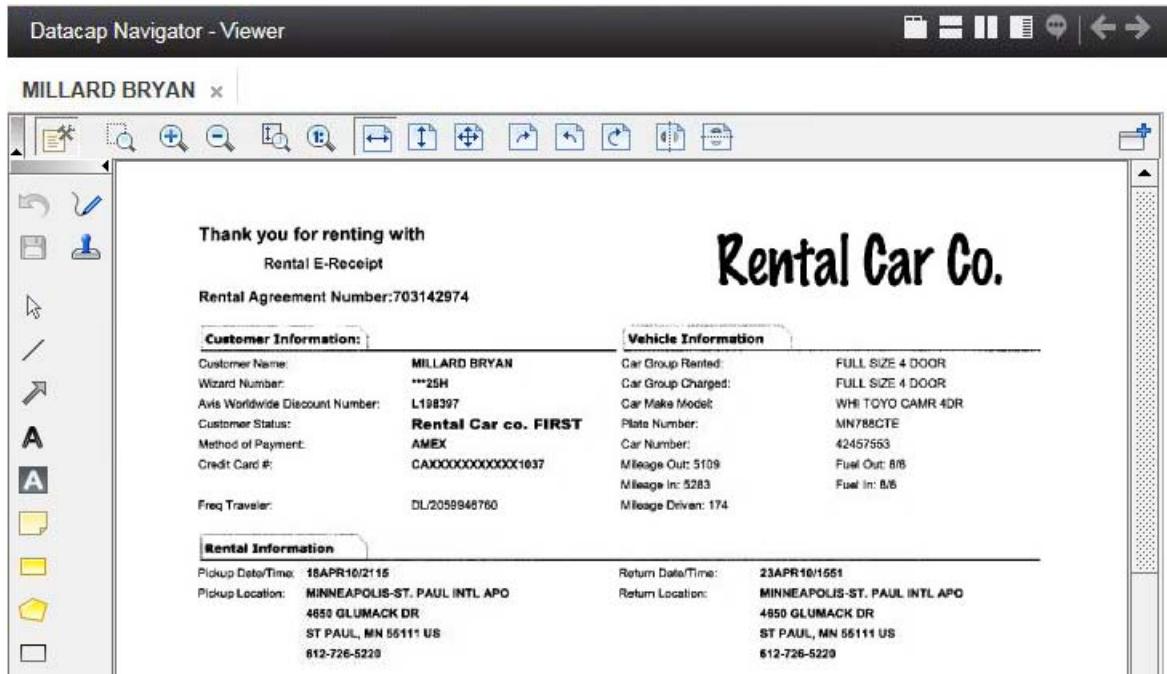
14. Double-click the document to open it and view the stored image in the viewer.



### Troubleshooting

You might see an error message warning about a CIWEB1014 error. It is a security issue that only exists on this test image but the document content is still displayed. You will not see this problem on your production systems.

You might also be prompted for “Java Update Needed”. Select “Do not ask again...” option, and click “Later”.



- Close the image.
15. Log out of Datacap Navigator and close the browser.



# Lesson 1.8. Introduction to Datacap Navigator

## Overview

### Why is this lesson important to you?

As a Datacap business analyst, you test your application workflow tasks in Datacap Navigator.

As a business user, you scan and process your batches in Datacap Navigator.

To do these tasks effectively, you must be familiar with the Datacap Navigator interface and with processing batches.

## Activities

- [Exercise 1: Explore the Datacap Navigator Interface](#), on page 1-28
- [Exercise 2: Process a batch with Datacap Navigator](#), on page 1-33

## User accounts

Type	User ID	Password
Operating system	Administrator	passw0rd
Datacap	admin	admin



### Note

Passwords are always case-sensitive.

# Exercise 1: Explore the Datacap Navigator Interface

## Introduction

In this activity, you explore the Datacap Navigator client to view the task processing and Job Monitor capabilities.

## Procedures:

[Procedure 1, "Start Datacap Navigator," on page 1-28](#)

[Procedure 2, "Explore the Datacap Navigator," on page 1-28](#)

[Procedure 3, "View batch information," on page 1-29](#)

[Procedure 4, "User Settings," on page 1-31](#)

[Procedure 5, "Explore the Administrator view," on page 1-32](#)

### Procedure 1: Start Datacap Navigator

1. In the Internet Explorer browser, open the Datacap Navigator for business users.

- a. Click the “DCN-Datacap” shortcut or enter the following URL:

`http://ecmedu01:9080/navigator/?desktop=datacap`

- b. Enter the following values:

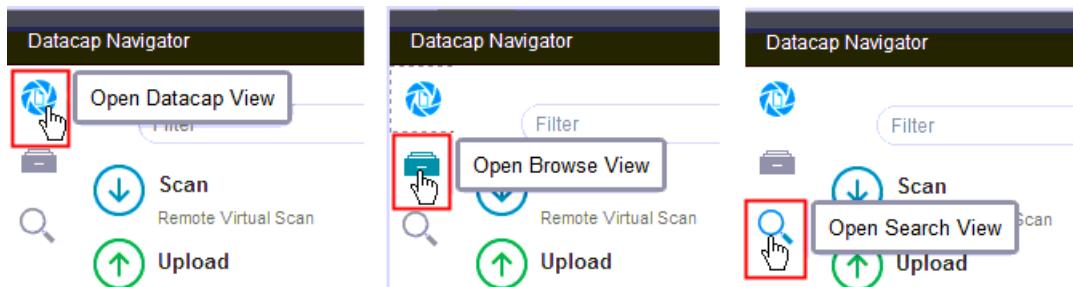
User ID: admin

Password: admin

- c. Click Login. The Datacap view opens.

### Procedure 2: Explore the Datacap Navigator

1. Review the main sections in this view.
  - Feature List - Datacap, Browse, and Search views
  - a. Hover over each icon in the leftmost pane to identify them.



2. In “Datacap View”, explore the shortcuts for different tasks in the Shortcut pane.
  - Navigator Scan, Upload, Verify, and FixUp

3. In “Datacap View” > “Job Monitor”, a list of batches are shown.



### Hint

When you click the “Browse View” icon (cabinet icon) or “Search View” icon (magnifying glass icon) on the left pane, you are prompted to log in to the IBM FileNet Content Manager repository.

4. Log in to the DCExport repository.

User ID: P8Admin

Password: IBMFileNetP8

5. Select the “DCExport” repository > “Expenses” folder from the left pane to view.

6. Leave Datacap Navigator open for the next procedure.

### **Procedure 3: View batch information**

1. In “Datacap View”, select an Application to process.
  - a. In the banner, to the left of the logged in user, verify or select TravelDocs from the Applications list.
2. In “Datacap View” > “Job Monitor”, select (single click) a batch in the Job Monitor list.



### Note

If you double-click an item, it opens for processing.

3. Check that a preview of the scanned image is shown on the right side of the page.
4. Verify that Properties pane displays on the right side of the page.
  - a. Click the blue triangle next to “System Properties” to expand the section and show the detailed information for the selected batch.
  - b. Collapse and expand the Properties pane with the control (gray triangles at the edge of the panes).
  - c. You can also click and hold the edge of the panes, and drag to resize the width.
5. Adjust the batch information columns.
  - a. Click a column header to sort by that column.



### Note

Which columns to show, and what column order can be configured for each application. Your administrator can customize the columns for the Datacap repository in Content Navigator administration desktop.

6. View the batch history.

- Select (single click) a batch in the Job Monitor list, and click “View History” from the menu bar.
- Batch history opens in a separate window.
- Depending on the task step that batch is at, the history details vary.

Batch history for 20141205.000000



Task	Station	Operator	Start Time	Run Time
Scan	1	admin	12/5/2014 2:12:40 PM	1419
NUpload	1	admin	12/5/2014 2:15:34 PM	4
PageID	1	admin	12/5/2014 2:30:22 PM	3
NProfiler	1	admin	12/5/2014 2:30:25 PM	0
NVerify	1	admin	12/5/2014 2:30:54 PM	68
Export	1	admin	12/5/2014 5:02:09 PM	0

- Click Close to close the window.

7. Filter the job list with the filter criteria.

- Type a value from the “Task” column, in the “Filter” field (Example: Export) on the upper right of the page.



### Important

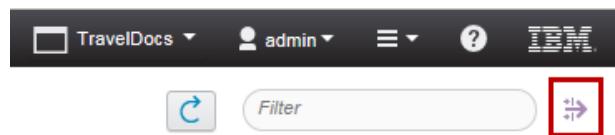
The value that you enter must be available in the “Task” column.

- Check that only the items with the specified Task are shown.
- Optionally, test another criteria for example, a value from the “Status” column (Example: Job done)



### Note

You can do an advanced filtering by clicking the arrow icon next to the Filter field.



8. Select a different Application.
  - a. In the banner, select ExpenseDemo from the Applications list.
  - b. You might be prompted to log in.

User ID: admin

Password: admin

- c. Click Login. The Datacap Batch Monitor view opens.
- d. Verify that a list of batches are shown.
- e. The Job column shows “Main Job”.



### Note

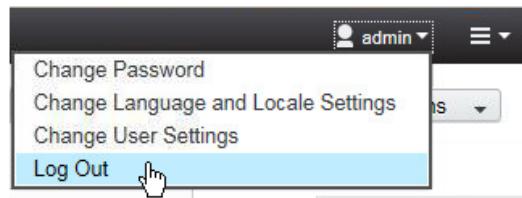
On the student image, some batches are processed in Datacap Desktop for the “ExpenseDemo” application. Those batches are listed in Desktop Navigator when you select the “ExpenseDemo” application. You can monitor the jobs for those batches.

The Task Shortcut pane is not visible for the ExpenseDemo application because this application is not configured to process in Datacap Navigator. In another course, you are going to configure this application to include a Navigator Job with compatible tasks profiles.

## **Procedure 4: User Settings**

Business users can change the settings.

1. From the banner area, click the down-arrow, next to the user name and select “Change User Settings”.
2. In the “Global” tab, observe that you can configure to hide the following features.
  - o Title bar for all the widgets.
  - o Shortcut pane when you start the task.
3. Observe the tabs for each task such as Scan, Upload, Classify, and Verify.
4. Click Cancel to close the window and log out of the Datacap Navigator.
5. Log out the Datacap Navigator and close the browser.



## Procedure 5: Explore the Administrator view

Administrators access this Datacap Navigator view to configure features. The functions available in this view is equivalent to what is available on the tmweb Administrator tab.

1. In the Internet Explorer browser, open the Datacap Navigator for administrators.

- a. Click the “DCN-dcAdmin” shortcut or enter the following URL:

`http://ecmedu01:9080/navigator/?desktop=dcadmin`

- b. Enter the following values:

User ID: admin

Password: admin

- c. Click Login. The Administration view in Datacap Navigator opens.

2. Explore the features that are available in this view.

- a. Click each feature in the following list to see the details:

- o Workflows
- o Groups
- o Users
- o Stations
- o Shortcuts
- o Panels

3. Log out the Datacap Navigator and close the browser.



### Note

You are going to learn about this view and the administration topics in detail in the Datacap Administration course.

---

## Exercise 2: Process a batch with Datacap Navigator

### Introduction

In this activity, you process a document batch in Datacap Navigator.

### Procedures

[Procedure 1, "Scan batches," on page 1-33](#)

[Procedure 2, "Review the Upload Task Output," on page 1-36](#)

[Procedure 3, "Start Datacap Rulerunner Service," on page 1-36](#)

[Procedure 4, "Run the PageID and Profiler Tasks," on page 1-36](#)

[Procedure 5, "Run the Verify Task," on page 1-37](#)

[Procedure 6, "Review the Verify Task Output," on page 1-38](#)

### **Procedure 1: Scan batches**

The task in this procedure reads the batch pages.

1. In the Internet Explorer browser, open the Datacap Navigator for business users.
  - a. Click the “DCN-Datacap” shortcut or enter the following URL:  
`http://ecmedu01:9080/navigator/?desktop=datacap`
  - b. Enter the following values:  
User ID: admin  
Password: admin
  - c. Click Login. The Datacap view opens.
2. In Datacap Navigator, select an Application to process.
  - a. In the banner, verify or select TravelDocs from the Applications list.
3. Scan a batch.
  - a. Click “Navigator Scan” (Blue down arrow icon) from the Shortcut list on the left.



## Troubleshooting

If you are prompted with errors as shown in the following screen captures, click “Close”. Click “Cancel” on the “Scan” tab. Restart the browser and open the Datacap Navigator. Then start the Scan again.

**The file cannot be found.**

The batch cannot be retrieved by using the batch ID., application: TravelDocs, user: admin, station: 1

**The batch cannot be retrieved.**

Failed to grab a queue with qID:26

If you are prompted with “Java Update Needed”, select the “Do not ask again...” option and click “Later”.

If you are prompted with any “Security Warning”, select the “Do not show this again...” option and click “Allow”.

- b. Click “Browse” next to the “Source” field.
  - c. In the “Choose File to Upload” window, go to C:\DC9-Lab Exercises\TravelDocs
  - d. Select the `Flight1.tif` image and click Open.
  - e. Click “Scan” at the top-right of the page.
4. Verify that image ID is listed in the “Batch Structure” and the image is shown in the viewer.
  5. Rescan an image.
    - a. Click “Browse” next to the “Source” field.
    - b. In the “Choose File to Upload” window, go to C:\DC9-Lab Exercises\TravelDocs
    - c. Select the `Car1.tif` image and click Open.
    - d. Click “Scan” and verify that you have more options in the list (“Append”, “Insert”, or “Replace”).
    - e. You can rescan the image, or scan more images to add to the batch.

The screenshot shows the TravelDocs Navigator Job / Scan interface. In the center, there is a table titled 'Batch Structure' with two rows. The first row has columns 'ID' and 'Type', with values '20151123.000007' and 'TravelDocs'. The second row has columns 'ID' and 'Type', with values 'TM000001' and 'Other'. To the left of the table, under 'Scanned Pages (1/1)', there is a list of actions: Actions, Append, Insert, and Replace. The 'Append' option is highlighted with a red box and a mouse cursor icon.

ID	Type
20151123.000007	TravelDocs
TM000001	Other

- f. Select “Append”, verify that the image is added.

“Scanned Pages(2/2)” shows that there are 2 pages as shown in the following screen capture.

The screenshot shows the 'Scanned Pages (2/2)' section of the interface. It contains a list of actions: Actions, Append, Insert, and Replace. The 'Append' option is highlighted with a red box.

- g. Optionally, test the other options: “Insert” or “Replace”.

6. Click Submit.
7. Notice that the Upload task runs automatically.



### Note

The Upload task uploads the scanned pages to the Datacap Server. The student image is configured to run the “Upload” task automatically.

- h. Leave the Datacap Navigator open for the other procedures.

## Review the Scan Task Output

8. View results in the Batches folder:
  - a. In Windows Explorer, go to the batches folder C:\Datacap\TravelDocs\batches.
  - b. Verify that the batch that you scanned created a folder with a name that has today's date in this format: <date.00000>.

Example: 201501123.000000

9. Check the nscan.xml file for Batch <date.00000N>.
  - a. Open the <date.00000N> batch folder.
  - b. Double-click the nscan.xml file to open it in Internet Explorer browser.
  - c. Click “Yes”, if you are prompted to allow the scripts to run.
  - d. Verify that the page you scanned is identified.
    - o The Batch Type is “TravelDocs”.
    - o The Document Type is not set yet.
    - o The page type is “Other”.
  - e. Close the browser tab.
10. Leave the Windows Explorer folder open for rest of this lab.

### ***Procedure 2: Review the Upload Task Output***

In the previous procedure, Upload task ran automatically. In this procedure, you review the files that are created.

1. In Windows Explorer, go to the C:\Datacap\TravelDocs\batches folder.
  - a. Open the <date.00000N> folder.
2. Check the nupload.xml file for Batch <date.00000N>.
  - a. Double-click the nupload.xml file to open it in Internet Explorer browser.
  - b. Click “Yes”, if you are prompted to allow the scripts to run.
  - c. The file contains value for the “IMAGEFILE” field.
  - d. Close the browser tab.
3. Leave the Windows Explorer folder open for rest of this lab.

### ***Procedure 3: Start Datacap Rulerunner Service***

1. Click Start > All Programs > IBM Datacap Services > Datacap Rulerunner Manager.
  - a. You can also use the “Datacap Rulerunner Manager” shortcut on the desktop.
2. In the “Datacap Rulerunner Manager” window, select the “Rulerunner” tab.
  - a. If the Status shows that the service is not running, click “Start” to start the server.
 

Note: The Start operation is disabled if it is already started.
  - b. Click Close to close the window.

### ***Procedure 4: Run the PageID and Profiler Tasks***

The two tasks in this procedure complete the page identification and document assembly. Rulerunner is configured to run the PageID, Profiler, and Export task automatically.

1. When you started Rulerunner in the previous procedure the “PageID” and “Profiler” tasks run automatically.

2. In Windows Explorer, in the same batch folder as in the previous procedure, verify that the following two files are located.
  - PageID.xml
  - Profiler.xml
3. Check the PageID.xml file for Batch <date.00000N>.
  - a. Double-click the PageID.xml file to open it in a browser.
  - b. Click “Yes”, if you are prompted to allow the scripts to run.
  - c. Verify that the page type is identified as Air\_Ticket.
  - d. Close the browser tab.
4. Check the Profiler.xml file for Batch <date.00000N>.
  - a. Double-click the Profiler.xml file to open it in a browser.
  - b. Click “Yes”, if you are prompted to allow the scripts to run.
  - c. Verify that the document type is identified as Flight for the Air\_Ticket page.

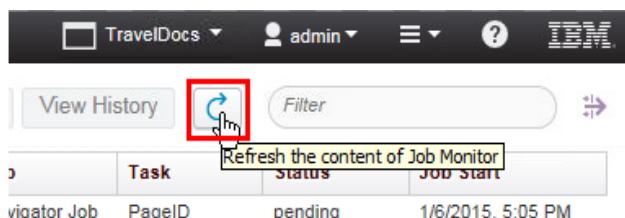
B	20150520.000000
	STATUS : 0
	TYPE : TravelDocs
	NeedsFixup : No
D	20150520.000000.01
	TYPE : Flight
	STATUS : 0
P	TM000001
	STATUS : 1
	TYPE : Air Ticket
	ScanSrcPath : C:\DC9-Lab Exercises\TraveDocs\Flight1.tif

- d. Close the browser tab.

### Procedure 5: Run the Verify Task

The task in this procedure completes the data verification.

1. Refresh the list in the Datacap Navigator Monitor view.



- a. Verify that your batch is now in the pending state for the “Verify” task. The Batch has today’s date.



## Troubleshooting

If there are no exceptions, the batch advances to the “Verify” task after the “PageID” and “Profiler” tasks.

If there are any exceptions in the pages that are scanned, the batch item moves to “NFixUp” step after the “PageID” and “Profiler” tasks.

2. Double-click your batch.
  - a. Your batch item is opened in the “Verify” tab.
  - b. Click Submit twice (if necessary) to complete the 2 pages.
  - c. Click OK to acknowledge the message dialog, “All documents are complete. Do you want to finish batch?”



## Note

To run the “Verify” task for all the pending batches, click the “Verify” shortcut from the Task shortcut list. The user can configure the Datacap Navigator to automatically open the next pending batch in the queue when you submit a current batch.

## **Procedure 6: Review the Verify Task Output**

1. In Windows Explorer, go to the batches folder C:\Datacap\TravelDocs\batches.
  - a. Open your batch folder.
  - b. Double-click the `verify.xml` file to open it in a browser.
  - c. Click “Yes”, if you are prompted to allow the scripts to run.
  - d. Verify that the DATAFILE field has a value: `tm00000n.xml`  
Example: `tm000001.xml`
2. Check the DATAFILE file for the page.
  - a. Click the DATAFILE file link `tm00000n.xml` to open it in the browser.
  - b. Click “Yes”, if you are prompted to allow the scripts to run.
  - c. Note all the fields have valid data.
  - d. Close the browser tab.
  - e. Close the Windows Explorer.

## ***Procedure 7: Check your batch status***

After you complete “Verify” task, your batch moves to the “Export” task. The Export task runs automatically, and the batch is completed.

1. Verify your batch status.
  - a. Refresh the list in the Datacap Navigator Monitor view.
  - b. Check your batch information. The “Task” column has the value: “Export”. The Status column has the value: “Job done”.
2. Logout of the Datacap Navigator.
  - a. Click the down-arrow on the banner area next to the user name and select Log Out.
  - b. Close the Internet Explorer window.

## ***Procedure 8: Stop Datacap Rulerunner Service***

1. Click Start > All Programs > IBM Datacap Services > Datacap Rulerunner Manager.
  - a. You can also use the “Datacap Rulerunner Manager” shortcut on the desktop.
2. In the “Datacap Rulerunner Manager” window, select the “Rulerunner” tab.
  - a. If the service is running, click “Stop” to stop the server.
  - b. Click Close to close the window.

# Lesson 1.9. Datacap web client (Optional)

## Overview

### Why is this lesson important to you?

As a Datacap business analyst, you test your need to configure and monitor the Datacap system with the Datacap web client.

To do these tasks effectively, you need to be familiar with the Datacap web client interface.

## Activities

- [Exercise 1: Explore the Datacap web client](#), on page 1-41
- [Quiz 1: Datacap web client interface](#), on page 1-44

## User accounts

Type	User ID	Password
Operating system	Administrator	passw0rd
Datacap	admin	admin



### Note

Passwords are always case-sensitive.

# Exercise 1: Explore the Datacap web client

## Introduction

This activity demonstrates opening Datacap Navigator and views the application configuration, administration, and task processing capabilities. It also demonstrates how Navigator is used as a local processing client and a Datacap Server client.

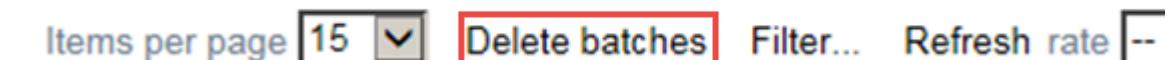
## Procedures

[Procedure 1, "Datacap web client capabilities," on page 1-41](#)

### Procedure 1: Datacap web client capabilities

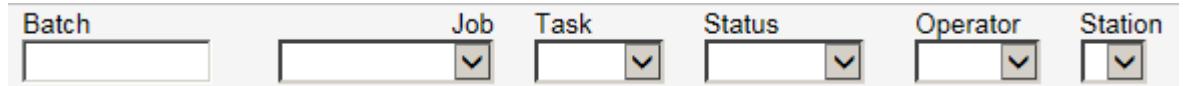
1. Log in to tmweb.
  - a. Open the Internet Explorer browser.
  - b. Type URL: <http://ecmedu01/tmweb.net>

Login Credentials:  
 Select an application: TravelDocs  
 User ID: *admin*  
 Password *admin*  
 Station: 1
  - c. Click Login.
2. Operations - Run Shortcuts
  - The operations view is the first view that you see. This view is where you run tasks that are configured to run from the Datacap Web client.
  - These task shortcuts are configured as Web-Job shortcuts on the tmweb > Administrator > Shortcuts view.
  - Only Web Job shortcuts are displayed in the Operations view.
3. Click the Monitor tab.
  - With the top row of controls you can:



- Select the Number of batches displayed on a page.
- Delete all batches in this application, irrespective if they are complete or not.
- Configure advanced filter options.
- Refresh the display.
- Select a default refresh rate.
- Set all configuration options back to their default value.

- The second row of controls is column filters.



- Filter by Batch number, Job name, Task name, Batch status, Operator ID, or Station number.
- The third area is the batch monitor area that shows the properties and status for batches that are active or complete.
- The fourth area is the column selection area.
  - Click the Pages column selection object.
    - Notice that it turns gray and the Pages column disappears from the monitor view.

#### 4. Administrator - Workflow view

- Click the Administrator tab.
  - The view for the Workflow tab is shown.
  - Notice the jobs that are configured for the various clients that are able to process tasks.
  - Main Job for Datacap Desktop and FastDoc
  - Web Job for tmweb
  - Navigator Job for Datacap Navigator.
- Expand the Main Job node.
- Click the VScan task.

There can be only one Batch creation task. It is normally the Scan task.

The program is set to Multiple. This selection means that multiple clients and services can run the task. Example Desktop, FastDoc, and Rulerunner.

- Click Setup.
- Verify that you see parameter section for Rulerunner, Desktop, and FastDoc.

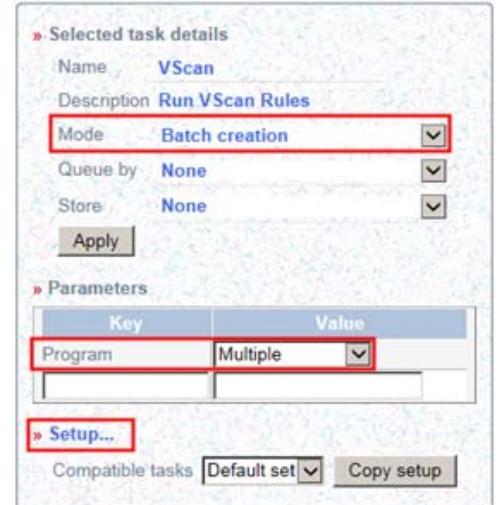
- Close the setup window.
  - Click the PageID task.
- Notice that Program Value is set to Rulerunner.

- Click Setup.
- Notice that there is only a Rulerunner and Desktop parameter sections.

- Close the setup window.

#### 5. Administrator - Groups view

- Click the Groups tab.



You can create new groups from scratch or by copying an existing group and modifying it. You can also remove groups.

- b. Click the Everyone group. Notice that you can:
  - Configure group Privileges.
  - Configure Permissions.
  - Select the users that are members of this group.
6. Administrator - Users view
  - a. Click the Users tab. Notice that you can:
    - Create new user from scratch.
    - Copying an existing user and modifying it.
    - Remove users.
  - b. Click the edit1 user. Notice that you can:
    - Configure user Privileges.
    - Configure Permissions.

#### 7. Administrator - Stations view

- a. Click the Station tab. Notice that you can:
  - Create new stations from scratch.
  - Copying an existing station and modifying it.
  - Remove stations.

A station is just a logical designation that can be used for managing batch flow.

#### 8. Administrator - Shortcuts view

- a. Click the Shortcuts tab. Notice tat you can:
  - Create new stations from scratch.
  - Copying an existing station and modifying it.
  - Remove stations.
- b. Click the Verify shortcut.

The permissions determine which tasks are visible for each Job definition.

The user and group permissions set through the User and Group tabs also influence which tasks are visible in the various clients, for processing batches.

#### 9. Logout and close the tmweb window.

- a. Click Logout on the right side of the tab/heading bar.
- b. Click OK to acknowledge the verification message.
- c. Close the tmweb window.

## Quiz 1: Datacap web client interface

For each of the following statements, indicate whether the statement is accurate by marking it True or False. Taskmaster Web Client is abbreviated to tmweb in this exercise.

1. tmweb is the Datacap Capture application development environment.

**True or False**

2. tmweb is one of the capture job processing environments.

**True or False**

3. tmweb provides direct access to the Application Wizard through an icon on the icon bar.

**True or False**

4. tmweb provides the capability to process document batches manually through every task of the capture process.

**True or False**

5. tmweb Client provides the capability to process document batches manually through some task of the capture process.

**True or False**

6. Taskmaster Administrator functions are done on the tmweb > Administrator tab subtabs.

**True or False**

7. Taskmaster Administrator functions are done on the tmweb > Configuration tab subtabs.

**True or False**

8. The tasks on the tmweb > Operations tab are configured on the tmweb > Administrator > Workflow tab and the tmweb > Administrator > Shortcut tabs.

**True or False**

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### Note

Refer to [Appendix , "Lesson 1.9. Datacap Web Client interface: Quiz,"](#) on page 1-51 for answer keys to the questions.

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# Appendix 1. Answer keys to quizzes

This section shows the answer keys to the quizzes that you have done in the above lessons.

## Lesson 1.1. Datacap overview: Quiz

For each question, indicate the correct answer or mark the statement True or False.

1. Datacap supports both structured and unstructured documents.

True or False

**Answer = True**

2. Which of the following descriptions apply to IBM Datacap? Select more than one option. Circle all that apply.

- a. Automates capturing documents and the extraction of appropriate data.
- b. Improves efficiency and optimizes business processes.
- c. Supports compliance and Risk mitigation.
- d. Reduces costs and speeds up the response.
- e. Improves customer service.

**Answer = a, b, c, d, and e**

## Lesson 1.2. Datacap process: Quiz

For each question, indicate the correct answer or mark the statement True or False.

1. The Scanners and Multi-Functional Devices input channels support which of the following file types? Select more than one option. Circle all that apply.
  - a. TIFF
  - b. JPEG
  - c. TXT
  - d. HTML
  - e. PDF
  - f. DOCX
  - g. ZIP

**Answer = a, b, and e**

2. Both one- and two-dimensional Barcodes are used for page recognition.

True or False

**Answer = True**

3. Datacap captured documents and data can be exported to content repositories or can be used in applications.

True or False

**Answer = True**

4. Which of the following items are Datacap page identification methods? Select more than one option. Circle all that apply.

- a. Keyword
- b. Batch Process
- c. Pattern recognition
- d. Fingerprint
- e. Document export
- f. Input channel

**Answer = a, c, and d**

## Lesson 1.3. Role-based Datacap clients: Quiz

For each question, indicate the correct answer or mark the statement True or False.

1. Which one of the following items is not a Datacap client for business users to process a batch?
  - a. Datacap Navigator
  - b. Datacap Mobile
  - c. Datacap Desktop
  - d. Datacap FastDoc
  - e. Datacap Studio

**Answer = e**

2. Datacap FastDoc can be used to rapidly configure the Datacap applications and as a client to scan and verify the documents.

True or False

**Answer = True**

## Lesson 1.4. Identify architecture configuration: Quiz

For each question, indicate the correct answer or mark the statement True or False.

1. Many production Datacap installations can be configured with a Single system configuration.  
True or False **Answer = False**
2. The most efficient and cost effective Datacap installations are client/server configurations where all software components are installed on dedicated servers.  
True or False **Answer = False**
3. Most production Datacap systems have some Datacap components that are installed on dedicated systems and some components on shared systems.  
True or False **Answer = True**
4. Consider the terms “Centralized Deployment” and “Distributed deployment”. Which of the following statements is correct.
  - a. Centralized and Distributed refer to how Datacap components are deployed across servers in a Datacap configuration.
  - b. Centralized and Distributed refer to geographic location of Datacap services and tasks.

**Answer = b**

5. Consider the scenario where all of the Datacap services are provided by servers that are in a single-server room. Scanning and verification tasks are done from a workstation or scanning stations throughout multiple buildings at the same physical address and all connected to the same LAN. What is the classification for this scenario?
  - a. Centralized.
  - b. Decentralized.

**Answer = a**

6. Consider the scenario where all of the Datacap servers are at one physical location. Scanning and verification tasks are done from the location and from remote locations that are connected over the Internet. What is the classification for this scenario?
  - a. Centralized.
  - b. Decentralized.

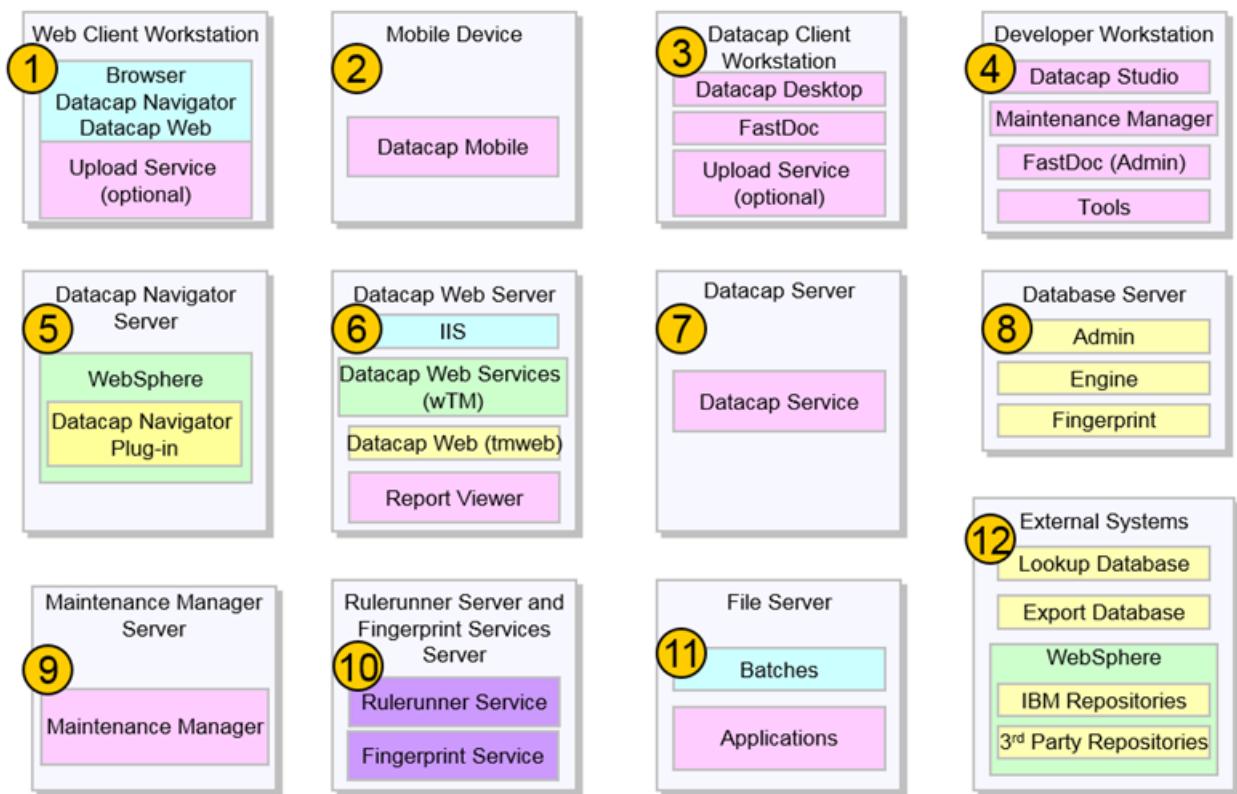
**Answer = b**

## Lesson 1.5. Identify architecture components: Quiz

In the following table, enter the number that corresponds to the Datacap component name from the following Datacap system architecture diagram.

Number	Datacap component name	Number	Datacap component name
4	Developer Workstation	1	Web Client Workstation
5	Datacap Navigator Server	6	Datacap Web Server
8	Database Server	9	Maintenance Manager Server
3	Datacap Client Workstation	2	Mobile Device
11	File Server	7	Datacap Server
10	Rulerunner Server and Fingerprint Services Server	12	External Systems

Diagram of Datacap system architecture.



## Lesson 1.9. Datacap Web Client interface: Quiz

For each of the following statements, indicate whether the statement is accurate by marking it True or False. Taskmaster Web Client is abbreviated to tmweb in this exercise.

1. tmweb is the Datacap Capture application development environment.

True or False

**Answer = False**

2. tmweb is one of the capture job processing environments.

True or False

**Answer = True**

3. tmweb provides direct access to the Application Wizard through an icon on the icon bar.

True or False

**Answer = False**

4. tmweb provides the capability to process document batches manually through every task of the capture process.

True or False

**Answer = False**

5. tmweb Client provides the capability to process document batches manually through some task of the capture process.

True or False

**Answer = True**

6. Taskmaster Administrator functions are done on the tmweb > Administrator tab subtabs.

True or False

**Answer = True**

7. Taskmaster Administrator functions are done on the tmweb > Configuration tab subtabs.

True or False

**Answer = False**

8. The tasks on the tmweb > Operations tab are configured on the tmweb > Administrator > Workflow tab and the tmweb > Administrator > Shortcut tabs.

True or False

**Answer = True**

# Unit 2. FastDoc local mode

## Estimated time

04:00

## Unit overview

This unit contains these lessons.

### Lessons

- [Lesson 2.1, "FastDoc overview," on page 2-3](#)
- [Lesson 2.2, "FastDoc Local mode," on page 2-5](#)
- [Lesson 2.3, "Create local capture batch," on page 2-8](#)
- [Lesson 2.4, "Process Local batches," on page 2-11](#)
- [Lesson 2.5, "Configure scan and upload," on page 2-16](#)

### Requirements

The activities in this unit assume that you have access to the student system configured for these activities.

### Do this first

1. If you are prompted to log in to the system, use:

Type	User ID	Password
Operating system	Administrator	passw0rd

2. Start the Datacap Server.
  - a. Click Start > All Programs > IBM Datacap Services > Datacap Server Manager.  
The Datacap Server Manager window is shown.
  - b. Click the Service tab.
  - c. Click Start to start the The Datacap Taskmaster Server Service if it is not already started.  
The Start operation is disabled if it is already started.
  - d. Click Close to close the Datacap Server Manager window.
3. Start WebSphere Application Server.
  - a. Double-click the WebSphere Admin folder on the Desktop.

- b. Double-click the Start Server1.bat script file.

This action starts the IBM FileNet Content Manager, and the Content Navigator.

## System check

The activities in this unit assume that all system services are running when you begin an activity session. Perform a system check whenever you start an IBM FileNet Content Manager system or start working on a system that is in an unknown state.

Use procedures in Appendix C to check the following components:

1. IBM FileNet Content Platform Engine

[Procedure 2, "Check the Content Engine," on page A-3](#)

2. IBM Content Navigator

[Procedure 5, "Check the IBM Content Navigator," on page A-4](#)

3. IBM Datacap Content Navigator

[Procedure 6, "Check the Datacap Components," on page A-4](#)

4. See Appendix C for additional procedures to Start, Check, and Restart components on the Student system.

# Lesson 2.1. FastDoc overview

## Overview

### Why is this lesson important to you?

As a Datacap business analyst, you build and deploy applications with the Datacap Capture system.

This lesson gives you a broad overview of the capabilities of the FastDoc as a rapid development tool and as a user client.

## Activities

[Exercise 1: FastDoc: Quiz](#), on page 2-4

## User accounts

Type	User ID	Password
Operating system	Administrator	passw0rd
Datacap	admin	admin



### Note

Passwords are always case-sensitive.

---

## Exercise 1: FastDoc: Quiz

For each of the following statements, indicate whether the statement is accurate by marking it True or False.

- Using one of Datacap's built-in application templates, FastDoc can be used as rapid development tool.

**True or False**

- FastDoc has two operation modes. The modes are Local mode and Datacap Server mode.

**True or False**

- To use the Datacap Server mode, you must log in to FastDoc with the Admin interface and configure Batch and Task profiles before proceeding with batch processing.

**True or False**

- To use the FastDoc Datacap Server mode, you must log in to FastDoc with either the Admin or user interface and select the application that you want to use to process document batches.

**True or False**

- To use the FastDoc Local mode, you must log in to FastDoc with the Admin interface and configure Batch and Task profiles before proceeding with batch processing.

**True or False**

- FastDoc Local mode can be used only to scan batches and then upload them to the taskmaster server for further processing.

**True or False**

- If FastDoc Local mode is used, then all processing up to the Export Task must be done locally and then the batch is uploaded to the Datacap server to complete the Export Step.

**True or False**

- Any portion of the processing can be done in the Local mode. When the batch is uploaded, then processing is completed with FastDoc in the Datacap Server mode, with Datacap Desktop, or Rulerunner Service.

**True or False**

- FastDoc can be used as an integrated user interface to run all tasks for any existing application with the Datacap Server mode.

**True or False**



**Note**

The answers for these questions are in the Unit 1 Appendix after Lesson 5.

## End of exercise

# Lesson 2.2. FastDoc Local mode

## Overview

### Why is this lesson important to you?

As a Datacap business analyst, you might be required to configure FastDoc to process batches completely or partially on the local system before uploading the batches to the server for further processing.

To do these tasks effectively, you must be familiar with the FastDoc Local mode interface.

## Activities

[Exercise 1: Explore FastDoc Local mode](#), on page 2-6

## User accounts

Type	User ID	Password
Operating system	Administrator	passw0rd
Datacap	admin	admin



### Note

Passwords are always case-sensitive.

# Exercise 1: Explore FastDoc Local mode

## Introduction

This activity demonstrates opening FastDoc in the local mode and viewing the configuration and processing capabilities.

## Procedures

[Procedure 1, "View FastDoc local capabilities," on page 2-6](#)

### Procedure 1: View FastDoc local capabilities

1. Log in to FastDoc (Admin) in Local mode.
  - a. Click Start > All Programs > IBM Datacap Developer Tools > Datacap FastDoc (Admin)
  - b. Start Datacap FastDoc (Admin)
  - c. Select Local on the Welcome to Datacap window.
  - d. Click Login.
2. View Batch Profile shortcuts.
 

 You are viewing the Process Batches view.

  - a. Notice that there are two shortcuts below the New Batches title.
    - TravelDocs is configured to process a batch through all steps from Scan to Export at the Local level.
    - Send TravelDocs to Datacap is configured to scan a batch and then immediately upload it to the server for further processing.
  - b. If there are any batches that are partially completed for either of the defined batch profiles, they would appear as active batches in the Existing Batch Folders.
  - c. If there are any batches that are completed for either of the defined batch profiles, they would appear as finished batches in the Existing Batch Folders.
  - d. With the Purge Finished Batches option, you can purge the batch folders for finished batches and reset the counters to zero. This action deletes all finished batches in all defined batch profiles.
  - e. With the Delete Selected Batches option, you can select a specific batch and delete the batch folder for the selected batch. The active batches count is adjusted to reflect the remaining active batches.
3. View document configuration options.
  - a. Click the Configure local profiles icon .

Notice the following areas of the Configure local profiles view.

  - Batch Profiles pane - the two defined batch profiles are listed in the left pane under the Batch Profiles title.

- Batch Profile controls - on the title bar to the right of the Batch Profiles title are controls for:
    - o Adding a Batch Profile.
    - o Saving the batch profile configuration changes.
    - o Removing an existing batch profile.
  - Batch Profile properties pane - holds the batch profiles configurable parameters.
  - Tasks Pane - configure the batch profile tasks.
- b. Click the TravelDocs batch profile.
- c. Click each of the defined tasks in the tasks pane and the notice how parameters and options are configured:
- The Task Name field matches the tab name at the top of the pane.
  - Notice the Task option selections for each task.
  - Notice that the Application field is set to the application that these tasks are connected to.
  - Notice that the Workflow name matches the Type field in the Batch Profile Name pane, which must in turn match the Batch structure or DCO structure name.
- d. Click the Export task.
- e. Click the < in the upper right corner of the tasks pane. You might have to maximize the window or scroll to the right to see + - < > controls  
 Notice that the order of the tasks is changed.
- f. Click > to restore the correct order.
- g. Click + and notice that a new task is created.
- h. Experiment with defining task options if you want.
- i. Click - to delete the new task.
- j. Click OK to confirm task deletion.
- Note. The order of the tasks is important. When you initiate a batch, the tasks are run in the order defined. Processing stops only when an operator intervention is required. For example, at the Verify step.
4. Log out of FastDoc.
- a. Click  Administrator.
  - b. Click Logout.
  - c. Close the FastDoc login window.

## End of exercise

# Lesson 2.3. Create local capture batch

## Overview

### Why is this lesson important to you?

As a Datacap business analyst, you build and deploy applications with the Datacap Capture system. You might be called on to configure remote site for scanning and uploading document batches to the Datacap Server.

To do this operation, you must be familiar with using the FastDoc user interface in the local run mode to capture documents of a known type.

## Activities

[Exercise 1: Configure a local batch](#), on page 2-9

## User accounts

Type	User ID	Password
Operating system	Administrator	passw0rd
Datacap	admin	admin



### Note

Passwords are always case-sensitive.

# Exercise 1: Configure a local batch

## Introduction

In this exercise, you create a local batch that has four local tasks corresponding to the application task profiles, Scan, Profiler, Verify, and Export. These activities are done on the FastDoc workstation with the FastDoc (Admin) Local interface.

## Scenario

You have the FastDoc application that is created on Datacap 8.1 and imported to the Datacap 9.0 system. The application is configured to recognize three document types. It is configured with the four standard task profiles, Scan, Profiler, Verify, and Export.

You need to configure a local batch that defines local tasks for each task profile and runs them in the normal order as stated in the previous paragraph.

## Procedures

[Procedure 1, "Add the Expenses batch,"](#) on page 2-9

### Procedure 1: Add the Expenses batch

Use the Expenses data table and procedure1 - 3 and configure a Local batch. The Local batch scans and then processes a document batch through all four tasks in the offline mode. It does not upload the results to the Datacap server for further processing but exports directly to FileNet Content Manager repository.

#### Expenses Data

Item	Name	Parameters
Batch Profile Name	Expenses	
Type	Expenses	
<b>Task Name</b>	<b>Scan</b>	
Task option	Disk Scan	Application: ExpenseDemo Workflow: ExpenseDemo Task Profile: VScan
	Start Batch Panel	Application: ExpenseDemo Workflow: ExpenseDemo
<b>Task Name</b>	<b>Profiler</b>	
Task option	Rulerunner	Application: ExpenseDemo Workflow: ExpenseDemo Task Profile: Profiler
<b>Task Name</b>	<b>Verify</b>	
Task option	Verify	Application: ExpenseDemo Workflow: ExpenseDemo Task Profile: Verify
<b>Task Name</b>	<b>Export</b>	

Task option

Rulerunner

Application: ExpenseDemo  
 Workflow: ExpenseDemo  
 Task Profile: Export

This procedure provides the steps for adding a new Local Batch name and four tasks. The Batch does a Disk Scan followed by running Profiler, Verify, and Export tasks.

1. Add a Batch Profile.
  - a. Start Datacap FastDoc (Admin), click Local and then click Login.
  - b. Click the “Config local profile” icon  on the mode select pane.
  - c. Click Add on the Batch Profiles controls bar.
  - d. Type the Batch Profile Name. Example Expenses.
  - e. Type the batch Type. Example Expenses. This name must match the Batch Structure name from FastDoc Batch structure configuration or Batch type from the DCO pane of Datacap Studio.
2. Add the Scan Task.
  - a. In the Task pane, type the Task Name. Example Scan.
3. Configure the Scan Task options.
 

See the Disk Scan options in the Expenses Data table.

  - a. Select the Disk Scan option in the Task Options pane.
  - b. Select ExpenseDemo from the Application list.
  - c. Select ExpenseDemo from the Workflow list.
  - d. Select VScan from the Task Profile list.
4. Click + in the upper right corner to add a task then repeat steps 2a - 3d with the data in the Expenses Data table to configure the other three local tasks.
5. Add a Start Batch Panel to the Scan Task.
  - a. Click the Scan task tab.
  - b. Select the “Start Batch Panel” in the Task options pane.
  - c. Select ExpenseDemo for the Application and Workflow fields.
6. Save your changes.
  - a. Click Save on the Batch Profiles control bar.
7. Log out of FastDoc.
  - a. Click  Administrator and select Logout.
  - b. Close the FastDoc login window.
8. You use the Expense batch in the next activity to process a document batch offline.

## End of exercise

# Lesson 2.4. Process Local batches

## Overview

### Why is this lesson important to you?

As a Datacap business analyst, you build and deploy applications with the Datacap Capture system. You might be called on to configure remote site for scanning and uploading document batches to the Datacap Server.

To do this operation, you must be familiar with using the FastDoc user interface in the local run mode to capture documents of a known type.

## Activities

[Exercise 1: Process documents in local mode](#), on page 2-12

## User accounts

Type	User ID	Password
Operating system	Administrator	passw0rd
Datacap	admin	admin



### Note

Passwords are always case-sensitive.

# Exercise 1: Process documents in local mode

## Introduction

In this exercise, you use a FastDoc application that was configured and installed on the class image to demonstrate FastDoc local mode of operation.

## Scenario

You have a FastDoc application that is named ExpenseDemo that is configured to process three document types. You will only use one of these document types in this exercise. You are required to demonstrate to users how to use the FastDoc (User) interface in the Local mode to process a batch of the three document of the same types to see how the FastDoc interface works.

## Procedures

[Procedure 1, "Scan the Documents," on page 2-12](#)

[Procedure 2, "Process the documents," on page 2-13](#)

[Procedure 3, "Verifying the documents," on page 2-13](#)

[Procedure 4, "Observe the output and results," on page 2-14](#)

### Procedure 1: Scan the Documents

1. Start Datacap FastDoc user interface
  - a. Double-clicking the Datacap FastDoc desktop icon. You are prompted to log in.
2. Click Local and then click Login.
3. Click the Expenses link below the New Batch heading.

The screen changes to display the FastDoc scanning user interface.

4. Click SCAN  in the Disk Scan pane.
5. Browse to C:\DC9-Lab Exercises\Expense\All-Images\HR Images with Receipts.
6. Click PGerety1.tif then Shift and click PSanderson3.tif.
7. Click Open.



#### Note

If you use a physical scanner, the paper would feed through the scanner. FastDoc supports both Twain and ISIS scanners.

## Observations

The seven images are loaded into the system.

Look at the thumbnail strip at the bottom of the screen, the seven images are listed here.

Click each thumbnail to view the images that were scanned:

The first four images belong together in a four-page document.

1. Humanitarian Relief Fund Donor information form for Paul Gerety.
2. A donation receipt for Paul Gerety for \$100.
3. A donation receipt for Paul Gerety for \$100.
4. A donation receipt for Paul Gerety for \$100.

The next three images are a three-page document.

1. Humanitarian Relief Fund Donor information form for Pamela Sanderson.
2. A donation receipt for Pamela Sanderson for \$1000.
3. A donation receipt for Pamela Sanderson for \$1000.

## ***Procedure 2: Process the documents***

1. Click Submit to start processing the scanned documents.

FastDoc does all of the defined Profiler task processing.

Observe the screen while FastDoc processes the images.



It takes several seconds per page. The speed depends on the power of the processing system. The phases of processing are: Image Clean, CreateDocs, and ChkConfig.

## ***Procedure 3: Verifying the documents***

When processing is complete:

- The pages are grouped into documents and the first page of each document is larger than the others.
- The first document is identified as an HR document in the Verify panel. The Document heading on the image is Humanitarian Relief Fund.
- The extracted properties are displayed on the verify/data entry screen.

1. Verify that the flagged fields are correct by comparing the extracted values against the Image.
2. Click the Next Problem icon.



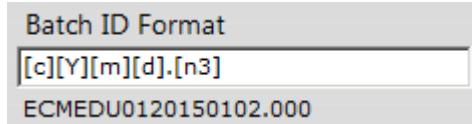
3. You might have to expand the size of the Verify pane to see the Next Problem icon.
  - You might see the frequency field displayed with a yellow background. This indicates that the confidence level did not meet the threshold and therefore should be checked by the verifier. If you compare it against the image and the value looks correct, then click the Next Problem icon again.
  - There should be no problems with this selection of documents, FastDoc starts the Export procedure.
4. The system completes the batch of images and returns to the starting screen. Close the FastDoc application.
5. Log out and close the FastDoc window.

#### **Procedure 4: Observe the output and results**

When FastDoc is run in the Local - Offline mode, output is placed in the local system folder at the following location: C:\Datacap\FastDoc\ batches\<Batch name>\<Batch folder name>

For this exercise:

- Batch name is Expenses.
- The Batch ID Format defines the Batch folder name that is defined on the settings page for the ExpenseDemo application.



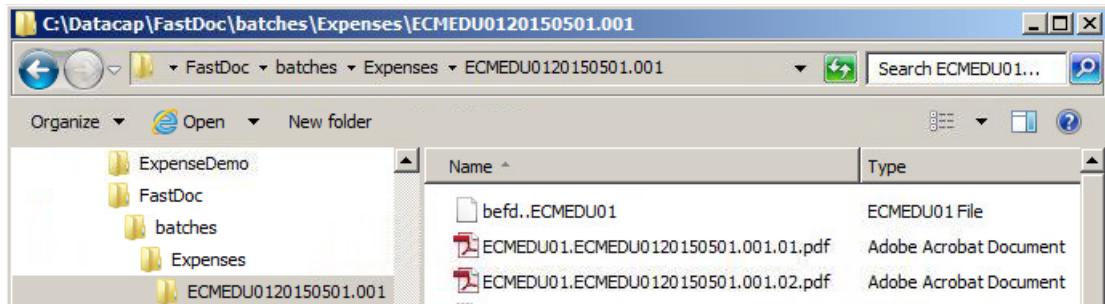
1. Open an Explorer browser and go to the batches folder:

C:\Datacap\FastDoc\ batches\Expenses\ecmedu01<date time.00x>

Notice:

- There are task-specific files .xml, .log, and \_rrs.log for each of the tasks that FastDoc runs. Tasks are: Scan, Profiler, Verify, Export.
- There are image-specific files: .cco, .tif, tio, .txt, .xml, and c.xml for each of the seven images pages in the batch.
- Depending on the document configuration, there is either a .tif or .pdf export image file for each processed document.
- For this configuration and selection of scanned images, there are two pdf documents generated. One is a four page document. One is a three page document. Open each document, observe the content and close the documents.

## ExportFiles



2. Close Windows Explorer.
- 

**End of exercise**

# Lesson 2.5. Configure scan and upload

## Overview

### Why is this lesson important to you?

As a Datacap business analyst, you build and deploy applications with the Datacap Capture system. You might be called on to configure a remote site for scanning and uploading document batches to the Datacap Server.

To do this operation, you must be familiar with using the FastDoc user interface in the local run mode to capture documents of a known type. You must also know how to configure an Upload shortcut with FastDoc.

## Activities

[Exercise 1: Configure a scan and upload task](#), on page 2-17

## User accounts

Type	User ID	Password
Operating system	Administrator	passw0rd
Datacap	admin	admin



### Note

Passwords are always case-sensitive.

# Exercise 1: Configure a scan and upload task

## Introduction

In this exercise, you create a Scan and Upload task to upload the batch after scanning. Profiler, Verify, and Export tasks are done on the server with the FastDoc Datacap Server interface.

## Scenario

You have the FastDoc application that is used in the last exercise, which is configured to process all of the data capture tasks offline.

You need to preserve the ability to still process all steps offline. You also need to add the ability to uploading the batch at the end of the Scan task so that the rest of the tasks can be run on the Datacap server.

## Procedures

[Procedure 1, "Add the ExpensesUpload batch," on page 2-17](#)

[Procedure 2, "Process a batch," on page 2-19](#)

### Procedure 1: Add the ExpensesUpload batch

Use the ExpensesUpload data table and procedure1 and 2 and configure a Local task. The Local task scans and uploads a batch to the Datacap server for further processing.

#### Data ExpensesUpload

Item	Name	Parameters
Batch Profile Name	ExpensesUpload	
Type	Expenses	
<b>Task Name</b>	<b>ScanUpload</b>	
Task option	Disk Scan	Application: ExpenseDemo Workflow: ExpenseDemo Task Profile: VScan
Task option	Send to Datacap	Application: ExpenseDemo Job: Main Job Statistics Table: taskstats
	Login	Batch Folder type: C:\Datacap\ExpenseDemo\batches Select Application: ExpenseDemo
Task option	Start Batch Panel	Type Password: admin Application: ExpenseDemo Workflow: ExpenseDemo

This procedure provides the steps for adding a new local batch name and an upload task. The task does a Disk Scan followed by a Send to Datacap operation.

1. Add a Batch Profile.
  - a. Start Datacap FastDoc (Admin).

- b. Select Local and click Login.
  - c. Click the “Config local profile” icon  on the mode select pane.
  - d. Click Add on the Batch Profiles controls bar.
  - e. Type the Batch Profile Name. Example: ExpensesUpload.
  - f. Type the batch Type. Example: Expenses. This name must match the Batch type from the DCO pane of Datacap Studio.
2. Add the Upload Task.
- a. In the Task pane, type the Task Name. Example ScanUpload.
3. Configure the Scan Task options.
- See the Disk Scan options in the ExpensesUpload table.
- a. Select the Disk Scan option in the Task Options pane.
  - b. Select ExpenseDemo from the Application list.
  - c. Select ExpenseDemo from the Workflow list.
  - d. Select VScan from the Task Profile list.
4. Configure the Send to Datacap Task options.
- See the Send to Datacap options in the ExpensesUpload table.
- a. Click the “Send to Datacap” Task option in the Task Options pane.
- You are prompted to log in to the application that you upload to.
- Select “ExpenseDemo” for the application
  - Type the password `admin`
  - Click Login.
- b. Click the “Send to Datacap” Task Option again and make the check box is set.
  - c. For “Application”, select “ExpenseDemo”.
  - d. For “Job”, select “Main Job”.
  - e. For “Statistic Table”, select “taskstats”.
  - f. Leave the Batch Folder property blank. The default Batch Folder as the Data ExpenseUpload table sample reveals has the format:
- `\\\Datacap\<application name>\batches`.
- To Specify a different location, type the folder path in the Batch Folder property.
5. Configure the Start Batch Panel Task options.
- See the Start Batch Panel options in the ExpensesUpload table.
- a. Scroll down the options and select the Start Batch Panel option in the Task Options pane.
  - b. Select the correct Application and Workflow. Example ExpenseDemo
6. Save your changes.
- a. Click Save on the Batch Profiles control bar.

7. Log out and close the FastDoc window.

## **Procedure 2: Process a batch**

1. Scan and Send to Datacap in Local Mode
  - a. Open FastDoc by double-clicking Datacap FastDoc icon on the desktop.
  - b. Click Local and click Login.
  - c. Click ExpensesUpload.
  - d. Click Scan
  - e. Browse to C:\DC9-Lab Exercises\Expense\All-Images\HR Images with Receipts.
  - f. Click the PGerety1.tif image then press shift and click PSanderson3.tif image.
  - g. Click Open and wait for the scanned images to appear in the image icon strip at the bottom of the window.
  - h. Click Submit. If you are prompted to log in, log in with admin/admin.
2. Logout of FastDoc Local mode.
  - a. Click logged in user icon  Administrator and select Logout.
3. Verify that a batch with seven images was created.
  - a. Open Windows Explorer and browse to:  
C:\Datacap\ExpenseDemo\batches.
  - b. Open the newest batch folder.
  - c. Verify that you see:
    - ScanUpload.xml.
    - ScanUpload.log.
    - vscan\_rrs.log.
    - Seven .tif image files.
4. Log in to FastDoc user interface in the Datacap Server mode.
  - a. Click the Datacap Server mode.
  - b. Complete login option:
    - Select Application: ExpenseDemo
    - Type User: admin
    - Type Password: admin
    - Type Station: 1
  - c. Click Login.
5. Run the Profiler Task in Datacap Server mode.
  - a. Click the Profiler Shortcut.
 

If there are any batches pending at the Profiler step, you can process them immediately by clicking the “Pending” icon.

**Note:** One pending task is processed each time you click Pending.

If there are any batches on hold, they are listed on the “All” shortcut page. To run the batches in the hold list, double click the one you want to run.

- b. Click Pending to process the batch that you created.

Notice that the Profiler task progress messages. Examples: Cleaning the Images, Recognizing Page 1 of n, Locating the data, and Populating fields.

6. Verify the Batch in Datacap Server Mode.

- a. Click the Verify/Fix Shortcut.

**Note:** There is one sample batch in the hold state listed on the Verify page. Do not process it.

- b. Click the “Pending” icon to process your batch.

The system identified the document type and extracted the data from the image into the data entry pane. FastDoc displays the verification screen where you can check the results of the processing.

Notice: The frequency field has a yellow background. This color is used to mark fields with low confidence recognition.

- c. Click the Go to Next Problem. 

The Verify task processing is completed and control returns to the shortcuts window.

7. Run the Export Task in Datacap Server Mode.

The Export page processes one batch each time you click the Export Shortcut if there are export batches pending. There is no Pending button and export batches in the hold state are not listed on the Export page.

- a. Click Export Shortcut.
- b. Wait for the Export process to complete.
- c. Logout and close the FastDoc window.

8. Observe the batch folder contents.

- a. Open Windows Explorer and browse to the folder:  
C:\Datacap\ExpenseDemo\batches\<date>.00000y

- b. Double-click one of the pdf file that the rules created.

C:\Datacap\ExpenseDemo\batches\<server>\<date>.00000y.0x.pdf

- c. Verify that there are two pdf documents generated. One is a four page document. One is a three page document. Open each document, observe the content and close the documents.

- d. Close Windows Explorer when you are done.

## End of exercise

---

## Appendix 2.

## Answer keys to quizzes

This section shows the answer keys to the quizzes that you have done in the above lessons.

## Lesson 1.1. FastDoc: Quiz

For each of the following statements, indicate whether the statement is accurate by marking it True or False.

- Using one of Datacap's built-in application templates, FastDoc can be used as rapid development tool.

**True or False Answer = True**

- FastDoc has two operation modes. The modes are Local mode and Datacap Server mode.

**True or False Answer = True**

- To use the Datacap Server mode, you must log in to FastDoc with the Admin interface and configure Batch and Task profiles before proceeding with batch processing.

**True or False Answer = False**

- To use the FastDoc Datacap Server mode, you must log in to FastDoc with either the Admin or user interface and select the application that you want to use to process document batches.

**True or False Answer = True**

- To use the FastDoc Local mode, you must log in to FastDoc with the Admin interface and configure Batch and Task profiles before proceeding with batch processing.

**True or False Answer = True**

- FastDoc Local mode can be used only to scan batches and then upload them to the taskmaster server for further processing.

**True or False Answer = False**

- If FastDoc Local mode is used, then all processing up to the Export Task must be done locally and then the batch is uploaded to the Datacap server to complete the Export Step.

**True or False Answer = False**

- Any portion of the processing can be done in the Local mode. When the batch is uploaded, then processing is completed with FastDoc in the Datacap Server mode, with Datacap Desktop, or Rulerunner Service.

**True or False Answer = True**

- FastDoc can be used as an integrated user interface to run all tasks for any existing application with the Datacap Server mode.

**True or False Answer = True**

---

## End of exercise

# Unit 3. FastDoc Datacap Server mode

## Estimated time

08:00

## Unit overview

This unit contains these lessons.

## Lessons

- [Lesson 3.1, "Introduction to FastDoc Datacap Server mode," on page 3-3](#)
- [Lesson 3.2, "Create an application with Form template," on page 3-8](#)
- [Lesson 3.3, "Create batch structure," on page 3-11](#)
- [Lesson 3.4, "Configure form template rulesets," on page 3-14](#)
- [Lesson 3.5, "Define fingerprints and test rulesets," on page 3-17](#)
- [Lesson 3.6, "Populate fields with keyword lookup," on page 3-25](#)
- [Lesson 3.7, "Configure validate field rulesets," on page 3-29](#)
- [Lesson 3.8, "Export to IBM FileNet Content Manager," on page 3-34](#)

## Unit dependencies

The activities in this unit must be done in the Presented order.

This unit is dependent upon completing “Basic application”.

## Requirements

The activities in this unit assume that you have access to the student system configured for these activities.

## Do this first

1. If you are prompted to log in to the system, use:

Type	User ID	Password
Operating system	Administrator	passw0rd

2. Start the Datacap Server.

- a. Click Start > All Programs > IBM Datacap Services > Datacap Server Manager.

- The Datacap Server Manager window is shown.
- b. Click the Service tab.
  - c. Click Start in the lower left corner, to start the Datacap Server Service if it is not already started. The Start operation is disabled if it is already started.
  - d. When the status changes to running, click Close to close the Datacap Server Manager window.
3. Start WebSphere Application Server.
    - a. Open the "WebSphere Admin" folder on the Desktop.
    - b. Double-click the Start Server1.bat script file. It takes a few minutes for the Startup script to complete. When it is finished the command window closes.
- It starts the IBM FileNet Content Manager, and the Content Navigator.

## System check

The activities in this unit assume that all system services are running when you begin an activity session. Perform a system check whenever you start an IBM FileNet Content Manager system or start working on a system that is in an unknown state.

Use procedures in Appendix C to check the following components:

1. P8 Content Platform Engine  
[Procedure 2, "Check the Content Engine,"](#) on page A-3
2. IBM Content Navigator  
[Procedure 5, "Check the IBM Content Navigator,"](#) on page A-4
3. Datacap Content Navigator  
[Procedure 6, "Check the Datacap Components,"](#) on page A-4
4. See Appendix C for additional procedures to Start, Check, and Restart components on the Student system.

# Lesson 3.1. Introduction to FastDoc Datacap Server mode

## Overview

### Why is this lesson important to you?

As a Datacap business analyst, you must often quickly scan new data batches without having to go through a long development cycle.

To do these tasks effectively, you must be familiar with the FastDoc Datacap Server mode interface.

## Activities

- [Exercise 1: Explore FastDoc Datacap Server mode](#), on page 3-4

## User accounts

Type	User ID	Password
Operating system	Administrator	passw0rd
Datacap	admin	admin



### Note

Passwords are always case-sensitive.

# Exercise 1: Explore FastDoc Datacap Server mode

## Introduction

This activity demonstrates opening FastDoc and viewing the application development capabilities.

## Procedures

[Procedure 1, "Browse the Process Batches view," on page 3-4](#)

[Procedure 2, "View document configuration options," on page 3-4](#)

[Procedure 3, "View workflow configuration options," on page 3-6](#)

### Procedure 1: Browse the Process Batches view

1. Log in to FastDoc (Admin) in Datacap Server mode.
  - a. Click Start > All Programs > IBM Datacap Developer tools > Datacap FastDoc (Admin).
  - b. Select Datacap Server on the Welcome to Datacap window.
  - c. For the three authentication fields type:
 

Application: FastForm  
 User ID *admin*  
 Password *admin*  
 Station ID *1*
  - d. Click Login.
2. View Batch process shortcuts

Notice that the FastDoc starts in the batch processing view. Shortcuts are defined for each task profile that is defined for all jobs. You see all of the tasks because you are logged in as the administrator. Typically as a user you would see only the tasks that are run manually. Example Scan and Verify. The blue icon in the left navigation bar indicates the view that is displayed.

- a. Hover the cursor over the blue icon  in the left navigation bar. The annotation “*Process batches of documents*” is visible.
  - b. Hover the cursor over the  icon on the toolbar. The annotation “*Application Wizard*” is visible.
- The Application Wizard is used to creating new application either by copying an existing application or by copying saved templates.
- c. Click or right-click the  icon on the toolbar. The annotation “*Logout*” is visible. Use this option when you want to logout of FastDoc.

### Procedure 2: View document configuration options

This view of the FastDoc Datacap Server mode is only visible in the FastDoc (Admin) interface.

1. View Batch Structure pane and batch structure configuration option.
  - a. Hover the cursor over the  icon in the left navigation bar.

The annotation “Configure documents, pages, and fields” is visible.

- b. Click the  icon to switch to the “Configure documents, pages, and fields” view.

When the FastForm batch object is selected in the batch Structure pane, the control actions are:

- Save
- Reload
- Add Document...
- Add field...

Save and reload become active only when changes are made.

- c. Click "Document" in the Batch Structure pane.

The list now expands. The document type "Document" contains one page type "Page".

The only active option is Add Pages... when the document object is selected.

The FastForm application is a fresh application that is created from a template. The templates are configured with some generic default values. These default configurations are best left unaltered. You can add document, page and field items as required for your application.

## 2. View the Properties pane.

In the Properties pane, there are three tabs: Settings, Ruleset, and Fingerprint. These tabs are where you enter the configuration options and test your settings.

- a. Click the Document and then the Page object in the Batch Structure pane.
- b. Click the Ruleset tab.
- c. Select Recognize Pages and Fields from the Ruleset list.

- The configurable properties of the Recognize Pages and Fields ruleset are displayed in the properties pane.
- There is a Test pane on the right that can be used to verify structure objects and configured ruleset options to verify that they are producing the expected results

## 3. View the Fingerprints pane.

- a. Click the Fingerprints tab.

In the fingerprints pane you can:

- Define fingerprint classes.
- Define fingerprint images, which:
  - o Links an image to a fingerprint ID.
  - o Selects a fingerprint class.
  - o Associate the image with page type.

## **Procedure 3: View workflow configuration options**

This view of the FastDoc Datacap Server mode is only visible in the FastDoc (Admin) interface.

1. Select the Configure workflow view.

- a. Hover the cursor over the  icon in the left navigation bar.

The annotation “Configure workflows” is visible.

- b. Click the  icon to switch to the “Configure workflow” view.

There are three panes:

- Jobs - Left side.
- Profiles - Center.
- Rulesets - Right side.

2. Observe the Jobs and Profiles interaction.

- a. Click the DemoSingleTiffs job in the Jobs pane.

- b. Click the profiles pane size control slider.



- c. Adjust the slider so you can see all of the profiles for the selected job.

- d. Click each of the defined jobs and observe the profiles that are defined for each job.  
(Readjust the slider of pan the profiles pane to view all of the defined profiles for each job).

3. Observe the Ruleset pane.

The Ruleset pane contains a list of all of the rulesets that can be used to configure profiles.

- a. Hover over the Convert Files To Images ruleset in the Rulesets pane.

- The ruleset is highlighted with a green background and an annotation is displayed.

- b. Scroll down to the Export ruleset.

- There is no annotation.

Note: Rulesets with a dot at the extreme right identify that a notation is present.

4. Configure Ruleset options.

- a. Click the DemoSingleTiffs job in the Jobs pane.

- b. Click the “Document Integrity” ruleset under the “PageID” task. This ruleset is a General ruleset.

Response? No reaction.

- c. Click the Image Enhancement ruleset under the PageID task. This ruleset is a UI or Compiled ruleset.

Response? The window switches back to the Configure Documents, pages, and fields view. The Ruleset tab is selected and the Image Enhancement ruleset properties are being displayed.

- d. Click the RuleSet list.

Notice: The Document Integrity ruleset is not in the list.

Conclusion: Only UI or Compiled rulesets are configurable in FastDoc.

- e. Click the Document object and then click the Page object in the Batch Structure pane.
  - f. Click the Ruleset list and select the Image Enhancement Ruleset.
  - g. Hover over the Deskew option and notice that a description and an example of the deskew process is annotated.
  - h. Hover over some of the other options and view the annotations.
5. Log out of FastDoc.
    - a. Click logged in user icon  Admin and select Logout.
    - b. Close the FastDoc window.
- 

## End of exercise

# Lesson 3.2. Create an application with Form template

## Overview

### Why is this lesson important to you?

As a Datacap business analyst, you build and deploy applications with the Datacap Capture system. The preferred way of creating new application is with FastDoc rapid application builder capabilities.

To do this operation, you must be familiar with using the FastDoc user interface in the Datacap Server mode to configure documents capture types. In this lesson, you focus on using the Form template to configure a new application.

## Activities

- [Exercise 1: Create an application with the Form template, on page 3-9](#)

## User accounts

Type	User ID	Password
Operating system	Administrator	passw0rd
Datacap	admin	admin

# Exercise 1: Create an application with the Form template

## Introduction

In this exercise, you create a FastDoc application and then configure it to recognize and process a new type of document. You scan a sample document and show FastDoc how to find and verify the data fields.

## Procedures

[Procedure 1, "Check WebSphere Application Server," on page 3-9](#)

[Procedure 2, "Create and configure an Application," on page 3-9](#)

### Procedure 1: Check WebSphere Application Server

IBM FileNet Content Manager runs as a WebSphere application. This lesson is the first lesson that requires IBM FileNet Content Manager so you must verify that WebSphere Application Server is started. It should start when you ran the Do this first section at the beginning of the class.

1. Verify that the IBM FileNet P8 services are available.
  - a. Click the Internet Explorer icon in the program icon tray.
  - b. Click the ICN Ping Page shortcut on the bookmark bar.
  - c. Verify that IBM Content Navigator Pink Page appears.
2. If the Ping Page does not appear, then run the procedure in the Do this first section at the beginning of the class or follow the procedure in Appendix A  
["Start student system components," on page A-2](#)

### Procedure 2: Create and configure an Application

Use the Application Wizard to create an application from the Form template and name the application FastBuild.

#### Application Create Data

Item	Value
Wizard Mode	Create an RRS application.
Application Name	FastBuild
Datacap Folder	C:\Datacap
Root folder on target system	C:\Datacap
Application Template	FormTemplate

1. Start Datacap FastDoc (Admin) interface and log in to the Local mode.
  - a. Double-click the FastDoc (Admin) icon on the Desktop.
  - b. Click Local.
  - c. Click Login.

2. Create the application.
  - a. Click the Datacap Application Wizard icon  on the right side of the header bar.
  - b. Click Next.
  - c. Click Create a new RRS application.
  - d. Click Next.
  - e. Type the Application name.(From Data table)
  - f. Select FormTemplate.
  - g. Click Finish.
  - h. Verify that no errors or warnings are shown on the Summary window.
  - i. Click Close.
3. Log out of FastDoc Local mode.
  - a. Click logged in user icon  Local and select Logout.
  - b. Close the FastDoc Window.
4. Check application paths for the new FastBuild application.
  - a. Open the Datacap Application Manager. Double click the icon on the desktop.
  - b. Select the FastBuild application in the navigation panel on the left.
  - c. On the Main tab, make sure that none of the paths are still pointing at the template folder. They should all be pointing at C:\Datacap\FastBuild and not C:\Datacap\Template\FastBuild. If any paths are incorrect, then correct them (especially the Database connection strings).
  - d. Close the Datacap Application manager.

---

## End of exercise

# Lesson 3.3. Create batch structure

## Overview

### Why is this lesson important to you?

As a Datacap business analyst, you build and deploy applications with the Datacap Capture system. The preferred way of creating new application is with FastDoc rapid application builder capabilities.

To do this operation, you might be called upon to configure an application in FastDoc after it is created from a template with the Application Wizard. Or, you might be required to add the document recognition, and validation configuration for a document. In this lesson, you learn Configuring the Document Hierarchy for the document.

## Activities

- [Exercise 1: Create the batch structure](#), on page 3-12

## User accounts

Type	User ID	Password
Operating system	Administrator	passw0rd
Datacap	admin	admin

# Exercise 1: Create the batch structure

## Introduction

In this exercise, you create the batch structure for a document. You define a document type, define a page type, and then define the fields on the page that need to be extracted.

## Procedures

[Procedure 1, "Configure a Document Type.,"](#) on page 3-12

### Procedure 1: Configure a Document Type.

1. Log in to Datacap FastDoc (Admin) in the Datacap Server mode.
  - a. Click Datacap Server.
  - b. On the Welcome to Datacap window:
 

Select Application: FastBuild  
 Type User: admin  
 Type Password: admin  
 Type Station: 1
  - c. Click Login
2. Add Document Type.
  - a. Click the icon for Configuring Documents and Pages. 
  - b. In the Batch Structure Pane, select FastBuild.
  - c. Click Add Document... to add a Document Type.
  - d. Type the Document Type name Bene\_Document.
  - e. Click the “Use rulesets from” check box to enable the option.
  - f. Select Document.
  - g. Click Add to add this document type.
3. Add Page Type.
  - a. Select Bene\_Document in the Batch Structure pane and click “Add Page”.
  - b. Type the Page type name Bene\_Page.
  - c. Click the “Use rulesets from” check box to enable the option.
  - d. Select Page.
  - e. Click Add to add this page type.
4. Set Document Integrity Rule.
  - a. In the Batch Structure Pane, select the Bene\_Page.

- b. Type the following values.
  - Minimum: 1
  - Maximum: 1
  - Order: 1
- 5. Click Save.
- 6. Add Fields to the new page type.
  - a. Click the Bene\_Page page from Batch Structure.
  - b. Click Add Field.
  - c. Enter Field type: Employee\_Name.
  - d. Click Add. The field is added to the Batch Structure list.
  - e. Repeat step 6b - 6d to add the rest of the fields in the field table.

#### **Field Data Table**

Employee_Name
SSN
Date_Of_Birth
Employer
Group_Number
Home_Phone_Number
Home_Address
City
State
Zip_Code

- f. Click Save to save the new document, page, and fields.
- 7. Log out of FastDoc and close the window.
  - a. Click the  admin on the toolbar and select logout.
  - b. Close the FastDoc Window.

## **End of exercise**

# Lesson 3.4. Configure form template rulesets

## Overview

### Why is this lesson important to you?

As a Datacap business analyst, you build and deploy applications with the Datacap Capture system. The preferred way of creating new application is with FastDoc rapid application builder capabilities.

You are required to configure an application in FastDoc after it is created from a template with the Application Wizard. In this lesson, you learn to configure the page identification and field recognition rulesets.

## Activities

- [Exercise 1: Configure form template rulesets](#), on page 3-15

## User accounts

Type	User ID	Password
Operating system	Administrator	passw0rd
Datacap	admin	admin

# Exercise 1: Configure form template rulesets

## Introduction

In this exercise, you configure the Recognize Pages and Fields ruleset for page OCR recognition. You configure the Import Files ruleset to use VScan to read all the files in the specified folder.

## Procedures

[Procedure 1, "Configure Rulesets," on page 3-15](#)

### Procedure 1: Configure Rulesets

Implement basic OCR recognition of your claim document fields.

1. Log in to Datacap FastDoc (Admin) in the Datacap Server mode for the FastBuild application, as you did for the previous lesson. User = admin, password = admin.
2. Configure OCR Recognition for the Bene\_Page.
  - a. Click the icon for Configuring Documents and Pages. 
  - b. Click Bene\_Document in the Batch Structure pane.
  - c. Click Bene\_Page in the Batch Structure pane.
  - d. Click Ruleset tab.
  - e. Select the Ruleset Recognize Pages and Fields.
  - f. Check the following options.
 

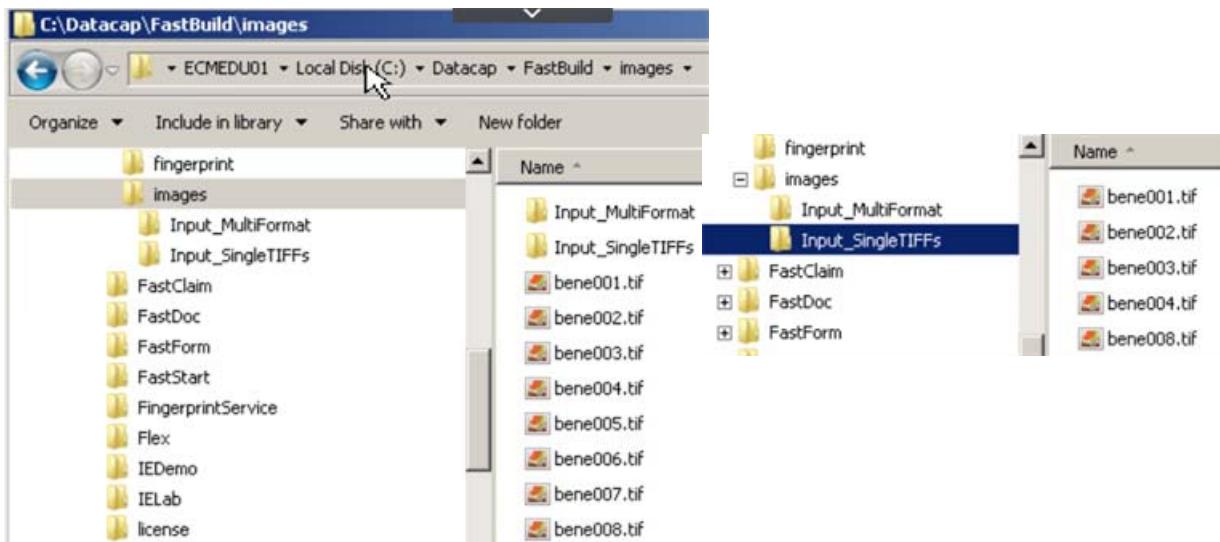
Enable: Read Page  
 Enable: Load Zones for fields  
 Enable: Read Machine print on page.
3. Configure the fields.
  - a. Select the field Employee\_Name in the Bene\_Page under the Batch Structure.
  - b. Select the Ruleset Recognize Pages and Fields.
  - c. Check the following options.
 

Enable: Read Field.  
 Enable: Add page recognition text to the zone.
  - d. Repeat step 3a to 3c for all fields.
  - e. Click Save.
4. Configure Import Files Directory.
  - a. Click FastBuild at the top of the Batch Structure.
  - b. Select the Import Files Ruleset.
  - c. Verify that the Source folder value is set to C:\Datacap\FastBuild\images\Input\_SingleTiffs.

- d. Verify that the Copy image folder value is set to C:\Datacap\FastBuild\images\Input\_SingleTiffs.
- 5. Log out of FastDoc and close the window.
  - a. Click the  admin on the toolbar and select logout.
  - b. Close the FastDoc Window.
- 6. Configure the test images.
  - a. Copy all of the content, folders and images from:

C:\DC9-Lab Exercises\FastBuild to C:\Datacap\FastBuild\images

When you complete copying the FastBuild images, the C:\Datacap\FastBuild\images folder should appear as shown in these screen captures.



The Images folder has eight Beneficiary images. The Input\_MultiFormat and Input\_SingleTIFFs folder each have the same five image files.

---

## End of exercise

# Lesson 3.5. Define fingerprints and test rulesets

## Overview

### Why is this lesson important to you?

As a Datacap business analyst, you build and deploy applications with the Datacap Capture system. The preferred way of creating new application is with FastDoc rapid application builder capabilities.

You are required to configure an application in FastDoc after it is created from a template with the Application Wizard. In this lesson, you learn to configure a fingerprint for a page image.

## Activities

- [Exercise 1: Add a page fingerprint](#), on page 3-18
- [Exercise 2: Design time testing of rulesets](#), on page 3-20

## User accounts

Type	User ID	Password
Operating system	Administrator	passw0rd
Datacap	admin	admin

# Exercise 1: Add a page fingerprint

## Introduction

In this exercise, you select an image for the fingerprint and then the zone for each field that is extracted by using the zonal method. You define the zones for each field by selecting the field in the batch structure and then you use click'n'key to mark the field on the image.

## Procedures

[Procedure 1, "Add a fingerprint," on page 3-18](#)

### Procedure 1: Add a fingerprint

1. Log in to Datacap FastDoc (Admin) in the Datacap Server mode for the FastBuild application, as you did for the previous lesson. User = admin, password = admin.
2. Add Finger Print Class.
  - a. Click the icon for Configuring Documents and Pages. 
  - b. Click the Fingerprints tab.
  - c. Select <New> for the Fingerprint Class.
  - d. Click Add.
  - e. Enter the name Bene\_FP\_Class.
  - f. Click Add.
  - g. Click Close.
3. Add a Fingerprint.
  - a. Select the Fingerprint class Bene\_FP\_Class.
  - b. Click Add next to the Fingerprints box.
  - c. Browse to C:\Datacap\FastBuild\images\Input\_SingleTIFFs.
  - d. Select bene001.tif and click Open.

The fingerprint is added to the list in the Fingerprints box. The image that you selected displays in the image display. Image enhancement also cleans and straightens the image.

  - e. Select the fingerprint: 556 (Other)
  - f. Select the Bene\_FP\_Class from the Fingerprint Class list.
  - g. Select the Page Type Bene\_Page from the Page type list.
4. Drawing Zones.
  - a. To extract the values from the Form, you draw Zones for each of the fields.

You might need to zoom in on the area of the field you are creating a zone for. If you do zoom in you can position the image so that you have a clear view of the field by right-clicking the image and dragging it in a direction to make the field clearly visible.

- b. In the Batch Structure, select the Employee\_Name field.
- c. In the Fingerprint Image Pane, consider the width and height of the field and draw a box around the field with the mouse pointer. Observe that the Zone Position / Coordinates are updated.

Note: It might be easier to zoom the image by clicking the magnifier icon. You can move the zoomed image by right-clicking and dragging with your mouse.

- d. Repeat Step 4b and 4c to draw zones for all the fields (of Bene\_Page).
- 

## End of exercise

## Exercise 2: Design time testing of rulesets

### Introduction

In this exercise, you use the Ruleset Test pane to verify that the fingerprint and rulesets are configured to correctly identify the Bene\_Page image and extract the data fields from the image.

### Procedures

[Procedure 1, "Design Time Testing," on page 3-20](#)

[Procedure 2, "Process Batches in Datacap Desktop," on page 3-21](#)

#### ***Procedure 1: Design Time Testing***

FastDoc provides a test pane where you can test a document to verify that the settings are effective. You can load sample documents, run the process tasks and view the test results all within the design tool.

1. In Datacap FastDoc (Admin), add a file.
  - a. Click the Ruleset Tab.
  - b. Click Add File in the test pane.
  - c. Select the file “bene001.tif” from the C:\Datacap\FastBuild\images\Input\_SingleTIFFs folder.
  - d. Click Open. The image displays in the test pane.
2. Test the PagID task.
  - a. Select the PagID in the Profiles and Rulesets pane.
  - b. Click Test.
 

When it is complete, you see the message “Rule processing is complete with status finished”.
  - c. Click OK.
3. Review the test results.
  - a. Page is correctly identified as Bene\_Page.
  - b. Document type Bene\_Document.

#### **How did it do this?**

It matched the fingerprint that you defined earlier.

See the matching fingerprint ID is 556.

#### **Didn't work for you?**

Check the fingerprint tab. Make sure Fingerprint 556 is set to Bene\_Page type and not the Other type.

4. Test Profiler Task.
  - a. Select the Profiler profile.

- b. Clear “Routing” ruleset by clicking on it.
- c. Click Test.
- d. Click OK for the “Rule processing is complete with status finished” message.

#### 5. Review the Test Results

- a. Select the field Employee\_Name in the batch structure and check the results in the test pane.
- b. Select each the fields in the batch hierarchy and test the results.

#### Didn't work?

Make sure the PageID successfully identified the page as a Bene\_Page.

Check your RuleSet tab and make sure that the settings are correct on the Recognize Pages and Fields ruleset for the Bene\_Page and each of the fields.

Test History:	
PageID	ScanFromDisk_SingleTIFFs
ScanFromDisk_SingleTIFFs	Validate Fields
Validate Fields	Recognize Pages and Fields
Recognize Pages and Fields	Profiler
Profiler	Document ID: 1234.01
Document ID: 1234.01	Type: Bene_Document
Page ID:	TM000001
Type:	Bene_Page
Status:	Pass
Fingerprint:	556
Field ID:	Employee_Name
Type:	Employee_Name
Value:	Mary Smith
Status:	Pass
Message:	

#### 6. Log out of FastDoc and close the window.

- a. Click the  admin on the toolbar and select logout.
- b. Close the FastDoc Window.

## Procedure 2: Process Batches in Datacap Desktop

1. Log in to Datacap Desktop:
  - a. Double-click the “Datacap Desktop” shortcut on the desktop.
  - b. Login with the following credentials:
    - User: admin
    - Password: admin
    - Station: 1
  - c. Click Start.
  - d. In “Datacap Desktop”, if you are prompted with a message “Click OK to run next pending batch”, click Stop.
2. Select “FastBuild” from the “Applications” list.
3. Scan a batch.
  - a. Click the VScan shortcut to import files from the import folder.
 

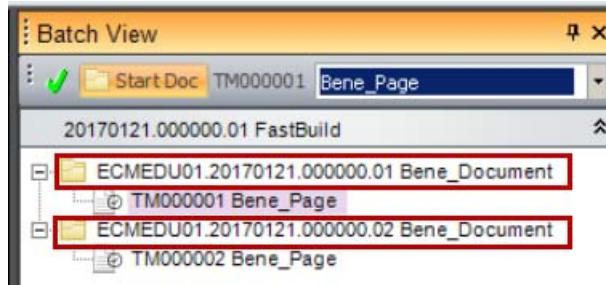
Note: If you are using a physical scanner, the paper would feed through the scanner. FastDoc supports both Twain and ISIS scanners.
  - b. Select "Demo\_SingleTIFFs" Job.
 

The system loads the images from the Import folder into Datacap.
  - c. If you are prompted with a message “Batch <Number> finished with a status of finished”, click OK.

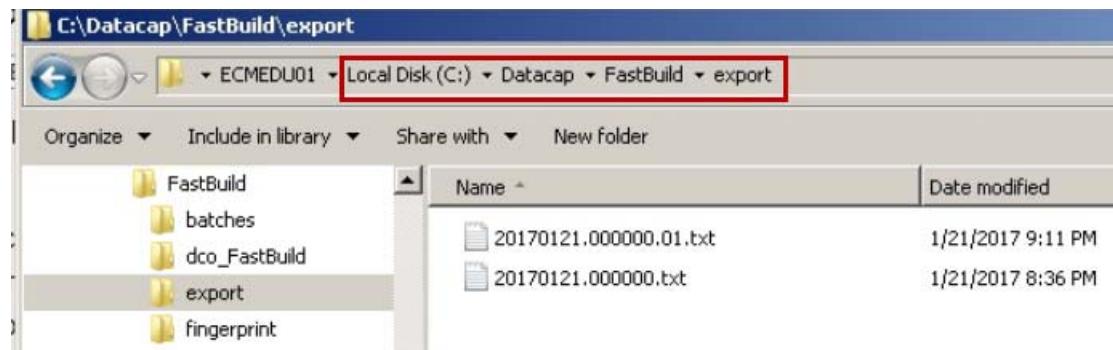
- d. If you are prompted with a message “Click OK to run next pending batch”, click Stop.
4. Identify the Pages.
- Click the PagID shortcut to identify the page types in the batch.  
Activities that the PagID task runs are, image enhancement, page identification, document creation, and map pages to documents.
  - If you are prompted with a message “Batch <Number> finished with a status of finished”, click OK.
  - If you are prompted with a message “Wait 10 sec for a batch to become available”, click Stop.
5. Run the Profiler Task.
- Click the Profiler shortcut.  
Activities that the Profiler task runs are, read and populate data, validate data, route pages with validation issues to Verify and error free pages to export.
  - If you are prompted with a message “Batch <Number> finished with a status of child spawned”, click OK.
  - If you are prompted with a message “Wait 10 sec for a batch to become available”, click Stop.
6. Check the batch items in the Job Monitor.
- Pages that are recognized correctly (without low confidence characters, or validation errors) are sent directly to Export instead of Verify. The pages that require verification are sent to Verify step.
- Click the “All” shortcut.
  - You see two batch items for your batch:
    - “Verify\_Export” job with “Verify” task
    - “Demo\_SingleTIFFs” job with “Export” task

Status	Queue ID	Batch ID	Job	Task	Job Start	Job Time	Task Start	Task
	2	20170121.000000.01	Verify_Export	Verify		0	1/21/2017 8:29 PM	0
	1	20170121.000000	Demo_SingleTIFFs	Export	1/21/2017 8:24 PM	49	1/21/2017 8:29 PM	0

- 
7. Run the Verify Task to manually process the low confidence or missing information.
- Double-click your batch item for the “Verify” task in the Job Monitor.
  - The verify task page opens.
    - In this exercise, out of five documents, two documents are available for the user to Verify and other three documents are sent to Export.



- c. Click "Next Problem" from the toolbar one or more times to go to the next document.
    - On this page, the low confidence character is displayed with a yellow background.
    - You are viewing the second document that is available for Verify in the batch.
  - d. Click Submit.
  - e. If prompted, click OK to acknowledge the message "The page contains low confidence characters."
  - f. If prompted, click No for the message "End of batch reached. Continue from start?"
  - g. Click Submit again.
  - h. If prompted, click OK for the message "All Documents are complete. Finish batch?".
  - i. If you are prompted with a message "Batch <Number> finished with a status of finished", click OK.
8. Run the Export Task.
- a. Click the Export shortcut.
  - b. If you are prompted with a message "Batch <Number> finished with a status of finished", click OK.
  - c. Click "Stop" when you are prompted with a message to process the next batch.
  - d. Review the export files in C:\Datacap\FastBuild\export.
  - e. You see that one export file for your current batch is added to the export folder with three records for the documents that bypassed the verify process.
    - Optionally, open the text file and view the text.
    - The export files contain only the metadata that is exported for the documents, which are manually verified.
9. Click the Export shortcut again.
- a. If you are prompted with a message "Batch <Number> finished with a status of finished", click OK.
  - b. Click "Stop" when you are prompted with a message to process the next batch.
  - c. Review the export files in the C:\Datacap\FastBuild\export folder.
  - d. You see that another export document for your current batch is added to the folder for the manually verified documents with two records.



10. Close the Datacap Desktop window.

---

## End of exercise

# Lesson 3.6. Populate fields with keyword lookup

## Overview

### Why is this lesson important to you?

As a Datacap business analyst, you build and deploy applications with the Datacap Capture system. The preferred way of creating new application is with FastDoc rapid application builder capabilities.

You are required to configure an application in FastDoc after it is created from a template with the Application Wizard. In this lesson, you learn to recognize the field and extract the data with the keyword lookup method rather than the zonal recognition.

## Activities

- [Exercise 1: Populate fields with keyword lookup, on page 3-26](#)

## User accounts

Type	User ID	Password
Operating system	Administrator	passw0rd
Datacap	admin	admin

# Exercise 1: Populate fields with keyword lookup

## Introduction

In this exercise, you recognize a field with the keyword lookup method.

## Procedures

### ***Procedure 1: Keyword lookup***

You configure some fields to search for their location as an alternative to using zonal recognition. You use the keyword locate method to find the Date Signed and some of the fields you already set up. This action locates these fields in a more flexible manner and is especially useful when the layout of the fields is not fixed or is subject to change.

Change Locate Data Method for the Employee Name to use Keywords Search.

1. Log in to Datacap FastDoc (Admin) in the Datacap Server mode for the FastBuild application, as you did for the previous lesson. User = admin, password = admin.
2. Click the Configure workflow icon. 
3. Select “Populate Fields Using Keywords” in the Ruleset list on the rightmost pane.
4. Drag it to the Profiler task so that it is after Recognize Pages and Fields ruleset.
5. Click Save.
6. Disable Zonal Recognition for the Employee\_Name field.
  - a. Click the Recognize Pages and Fields ruleset.
 

The window switches to the Configure documents, pages, and fields view.

    - b. Click the Ruleset tab.
    - c. Select the Employee\_Name field in the Batch Structure pane on the left pane.
    - d. Select the “Recognize Pages and Fields” ruleset from the list.
    - e. Clear the Read Field check box and click Save.
7. Configure Locate Using Keywords for the Employee\_Name field.
  - a. Select the “Populate Fields Using Keywords” ruleset from the list.
  - b. Select the Employee\_Name field.
  - c. Click the Field Information check box so that it is selected.
  - d. Select the “Locate by keyword only” option.
  - e. Click “Add Term” and type “Employee Name” in the Locate Term text box.

This value is the keyword text that the system uses to search the image to locate the field. The system can accept many keywords if necessary.

- f. The “Locate first occurrence” option must be selected. This action tells the system to find the first instance of the keyword on the image. You can also Locate last occurrence.

- g. Click Add Condition > Condition.
  - h. Click Add Locate Movement and select Move down a line from the Direction list.  
This action tells the system that the data is immediately below the keyword. You can also search above, left, and right.
  - i. Select Group Leading and Trailing words from the Group direction list.
  - j. Click Save.
8. Add a Date Signed field and configure Locate Using Keywords.
- a. Use your learned skills to add a field (Name: Date\_Signed) to the Bene\_Page Batch Structure.  
Make sure that you select the Bene\_Page before adding the new field.
  - b. Select the “Populate Fields Using Keywords” ruleset from the list.
  - c. Make sure the Date\_Signed field is selected.
  - d. Click the “Field Information” check box so that it is selected.
  - e. Select the “Locate by keyword only” option.
  - f. Configure the Populate Field Using Keywords ruleset for the Date\_Signed field using the following values:  
    - Locate Term: Date Signed
    - Use “Locate last occurrence”
    - Direction: Move to next word
    - Group direction: Group leading words.
  - g. Save your changes.
  - h. Select the PageID profile and click Test.
  - i. Select the Profiler profile, clear Routing, and click Test to verify that the keyword search works properly.
  - j. Click the Date\_Signed field in the Batch Structure pane and verify that the Date Signed value is extracted.
- |              |             |
|--------------|-------------|
| Page ID:     | TM000001    |
| Type:        | Bene_Page   |
| Status:      | Fail        |
| Fingerprint: | 556         |
| Field ID:    | Date_Signed |
| Type:        | Date_Signed |
| Value:       | 08-31-2012  |
| Status:      | Pass        |
| Message:     |             |
- k. Click the Employee\_Name field in the Batch Structure pane and verify that the Employee Name value is extracted.
9. Log out of FastDoc and close the window.
- a. Click the  admin on the toolbar and select logout.

- b. Close the FastDoc Window.
- 

## **End of exercise**

# Lesson 3.7. Configure validate field rulesets

## Overview

### Why is this lesson important to you?

As a Datacap business analyst, you build and deploy applications with the Datacap Capture system. The preferred way of creating new application is with FastDoc rapid application builder capabilities.

You are required to configure an application in FastDoc after it is created from a template with the Application Wizard. In this lesson, you learn to configure validation rules to establish the validity of fields that are extracted from the image.

## Activities

- [Exercise 1: Configure validate field rulesets](#), on page 3-30

## User accounts

Type	User ID	Password
Operating system	Administrator	passw0rd
Datacap	admin	admin

# Exercise 1: Configure validate field rulesets

## Introduction

In this lesson, you learn to configure validation rules to establish the validity of fields that are extracted from the image.

## Procedures

[Add Data Validation to the Document](#), on page 3-30

### Procedure 1: Add Data Validation to the Document

1. Log in to Datacap FastDoc (Admin) in the Datacap Server mode for the FastBuild application, as you did for the previous lesson. User = admin, password = admin.
2. Add Field Validation Rules for the Employee Name field.
  - a. Click the configure Documents, pages, and fields icon in the upper left column.
  - b. Click Bene\_Document in the Batch Structure pane.
  - c. Click Bene\_Page.
  - d. Click the Employee\_Name field.
  - e. Click the Ruleset tab.
  - f. Select the Validate Fields ruleset.
  - g. Click the Validate this field, Employee\_Name check box.
  - h. Expand the length options and validate that Minimum is set to 1.
  - i. Click Save to save your edits.
3. Add Field Validation Rules for the Date Signed field.
  - a. Click the Date Signed field.
  - b. Click the Validate this field, Date\_Signed check box.
  - c. Clear the Length check box.
  - d. Click the Date check box to select date checking.
  - e. Verify that the Any date option is selected. This selection validates that the field contains a formatted date.
  - f. Repeat steps 3.a.-3.e. for the Date of Birth field.
  - g. Click Save to save your edits.
4. Add Field Validation for the Group Number field.  
Make sure that the data in this field starts with a single letter A - H, followed by eight numeric digits.
  - a. Click the Group Number field.
  - b. Click the Validate this field, Group\_Number check box.

- c. Expand the Length options block.
- d. Set a Minimum and Maximum length 9.
- e. Click the Value Content check box.
- f. Type this regular expression into the Regular expression match field: ([A-H]{1}[0-9]{8})



### Hint

Regular Expression help on Wikipedia [http://en.wikipedia.org/wiki/Regular\\_expression](http://en.wikipedia.org/wiki/Regular_expression)

- g. Correct any errors if the Regular\_Expression website flags any.
- h. Click Save to save your settings.
5. Log out of FastDoc and close the window.
  - a. Click the admin on the toolbar and select logout.
  - b. Close the FastDoc Window.

## **Procedure 2: Process Batches in Datacap Desktop**

1. Log in to Datacap Desktop:
  - a. Double-click the “Datacap Desktop” shortcut on the desktop.
  - b. Login with the following credentials:
    - User: admin
    - Password: admin
    - Station: 1
  - c. Click Start.
  - d. In “Datacap Desktop”, if you are prompted with a message “Click OK to run next pending batch”, click Stop.
2. Select “FastBuild” from the “Applications” list.
3. Scan a batch.
  - a. Click the VScan shortcut to import files from the import folder.
 

Note: If you are using a physical scanner, the paper would feed through the scanner. FastDoc supports both Twain and ISIS scanners.
  - b. Select "Demo\_SingleTIFFs" Job.  
The system loads the images from the Import folder into Datacap.
  - c. If you are prompted with a message “Batch <Number> finished with a status of finished”, click OK.
  - d. If you are prompted with a message “Click OK to run next pending batch”, click Stop.

4. Click the PageID shortcut to identify the page types in the batch.
  - a. If you are prompted with a message “Batch <Number> finished with a status of finished”, click OK.
  - b. If you are prompted with a message “Click OK to run next pending batch”, click Stop.
  - c. If you are prompted with a message “Wait 10 sec for a batch to become available”, click Stop.
5. Run the Profiler Task.
  - a. Click the Profiler shortcut.
  - b. If you are prompted with a message “Batch <Number> finished with a status of child spawned”, click OK.
  - c. If you are prompted with a message “Click OK to run next pending batch”, click Stop.
  - d. If you are prompted with a message “Wait 10 sec for a batch to become available”, click Stop.

6. Check the batch items in the Job Monitor.

Like in the previous lesson, pages that are recognized correctly (without low confidence characters, or validation errors) are sent directly to Export instead of Verify. The pages that require verification are sent to Verify step.

- a. Click the “All” shortcut.
- b. You see two batch items for your batch:
  - “Verify\_Export” job with “Verify” task
  - “Demo\_SingleTIFFs” job with “Export” task
7. Run the Verify Task to manually process the low confidence or missing information.
  - a. Double-click your batch item for the “Verify” task in the Job Monitor.
  - b. The verify task page opens.
  - c. Click “Next Edit” from the toolbar.
  - d. If prompted, click Yes to acknowledge the message “No more problem fields. Submit?”
  - e. Click “Next Edit” from the toolbar for the second page.
  - f. If prompted for the second page, click Yes to acknowledge the message “No more problem fields. Submit?”
  - g. Click Submit.
  - h. If prompted, “Validations failed. Override and continue?” click OK.
  - i. If prompted, click OK for the message “All Documents are complete. Finish batch?”.
  - j. If you are prompted with a message “Batch <Number> finished with a status of finished”, click OK.



## Troubleshooting

The bene003.tif image has a little out of horizontal alignment, so the Date Signed field is not read correctly.

- a. Select the value from the image with click'n'key.
8. Run the Export Task.
  - a. Click the Export shortcut.
  - b. If you are prompted with a message “Batch <Number> finished with a status of finished”, click OK.
  - c. Click “Stop” when you are prompted with a message to process the next batch.
9. Since there are two batch items for export as explained in a previous lesson, click the Export shortcut again.
  - a. If you are prompted with a message “Batch <Number> finished with a status of finished”, click OK.
  - b. Click “Stop” when you are prompted with a message to process the next batch.
10. Close the Datacap Desktop window.

---

## End of exercise

# Lesson 3.8. Export to IBM FileNet Content Manager

## Overview

### Why is this lesson important to you?

As a Datacap business analyst, you build and deploy applications with the Datacap Capture system.

This lesson describes how to configure the Form rulesets to export to an IBM FileNet Content Manager repository.

## Activities

- [Exercise 1: Export to IBM FileNet Content Manager](#), on page 3-35

## User accounts

Type	User ID	Password
Operating system	Administrator	passw0rd
Datacap	admin	admin

# Exercise 1: Export to IBM FileNet Content Manager

## Introduction

In this activity, you configure the Form rulesets to export to an IBM FileNet P8 repository.

## Procedures

[Procedure 1, "Configure Export to IBM FileNet,"](#) on page 3-35

[Procedure 2, "Process a batch,"](#) on page 3-37

[Procedure 3, "Verify FileNet repository export,"](#) on page 3-38

### Procedure 1: Configure Export to IBM FileNet

1. Log in to FastDoc (Admin) in the Datacap Server mode.
  - a. Click Datacap Server.
  - b. On the Welcome to Datacap window:
 

Select Application: FastBuild  
 Type User: admin  
 Type Password: admin  
 Type Station: 1
  - c. Click Login.
2. Add the “Create TIFF or PDF” ruleset to the Export Task.
  - a. Click the Configure Workflow.  icon.
  - b. Make sure that the first Job DemoSingleTIFFs is selected.
  - c. Click the Create TIFF or PDF ruleset from the Rulesets list on the right side of the screen. Drag it to the Export task. Place it before the Export task.
3. Add the “Export to FileNet Content Manager” ruleset.
  - a. Click the Export to FileNet Content Manager ruleset and drag it to the Export task. Place it after the Export ruleset.
  - b. Click Save on the control bar to save your changes.
4. Click the Export to FileNet Content Manager ruleset.
 

The window changes to the Configure document, page, and field view with the Ruleset tab selected and the Export to FileNet Content Manager ruleset selected.
5. Configure the batch level options for Export to FileNet P8.
  - a. Click the FastBuild batch in the Batched Structure.

- b. Enter the values in the following table.

Field Name	Value
FileNet Content Manager URL	http://ecmedu01:9080/wsi/FNCEWS40MTOM/
User ID	p8admin
Password	IBMFileNetP8
Confirm password	IBMFileNetP8
Storage object id	DCExport
Parent folder	/Beneficiary Forms/

6. Configure the document level options Export to IBM FileNet P8.

- a. Click the Bene\_Document in the batch structure.
- b. Enter the following parameters.

Document Title: @ID

Document class ID: BeneForm

Document file extension: pdf

7. Configure field values to write to IBM FileNet Content Manager repository properties.

- a. Click Bene\_Page in the Batch Structure pane.
- b. Click the Employee\_Name field in the Batch Structure pane.
- c. Click the Field Information check box.
- d. Enter the Symbolic Name from the Field Properties table.
- e. Repeat step 6.a.- 6.d. for each table entry.

#### Field Properties Table

Symbolic Name on FileNet P8	Property Type
Employee_Name	String
SSN	String
Date_Of_Birth	Date and Time
Employer	String
Group_Number	String
Home_Phone_Number	String
Home_Address	String
City	String
State	String
ZipCode	String
Date_Signed	Date and Time

8. Configure the “Create TIFF or PDF” ruleset.

If you want the output image to be a PDF file, you must add the convert the image to PDF format. You already added this ruleset at step 2 of this procedure.

- a. Click the FastBuild batch in the Batch Structure pane.
- b. Select the “Create TIFF or PDF” ruleset on the Ruleset tab.
- c. Click “Create PDF Images For Export”.
- d. Click Save on the control bar to save your changes.
- e. Log out and close FastDoc (Admin).

## **Procedure 2: Process a batch**

1. Configure images for scanning.

- a. There might already be images in the C:\Datacap\FastBuild\images\Input\_SingleTIFFs folder. Verify and leave only bene001.tif, bene002.tif, and bene004.tif images in the folder. Delete all other images in this folder.
- b. If you don't images in the folder, then copy the following images bene001.tif, bene002.tif, and bene004.tif from C:\Datacap\FastBuild\images to C:\Datacap\FastBuild\images\Input\_SingleTIFFs

2. Login in to Datacap Desktop to process the batch.

- a. Double click the Datacap Desktop icon on the desktop.

- b. Log in using:

User: admin

Password: admin

Station: 1

- c. Click Start.

- d. In “Datacap Desktop”, if you are prompted with a message “Click OK to run next pending batch”, click Stop.

- e. Verify and if needed, select the FastBuild application.

3. Scan a batch.

- a. Click the VScan task.

- b. Select Demo\_SingleTIFFs.

- c. When prompted with the message processing is complete, click OK.

- d. When prompted for next batch click “Stop”.

- e. Click the All Task Shortcut to display the Monitor view for all active batches. Verify that you have a batch for the Demo\_SingleTIFFs job, waiting at the PageID task.

4. Click the Page ID shortcut to run the PageID task.

- a. When prompted with the message processing is complete, click OK.

- b. When prompted for next batch click “Stop”.

5. Click the Profiler shortcut to run the Profiler task.
  - a. When prompted with the message finished with a status of child spawned, click OK.
  - b. When prompted for next batch click "Stop".
  - c. Click the All Task Shortcut to display the Monitor view for all active batches. Verify that your batch for the Demo\_SingleTIFFs job is at the Export task.



### Note

Images that do not require verification are routed directly to the Export task. If an image require verification by an operator are split off into a new batch with the job name Verify\_Export. If the Verify\_Export task has to be run for the manual verification on the image, then the export task must be run twice to complete the processing for all of the scanned images.

6. Export the batch.
  - a. Double-click your batch for the Demo\_SingleTIFFs job that is at the Export task.
  - b. Click OK when you are prompted with the message that the processing is complete.
  - c. If you are prompted for next batch click "Stop".
  - d. Close the Datacap Desktop window.

## **Procedure 3: Verify FileNet repository export**

1. Verify the FileNet repository output.
  - a. In the Internet Explorer browser, click the DCN - Datacap bookmark on the bookmark bar.
  - b. Log in using admin/admin.
  - c. Click the Open Browse View icon  in the left side toolbar.
  - d. Log in using p8admin/IBMFileNetP8.
  - e. Click the "Beneficiary Forms" folder and verify that documents are listed.
  - f. Select (single-click) one of the Beneficiary Forms documents in the list and verify that the field name in the following table are listed in the "Properties" pane on the right.

Field name	Field name
Employee_Name	City
SSN	State
Date_Of_Birth	ZipCode
Home_Phone_Number	Employer
Home_Address	Group_Number

- g. Verify that the document icon in the IBM FileNet Content Manager repository is a PDF icon.

Properties	
Class:	BeneForm
Document Title:	20170122.000004.03
City:	Smarter City
DateOfBirth:	8/4/1977, 8:00 PM
DateSigned:	8/25/2012, 8:00 PM
EmployeeName:	Ahmed Rizwan
Employer:	Company C
SSN:	432-55-3456
State:	NY
ZipCode:	10026
HomePhone:	555-234-5153

- h. Expand the “System Properties” in the Properties pane on the right.  
 i. Notice that the MIME type is application/pdf.
2. Log out of the Datacap Navigator in Internet Explorer and close the window.



### Troubleshooting

If you double-click the document, it opens the document in the Viewer. If an error shows up for the Java update, click “Later”. Close the viewer to go back to the main page to see the properties.

---

## End of exercise

# Unit 4. Datacap Studio Introduction

## Estimated time

01:00

## Lessons

This unit contains the following lessons.

[Lesson 4.1, "Datacap Studio - Rulemanager,"](#) on page 4-3

[Lesson 4.2, "Datacap Studio - Zones and Test views,"](#) on page 4-10

## Unit dependencies

The activities in this unit must be done in the presented order.

## Requirements

The activities in this unit assume that you have access to the student system configured for these activities.

## Do this first

1. If you are prompted to log in to the system, use:

Type	User ID	Password
Operating system	Administrator	passw0rd

2. Start the Datacap Server.
  - a. Click Start > All Programs > IBM Datacap Services > Datacap Server Manager. The Datacap Server Manager window is shown.
  - b. Click the Service tab.
  - c. Click Start to start the service if it is not already started. The Start operation is disabled if it is already started.
  - d. Click Close to close the Datacap Server Manager window.
3. Start WebSphere Application Server.
  - a. Double-click the WebSphere Admin folder on the Desktop.
  - b. Double-click the Start Server1.bat script file.

This action starts the IBM FileNet Content Manager and the Content Navigator.

## System check

The activities in this unit assume that all system services are running when you begin an activity session. Perform a system check whenever you start an IBM FileNet Content Manager system or start working on a system that is in an unknown state.

1. Log in to the **Content Navigator Ping** page to verify that the IBM FileNet Content Management services are active.
  - **URL:** <http://ecmedu01:9080/navigator/Ping> or the browser shortcut: **ICN Ping Page**
  - **User name:** p8admin
  - **Password:** IBMFileNetP8

This page displays the version information for Content Navigator and Operating system.

2. Log in to Datacap Desktop as the admin user.
  - a. Click **Start > All Programs > IBM Datacap Clients > Datacap Desktop** or click the shortcut on the Windows desktop.
  - b. Type the login credentials:

**User:** admin  
**Password:** admin  
**Station:** 1
  - c. Click **Start**.
  - d. Verify that Datacap Desktop opens indicating that the server is active and connected.
3. See Appendix A for procedures to Start, Check, and Restart components on the Student system.

# Lesson 4.1. Datacap Studio - Rulemanager

## Overview

### Why is this lesson important to you?

As a Datacap Solution/Application Builder, you build and deploy applications with the Datacap capture system.

To do these tasks effectively, you need to be familiar with the Datacap Studio interface.

## Activities

[Exercise 1: Explore the Datacap Studio - Rulemanager](#), on page 4-4

## User accounts

Type	User ID	Password
Operating system	Administrator	passw0rd
Datacap	admin	admin



### Note

Passwords are always case-sensitive.

# Exercise 1: Explore the Datacap Studio - Rulemanager

This activity gives you the knowledge to become familiar with the application development capabilities in Datacap Studio.

## Procedures

[Procedure 1, "Check the authentication mode," on page 4-4](#)

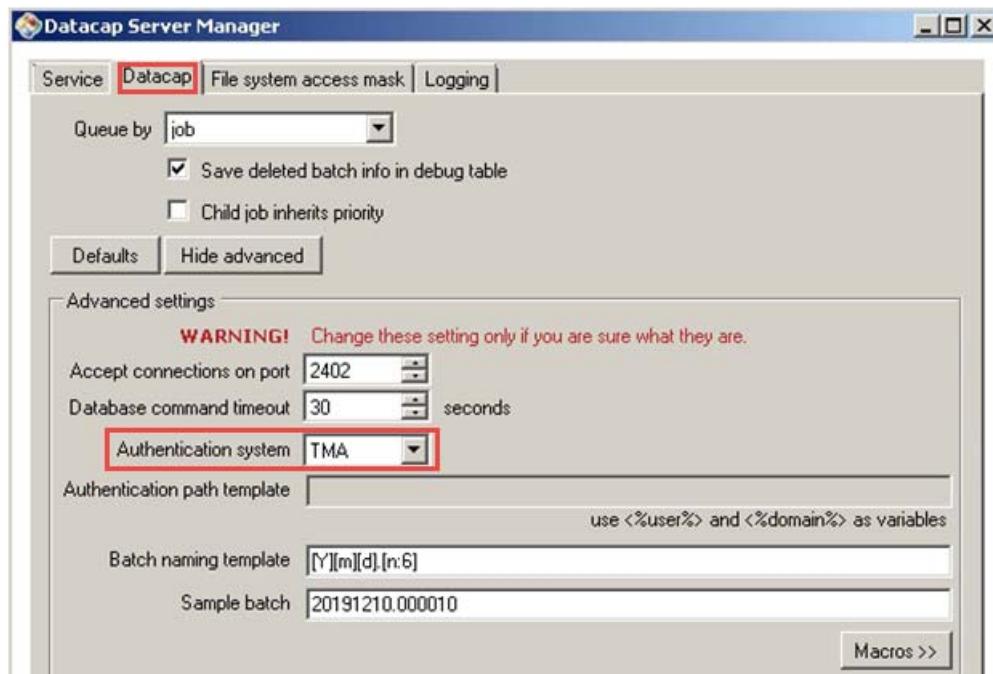
[Procedure 2, "Login to Datacap Studio," on page 4-5](#)

[Procedure 3, "Review document hierarchy," on page 4-5](#)

[Procedure 5, "Review task profiles and action libraries," on page 4-7](#)

### Procedure 1: Check the authentication mode

1. Click Start > All Programs > IBM Datacap Services > Datacap Server Manager.
2. In Datacap Server Manager, click the **Datacap** tab and verify that the **Authentication system** field has **TMA** selected.
3. Click the **Service** tab and verify that the server is running.
4. If the steps **2** and **3** are verified, skip to **Procedure 2**.



5. If **TMA** is not already selected, select the **TMA** mode from the list and click **Save** to save the changes.
6. If you are prompted with the Alert message that the service is currently running, click **Yes**.
7. Click the **Service** tab and restart the server.

8. Close the Datacap Server Manager.

## **Procedure 2: Login to Datacap Studio**

1. Click **Start > All Programs > IBM Datacap Developer Tools > Datacap Studio**.

You can also use the **Datacap Studio** shortcut on the Windows desktop.

2. Select the **ExpenseDemo** application.

This application is a legacy application.

3. Click **Next** and type the following values.

- **User ID:** admin
- **Password:** admin
- **Station:** 1

4. Click **Finish**.

## **Procedure 3: Review document hierarchy**

1. In **Datacap Studio**, open the **Rulemanager** tab.

2. In the **Document hierarchy** tab, expand **Expenses** and check the nodes.

There is one page type named **Other**. This page is the default page type that is assigned to each read page until the page is correctly identified.

There are three document types: **Car**, **Air**, and **HR**. Each document type has at least one page and each page has a number of fields.

3. Expand each document and observe the following details.

- **Car** has **Rental\_Agreement** page.
- **Air** has **Air\_Receipt** page.
- **HR** has **HR\_Page** and **Donation\_Receipt** pages.

4. Expand each page to reveal the fields that are defined on each page.

## **Procedure 4: Review rulesets**

1. Check the **Rulesets** in the middle pane. There are two groups of rulesets:

- Global rulesets
- **ExpenseDemo** (they are application rulesets)

2. View the Global Rulesets.

Global rulesets are gray because they are templates (building blocks). These rulesets are all Compiled (UI) rulesets identifiable by the icon  representing them.

- a. Open Windows Explorer and browse to the C:\Datacap\RRS folder.

- b. Verify that for each ruleset that is defined under the Global rulesets, there is a corresponding **<ruleset>.Rul.dll** file and a **<ruleset>.Rul.dll.config** file.

Example: **CreateDocuments.Rul.dll** and **CreateDocuments.Rul.dll.config**

3. View Application Rulesets.

All of the rules that are defined for the ExpenseDemo application are identifiable by the icon representing them. The rulesets are VScan, ImageFix, PageID, CreateDocs, and so on.

- In Windows Explorer, browse to the C:\Datacap\ExpenseDemo\dco\_ExpenseDemo\rules folder.
- Verify that for each ruleset that is defined under the ExpenseDemo application rulesets, there is a corresponding **<ruleset>.rul** file.

The application rulesets does not have the **<ruleset>.Rul.dll** and **<ruleset>.Rul.dll.config** files.

- In the **Rulesets** tab, expand **ExpenseDemo** and expand any one of the rulesets and notice that they are a hierarchical structure of rules, functions, and actions.
- Check the rule mapping.

- Expand the **VScan** ruleset and click the **VScan** rule.
- Click the **Sync DCO view with Ruleset view**  icon between the Ruleset and Document Hierarchy panes.
- Notice that the **Open** node for the **Expenses** batch is shown.

The **VScan** rule is highlighted. This action determines where rules are used in the document hierarchy.

- Check the rule mapping in the Properties pane.

- Click the **Lock/Unlock ruleset (for editing)** icon in the toolbar of the **Rulesets** middle pane.



This action locks the **VScan** ruleset for editing.

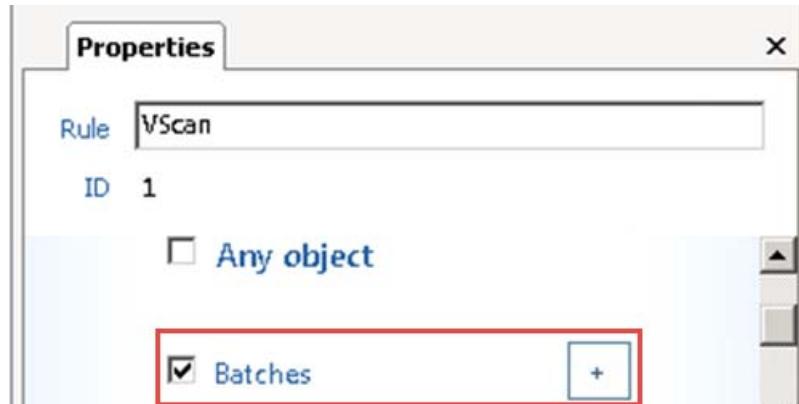
- Click the **VScan** rule.



- In the **Properties** tab on the right pane, click the **Run rule at start of** node.

A list of selectable options are displayed: **Any object**, **Batches**, **Documents**, **Pages**, and **Fields**.

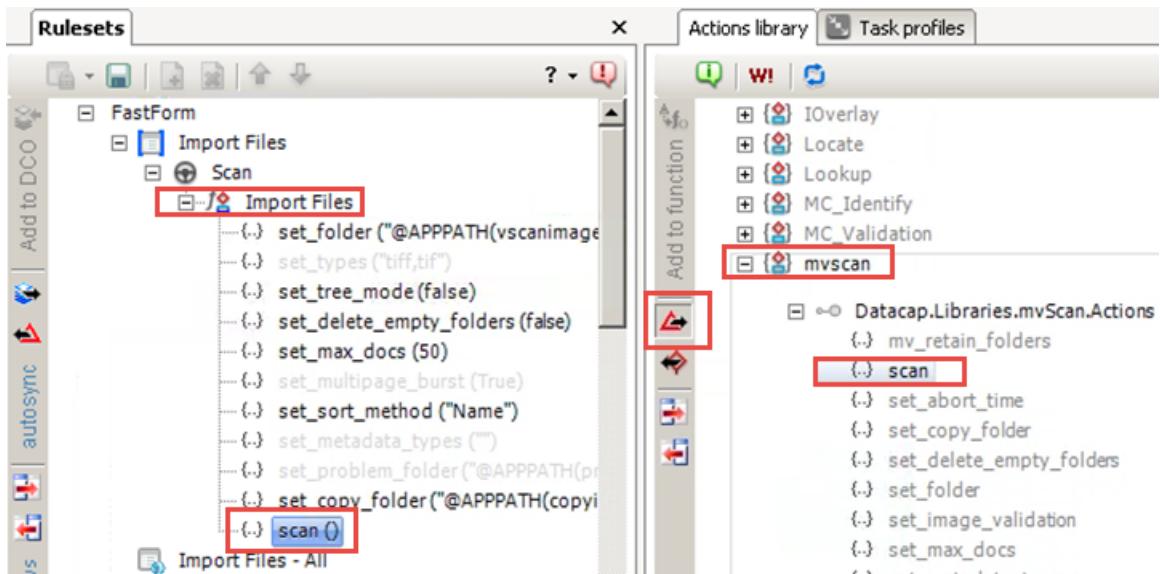
- Click the **Batches** option in the **Properties** pane.



- e. Click the lock icon and click **Unlock ruleset (discard all changes since lock)** from the list to unlock the **VScan** ruleset without saving your change.
- f. Click **Yes** when you are prompted with the **Unlocking ruleset** window.
7. Click **Exit** at the upper right corner to close Datacap Studio.

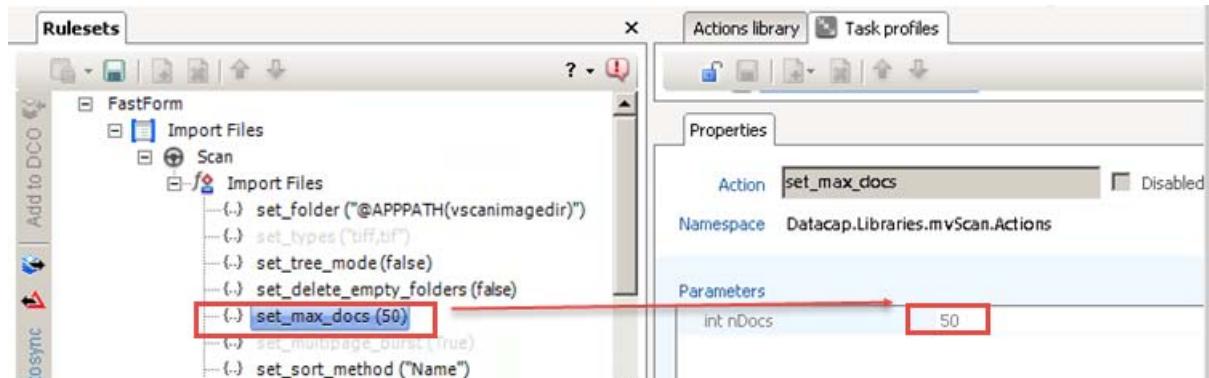
### **Procedure 5: Review task profiles and action libraries**

1. Repeat procedure 2 to log in to Datacap Studio but at step 2 select the **FastForm** application.
2. Click the **Actions library** tab in the upper right pane.  
Action libraries are a list of predefined actions that can be added to the application rulesets to customize task functions.
3. Scroll through the Action groups and expand a group to see that each group consists of a number of actions.
4. In the **Rulesets** tab on the middle pane, expand the **FastForm > Import Files > Scan > Import Files > Scan()** action.
  - a. Click the **Autosync Ruleset view to Action Library view** icon on the left edge of the **Action library** pane (between the **Rulesets** and **Action library** panes).
  - b. Notice that the **mvscan** actions library group opens in the **Actions library** pane to reveal the location of the **scan** action.



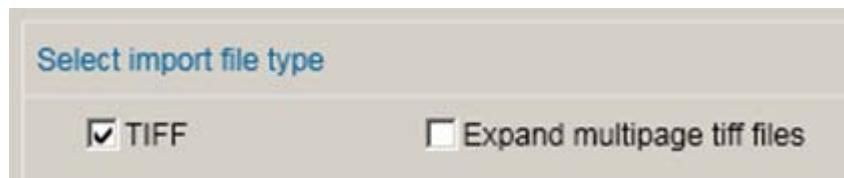
- c. If it is not visible, scroll down the **Action library** list.
  5. Click the **Task profiles** tab.
- Task profiles determine the order in which rulesets are run.
- d. Expand each task and notice that the objects that are associated with each of the tasks are one or more rulesets.
  6. Look at properties through the Properties pane.
- a. In the **Rulesets** tab on the middle pane, expand the **FastForm > Import Files > Scan > Import Files**.
  - b. Click the **set\_max\_docs** action.

Notice that the object Properties information and the action parameter are shown in the properties pane in the lower right corner.

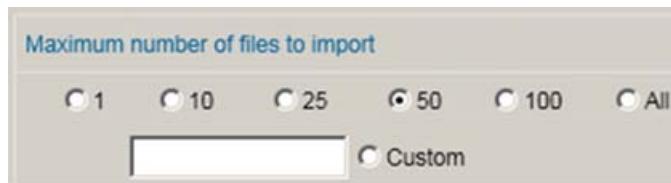


## **Procedure 6: View the properties through the Ruleset UI for a compiled ruleset.**

1. In the **Rulesets** tab on the middle pane, select the **FastForm > Import Files** application ruleset.
2. Right-click and select **Settings** from the menu.
3. In the **Ruleset Import Files** window, notice that **Selected import file type** is set to **TIFF**.



**Maximum number of files to import** is 50.



4. Click **Close** at the end of the page.
5. Notice the icon bars at the top of each of the main panes:  
When you hover over the icons, the help text provides details for these icons in each pane.
  - a. Lock/Unlock
  - b. **Save changes**
  - c. **Remove object**
  - d. **Add child object** on the Ruleset pane
  - e. **Add new task profile** on the Task profiles pane
  - f. Up and Down icons to order objects
6. Click **Exit** at the upper right corner to close Datacap Studio.

### **End of exercise**

# Lesson 4.2. Datacap Studio - Zones and Test views

## Overview

### Why is this lesson important to you?

As a Datacap Solution/Application Builder, you build and deploy applications with the Datacap capture system.

To do these tasks effectively, you need to be familiar with the Datacap Studio interface.

## Activities

- [Exercise 1: Explore the Datacap Studio - Zones and Test view](#), on page 4-11
- [Exercise 2: Datacap Studio: Quiz](#), on page 4-13

## User accounts

Type	User ID	Password
Operating system	Administrator	passw0rd
Datacap	admin	admin



### Note

Passwords are always case-sensitive.

# Exercise 1: Explore the Datacap Studio - Zones and Test view

This activity gives you the knowledge to become familiar with the application development capabilities in Datacap Studio.

## Procedures

[Procedure 1, "Log in to Datacap Studio,"](#) on page 4-11

[Procedure 2, "Review the Zones view,"](#) on page 4-11

[Procedure 3, "Review the Test view,"](#) on page 4-12

[Procedure 4, "Review Settings,"](#) on page 4-12

### **Procedure 1: Log in to Datacap Studio**

1. Click **Start > All Programs > IBM Datacap Developer Tools > Datacap Studio.**  
You can also use the **Datacap Studio** shortcut on the Windows desktop.
2. Select the **ExpenseDemo** application.  
This application is a legacy application.
3. Click **Next** and type the following values.
  - **User ID:** admin
  - **Password:** admin
  - **Station:** 1
4. Click **Finish.**

### **Procedure 2: Review the Zones view**

1. In Datacap Studio, click the **Zones** tab.
2. Notice that the **Document hierarchy** and the **Properties** panes that were described earlier on the **Rulemanager** view are also duplicated in the **Zones** view.
3. In the **Fingerprints** tab, expand **<Global>**.
4. Select **555[Other]** and check that an image is shown in the **Image View** pane.
5. With an image shown in the **Image View** pane, click the **Text** tab at the bottom of the image.
6. Notice that the text that is interpreted from the image is displayed in plain text format.
7. In **Properties** tab, notice that a selection of subtabs are shown at the bottom of the pane.
8. Right-click any subtab in the **Properties** section and select **Show tabs** to see the complete list of available subtabs.
  - You can select these subtabs from the list to show their contents.
  - The **Properties** tab is always visible.

- The following tabs are all selectable.

- **BAR/P**
- **ICR/C**
- **ICR/P**
- **OCR/A**
- **OCR/S**
- **OMR**

### **Procedure 3: Review the Test view**

1. Select the **Test** tab.
2. Notice that the **Document hierarchy**, **Rulesets**, and **Properties** panes that were described earlier on the **Rulemanager** view are also duplicated on the **Test** view.

The Test view has the ability to run batches in a controlled manner so that you can:

- Walk through an application.
- Debug an application by setting breakpoints by using the Breakpoints tab.
- Stop and observe the state progress and data at strategic places during debugging.

### **Procedure 4: Review Settings**

1. Click **Settings ...** on the toolbar at the upper right side of the window.
2. Click the **Application service** tab and notice the name and location of the main application management file: **datacap.xml**
3. Click **Cancel** to close the Settings window.
4. Click **Exit** at the upper right corner to close Datacap Studio.

---

### **End of exercise**

## Exercise 2: Datacap Studio: Quiz

For each of the following statements, indicate whether the statement is accurate by marking it True or False.

1. Datacap Studio is the Datacap Capture application development environment.

**True or False**

2. Datacap Studio is the capture job processing environment.

**True or False**

3. Datacap Studio provides direct access to the Application Wizard through an icon on the icon bar.

**True or False**

4. Application Wizard gives you a head start on application development by generating a basic application framework, complete with the supporting folders.

**True or False**

5. The Application Wizard is the capture job processing environment.

**True or False**

6. The Rulemanager view of Datacap Studio shows the following default panes: Document hierarchy, Rulesets, Actions libraries, Task profiles, and Properties.

**True or False**

7. The Rulemanager view of Datacap Studio shows the following default panes: Document hierarchy, Fingerprints, Image View, and Properties.

**True or False**

8. The Zones view of Datacap Studio shows the following default panes: Document hierarchy, Fingerprints, Image View, and Properties.

**True or False**

9. The order of Rulesets in the ruleset pane determines the order in which rules are done.

**True or False**

10. The order of Rulesets in the Task profiles pane determines the order in which rulesets are done.

**True or False**

11. Compiled (UI) Rulesets have a <ruleset>.Rul.dll and a <ruleset>.Rul.dll.config file.

**True or False**

12. Conventional rulesets can be configured directly with the user interface in FastDoc.

**True or False**

13. Compiled rulesets can be configured directly in FastDoc (Admin) with the developer interface.

**True or False**

14. Global ruleset definitions are in the C:\Datacap\Global\Rule folder.

**True or False**

15. Global ruleset definitions are in the C:\Datacap\RRS folder.

**True or False**

16. Application rulesets are in the C:\Datacap\<application>\dco\_<application>\Rule folder.

**True or False**

17. The user interface for the Setting window for configuring Compiled rulesets parameters is stored in the <ruleset>.Rul.dll.config file

**True or False**

---

**End of exercise**

---

## Appendix 4.

## Answer keys to quizzes

This section shows the answer keys to the quizzes that you have done in the above lessons.

## Lesson 1.1. Datacap Studio: Quiz

For each of the following statements, indicate whether the statement is accurate by marking it True or False.

1. Datacap Studio is the Datacap Capture application development environment.

**Answer = True**

2. Datacap Studio is the capture job processing environment.

**Answer = False**

3. Datacap Studio provides direct access to the Application Wizard through an icon on the icon bar.

**Answer = True**

4. Application Wizard gives you a head start on application development by generating a basic application framework, complete with the supporting folders.

**Answer = True**

5. The Application Wizard is the capture job processing environment.

**Answer = False**

6. The Rulemanager view of Datacap Studio shows the following default panes: Document Hierarchy, Ruleset, Task profiles, Action libraries, and Properties.

**Answer = True**

7. The Rulemanager view of Datacap Studio shows the following default panes: Document Hierarchy, Fingerprint, Image view, and Properties.

**Answer = False**

8. The Zones view of Datacap Studio shows the following default panes: Document Hierarchy, Fingerprint, Image view, and Properties.

**Answer = True**

9. The order of rulesets in the ruleset pane determines the order in which rules are done.

**Answer = False**

10. The order of rulesets in the Task profiles pane determines the order in which rulesets are done.

**Answer = True**

11. Compiled (UI) rulesets have a <ruleset>.Rul.dll and a <ruleset>.Rul.dll.config file.

**Answer = True**

12. Conventional rulesets have a *UI interface for configuring ruleset properties*.

**Answer = False**

13. Compiled rulesets can be configured directly in FastDoc with the user interface.

**Answer = True**

14. Global ruleset definitions are in the C:\Datacap\Global\Rule folder.

**Answer = False**

15. Global ruleset definitions are in the C:\Datacap\RRS folder.

**Answer = True**

16. Application rulesets are in the C:\Datacap\<application>\dco\_<application>\Rule folder.

**Answer = True**

17. The user interface for the Setting window for configuring Compiled rulesets parameters is stored in the <ruleset>.Rul.dll.config file

**Answer = True**

---

**End**

# Unit 5. Add a Multi-Page Document

## Estimated time

03:00 Hours

## Unit overview

This unit contains these lessons.

## Lessons

[Lesson 5.1, "Create a multi-page form application," on page 5-3](#)

[Lesson 5.2, "Recognize with ICR and OMR," on page 5-15](#)

[Lesson 5.3, "Validate with database lookup," on page 5-22](#)

## Unit dependencies

The activities in this unit must be done in the provided order.

This unit is dependent upon completing “Add a document type”.

## Requirements

The activities in this unit assume that you have access to the student system configured for these activities.

## Do this first

1. If you are prompted to log in to the system, use:

Type	User ID	Password
Operating system	Administrator	passw0rd

2. Start the Datacap Server.
  - a. Click Start > All Programs > IBM Datacap Services > Datacap Server Manager. The Datacap Server Manager window is shown.
    - a. Click the Service tab.
    - b. Click Start to start the The Datacap Taskmaster Server Service if it is not already started. The Start operation is disabled if it is already started.
    - c. Click close to close the Datacap Taskmaster Server Manager window.

3. Start WebSphere Application Server.
  - a. Double-click the WebSphere Admin folder on the Desktop.
  - b. Double-click the Start Server1.bat script file.

This action starts the IBM FileNet Content Manager, and the Content Navigator.

## System check

The activities in this unit assume that all system services are running when you begin an activity session. Perform a system check whenever you start a IBM FileNet Content Manage system or start working on a system that is in an unknown state.

1. Go to the Content Navigator Ping page to verify that the IBM FileNet Content Management services are started. This page displays the version information for Content Navigator and the operating system.  
URL: <http://ecmedu01:9080/navigator/Ping>
  2. Log in to Datacap Studio as admin/admin to verify that the Datacap Server is active and connected.
    - a. Double-click the Datacap Studio icon on the desktop.
  3. See Appendix C for procedures to Start, Check, and Restart components on the student system.
- 

## End of exercise

# Lesson 5.1. Create a multi-page form application

## Overview

### Why is this lesson important to you?

As a Datacap business analyst, you build and deploy applications with the Datacap Capture system and communicate solution details to the solution architect, administrator, and users.

To configure most Datacap capture applications, you must know how to configure a document with multiple pages. The page images that you use in the class are rigid forms and therefore they are best processed with Form Template based application. Also, important is configuring Recognition rulesets for ICR (Intelligent Character Recognition) for handwriting and OMR (Optical Mark Recognition) for check boxes.

## Activities

- [Exercise 1: Create a Form Template based Application](#), on page 5-4
- [Exercise 2: Add a second page](#), on page 5-12

## User accounts

Type	User ID	Password
Operating System	Administrator	passw0rd
Datacap	admin	admin



### Note

Passwords are always case-sensitive.

# Exercise 1: Create a Form Template based Application

## Introduction

This activity gives you a familiarity with the requirements for processing a document with multiple pages. You will first create a FastDoc application by using the Forms template and then configure it to recognize and process a multi-page document.

The last thing you will do is configure a database of zip codes that you will use to do a database lookup. If you find a match, you will display the database City and State for the user. If you don't find a match, you will display the Value of the ICR'd City and State fields on the form.

## Procedures

[Procedure 1, "Create and configure an application," on page 5-4](#)

[Procedure 2, "Configure a document type," on page 5-5](#)

[Procedure 3, "Configure rulesets," on page 5-6](#)

[Procedure 4, ": Add a fingerprint for the first page of HRF\\_Document," on page 5-9](#)

[Procedure 5, "Identify the master image file.,," on page 5-11](#)

[Procedure 6, "Review the Output," on page 5-11](#)

### Procedure 1: Create and configure an application

Use the Application Wizard to create an application by using the Form Template and name the application HRF\_Form.

1. Start the FastDoc Admin interface and log in to the Local mode.
  - a. Double-click the Datacap FastDoc (Admin) icon on the Desktop.
  - b. Click Local.
  - c. Click Login.
2. Create the application.
  - a. Click the Datacap Application Wizard  icon on the right side of the header bar and click Next.
  - b. Click "Create a new RRS application" and click Next.
  - c. Type the application name "HRF\_Form".
  - d. Select the Form Template, and click Finish.
  - e. Verify that no errors or warnings are shown on the Summary window and click close.
3. Log out of FastDoc Local mode.
4. Check application paths for the new "HRF\_Form" application.
  - a. Open the Datacap Application Manager. Double click the icon on the desktop.
  - b. Select the "HRF\_Form" application in the navigation panel on the left.

- c. On the Main tab, make sure that none of the paths are still pointing at the template folder. They should all be pointing at C:\Datacap\HRF\_Form and not C:\Datacap\Template\HRF\_Form. If any paths are incorrect, then correct them (especially the Database connection strings).
- d. Close the Datacap Application manager.

## **Procedure 2: Configure a document type**

1. Log in to FastDoc (Admin) in the Datacap Server mode.
  - a. Select HRF\_Form from the Application list.
  - b. Type Password: admin.
  - c. Click Login.
2. Add Document Type.
  - a. Click the icon for Configuring Documents, pages, and fields .
  - b. In the Batch Structure Pane, select HRF\_Form.
  - c. Click Add Document... to add a Document Type.
  - d. Name the Document type HRF\_Document.
  - e. Click the "Use rulesets from" check box to enable the option.
  - f. Select Document.
  - g. Click Add to add this document type.
3. Add the first of two Page Types.
  - a. Select HRF\_Document in the Batch Structure pane and click Add Page.
  - b. Name the page HRF\_Page.
  - c. Click the "Use rulesets from" check box to enable the option.
  - d. Select Page.
  - e. Click Add to add this page type.
4. Set the Document Integrity Rule.
  - a. In the Batch Structure Pane, select the HRF\_Page.
  - b. Type the following Values to enforce the requirement that there be only one HRF\_Page and it is always the first page of the document.
 

Minimum: 1  
Maximum: 1  
Order: 1
  - c. Click Save.
5. Add Fields to the new page type.
  - a. Click the HRF\_Page in the Batch Structure pane.
  - b. Click Add Field.

- c. Type one of the following names in for Field type.
  - Zip
  - City
  - State
  - Frequency
- d. Click Add after you've typed in the name.
- e. Repeat steps 5.b - 5.d for each field.

### **Procedure 3: Configure rulesets**

Implement basic ICR recognition of the HRF\_Page and the Zip code, City, and State fields of the HRF page. Also, configure Frequency to read both the field and check boxes in the zone.

1. Configure ICR recognition of the HRF\_Page and fields.
  - a. Select the HRF\_Page in the Batch Structure.
  - b. Click the Ruleset tab.
  - c. Select the Ruleset 'Recognize Pages and Fields'.
  - d. Check the following options:
    - Enable: Read Page
    - Enable: Load Zones for Fields
2. Configure the fields
  - a. Select the field Zip on the HRF\_Page under the Batch Structure.
  - b. Select the Ruleset 'Recognize Pages and Fields'.
    - Enable: Read Field
    - Enable: Read hand print in zone.
  - c. Repeat steps 2a and 2b for the City and State fields.
  - d. Select the Frequency field.
    - Enable: Read Field
    - Enable: Read Check Boxes in Zone
  - e. Select 'Clear background' from the 'Read check boxes' in zone field.
3. Click Save to preserve your configuration.
4. Continue the Frequency field configuration.
  - a. Click the Settings tab.
  - b. Click the Frequency field under the Batch Structure.
  - c. Click the 'Optical mark' Enable check box.

**Note**

Define a choice list with the four Frequencies with the values in the Choice List parameter table. You do the zoning of the Frequency field and the four OMR boxes in Lesson 3.2.

Notice at the bottom of the settings interface for the Frequency field, there is an area where you can define a dictionary table with two columns:

- Value
- Display Text.

- 
- d. Click Add four times.
  - e. Type the four values and Display Text entries from the table.

Choice List parameters

<b>Value</b>	<b>Display Text</b>
1	One Time
12	Monthly
4	Quarterly
2	Annually (this year and next)

These choices populate a choice list in the verify panel interface.

5. Click Save to preserve your configuration.
6. Configure the Image Enhancement ruleset.
  - a. Click the HRF\_Page object in the Batch Structure pane.
  - b. Click the Ruleset tab.
  - c. Select the Image Enhancement ruleset.
  - d. Click the dark gray vertical bar between the Ruleset pane and Test pane to maximize the area to view the images.
  - e. Click 'Open image file ...' under the 'Image operations' heading.
  - f. Go to C:\DC9-Lab Exercises\HRF\_Form\HR and select any one of the Sample Image pages and click open.
  - g. The image is displayed in the two image view panes to the right of the Image Enhancement options.

**Note**

You already had some exposure to Image Enhancement in an earlier lesson when you were configuring the learning templates. There are many improvements in this ruleset compared

to the Datacap 8.1 version. It is important that you configure and run image enhancement to improve the quality of your pages before they are fingerprinted.

Before you start:

Use your mouse wheel to zoom in on the image and click and drag the image to focus on the specific area where you expect change to happen as you adjust the image enhancement options.

- 
- h. Experiment with the settings while you observe the instant changes to the image in the right side image pane. Choose settings that are likely to result in the most readable image.

Examples:

- Click the Remove Lines rule, change the parameters, and observe the results. Make some changes to the parameters and see what affect it has.
- Click the Deskew rule and test various parameters. Deskew is one of the most important image enhancement capabilities that directly affects fingerprint matching, so become familiar with the options that are available to configure it and how those options affect the results.
- Click the de-speckling option, which removes extraneous dots and smudges on the page.
- Click the Dilate option. This option helps with dot-matrix printers where the dots don't quite touch so character recognition is challenging.
- Click the Remove Blobs option. This option locates and removes large black objects.



### Note

Optional actions:

- If you want to preserve the Image Enhancement settings that you made to use on other page types, you can use click 'Save Settings As' Image Operation.
- If you do save your configuration the 'General Settings > Rule settings:' option, is updated to use your new settings file.
- You can revert to the default settings by selecting it from the 'Rule settings:' list

---

## 7. Configure the Import Files ruleset.

- a. Click HRF\_Form at the top of the Batch Structure.
- b. Select the 'Import Files Ruleset' on the Ruleset tab.
- c. The default setting for the 'Source folder' parameter is:  
C:\Datacap\HRF\_Form\Images\Input\_SingleTIFFs. If it is not set to this location, then browse to this folder.
- d. Scroll down to the 'Copy image folder' parameter.
- e. The default setting for the 'Copy image folder' parameter is:  
C:\Datacap\HRF\_Form\Images\Input\_SingleTIFFs. If it is not set to this location, then browse to for this folder.

- f. The settings described in Step 7.c and 7.e are the default settings so there is no need to save.
8. Look at the Identify Pages ruleset.
  - a. Click HRF\_Form at the top of the Batch Structure.
  - b. Click the Ruleset tab in the Batch Properties pane.
  - c. Select the 'Identify Pages' choice in the ruleset list.

Notice there are lots of choices of ways to identify pages, but for this exercise use the default settings. The default method is to identify with fingerprints.
9. Configure Validate Fields ruleset.

The validate ruleset in FastDoc has a comprehensive set of validation configuration options. You might find it necessary to create custom rules in Datacap Studio if what you want to achieve is not available through the FastDoc configuration options.

- a. In the Batch Structure pane, expand the HRF\_Form > HRF\_Document > HRF\_Page.
- b. Select the Validate Fields ruleset on the Ruleset tab.
- c. Click the Zip field under the Batch Structure and click the 'Validate this field' check box.  
Set Zip > Common > 'Allow only these characters' to '0123456789'.  
Set Zip > Length > Minimum to 5 and Maximum to 9.
- d. Click the City field under the Batch Structure and click the 'Validate this field' check box.  
Set City > Length > Minimum length to 3.
- e. Click the State field under the Batch Structure and click the 'Validate this field' check box.
- f. Set > State >Length Minimum length to 2.

Become familiar with, the various functionalities in the Validate Fields configuration interface.

10. Click Save to preserve your configuration changes.

#### ***Procedure 4: : Add a fingerprint for the first page of HRF\_Document***

1. Add Fingerprint class.
  - a. Click the Fingerprints tab.
  - b. Select <New> to create a new Fingerprint Class.
  - c. Click Add.
  - d. Enter the name HRF\_FP\_Class.
  - e. Click Add.
  - f. Click close.
2. Add a Fingerprint by using the Master Image file.
  - a. Click "Add..." next to the empty Fingerprints box, then browse to C:\DC9-LabExercises\HRF\_Form\HR\ and select the "Master Image.tif" file and click Open.

It is added to the Fingerprints box as a fingerprint of type 'Other' with a number like 556. It is also visible in the Image interface to the right of the Fingerprint setup.

- b. Select the Fingerprint class HRF\_FP\_Class in the Fingerprint Class box and the page type "HRF\_Page" in the Page type box.

View the Master Image, which is automatically run through Image Enhancement and is cleaned and straightened. Notice that it has square braces that mark the fields, which makes it easy to mark zones on those fields. This image is used to set up ICR on the Zip, City, and State fields and OMR on the Frequency field.

- c. Fingerprint changes are saved automatically so no manual save of the configuration is necessary.



### Note

#### **Image adjustment:**

You can adjust the image magnification with zoom in and zoom out icons at the top of the Image view. You can click the sign multiple times since that makes zoning the fields easier and more accurate. You can also use the wheel on your mouse for zoom in and zoom out.

Use right-click to adjust the image position to get a good view of the fields that you want to zone.

3. Identify the zones for all four fields: Zip, City, State. You configure the Frequency and four OMR fields by using Datacap Studio later when the OMR topic is covered.
  - a. Click the Zip field in the Batch Structure pane.
  - b. Draw a box with the mouse pointer in the Image, by using the brackets, which mark the Zip field.
  - c. Observe that the Zone Position / Coordinates are updated. You must scroll down on the image to see the coordinates to the left of the page.



### Note

#### **Redrawing or clearing zones:**

Consider the width and height of the field. Be generous with your zoning since users typically don't stay within the boxes.

If you want to rezone a field, you select the field again and redraw the zone. If you mistakenly drew a zone for a field that does not require a zone, use the Clear zone option below the zone position coordinates.

- d. Repeat steps 3a through 3c to draw zones for the City, and State fields.
4. Fingerprint changes are saved automatically so no manual save of the configuration is necessary.

5. Log out of the FastDoc and close the window.

### ***Procedure 5: Identify the master image file.***

1. Make sure all the configuration you just completed is working correctly. Use the Datacap Desktop client to do that testing.
  - a. Open Windows Explorer and find the "Master Image.tif" file in C:\DC9-Lab Exercises\HRF\_Form\HR, copy it to C:\Datacap\HRF\_Form\images\Input\_singleTIFFs. Remove any other images in that folder.
  - b. Close Windows Explorer.
2. Open up the Datacap Desktop client and log in as admin/admin/1.
  - a. Select the HRF\_Form application from the Application list.
  - b. Run the VScan and PageID tasks.

### ***Procedure 6: Review the Output***

1. Use Windows Explorer to look in the batches folder C:\Datacap\HRF\_Form\batches\<date.00000n> and open PageID.xml.
  - a. Ensure that the page type of the master image is HRF\_Page and that the ScanSrcPath is Master Image.tif.
  - b. Close the PageID.xml file.
  - c. Close Windows Explorer.
2. Close the Datacap Desktop window.

---

**End of exercise**

## Exercise 2: Add a second page

### Introduction

This activity gives you a familiarity with techniques for identifying multiple instances of a second page type which result in variable-sized multi-page documents.

### Procedures

[Procedure 1, "Add the Donation\\_ Receipt page to the HRF Document," on page 5-12](#)

[Procedure 2, "Configure the 'Recognize Pages and Fields' ruleset," on page 5-13](#)

[Procedure 3, "Add a fingerprint for the second page of the HRF Document," on page 5-13](#)

### ***Procedure 1: Add the Donation\_ Receipt page to the HRF Document***

1. Open the HRF\_Form application with Datacap FastDoc Admin.
  - a. Select Datacap Server mode and log in as admin/admin/1.
2. Add a second page.
  - a. Click the Configure documents, pages, and fields icon.
  - b. Go to the Batch Structure pane and click HRF\_Document.
  - c. Click Add Page in the right panel.
  - d. Name the second page type Donation\_Receipt.
  - e. Click the 'Use rulesets from' check box to enable the option.
  - f. Select Page.
  - g. Click Add to add this page type.
3. Set the Document Integrity Rule.
  - a. In the Batch Structure Pane, select the Donation\_Receipt.
  - b. Enter the following values:

Minimum: 0  
Maximum: 0  
Order: 0

Initially you set the page to allow documents with no added donation receipts. If you set the Minimum to 1, this setting would ensure that each HRF document has at least one Donation\_Receipt with no maximum number of Donation\_Receipt pages allowed in an HRF\_Document.
4. Click Save.
5. Add Fields to the new page type.
  - a. Click the Donation\_Receipt page type in the Batch Structure pane.

- b. Click Add Field and add the following fields:
  - Donor\_Name
  - Value
- c. Be sure to click 'Add' after you have typed in the name of the field.
- 6. Click Save.

### ***Procedure 2: Configure the 'Recognize Pages and Fields' ruleset***

Implement basic OCR recognition of the Donor\_Name and Value fields of the Donation\_Receipt page type. This configuration is different than the configuration you did for the first page of the document because that page had hand print information whereas the page type you're working with now is machine print.

1. Configure OCR recognition of the Donation\_Receipt fields.
  - a. Click the Donation\_Receipt page type in the Batch Structure.
  - b. Click the Ruleset tab and select the Recognize Pages and Fields ruleset.
  - c. Check the following options:
    - Enable: Read Page
    - Enable: Load Zones for fields
    - Enable: Read Machine print on page
2. Configure the fields.
  - a. Click the Donor\_Name field on the Donation\_Receipt page type under the Batch Structure.
  - b. The Recognize Pages and Fields ruleset is still selected.
  - c. Check the following options:
    - Read Field
    - Add page recognition text to the zone
  - d. Repeat steps 2b and 2c for the Value field.

### ***Procedure 3: Add a fingerprint for the second page of the HRF\_Document***

1. Add Fingerprint class.
  - a. Click the Fingerprints tab.
  - b. Select <New> in the Fingerprint Class list to create a new Fingerprint Class.
  - c. Click Add.
  - d. Enter the name Donation\_Receipt\_FP\_Class.
  - e. Click Add.
  - f. Click close.
2. Add a Fingerprint by using a typical Donation Receipt image file.
  - a. Select the Fingerprint class Donation\_Receipt\_FP\_Class.
  - b. Click 'Add' next to the Fingerprints box.

- c. Go to C:\DC9-Lab Exercises\HRF\_Form\Donation Receipts and click BGill2.tif.
- d. Click Open.

The fingerprint is added to the list in the Fingerprints box. The image that you selected displays in the image window. Image enhancement also cleans and straightens the image.

- e. Select the fingerprint: 557 (Other) or a similarly numbered fingerprint of type (Other).
- f. Select the Donation\_Receipt\_FP\_Class from the Fingerprint Class list.
- g. Select the page type Donation\_Receipt from the Page type list.

Configure Image Enhancement.

- Image Enhancement is one of the most important rulesets to run before defining fingerprint zones. How you configure it depends on the quality of your images, which in turn determines Datacap's ability to accurately match fingerprint. And even if your initial image are high quality, later scanned images might not be good. It is important to configure Image enhancement to handle those possibilities.
- Take the time to test various types of cleanup that are available in this powerful function. Become familiar with the ways in which you can enhance the accuracy of Document capture and the user experience.

3. Draw zones for the two fields: Donor\_Name and Value to extract values from the page.
  - a. In the Batch Structure pane, select the Donor\_Name field.
  - b. In the Fingerprint Image Pane, draw a box around the name of the donor. Zoom in on the image to make zoning the fields easier and more accurate.
  - c. Observe that the Zone Position / coordinates are updated. You must scroll down on the image to see the coordinates to the left of the page.
  - d. Repeat steps 3.a to 3.c to draw a zone for the Value field.
4. Save the completed configuration if the Save control is enabled. If it isn't enabled, it automatically saved it.
5. Log out of FastDoc Admin and close the window.

---

## End of exercise

# Lesson 5.2. Recognize with ICR and OMR

## Overview

### Why is this lesson important to you?

As a Datacap business analyst, you build and deploy applications with the Datacap capture system and communicate solution details to the solution architect, administrator, and users.

To build a multi-page Datacap application, you must improve your ability to recognize pages and fields with more advanced techniques. In this lesson, you use Datacap Studio to expand on the configuration for hand written text field recognition with ICR, and multiple option check boxes recognition with OMR.

## Activities

- [Exercise 1: Configure the ICR and OMR fields](#), on page 5-16

## User accounts

Type	User ID	Password
Administrator	Administrator	passw0rd
Datacap	admin	admin



### Note

Passwords are always case-sensitive.

# Exercise 1: Configure the ICR and OMR fields

## Introduction

This lesson extends the fingerprint configuration that you completed in the last lesson. In this exercise, you do the extended configuration that is required to optimize the accuracy of handwritten field data you capture on the HRF\_Page. You also detect the filled-in bubbles on the OMR field.

All the additional configuration must be done in Datacap Studio.

## Procedures

[Procedure 1, "Configure OMR and add zones," on page 5-16](#)

[Procedure 3, "Configure ICR of the zip code numeric field," on page 5-18](#)

[Procedure 4, "Configure ICR of the city field," on page 5-19](#)

[Procedure 5, "Configure ICR of the state field," on page 5-19](#)

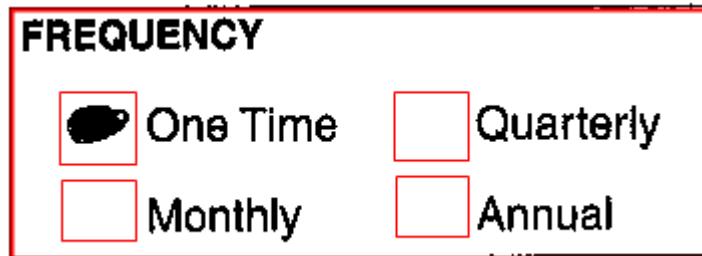
[Procedure 6, "Test the ICR and OMR recognition rules," on page 5-20](#)

### **Procedure 1: Configure OMR and add zones.**

1. Check the results of the fingerprint configuration that is done in FastDoc in the previous activity.
  - a. Start Datacap Studio from the desktop.
  - b. Log in to the HRF\_Form application as admin/admin/1.
  - c. Click the Zones view.
  - d. If you do not see the HRF\_FP\_Class fingerprint class, click the Reconnect to Database icon .
  - e. If the HRF\_Page fingerprint isn't visible, expand the HRF\_FP\_Class fingerprint class and click the [HRF\_Page] fingerprint.

The fingerprint that you see was created earlier in the Datacap FastDoc client.
- f. Ensure that the page type of the master image is HRF\_Page. Its type is displayed at the top of the Zones view Fingerprints tab.
2. Configure OMR for the Frequency field.
  - a. Click the small blue lock icon in the Zones > Document hierarchy pane controls bar so that you can configure OMR.
  - b. Expand the HRF\_Document > HRF\_Page objects and click the Frequency field.
  - c. Right-click the tabs bar at the bottom of the Properties pane hover over the Show tabs help field and select OMR before you can see the OMR tab.
  - d. Click OMR tab.
  - e. Notice that the OMR Length field is already set to 4. This option was configured when you defined the frequency option lookup list in FastDoc. Four OMR fields that are named Frequency\_OMR1 through Frequency\_OMR4 are defined under the Frequency field.

- f. Click the Frequency field and draw a zone around the entire Frequency section of the image; include the word "Frequency" and all 4 OMR choices.



You find it easier to zone if you zoom in and position the image until the Frequency OMR fields are easily visible in the center of the Image View pane. Use the image control bar to zoom the image.



Or use Control keys:

- Zoom in CTL +
- Zoom out CTL -

It is important to make the size of each of the zones for the frequency bubbles equal in size.

- g. Click the Frequency\_OMR1 field in the Document hierarchy pane and mark the 'One time' bubble zone on the image.
- h. Repeat step 2.g to zone the other OMR fields:  
 Frequency\_OMR2 field to the Monthly bubble zone.  
 Frequency\_OMR3 field to the Quarterly bubble zone.  
 Frequency\_OMR4 field to the Annual bubbles zone.
- i. You should be able to see the four zones for the four Frequency subfields on the fingerprint in the Image View pane.
- j. Click each OMR field again and verify that the correct bubble is highlighted on the Image View.

## **Procedure 2: Check ICR zone configuration**

1. In the Image Window click the zoom down-arrow, next to the magnifying glass and select Fit.
2. Verify that the City, State, and Zip zones are defined correctly.
  - a. Select each field on the Document hierarchy pane and verify that the correct field is zone if highlighted.

If any of the zones were not defined correctly in FastDoc, you can correct the zones here. This operation improves your chances of getting accurate results when you test your application.

### **Procedure 3: Configure ICR of the zip code numeric field**

1. Lock the 'Document hierarchy' pane, if it is not already locked.
2. Click the Zip field.
3. Click the ICR/C tab at the bottom of the Properties pane. If you do not see the ICR/C tab, then right-click one of the visible tabs at the bottom of the property pane and select ICR/C.
4. On the ICR/C tab, configure the following settings:

Locale	(Clear this variable)
Recognition Type	ICR Field
Remove Spaces	Yes
Boundary Handling	ON for all four directions
Character Set	0-9 - Indicates the set of values in the zone.
Country	USA
Font	Handprint - Indicates the type of print in the zone.
Length	9
Pitch	Fixed - Indicates fixed pitch characters. That is, there is no variation in the size of machine-printed characters.
Reader	Voter - Assigns a combination of RecoStar and AEG recognition.
Syntax	Numeric - Indicates the most likely type of data in a zoned field or block.
Triagram Mode	On - When on, recognition engine checks characters on both sides of a character to see whether their values are any indication of the most likely Value of the current character.

- a. Click the Save changes icon in the Document hierarchy pane to save your changes.

## **Procedure 4: Configure ICR of the city field**

1. Select the City field on the Document hierarchy pane.
2. On the ICR/C tab, configure the following settings:

Locale	(Clear this variable)
Recognition Type	ICR Field
Remove Spaces	Yes
Boundary Handling	ON for all four directions
Character Set	A-Za-z ' Indicates the set of Values in the zone.
Country	USA
Font	Handprint ' Indicates the type of print in the zone.
Length	20
Pitch	Fixed ' Indicates fixed pitch characters. That is, there is no variation in the size of machine-printed characters.
Reader	Voter ' Assigns a combination of RecoStar and AEG recognition.
Syntax	Alphanumeric ' Indicates the most likely type of data in a zoned field or block.
Triagram Mode	On ' When on, recognition engine checks characters on both sides of a character to see whether their Values are any indication of the most likely Value of the character.

- a. Click the Save changes icon in the Document hierarchy pane to save your changes.

## **Procedure 5: Configure ICR of the state field**

1. Select the State field on the Document hierarchy pane.
2. On the ICR/C tab, configure the following settings:

Locale	(Clear this value)
Recognition Type	ICR Field
Remove Spaces	Yes
Boundary Handling	ON for all four directions
Character Set	A-Za-z ' Indicates the set of Value in the zone.
Country	USA
Font	Handprint ' Indicates the type of print in the zone.
Length	2

Pitch	Fixed ' Indicates fixed pitch characters. That is, there is no variation in the size of machine-printed characters.
Reader	Voter ' Assigns a combination of RecoStar and AEG recognition.
Syntax	Alphanumeric ' Indicates the most likely type of data in a zoned field or block.
Triogram Mode	On ' When on, recognition engine checks characters on both sides of a character to see whether their Values are any indication of the most likely Value of the character that is being identified.

3. Save and unlock the Document hierarchy in the Zones view.
4. Exit Datacap Studio.

### **Procedure 6: Test the ICR and OMR recognition rules**

1. Prepare testing.
  - a. Go to the C:\Datacap\HRF\_Form\images\Input\_SingleTIFFs folder and delete the 'Master Image.tif' file.
  - b. Copy images from C:\DC9-Lab Exercises\HRF\_Form\HR\ Sample Image1,2, and 3 to the C:\Datacap\HRF\_Form\Images\Input\_SingleTIFFs images folder.
2. Open the Datacap Desktop client and log in as admin/admin/1.
  - a. Select the HRF\_Form application if it is not selected.
  - b. Run VScan, PageID, and Profiler tasks.

When you run the Profiler step, you see a message that a child is created. This action is because based on the validate conditions some images might be identified as needing verifier attention and are created of to a child batch and directed to the Verify list. Others might be identified as being correct according to the validate conditions, and these images are left in the parent batch and sent directly to the Export list.

- c. Click the All link.
- d. Click the BatchID column header to reorder the batches.

You see the parent batch wait at the Export Step, <todaysdate>.00000n.

You see the Verify\_Export child batch wait at the Verify Step, <todaysdate>.00000n,01.

This image shows the parent and child batch for the batch you just ran. The BatchID you see might be different.

	21	20150903.000003	Demo_SingleTIFFs	Export
	22	20150903.000003.01	Verify_Export	Verify

3. Review the Profiler task output

- a. Look in the parent batches folder and open the Profiler.xml file.

C:\Datacap\HRF\_Form\batches\<date.00000n>

All documents that are listed in this file have a document status of 'STATUS : 0'. If there are no documents listed in the Profiler.xml file, then all of the documents have a problem and have been directed to the Verify\_Export batch go to the Verify task.

- b. Look in the created child batches folder and open the bsplit01.xml file.

C:\Datacap\HRF\_Form\batches\<date.00000n.01>

All documents that are listed in this file have a document status of 'STATUS : 0' and also have a 'NeedsVerify : Yes' value set. This is because the page status of 'STATUS : 1' is set.

Conclusion: Each document that contains a page that has a 'NeedsVerify : Yes' status, is routed in the created child Verify\_Export batch to the Verify task.

The 'NeedsVerify' condition is set if any field confidence values are < 0.8 or if any other validation rule is not satisfied. At this point, you have not configured any validation conditions so the only cause for having the NeedsVerify condition set, is low character confidence.

- c. In the bsplit01.xml file, click the DATAFILE link for each page. Look at the Confidence value for every field that is read from each page.

You see at least one-character confidence value that is < 0.8 in each page .xml file.

4. In Datacap Desktop, run the Verify task.

Your observations from step 3 should reveal that two of the images that are scanned are flagged for verification.

- a. In Datacap Desktop, double-click the created child task that is waiting at the Verify task.
- b. In the Batch View, expand each document and click the page node.
- c. Notice that there is at least one misinterpreted character on each page.
- d. Click each field that is flagged as an error and notice that value field is displayed with a yellow background. The yellow background indicates a low character confidence condition.
- e. Correct fields that were not correctly interpreted.
- f. Run Validations and then Submit.
- g. Click OK on the 'Validation Failed. Override and Continue' message if it is displayed.

5. Click OK to complete the Validate step.

6. Close Datacap Desktop.

## End of exercise

# Lesson 5.3. Validate with database lookup

## Overview

### Why is this lesson important to you?

As a Datacap business analyst, you build and deploy applications with the Datacap capture system and communicate solution details to the solution architect, administrator, and users.

To build intelligent Datacap applications, you need to be expert at doing database lookups to validate data that is interpreted on the captured pages. In this lesson, you validate a Zip Code with database lookup to illustrate this important skill.

## Activities

- [Exercise 1: Configure a zip code database lookup](#), on page 5-23
- [Exercise 2: Configure a zip code truncate ruleset](#), on page 5-27

## User accounts

Type	User ID	Password
Administrator	Administrator	passw0rd
Datacap	admin	admin



### Note

Passwords are always case-sensitive.

# Exercise 1: Configure a zip code database lookup

## Introduction

This activity gives you practice at configuring a lookup database connection and then by using the database lookup to write a zip code validate rule.

## Procedures

[Procedure 1, "Configure the zip code database connection," on page 5-23](#)

[Procedure 2, "Configure lookup validation," on page 5-23](#)

[Procedure 3, "Test the lookup configuration," on page 5-24](#)

### ***Procedure 1: Configure the zip code database connection***

Now that you extracted data from the zones, you configure a database of known Zip Code values and use the Zip code database to validate the Zip code that was detected with ICR. If it is a valid Zip code, you populate the City and State fields on the verify form by using the data in the database. You also update the fields with those Values.

If the zip code isn't in the database, you populate the City and State fields with the ICR'd information.

1. Copy the Zipac.mdb file from C:\DC9-Lab Exercise\HRF\_Form\HR to the C:\Datacap\HRF\_Form folder.
2. Start the Datacap Application Manager and select the HRF\_Form application.
3. Connect to the Zipac.mdb database.
  - a. Click the ellipsis for the Lookup database field.
  - b. Select Microsoft Access (Jet) for the database type.
  - c. Click the Database ellipsis, go to the C:\Datacap\HRF\_Form folder, select Zipac.mdb, and then click Open.
  - d. Click 'Test Connection'.
  - e. Click close, then click OK.
4. Close Datacap Application Manager.

### ***Procedure 2: Configure lookup validation***

1. Log in to the HRT\_Form application with FastDoc(Admin) in the Datacap Server mode. User: Admin, Password: admin, Station: 1.
2. Click the Configure documents, pages, and fields icon in the left column and expand the Batch Structure.
3. Prepare to configure Lookup on the Validate Fields > Field level rule.
  - a. Click the 'Ruleset' tab in the Field Properties Pane.

- b. Select the 'Validate Fields' ruleset from the Ruleset list.
- c. Expand the Document > HRF\_Document > HRF\_Page in the Batch Structure Pane.
4. Configure lookup parameters at the field level.

#### **Field Lookup SQL statements**

Field	SQL
City	SELECT City FROM zipac WHERE Zip='+'+@P\Zip+';
State	SELECT State FROM zipac WHERE Zip='+'+@P\Zip+';
Zip	SELECT Zip FROM zipac WHERE Zip='+'+@P\Zip+';

- a. Select a 'Field' from HRF\_\_Page that is defined in the 'Field Lookup SQL'.
- Selecting a field object in the Batch Structure determines what structure object level you configure.
- b. Set Lookup check box. You see lookup parameters are automatically exposed.
  - c. For Database: select HRF\_Form:lookupdb
  - d. For SQL statement: type the SQL statement from the table for the selected field.
  - e. Set the Populate field check box.
  - f. Repeat Step 4.a to 4.e for the other fields in the 'Field SQL statements table'.
  - g. Click Save Next to the Field Properties label to save your changes.
  - h. Log out and close the FastDoc window.

#### **Procedure 3: Test the lookup configuration**

1. Prepare testing.
  - a. Delete the images from the C:\Datacap\HRF\_Form\Images\Input\_SingleTIFFs images folder.
  - b. Copy images from C:\DC9-Lab Exercises\HRF\_Form\HR Images with Receipts\PSanderson1,2, and 3 to the C:\Datacap\HRF\_Form\Images\Input\_SingleTIFFs images folder.
2. Open the Datacap Desktop client and log in as admin/admin/1.
  - a. Select the HRF\_Form application if it is not selected.
3. Run the VScan, PageID, Profiler, and Verify tasks.

4. You see the following results on the Verify panel.

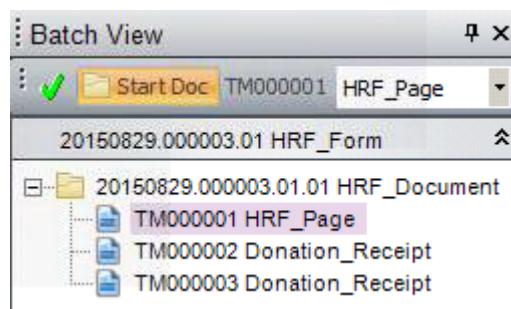
- a. Notice that the City name is different than what was read from the image. This condition is because the City and State were updated from the values read from the zipac lookup table.

The Verify panel displays a table of extracted data:

	Name	Value
✓	Zip	14031
✓	City	Clarence
✓	State	NY
✓	Frequency	0100

Below the table is a ZIP + 4 form with the number 14031 entered in the Zip field, which is highlighted with a red border. The form also shows 'TE' and 'ZIP + 4' fields.

- b. See also the document with three pages in the Batch View.  
 c. Click each page in the document on the Batch View and verify that the values were read correctly for all the pages.



- d. Click Submit and OK to finish the batch; then click OK

5. Replace the Sanderson Batch with the Gerety Batch and process the batch.
  - a. Delete the PSanderson batch from the C:\Datacap\HRF\_Form\Images\Input\_SingleTIFFs images folder.
  - b. Copy the PGerety four page batch from C:\DC9-Lab Exercises\HRF\_Form\HR Images with Receipts folder to the C:\Datacap\HRF\_Form\Images\Input\_SingleTIFFs images folder.
  - c. Run the VScan, PageID, Profiler, and Verify tasks.
  - d. You should see the this image in the Verify panel.

?	Name	Value
✖	Zip	021553107
✖	City	MEDFORD
✖	State	MA
✓	Frequency	1000

- e. Why do you think the three ICR fields are flagged as errors?

Answer: The Zip field of the Zipac lookup database has only five digit zip codes. The lookup rule fails for all three fields.

- f. Delete the last 4 digits of the Zip value and click 'Run Validations'.
- g. Click Submit and OK for 'Task profile succeeded.'
- h. Click OK for 'All Documents are complete. Finish batch?'
- i. Click OK. the to complete the task.
- j. Close the Datacap Desktop window.

## End of exercise

## Exercise 2: Configure a zip code truncate ruleset

### Introduction

This activity gives you create and configure a ruleset rule that truncates a nine-digit zip code to 5 digits because the zipac.mdb database has five-digit zip codes.

### Procedures

[Procedure 1, "Create a Validate ruleset," on page 5-27](#)

[Procedure 2, "Add the rule to the Zip field," on page 5-28](#)

[Procedure 3, "Add the ruleset to the task profiles.,," on page 5-28](#)

[Procedure 4, "Test the zip code truncate rule," on page 5-28](#)

### Procedure 1: Create a Validate ruleset

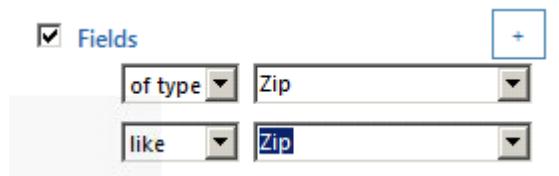
1. Log in to Datacap Studio for HRF\_Form application and use admin/admin/1 to Authenticate. You are ready to create a Locate ruleset.
  - a. On the Rulemanager tab, right-click the HRF\_Form heading in the middle pane and Select 'Add Ruleset.'
  - b. The new ruleset is already locked for editing. Name the ruleset 'Custom Validate'.
2. Configure the rule to truncate the zip code to 5 characters.
  - a. Click Rule1 and name it 'Field Truncate Zip (5)' in the properties pane.
  - b. Click Function1 and change name to 'Field Truncate Zip' in the properties pane.
  - c. Go to the Validations library and add the following actions to the 'Field Truncate Zip' function.
 

```
IsFieldLengthMax
TruncateFromEnd
```
3. Set action properties.
  - a. Click the IsFieldLengthMax action in 'Field Truncate Zip' function.
  - b. Set the IsFieldLengthMax action property to 9.
  - c. Click the TruncateFromEnd action in 'Field Truncate Zip' function.
  - d. Set the TruncateFromEnd action property to 5.
4. Save and Publish the Locate ruleset.



## **Procedure 2: Add the rule to the Zip field**

1. Lock the 'Custom Validate' Ruleset again.
2. Select the 'Field Truncate Zip (5)' rule.
3. In the Properties pane, expand the 'Run rule at the start of ...' .
4. Click the Fields check box.
  - a. Click the  icon twice and configure the parameters as shown in the image.



5. Save and Publish the Locate ruleset.

## **Procedure 3: Add the ruleset to the task profiles.**

1. Click the 'Custom Validate' ruleset in the Ruleset pane.
2. Go to the Task Profiles tab in the upper right pane.
3. Click the blue lock in on the control bar to lock the task profiles for editing.
4. Click the Profiler task and click the 'Add ruleset to profile' control at the left of the 'Task profiles' pane.
  - a. Use the arrow icons on the control bar to position the 'Custom Validate' ruleset immediately below the ValidateFields ruleset.
5. Click the Verify task and click the 'Add ruleset to profile' control at the left of the 'Task profile' pane.
  - a. Use the arrow icons on the control bar if necessary to position the 'Custom Validate' ruleset immediately below the ValidateFields ruleset.
6. Save and unlock the Task Profiles.
7. Click Exit to close the Datacap Studio window.

## **Procedure 4: Test the zip code truncate rule**

1. Open Datacap Desktop.
2. Log in using admin/admin/1 and select the HRF\_Form application.
3. Run the VScan, PageID, Profiler, and Verify tasks.
4. Notice that the zip codes are now all truncated to 5 digits so the lookup does not fail when a nine-digit zip code is extracted from the image with ICR recognition.

5. If you still see the failed condition, then 'Run Validation' to clear the error.

?	Name	Value
✗	Zip	021553107
✗	City	MEDFORD
✗	State	MA
✓	Frequency	1000

- a. Click 'Run Validations'.
- b. Click OK for the 'Task profile succeeded.'

?	Name	Value
✓	Zip	02155
✓	City	Medford
✓	State	MA
✓	Frequency	1000

- c. Click Submit.
  - d. Click OK for the 'All documents are completed. Finish batch?' message.
  - e. OK to finish the batch, then click OK.
6. Close the Datacap Desktop window.
- 

## End of exercise

# Unit 6. Basic Learning Application

## Estimated time

04:00

## Lessons

This unit contains the following lessons.

[Lesson 6.1, "Create a Learning Template application,"](#) on page 6-3

[Lesson 6.2, "Configuring a Learning Template application,"](#) on page 6-8

[Lesson 6.3, "Create locate rules,"](#) on page 6-14

[Lesson 6.4, "Create validate rules,"](#) on page 6-28

[Lesson 6.5, "Extend the locate rules,"](#) on page 6-38

[Lesson 6.6, "Extend the validate rules,"](#) on page 6-49

[Lesson 6.7, "Export to an IBM FileNet repository,"](#) on page 6-53

## Unit dependencies

The activities in this unit must be done in the presented order.

This unit builds on the knowledge from the Datacap Studio Introduction unit.

## Requirements

The activities in this unit assume that you have access to the student system configured for these activities.

## Do this first

1. If you are prompted to log in to the system, use:

Type	User ID	Password
Operating system	Administrator	passw0rd

2. Start the Datacap Server.
  - a. Click Start > All Programs > IBM Datacap Services > Datacap Server Manager. The Datacap Server Manager window is shown.
  - b. Click the **Service** tab.
  - c. Click **Start** to start the service if it is not already started. The Start operation is disabled if it is already started.

- d. Click **Close** to close the **Datacap Server Manager** window.
3. Start WebSphere Application Server.
  - a. Double-click the **WebSphere Admin** folder on the Desktop.
  - b. Double-click the **Start Server1.bat** script file.

This action starts the IBM FileNet Content Manager and the Content Navigator.

## System check

The activities in this unit assume that all system services are running when you begin an activity session. Perform a system check whenever you start an IBM FileNet Content Manager system or start working on a system that is in an unknown state.

1. Log in to the **Content Navigator Ping** page to verify that the IBM FileNet Content Management services are active.

- **URL:** `http://ecmedu01:9080/navigator/Ping` or the browser shortcut: **ICN Ping Page**
- **User name:** p8admin
- **Password:** IBMFileNetP8

This page displays the version information for Content Navigator and Operating system.

2. Log in to Datacap Desktop as the admin user.
  - a. Click **Start > All Programs > IBM Datacap Clients > Datacap Desktop** or click the shortcut on the Windows desktop.
  - b. Type the login credentials:

**User:** admin  
**Password:** admin  
**Station:** 1
  - c. Click **Start**.
  - d. Verify that Datacap Desktop opens indicating that the server is active and connected.
3. See Appendix A for procedures to Start, Check, and Restart components on the Student system.

# Lesson 6.1. Create a Learning Template application

## Overview

In the lesson, you learn about the Learning Template and why you would use it to create your application instead of a Form Template.

## Why is this lesson important to you?

As a Datacap Solution/Application Builder, you build and deploy applications with the Datacap capture system and communicate the solution details to the solution architect, administrator, and business analysts.

This lesson gives you the ability to create the learning application by using the application wizard and to do the basic application configuration.

## Activities

- [Exercise 1: Create a Learning Template application](#), on page 6-4

## User accounts

Type	User ID	Password
Operating system	Administrator	passw0rd
Datacap	admin	admin



### Note

Passwords are always case-sensitive.

# Exercise 1: Create a Learning Template application

## Introduction

In this activity, you create a Learning Template-based Datacap application by using the FastDoc application. You then configure it to recognize and process one of the two types of documents that you configured. You scan a sample document and show how to find and verify the data fields in FastDoc. You expand the application in later exercises to recognize air ticket receipts and car rental agreements.

## Procedures

[Procedure 1, "Create an application," on page 6-4](#)

[Procedure 2, "Review Standard Files and Folders Created," on page 6-5](#)

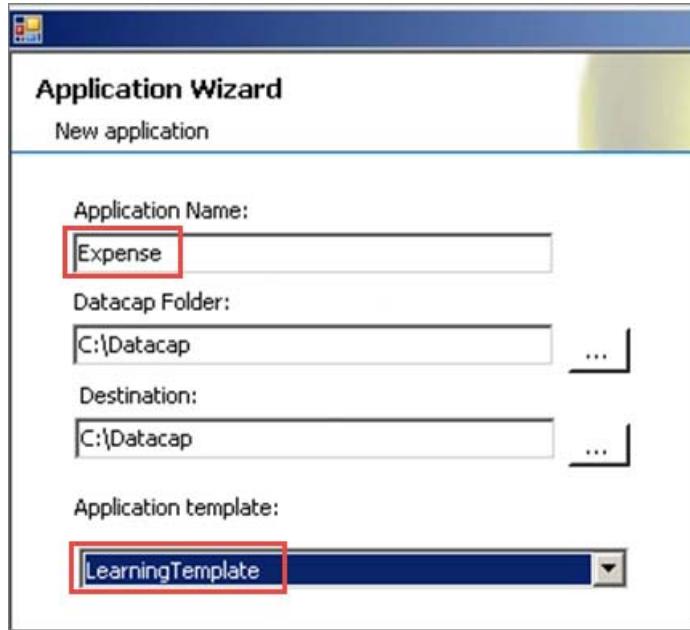
### Procedure 1: Create an application

In this procedure, you create an application by using the Learning Template in Application Wizard.

Data to create an application

Item	Value
Wizard Mode	Create a new RRS application
Application Name	Expense
Datacap Folder	C:\Datacap
Destination	C:\Datacap
Application Template	Learning Template

1. Start FastDoc Admin interface and log in to the Local mode.
  - a. Click **Start > All Programs > IBM Datacap Developer Tools > Datacap FastDoc (Admin)**.  
You can also click the Desktop shortcut.
  - b. On the **Welcome to Datacap** page, select **Local** and click **Login**.
2. Create the application.
  - a. Click the **Application Wizard**  icon from the banner.
  - b. In **Application Wizard**, click **Next**.
  - c. Verify that the **Create a new RRS application** option is already selected and click **Next**.
  - d. For the **Application name** field, type: **Expense**
  - e. For the **Application template** field, select **Learning Template** from the list.



- f. Click **Finish** and verify that no errors or warnings are shown on the **Summary** window.  
Optionally, you can click the link in the Summary window to look at the logs.
- g. Click **Close**.
3. Log out of FastDoc Local Mode.
  - a. Click logged in user **Administrator** icon, click **Logout** and close the FastDoc Window.
4. Check application paths for the new Expense application.
  - a. On the Windows desktop, Double-click the **Datacap Application Manager** icon.
  - b. On the left pane, scroll down and select the **Expense** application.
  - c. On the **Main** tab, make sure that none of the paths are pointing at the template folder. They should all be pointing at C:\Datacap\Expense and not C:\Datacap\Template\Expense.
  - d. If any paths are incorrect, then correct them (especially the Database connection strings).
  - e. Close the Datacap Application manager.

## **Procedure 2: Review Standard Files and Folders Created**

1. In Windows Explorer, examine the following files.

### **Files in C:\Datacap\**

- C:\Datacap\datacap.xml – This file contains the list of applications and is updated with the newly created application. The wizard does not create the datacap.xml file. The Wizard adds only an entry to the file for the new application that you created.

### **Folders in C:\Datacap\Expense**

- **batches** – This folder is empty for a new application. After the images are processed, that is, when the VScan task is run, this folder contains a subfolder for each batch that is processed. the batch folders hold scanned images, status file, and log file history. The application then processes the files from this folder during subsequent tasks. For example: PageID, Profiler, Verify, and Export.
- **dco\_Expense** – Primary components of this folder include:
  - **rules** folder – This folder contains the rulesets that are defined for each task. In Datacap 9.0, there are both conventional and compiled rulesets, which are rulesets that have a .DLL file that is associated with them.
  - **Expense.ini** - This file contains the default settings for Expense application.
  - **Expense.xml** – This file contains the details of every task that is done on individual pages. (DCO structure definition, also called Batch Structure in FastDoc terminology).
  - **ImageFix.ini** – This file contains the default settings for image processing.
  - **<task>.set.xml** – There is a <task>.set.xml file for each task that is defined in the workflows. Examples: vscan.set.xml, profile.set.xml. These files contain the xml that is used by web-based configuration tools (tmweb and Datacap Navigator) for configuring task parameters on the setup panel for each defined task.

In tmweb which is a Datacap web client, this file is used in the Administrator tab, under Workflow > <job> > <task> > Setup as shown in the following screen capture.

The screenshot shows the IBM Datacap tmweb interface. The top navigation bar includes 'IBM Datacap', 'Home', 'Operations', 'Monitor', 'Administrator' (which is highlighted with a red box), 'Help', 'Log out', and the 'IBM' logo. Below the navigation is a breadcrumb trail: 'Expense' > 'Workflow'. The main content area has tabs for 'Groups', 'Users', 'Stations', 'Shortcuts', and 'QA'. A sub-menu 'Administrator > Workflow' is visible. On the left, a tree view under 'Workflow' shows a hierarchy: 'Expense' > 'Demo\_SingleTIFFs' > 'Demo\_WebScan' > 'IVScan' > 'Upload' > 'Profiler'. The 'Profiler' node is selected and highlighted with a blue box. A red box also highlights the 'Workflow' tab in the tree view. To the right of the tree view is a 'Selected task details' panel for the 'Profiler' task. It shows the following configuration:

Name	Profiler
Description	Recognize/Validate w/Rul
Mode	Normal
Queue by	None
Store	None

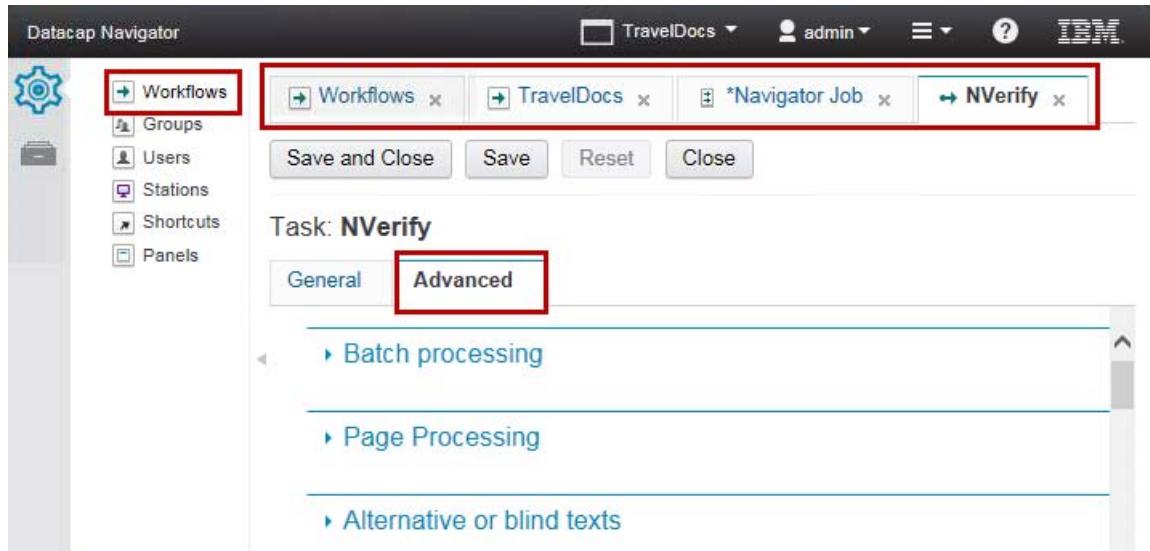
Below this is an 'Apply' button. Further down is a 'Parameters' section with a table:

Key	Value
Program	Rulerunner

A red box highlights the 'Setup...' button in this section. At the bottom of the panel are 'Compatible tasks' (set to 'Default set') and 'Copy setup' buttons.

A modal dialog box titled 'Profiler.set.xml -- Webpage Dialog' is open in the foreground. It contains sections for 'Batch processing' (with 'Page file' set to 'taskname.xml'), 'Rulerunner settings' (with 'Main task profile' set to 'Profiler'), and 'Rulerunner service log settings' (with 'Rulerunner service log' set to '3'). A red box highlights the title bar of this dialog box.

- In Datacap Navigator administrator desktop, this file is used in the Workflows > <app> > > Jobs tab > <job> > Tasks tab > <task> > Advanced tab, as shown in the following screen capture.



- Fingerprint Maintenance Tool.exe** - Tool for managing fingerprints.
- export** – This folder contains the exported files for when Text file export is enabled.
- fingerprint** – This folder contains the default fingerprint file 555.tif. The scanned images are fingerprinted against this file during the PageID phase, and any newly generated fingerprint files are placed in this folder.
- images** – This folder contains the images that the application processes. A new application has no images until you copy them to the images folder.

## End of exercise

# Lesson 6.2. Configuring a Learning Template application

## Overview

In this lesson, you start refining the configuration for the basic Learning Template Expense application. You define the fields to extract for the two page classes and configure the application.

## Why is this lesson important to you?

As a Datacap Solution/Application Builder, you build and deploy applications with the Datacap capture system and communicate solution details to the solution architect, administrator, and business analysts.

When creating new applications, it is good practice to use the provided templates as a starting point. The Learning Template is used when processing images that differ in format but contain the same content to extract for indexing.

## Activities

- [Exercise 1: Basic application configuration](#), on page 6-9

## User accounts

Type	User ID	Password
Operating System	Administrator	passw0rd
Datacap	admin	admin



### Note

Passwords are always case-sensitive.

# Exercise 1: Basic application configuration

## Introduction

This activity gives you practice in configuring a Learning Template-based Datacap application.

You configure the Expense application to process two pages. On both of the pages, you capture similar data types that are named differently on the two page formats.

Each of the following four fields is generic for the two pages:

Expense application field types.

Generic Field Name	Rental_Agreement Page	Air_Receipt Page
Name	Customer Name	Passenger Information Psgr
Date	Pickup Date/Time:	Issue Date:
Total	Total Charges	Total:
Reference_Number	Rental Agreement Number	TICKET #:

## Procedures

[Procedure 1, "Configure application fields," on page 6-9](#)

[Procedure 2, "Set up image enhancement on the Learning Template," on page 6-11](#)

[Procedure 3, "Set up page recognition on the Learning Template," on page 6-12](#)

## Procedure 1: Configure application fields

1. Start FastDoc (Admin) interface and log in the Datacap Server mode.
  - a. Click **Start > All Programs > IBM Datacap Developer Tools > Datacap FastDoc (Admin)** or click the shortcut on the Windows desktop.
  - b. On the **Welcome to Datacap** page, select **Datacap Server**.
  - c. For **Application**, select **Expense**.
  - d. Enter the User(admin) and password (admin) information and click **Login**.
2. Configure Page Fields.
  - a. Click the **Configure documents, pages and fields**  icon.
  - b. Examine the **Expense** default batch structure that resulted from building the application from the Learning Template.
 

There are two document objects, **Document** and **Separator**, and a page called **Other**.
  - c. Click the **Document** object to expand it and notice that there are four pages:
    - Main\_Page
    - Trailing\_Page
    - Attachment\_Separator
    - Attachment



## Important

Never change the **Main\_Page** name. You use it in the application to refer to two different page types: **Rental\_Agreement** page and **Air\_Receipt** page.

You only add field objects into the **Main\_Page** object. This rule is because the Learning Template model of building an application uses generic objects to create and process any number of different page types.

3. Click **Main\_Page** to expand it and notice that there are four fields: **Fingerprint\_Class**, **Index\_Field1**, **Add\_New\_Fingerprint**, and **Routing\_Instructions**
4. Add fields for your Air Receipt page.
  - a. Right-click **Index\_Field1** and click **Remove** to delete it.
  - b. Right-click **Routing\_Instructions** and click **Remove** to delete it.
  - c. Click **Save** on the toolbar near **Page Properties** at the top of the page.
  - d. Click **Add Field** on the toolbar near **Page Properties** at the top of the page.
  - e. Type **Name** in the **Field type** box and then click **Add**.
  - f. Repeat the steps **4d** and **4e** to add the following fields:
    - Date
    - Total
    - Reference\_Number
  - g. Click **Save** and verify that fields are listed for the **Main\_Page** on the left pane.

The screenshot shows the IBM Learning Template interface. On the left, the **Batch Structure** pane displays a tree view of page objects:

- Expense** (Folder)
- Document** (Folder)
- Main\_Page** (Page Object, highlighted in blue)
  - Fingerprint\_Class**
  - Add\_New\_Fingerprint**
  - Name**
  - Date**
  - Total**
  - Reference\_Number**
- Trailing\_Page** (Page Object)

On the right, the **Page Properties** pane shows the following settings for the **Main\_Page**:

- Page type:** **Main**
- Use rulesets from:** **None**
- Minimum:** **1**
- Maximum:** **1**
- Order:** **1**

A note in the properties pane states: "Use the following settings to determine the position of the page type in the document. Set the minimum and maximum document every time a page with this type is added."

## Procedure 2: Set up image enhancement on the Learning Template

1. In **Batch Structure**, click the **Main\_Page** object.
2. In **Page Properties**, click the **Ruleset** tab.
3. For the **Ruleset** field, select the **Image Enhancement** from the list.
4. Open a sample image to test.
  - a. In the **Image Operations** section, click **Open image file**.
  - b. Browse to C:\DC9-Lab Exercises\Expense folder and select **car 1.tif** image.
  - c. Click **Open**.
5. Adjust your view to improve the visibility of the images.
  - a. Click the full screen icon in the upper right corner of the FastDoc window to give you maximum visibility of the before and after images.
  - b. Click the Vertical dark gray bar between the **Ruleset** tab pane and the **Test** pane to temporarily hide the **Test** pane and give you more image view area.
  - c. Use the mouse wheel to zoom in on the images.
  - d. Click and drag the images so that you can view the most populated area of the image or the area where you are expecting to see a change occur.



### Note

At a minimum, you must do **Deskew** always, especially if you are fingerprinting. In the Learning Template, fingerprinting is done automatically, so it is important to always deskew in a Learning Template-based application.

You must also do the test **line removal** and black **border removal** - and any other image enhancement options that make sense to try on your particular image types.

- 
6. Leave the following three default options selected.

- **Deskew**
  - **Remove Lines**
  - **Border Removal**
- 



### Attention

The Image Enhancement options.

The options that you select are going to affect all of the pages that this application process, so set options that are likely to work for all pages. If you click **Save** on the **Page Properties** menu, you overwrite the settings that are selected in the **Rule settings** option.

You can have multiple settings that are saved for your needs. Save a new set of settings with **Save Settings As**. Load any saved set by selecting it from the **Rule setting** list.

7. Review all Image Enhancement options.
  - a. Use the cursor to hover over each of the options and observe:
    - The help information that describes each option.
    - The red X for removing an option.
    - The Up and Down arrows for altering the position of the option. The options are processed in the order that they are arranged.
  - b. To test other options, click the icon ➤ next to each option and see the enhancement parameters that can be used to clean up the images for better recognition results. These options are run when you process the image at run time and when you're testing.
  - c. Select different options and observe the changes in the image on the right.



### Important

Do not set Auto Rotate to true! The Nuance scan engine that is the preferred engine (since it does the best job) automatically uses Managed Rotation, which helps with reliability, and rotates images that require it.

8. When you finish experimenting, leave the default for rule settings.
9. Leave the FastDoc opened for the next procedure.

### ***Procedure 3: Set up page recognition on the Learning Template***

Main\_Page is already selected in the Batch Structure and the Ruleset tab is selected in the Page Properties pane.

1. On the **Ruleset** tab, in the **Ruleset** field, select **Recognize Pages and Fields** from the list.
2. Verify that the following options are selected:
  - **Read Page**
  - **Read machine print on page**
  - **Save results to a text file**

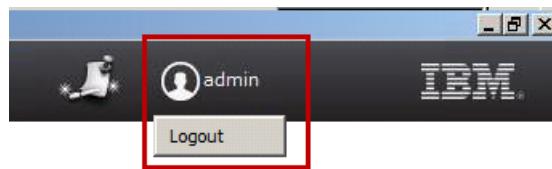


### Note

If you are doing fingerprinting and you have zoned your fields on the fingerprint for that page, there is no need to set up Page or Field Recognition for that type of page. Although, it doesn't do any harm to do so.

3. For this lab, you don't need to save the changes, since you are using the default settings.

4. Logout of Datacap Server Mode.
  - a. Click the logged in user **admin** icon and click **Logout**.



- b. Close the FastDoc Window.
- 

**End of exercise**

# Lesson 6.3. Create locate rules

## Overview

### Why is this lesson important to you?

As a Datacap Solution/Application Builder, you build and deploy applications with the Datacap capture system and communicate solution details to the solution architect, administrator, and business analysts.

When creating applications to process images that have inconsistent page layouts, you can save users time. You save them time by using locate rules to populate fields by using the click'n'key method when data positions move from one page to the next.

## Activities

- [Exercise 1: Locate fields by using keyword search](#), on page 6-15

## User accounts

Type	User ID	Password
Operating System	Administrator	passw0rd
Datacap	admin	admin



### Note

Passwords are always case-sensitive.

# Exercise 1: Locate fields by using keyword search

## Introduction

This activity gives you practice at configuring a locate ruleset to locate data by the keyword search method.



### Note

You use Datacap Studio to enhance your application that you created in FastDoc in the previous lesson.

## Procedures

[Procedure 1, "Prepare to add rules to the locate ruleset," on page 6-15](#)

[Procedure 2, "Create the Field Name rule," on page 6-16](#)

[Procedure 3, "Create the Field Date rule," on page 6-18](#)

[Procedure 4, "Create the Field Total rule," on page 6-19](#)

[Procedure 5, "Create the field Reference Number rule," on page 6-21](#)

[Procedure 6, "Associate locate rules with batch structure fields," on page 6-22](#)

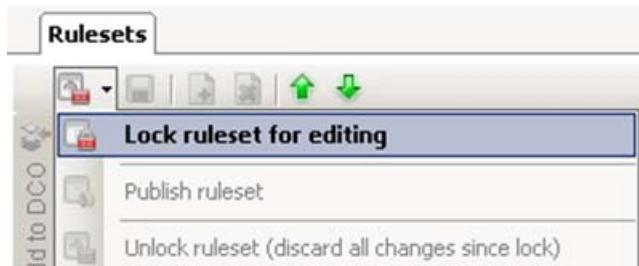
[Procedure 7, "Create the Rental Agreement fingerprint," on page 6-23](#)

[Procedure 8, "Delete any old batches in your system," on page 6-27](#)

### Procedure 1: Prepare to add rules to the locate ruleset

1. Log in to Datacap Studio and open the Expense application.
  - a. Click **Start > All Programs > IBM Datacap Developer Tools > Datacap Studio**.  
You can also use the **Datacap Studio** shortcut on the Windows desktop.
  - b. Select the **Expense** application.
  - c. Click **Next** and type the following values.
    - **User ID:** admin
    - **Password:** admin
    - **Station:** 1
  - d. Click **Finish**.
2. Lock the Locate ruleset for editing.
  - a. In the **Rulemanager > Rulesets** tab, expand the **Expense** node and click the **Locate** ruleset.

- b. Click the **Lock/Unlock ruleset (for editing)** icon at the top of the pane to lock it.



### Note

Expand the **Locate** ruleset and check the default rules that are available:

- Document Level Rule
- Page Level Rules
- Set Routing Instructions
- Populate Field by Zone
- Set Default for Add\_New\_Fingerprint

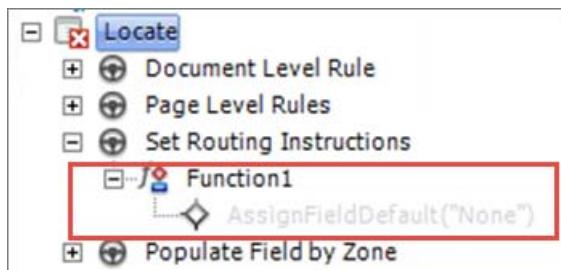
The Default rules are there to accomplish some of the automatic processing that is built into the Learning Template. For example, to handle the processing of multi-page documents, to handle automatic batch routing, to zone fields when locate rules are not provided.

In this activity you add four rules:

- Field Name
- Field Date
- Field Total
- Field Reference Number

### **Procedure 2: Create the Field Name rule**

1. Disable an action that is not used for this application.
  - a. Expand **Locate > Set Routing Instructions > Function1**.
  - b. Right-click the **AssignFieldDefault("None")** action and click **Disabled**.
  - c. Verify that the action is grayed out.



In Lesson 2-2, Exercise 1, Procedure 1, Step 4b, page 2-10, you removed an optional field that is called **Routing\_Instructions**. In this procedure, the corresponding action in the ruleset must also be removed.

2. Add the Field Name Locate rule.
  - a. Right-click the **Locate** ruleset and click **Add Rule**.  
Verify that **Rule1** is added under the **Locate** rule.
  - b. In the **Rulesets** pane, click **Rule1**.
  - c. In the **Properties** pane on the right, for the **Rule** field, change the name to: **Field Name**
3. Configure the populate zone field function.
  - a. In the **Rulesets** pane, select **Field Name > Function1**.
  - b. In the **Properties** pane, for the **Function** field, change the name to: **Find Name Zonal**
  - c. In the **Actions library** pane on the right, scroll down to the **Zones** library.
  - d. Expand it and scroll down to the **PopulateZNField** action.
  - e. With the **Find Name Zonal** function selected in the **Rulesets** pane and the **PopulateZNField** selected in the **Actions library** pane, click **Add to Function**.



### Hint

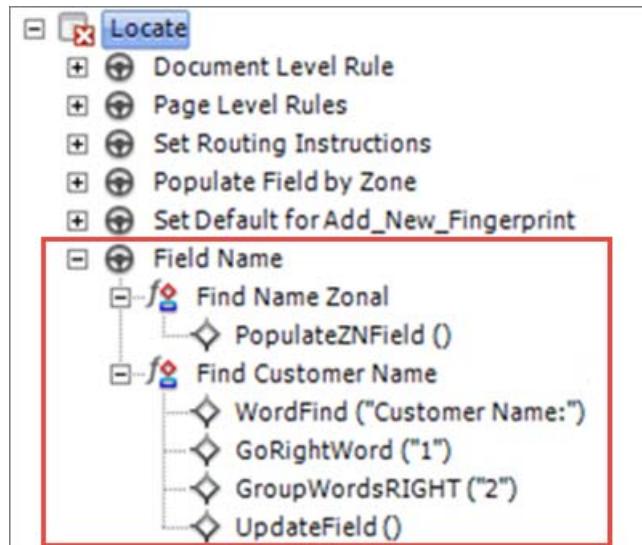
**Add to Function** is on the bar between the **Rulesets** pane and the **Actions library** pane.

- f. Notice that the **PopulateZNField()** action is added to the **Find Name Zonal** function.
4. Configure the Find Customer Name function.
  - a. Right-click the **Field Name** rule and click **Add Function**.
  - b. In the **Field Name** rule, click **Function 1** and in the **Properties** pane, change the name to: **Find Customer Name**
  - c. In the **Actions library** pane, scroll to the **Locate** library.
  - d. Expand it and scroll to the **WordFind** action.
  - e. With the **Find Customer Name** function selected in the **Rulesets** pane, and **WordFind** selected in the **Actions library** pane, click **Add to Function**.
  - f. Repeat Steps **4c** to **4e** to add more actions to the **Find Customer Name** function until you have the following actions from Locate action library in the listed order:
    - **WordFind**
    - **GoRightWord**
    - **GroupWordsRIGHT**
    - **UpdateField**

**Hint**

You can use the arrow icons on the **Rulesets** toolbar to position the actions in the correct order.

5. Set action properties.
  - a. In the **Find Customer Name** function, click the **WordFind** action.
  - b. In the **Properties** pane, set the **string StrParam** parameter to: Customer Name:  
Be sure to include the colon after **Customer Name**.
  - c. Set the **GoRightWord** action parameter to: 1
  - d. Set the **GroupWordsRIGHT** action parameter to 2.
6. Click the **Save changes** icon in the Ruleset toolbar.
7. Verify the completed rule.



8. Collapse the **Field Name** rule.

### **Procedure 3: Create the Field Date rule**

Use the steps that you practiced in Procedure 2 to create a rule for the Date field.

1. Add the Field Date rule to the Locate ruleset.
  - a. Right-click the **Locate** ruleset and click **Add Rule**.
  - b. In the **Rulesets** pane, click **Locate > Rule1** and in the **Properties** pane, change the name to: **Field Date**
2. Configure the populate zone field function.
  - a. In the **Field Date** rule, select **Function1** and in the **Properties** pane, change the name to: **Find Date Zonal**
  - b. Go to the **Zones** action library and add the **PopulateZNField** action.

3. Configure the Find Pickup Date function.
  - a. Right-click the **Field Date** rule and click **Add Function**.
  - b. In the **Field Date** rule, click **Function 1** and in the **Properties** pane, change its name to: **Find Pickup Date**
  - c. Select the **Find Pickup Date** function and add the following actions from the **Locate** action library:
    - **WordFind**
    - **GoRightWord**
    - **UpdateField**
4. Set action properties.
  - a. Set the **WordFind** action parameter to: **Pickup Date/Time:**  
Be sure to include the colon after **Pickup Date/Time:**
  - b. Set the **GoRightWord** action parameter to: **1**  
This action checks if the word found is one word to the right of the words **Pickup Date/Time:** is a date.
5. Click the **Save changes** icon  in the Ruleset toolbar.
6. Verify the completed rule.



7. Collapse the **Field Date** rule.

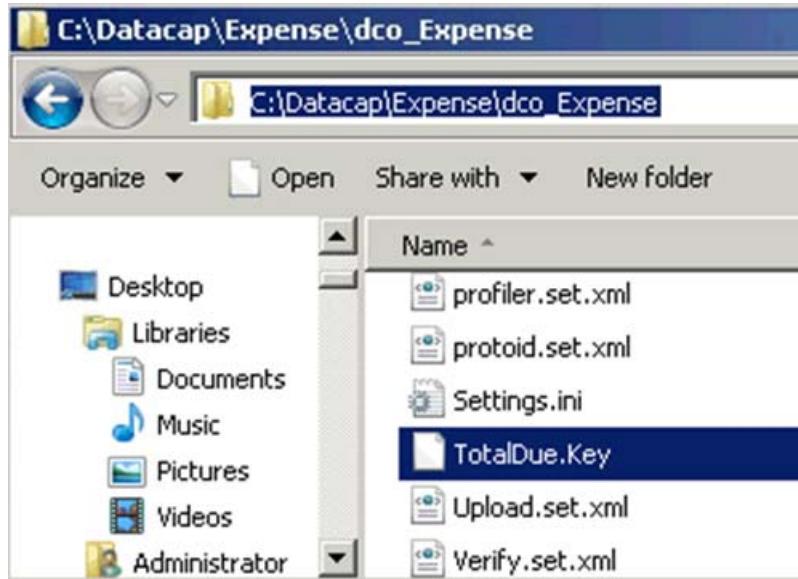
#### Procedure 4: Create the Field Total rule



##### Note

In the Field Total rule, you use the **FindKeyList** action. This action requires a text file that contains the key text strings to search for.

1. In Windows Explorer, copy the **TotalDue.key** file from the **C:\Datacap\ExpenseDemo\dco\_ExpenseDemo** folder to your **C:\Datacap\Expense\dco\_Expense** folder.



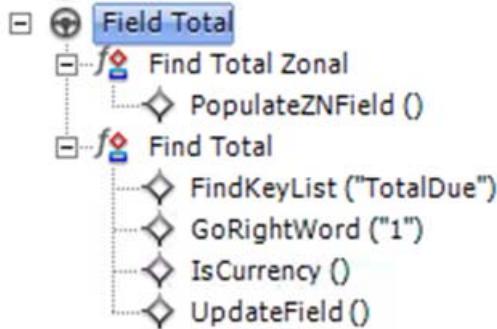
2. Add the Field Total Locate rule.
  - a. Right-click the **Locate** ruleset and click **Add Rule**.
  - b. Click **Rule1** and in the **Properties** pane, change its name to: Field Total
3. Configure the populate zone field function.
  - a. In the **Field Total** rule, select **Function1** and in the **Properties** pane, change the name to: Find Total Zonal
  - b. Go to the **Zones** action library and add the **PopulateZNField** action.
4. Configure the Field Total rule.
  - a. Right-click the **Field Total** rule and click **Add Function**.
  - b. In the **Field Total** rule, click **Function1** and in the **Properties** pane, change its name to: Find Total
  - c. Select the **Find Total** function and add the following actions from the **Locate** action library:
    - **FindKeyList**
    - **GoRightWord**
    - **IsCurrency**
    - **UpdateField**
5. Set action parameters in the Properties pane.
  - a. Set the **FindKeyList** action property to: TotalDue



#### Note

**TotalDue** is the name of the file that you copied. The system assigns the **.key** extension and you do not have to enter it in the **FindKeyList** action property.

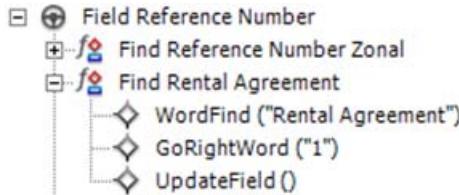
- b. Set the **GoRightWord** action property to: 1
6. Click the **Save changes** icon in the **Ruleset** toolbar.
7. Verify the completed rule.



8. Collapse the **Field Total** rule.

### **Procedure 5: Create the field Reference Number rule**

1. Add the Field Reference Number Locate rule.
  - a. Right-click the **Locate** ruleset and click **Add Rule**.
  - b. Click **Rule1** and in the **Properties** pane, change the name to: Field Reference Number
2. Configure the populate zone field function.
  - a. In the **Field Reference Number** rule, select **Function1** and in the **Properties** pane, change the name to: Find Reference Number Zonal
  - b. Go to the **Zones** action library and add the **PopulateZNField** action.
3. Configure the Field Reference Number rule.
  - a. Right-click the **Field Reference Number** rule and click **Add Function**.
  - b. In the **Field Reference Number** rule, select **Function1** and in the **Properties** pane, change the name to: Find Rental Agreement
  - c. Select the **Find Rental Agreement** function and add the following actions from the **Locate** action library:
    - **WordFind**
    - **GoRightWord**
    - **UpdateField**
  - d. Set the **WordFind** action property to: Rental Agreement
  - e. Set the **GoRightWord** action property to: 1
4. Click the **Save changes** icon in the Ruleset toolbar.
5. Verify the completed rule.



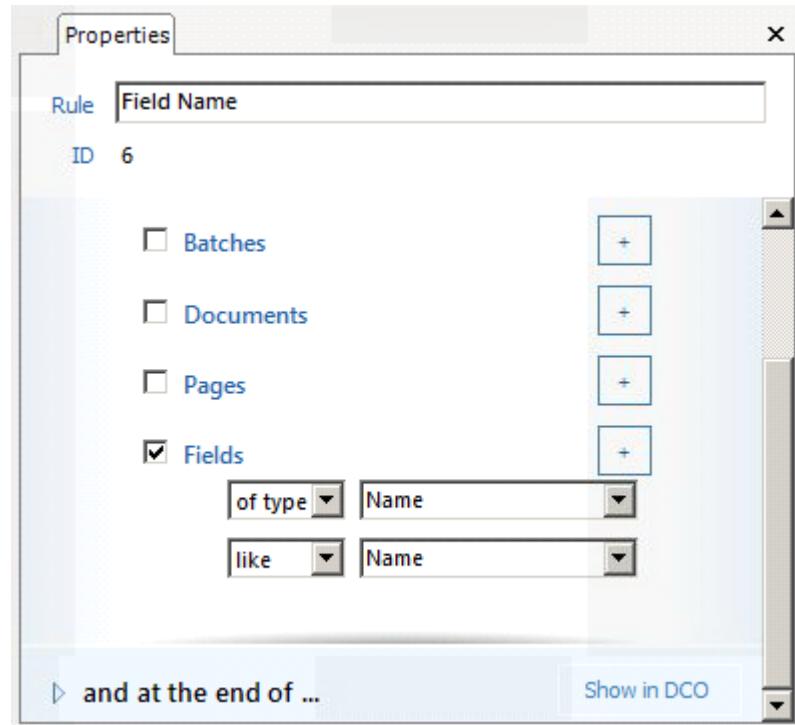
6. Leave the **Locate** Ruleset locked for the following procedure.

### **Procedure 6: Associate locate rules with batch structure fields**

1. Map the Locate rules for each field to the Field structure objects.
  - a. In the **Ruleset** pane, select each rule from the **Rule to map** column in the following table.

Rule to map	Field structure object
<b>Locate &gt; Field Name</b>	<b>Name</b>
<b>Locate &gt; Field Date</b>	<b>Date</b>
<b>Locate &gt; Field Total</b>	<b>Total</b>
<b>Locate &gt; Field Reference Number</b>	<b>Reference_Number</b>

  - b. In the **Properties** pane, expand the **Run rule at the start of** node.
  - c. Click the **Fields** check box.
  - d. Click the plus  icon twice.
  - e. Select **of type** from the option list and select the **Field structure object** from the table.
  - f. Select **like** from the option list and select the **Field structure object** from the table.
2. Repeat step 1 for all rules in the table.
3. Click the **Save changes** icon in the **Rulesets** toolbar.
4. Verify the completed **Rule to Field** mapping.



5. Click the down arrow next to the **Lock/Unlock ruleset (for editing)** icon at the toolbar and select **Publish ruleset**.
6. Click **Exit** to close the Datacap Studio window.

### **Procedure 7: Create the Rental\_Agreement fingerprint**

The Import Files Ruleset Source Folder parameter viewed from the FastDoc interface defines the default location for the VScan task to read images from. The same value is displayed in the **VScan source folder** field in Datacap Application Manager. For this application, the **Source folder** is set to C:\Datacap\Expense\images\Input\_SingleTIFFs. In Datacap studio, the **Import Files** ruleset (Expense > Import Files > Scan > Import Files > set \_folder action) shows see @APPATH(vscanimagedir).

Before you begin, make sure that there is a Rental Agreement image in the location that is configured for the File Import ruleset to scan for images.

1. Get the correct image to create the Rental\_Agreement Fingerprint.
  - a. Copy the car 1.tif file from the C:\DC9-Lab Exercises\Expense\All-Images\Car folder to the C:\Datacap\Expense\images\Input\_SingleTIFFs folder.
2. Login to Datacap Desktop as the admin user.
  - a. Click **Start > All Programs > IBM Datacap Clients > Datacap Desktop** or click the shortcut on the Windows desktop.

- b. Type the login credentials:

**User:** admin  
**Password:** admin  
**Station:** 1

- c. Click **Start**.



### Note

If you are prompted with the message Waiting 10 Seconds for a batch to become available, click **Stop**.



- d. This is likely to happen each time you start Datacap Desktop. Click Stop each time you see this happen.
- 
3. Run a single document batch with Datacap Desktop.
- On the left pane, select the **Expense** application from the **Application** list.
  - Click the **VScan** task shortcut and click **Demo\_Single\_TIFFs**.
  - When the processing is complete, click **OK** and click **Stop**.
  - If you don't see your batch appear in the monitor view at the next step, click the **All** shortcut at the top of the task shortcuts.
  - In the Job Monitor, double-click your batch, which is at the **Profiler** task with today's date.
  - When the processing is complete click **OK**.
4. Check that the values are extracted in Verify task.
- In the Job Monitor, double-click your batch, which has today's date is at the **Verify** task.

- b. When the Verify panel opens, check that the correct values are extracted for each of the four index fields: **Name**, **Date**, **Total**, and **Reference\_Number**

?	Name	Value
✗	Fingerprint_Class	
✓	Add_New_Fingerprint	No
✓	Name	MILLARD BRYAN
✗	Date	18APR10/2115
✓	Total	260.05
✓	Reference_Number	Number:703142974

Fingerprint\_Class



### Note

When you complete the following lessons (Validation Rules), the values are going to look like the ones in the following screen capture.

?	Name	Value
✗	Fingerprint_Class	
✓	Add_New_Fingerprint	No
✓	Routing_Instructions	None
✓	Name	MILLARD BRYAN
✓	Date	04/18/2010
✓	Total	260.05
✓	Reference_Number	703142974

The values for **Date** and **Reference\_Number** are updated to remove the extra characters that you see in the current step.

5. If the extracted values are correct, skip to Step 6. If they are not correct, do Step 5.
- Suspend the batch by clicking the icon at the upper left corner and select **Hold Batch** and close **Datacap Desktop**.



- b. Go back to **Datacap Studio**, check, and correct your locate rules.
- c. Run steps 2-4 again to create a batch and process it to the Verify step.
6. If the locate rules extract the values correctly, type:  
**Fingerprint\_Class:** Rental\_Agreement
  - a. Click **Submit**.
  - b. Click **OK** when you are prompted with the message: All documents are complete.  
Finish batch?
7. Before you run the **Export** task, verify the fingerprint folder.
  - a. Open the Windows Explorer and navigate to the C:\Datacap\Expense\fingerprint folder.
  - b. Notice that you see a new fingerprint 556.cco and 556.tif, but there is no 556.xml file yet.
  - c. Minimize the window to use again later.
8. Run the Export batch step to complete the fingerprint creation process.
  - a. In the Job Monitor, if you do not see your batch, then click the **All** shortcut to refresh the monitor list.
  - b. Double-click your batch, which is at the **Export** task with today's date.
  - c. Click **OK** on the batch finished message.
9. Check the fingerprint.
  - a. In Windows Explorer, check the fingerprint folder: C:\Datacap\Expense\fingerprint
  - b. Verify that you now see a new fingerprint 556.xml file.
  - c. Double-click 556.xml to open the XML file added by the **Export** task.

```

<?xml version="1.0"?>
- <S>
  - <P type="Main_Page">
    <V n="HostID"> </V>
    <V n="HostName">Rental_Agreement</V>
    - <F type="Name">
      <V n="Position">742,491,1001,522</V>
    </F>
    - <F type="Date">
      <V n="Position">476,1019,689,1051</V>
    </F>
    - <F type="Total">
      <V n="Position">2236,2295,2336,2327</V>
    </F>
    - <F type="Reference_Number">
      <V n="Position">539,320,893,357</V>
    </F>
  </P>
</S>

```



### Note

Notice the HostName of Rental \_Agreement. This value is used to populate all subsequent pages that are identified by using this fingerprint. The Rental\_Agreement value is used to populate the Fingerprint Class field of the Verify panel.

Notice that the location (position) of each value that is read from the page is shown.

- 
10. Close the Internet Explorer window where the 556.xml is displayed and close the Datacap Desktop window.

### **Procedure 8: Delete any old batches in your system**

To easily identify the new batches that you are going to create, it helps to clear the old batches.

1. Use tmweb to log in to the **Expense** application.
  - a. Open Internet Explorer and click **tmweb** bookmark or **URL**: <http://ecmedu01/tmweb.net/>
  - b. Log in to the **Expense** application by using the following values:
    - **User id**: admin
    - **Password**: admin
    - **Station**: 1
2. Click **Monitor** and if there are processed or pending batches, delete them.
  - a. Click the **Delete batches** link above the Monitor batches view.
  - b. Click **OK** to acknowledge the message to delete all batches.
3. Logout and close the Internet Explorer window.

---

### **End of exercise**

# Lesson 6.4. Create validate rules

## Overview

### Why is this lesson important to you?

As a Datacap Solution/Application Builder, you build and deploy applications with the Datacap capture system and communicate solution details to the solution architect, administrator, and business analysts.

Because you are working with the Learning Template, it is important to run validation rules on all the fields of the page you are configuring when you make your first pass through the application.

To successfully capture documents, you must be an expert at programmatically validating the captured data.

## Activities

- [Exercise 1: Configuring field validation rules](#), on page 6-29

## User accounts

Type	User ID	Password
Operating System	Administrator	passw0rd
Datacap	admin	admin



### Note

Passwords are always case-sensitive.

# Exercise 1: Configuring field validation rules

## Introduction

This activity gives you practice in creating rules to validate the fields on the pages that make up your application.

When developing a Learning Template-based application, it is important to zone each field on a new page during the first pass through the validation process so that a fingerprint is created. You must also complete an export step since the zones you configure during the validation process aren't saved until the export process is complete.

## Procedures

[Procedure 1, "Prepare to edit the Validate ruleset," on page 6-29](#)

[Procedure 2, "Disable a function and an action in the Validate ruleset," on page 6-30](#)

[Procedure 3, "Create field validation rules," on page 6-30](#)

[Procedure 4, "Associate validate rules with document hierarchy fields," on page 6-33](#)

[Procedure 5, "Run a batch and verify validation rules," on page 6-34](#)

[Procedure 6, "Review the test results," on page 6-36](#)

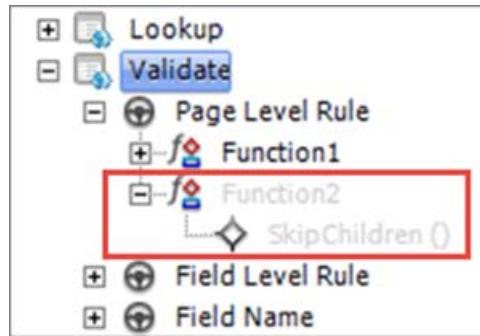
### **Procedure 1: Prepare to edit the Validate ruleset**

1. Log in to Datacap Studio and open the Expense application.
  - a. Click **Start > All Programs > IBM Datacap Developer Tools > Datacap Studio**.  
You can also use the **Datacap Studio** shortcut on the Windows desktop.
  - b. Select the **Expense** application.
  - c. Click **Next** and type the following values.
    - **User ID:** admin
    - **Password:** admin
    - **Station:** 1
  - d. Click **Finish**.
2. Lock the Validate ruleset for editing.
  - a. In the **Rulemanager > Rulesets** tab, expand the **Expense** node and click the **Validate** ruleset.
  - b. Click the **Lock/Unlock ruleset (for editing)** icon at the top of the pane to lock it.

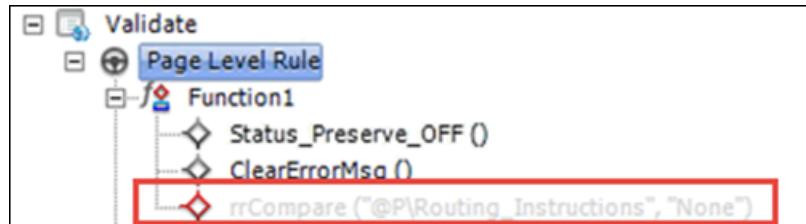
## Procedure 2: Disable a function and an action in the Validate ruleset

When you created the Expense application in Lesson 2.1 based on a template, the template adds many rulesets > rules > functions > actions. In this procedure, you disable a function and an action that are not required for your application so that the Validate ruleset runs correctly.

1. Expand the **Validate > Page Level Rule**, right-click **Function2**, and click **Disabled**.
2. Verify that **Function2** is grayed out to indicate that this function is disabled.



3. Expand the **Validate > Page Level Rule > Function1**, right-click **rrCompare("@P\\Routing\_Instructions", "None")**, and click **Disabled**.
4. Verify that the action is grayed out to indicate that this action is disabled.



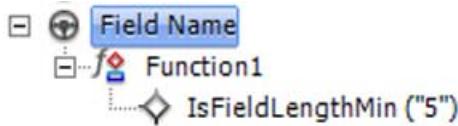
In Lesson 2-2, Exercise 1, Procedure 1, Step 4b, page 2-10, you removed an optional field that is called **Routing\_Instructions**. In this procedure, the corresponding action in the ruleset must also be removed or disabled.

5. Click **Save** and collapse **Page Level Rule**.

## Procedure 3: Create field validation rules

1. Add the **Validate > Field Name rule**.
  - a. Right-click the **Validate** ruleset and click **Add Rule**.
  - b. Click **Rule1** and in the **Properties** pane, change the name to: **Field Name**
  - c. In the **Field Name** rule, select **Function1**.
  - d. In the **Actions library** pane, scroll down to the **Validations** library.
  - e. Expand it and scroll down to the **IsFieldLengthMin** action.

- d. With **Function1** selected in the **Rulesets** pane and **IsFieldLengthMin** selected in the **Actions library** pane, click **Add to Function**.
- e. Click the **IsFieldLengthMin** action.
- f. In the **Properties** pane, set the **string StrParam** value to: 5
2. Click **Save** and verify the completed rule.



3. Collapse the **Field Name** rule.
4. Add the **Validate > Field Date** rule.
  - a. Right-click the **Validate** ruleset and click **Add Rule**.
  - b. Click **Rule1** and change the name to: **Field Date**
  - c. In the **Field Date** rule, click **Function1** and change its name to: **Pickup Date**
  - d. Add the following actions from the **Validations** library to the **Pickup Date** function.
    - **IsFieldLengthMin**
    - **TruncateFromEnd**
    - **IsFieldDate**
    - **IsFieldDateWithReformat**

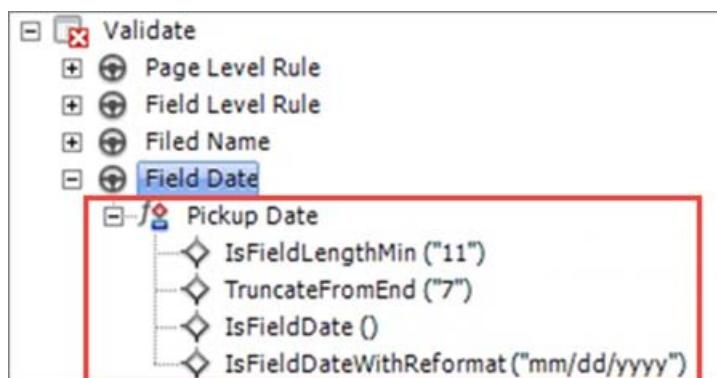
The actions should be arranged in the order as shown in the list. Use the green arrows at the top of the Rulesets pane to arrange them if necessary.

- e. Enter the values exactly as shown in the following table and set action parameters.

The system adds the quotations for the parameters.

Property Name	Value
IsFieldLengthMin	11
TruncateFromEnd	7
IsFieldDateWithReformat	mm/dd/yyyy

5. Click **Save** and verify the completed rule.



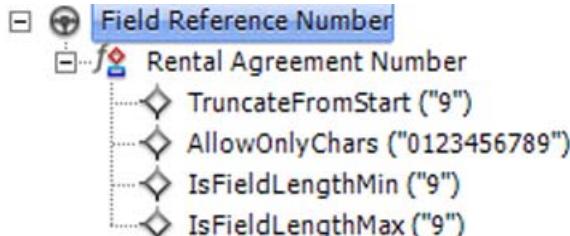
6. Add the Validate > Field Total rule.
  - a. Add a rule and name it: Field Total
  - b. In the **Field Total** rule, click **Function1** and change the name to: Currency
  - c. Add the following actions from the **Validations** library to the function in the **Field Total** rule.
    - **AllowOnlyChars**
    - **IsFieldCurrency**
  - d. Set the parameter for **AllowOnlyChars** to: .0123456789  
Ensure that the decimal point is included.
7. Click **Save** and verify the completed rule.



8. Add the Validate > Field Reference Number rule.
  - a. Right-click the **Validate** ruleset and click **Add Rule**.
  - b. Click **Rule1** and change the name to: Field Reference Number
  - c. Click **Function1** in the **Field Reference Number** rule and change the name to: Rental Agreement Number
  - d. Add the following actions from the **Validations** library to the **Rental Agreement Number** function.
    - **TruncateFromStart**
    - **AllowOnlyChars**
    - **IsFieldLengthMin**
    - **IsFieldLengthMax**
  - e. Use the data in the following table and set action parameters.

Property Name	Value
TruncateFromStart	9
AllowOnlyChars	0123456789
IsFieldLengthMin	9
IsFieldLengthMax	9

9. Click **Save** and verify the completed rule.

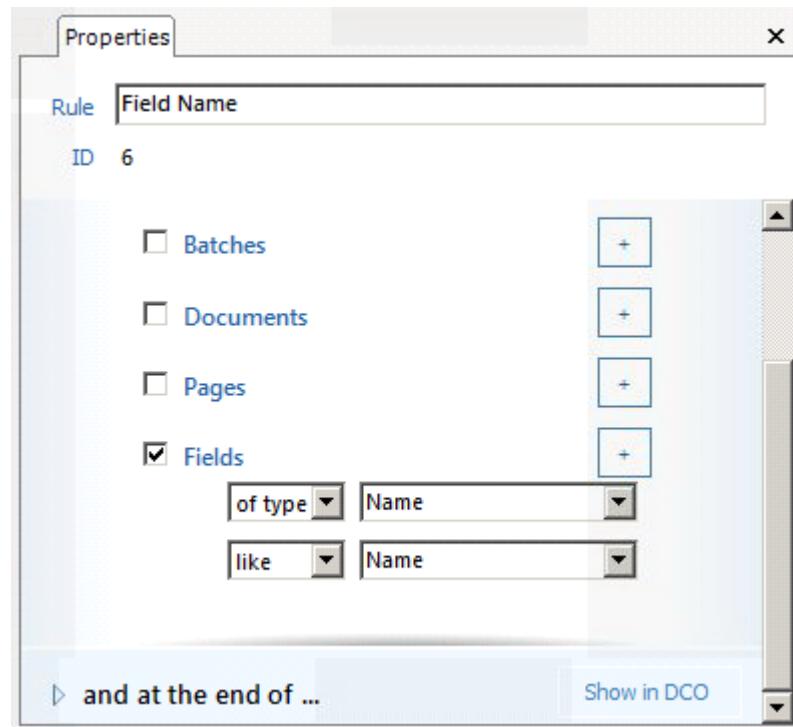


## Procedure 4: Associate validate rules with document hierarchy fields

1. Map the Validate rules for each field to the field structure objects.
  - a. In the **Ruleset** pane, select each rule from the **Rule to map** column in the following table.

Rule to map	Field structure object
<b>Validate &gt; Field Name</b>	<b>Name</b>
<b>Validate &gt; Field Date</b>	<b>Date</b>
<b>Validate &gt; Field Total</b>	<b>Total</b>
<b>validate &gt; Field Reference Number</b>	<b>Reference_Number</b>

- b. In the **Properties** pane, expand the **Run rule at the start of** node.
- c. Click the **Fields** check box.
- d. Click the plus  icon twice.
- e. Select **of type** from the option list and select the **Field structure object** from the table.
- f. Select **like** from the option list and select the **Field structure object** from the table.
2. Repeat step 1 for all rules in the table.
3. Click the **Save changes** icon in the **Rulesets** toolbar.
4. Verify the completed **Rule to Field** mapping.



5. Click the down arrow next to the **Lock/Unlock ruleset (for editing)** icon in the toolbar and select **Publish ruleset**.
6. Click **Exit** in the upper right corner to close Datacap Studio.

### **Procedure 5: Run a batch and verify validation rules**

1. Verify that the C:\Datacap\Expense\images\Input\_SingleTIFFs folder contains the **car1.tif** file (a Rental Agreement image) from the last activity.
2. If the image is not there, then copy C:\DC9-Lab Exercises\Expense\car 1.tif to C:\Datacap\Expense\images\Input\_SingleTIFFs
3. Log in to Datacap Desktop as the admin user.
  - a. Click **Start > All Programs > IBM Datacap Clients > Datacap Desktop** or click the shortcut on the Windows desktop.
  - b. Type the following values:

**User:** admin  
**Password:** admin  
**Station:** 1
  - c. Click **Start**.
4. If you are prompted with the message Waiting 10 Seconds for a batch to become available, click **Stop**.
5. Run a single document batch with Datacap Desktop.
  - a. On the left pane, for **Applications**, select **Expense** from the list.
  - b. Click the **VScan** task shortcut and click **Demo\_Single\_TIFFs**.
  - c. When the processing is complete click **OK** and click **Stop**.
  - d. Click the **Profiler** task shortcut.
  - e. When the processing is complete click **OK** and click **Stop**.
6. Run the Verify task.
  - a. Click the **Verify** task shortcut.
  - b. If there are no errors, the page looks like the one on the following screen capture.

	Name	Value
	Fingerprint_Class	Rental_Agreement
	Add_New_Fingerprint	No
	Name	MILLARD BRYAN
	Date	04/18/2010
	Total	260.05
	Reference_Number	703142974

Fingerprint\_Class   **Rental\_Agreement**



### Note

When the Verify panel opens, there might be fields that are displayed with a pink or yellow background.

Pink background means that these fields failed the field validation tests.

Yellow background means that fields have not met the required confidence level.



### Troubleshooting

Use the following tips to troubleshoot:

- If confidence errors are indicated, then check the value against the image to verify that it is correct.
- If it is correct, then ignore the warning.
- If it is incorrect, then type the correct value and click the **Run Validations**.
- If the extracted value is correct but errors are flagged, then:
  - Click Next Problem to advance to the next flagged field. Make note of all the errors.
  - Suspend the batch.
  - Go back into Datacap Studio and check and correct the errors in the validation rules. Check your validation function and check the contents of the tm00000x.tif file for error messages.
  - Run batch again.

If there are still fields that the validation flags as potential errors and if those fields have the override option set, then you get a warning. “Validations failed. Override and continue?”

- c. When you have corrected all of the errors or you want to override the errors and continue, then click **Submit**.

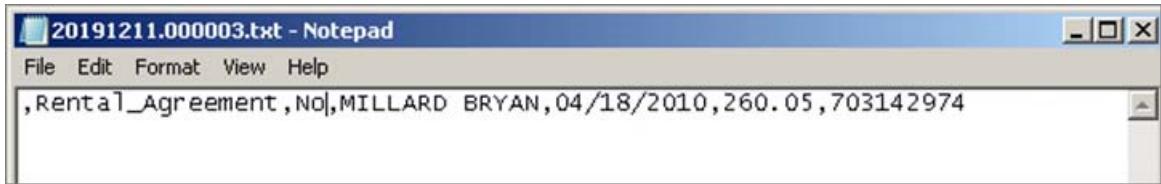
---

  - d. Click **Submit**.
  - e. Click **OK** to acknowledge the message: Validations failed. Override and continue?
  - f. Click **OK** to acknowledge the message: All documents are complete. Finish batch?"
  - g. When the processing is complete click **OK** and click **Stop**.
7. Run the Export batch step.
  - a. Click the **Export** shortcut.
  - b. When the processing is complete click **OK** and click **Stop**.
8. Close the Datacap Desktop window.

### **Procedure 6: Review the test results**

1. In Windows Explorer, navigate to C:\Datacap\Expense\batches\date.00000n> batch folder and open the folder for the latest batch.
2. Review the Profiler.xml file.
  - a. Double-click the **Profiler.xml** file.
  - b. If you are prompted, click **Yes** to allow scripts to run.
  - c. Verify the following values:
    - **Batch Type: Expense**
    - **Document Type: Document**
    - **Page Type: Main\_Page**
    - **ScanSrcPatch: C:\Datacap\Expense\images\Input\_SingleTIFFs\car1.tif**
    - **Fingerprint Created: No**
    - **TemplateID: 556**
  - d. Close the file by closing the browser tab.
3. Review the Verify.xml file.
  - a. Double-click the **Verify.xml** file.
  - b. If you are prompted, click **Yes** to allow scripts to run.
  - c. The information in this file is not different from the content of Profiler.xml.  
Notice that the **Page Status** value = **0**.
4. In the **Verify.xml** file, click the DATAFILE: tm000001.xml link.
  - d. If you are prompted, click **Yes** to allow scripts to run.
  - e. Verify all of the values you entered for each field.
  - f. Close the **DATAFILE** Internet Explorer tab.
5. Go to the default exports folder: C:\\Datacap\\Expense\\export
6. Open the text file for your batch and review the content of the exported file.

The txt file contains one record for each image processed. The record contains a comma-separated list of each variable that is extracted from the image.



---

## End of exercise

# Lesson 6.5. Extend the locate rules

## Overview

### Why is this lesson important to you?

As a Datacap Solution/Application Builder, you build and deploy applications with the Datacap capture system and communicate solution details to the solution architect, administrator, and business analysts.

To build Datacap applications, you need to be an expert in the use of the locate actions. Locate actions are an alternative and sometimes more explicit method of identifying fields on a page.

## Activities

- [Exercise 1: Extend the locate rules for the Air\\_Receipt pages](#), on page 6-39
- [Exercise 2: Create an Air\\_ Receipt page fingerprint](#), on page 6-46

## User accounts

Type	User ID	Password
Administrator for Server 8	Administrator	passw0rd
Datacap	admin	admin



### Note

Passwords are always case-sensitive.

# Exercise 1: Extend the locate rules for the Air\_Receipt pages

## Introduction

This activity gives you a practice for extending the Locate rules that are currently configured for the fields on the Rental\_Agreement page type.

You add at least one new function to handle 3 of the 4 field names on the Air\_Receipt page.

Because you use a KeyFile for the Total field, you need only the one function to handle that field on both page types.

## Procedures

[Procedure 1, "Prepare to extend the locate rules," on page 6-39](#)

[Procedure 2, "Extend the Locate: Field Name rule," on page 6-39](#)

[Procedure 4, "Extend the Locate: Field Total rule," on page 6-41](#)

[Procedure 5, "Extend the Locate: Field Reference Number rule," on page 6-41](#)

[Procedure 5, "Extend the Locate: Field Reference Number rule," on page 6-41](#)

[Procedure 6, "Create the Air Receipt fingerprint," on page 6-42](#)

### Procedure 1: Prepare to extend the locate rules

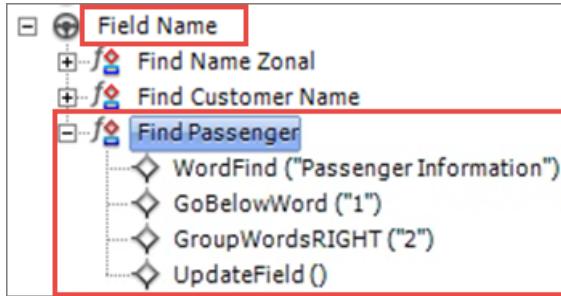
1. Log in to Datacap Studio (admin/admin) and open the **Expense** application.
2. In the **Rulesets** tab, select the **Locate** ruleset, and lock it for editing.

### Procedure 2: Extend the Locate: Field Name rule

1. Add the Find Passenger function to the Locate > Field Name rule.
  - a. Expand the **Locate** ruleset, right click the **Field Name** rule, and click **Add Function**.
  - b. Click **Function1** and in the **Properties** pane, change the name to: **Find Passenger**
  - c. Add the following actions from the **Locate** library to the **Find Passenger** function:
    - **WordFind**
    - **GoBelowWord**
    - **GroupWordsRIGHT**
    - **UpdateField**
  - d. Use the data in the following table and set action parameters.

Property Name	Value
WordFind	Passenger Information
GoBelowWord	1
GroupWordsRIGHT	2

- Save and verify the completed rule.



- Add the Find Psgr function to the Field Name rule.

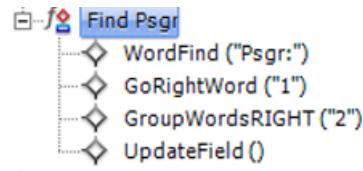
An alternative key word to search for to locate the passenger name is **Psgr**.

- In the **Locate** ruleset, right-click the **Field Name** rule and click **Add Function**.
- Click **Function1** and change the name to: **Find Psgr**
- Add the following actions from the **Locate** action library to the **Find Psgr** function:
  - **WordFind**
  - **GoRightWord**
  - **GroupWordsRight**
  - **UpdateField**

- Use the data in the following table and set the action parameters. Ensure that **colon (:) is added for the Psgr**.

Property Name	Value
WordFind	Psgr:
GoRightWord	1
GroupWordsRIGHT	2

- Save and verify that the completed Find Psgr function contains all the actions in the correct order.



### Procedure 3: Extend the Locate: Field Date rule

- Add the Find Issue Date function to the Locate > Field Date rule.

  - Right-click the **Field Date** rule and click **Add Function**.
  - Click **Function1** and change the name to: **Find Issue Date**

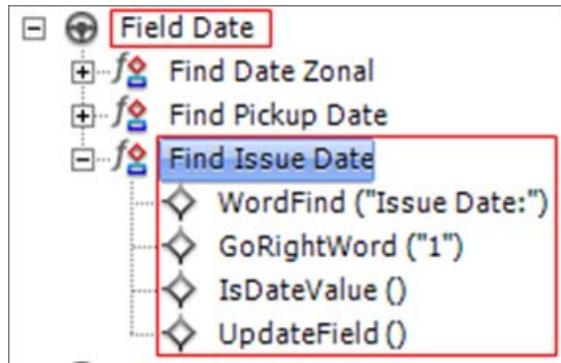
- c. Add the following actions from the **Locate** action library to the **Find Issue Date** function:
- **WordFind**
  - **GoRightWord**
  - **IsDateValue**
  - **UpdateField**

The **IsDateValue** action checks if the word found one word to the right of the words **Find Issue Date** is a valid date.

- d. Use the data in the following table and set action parameters. Be sure to enter the colon.

Property Name	Value
WordFind	Issue Date:
GoRightWord	1

2. Save and verify the completed rule.



#### **Procedure 4: Extend the Locate: Field Total rule**



##### Note

Because the current rule is using a key list, you need not extend this rule.

If you need to add another keyword or group of words to the key list, you edit the C:\Datacap\Expense\dc0\_Expense\TotalDue.key file and add to the key list. The other alternatives to editing the .key file are create another .key file or create another custom locate function.

#### **Procedure 5: Extend the Locate: Field Reference Number rule**

1. Add the Find Ticket # function to the Locate >Field Reference Number rule.
  - a. Expand **Locate**, right-click **Field Reference Number** rule, and click **Add Function**.
  - b. Click **Function1** and change the name to: Find Ticket #

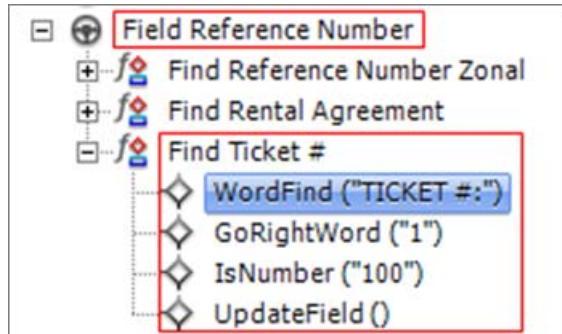
c. Add the following actions to the **Find Ticket #** function:

- **WordFind**
- **GoRightWord**
- **IsNumber**
- **UpdateField**

d. Use the data in the following table and set action parameters.

Property Name	Value
WordFind	TICKET #:
GoRightWord	1
IsNumber	100

2. Save and verify the completed rule.



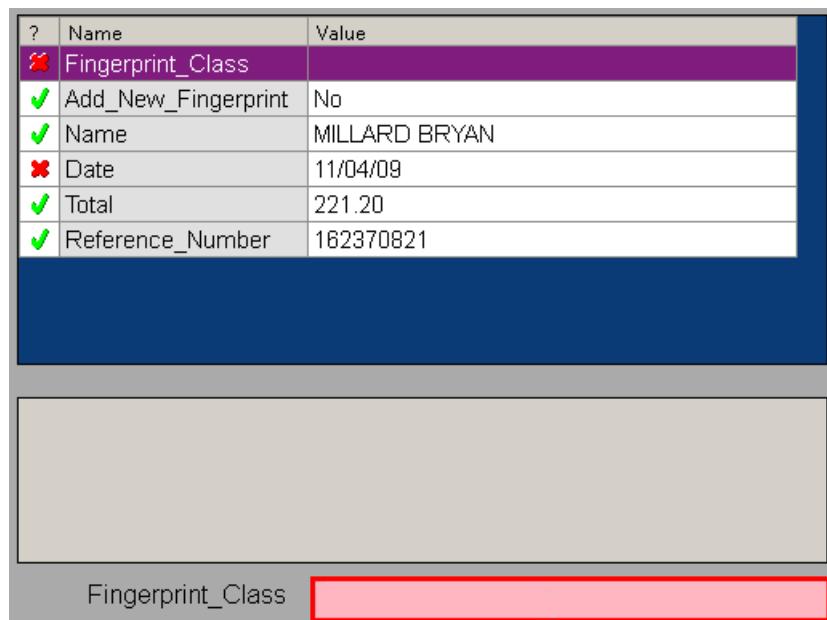
3. Publish the **Locate** ruleset and then exit Datacap Studio.

### **Procedure 6: Create the Air\_Receipt fingerprint**

1. Get the correct image to create the Air\_Receipt fingerprint.
  - a. Delete the **car1.tif** (Rental Agreement image) file in the **C:\Datacap\Expense\images\Input\_SingleTIFFs** folder.
  - b. Copy the **air1\_part2.tif** file from the **C:\DC9-Lab Exercises\Expense** to the **C:\Datacap\Expense\images\Input\_SingleTIFFs** folder.
2. Log in to Datacap Desktop as the admin user.
  - a. Click **Start > All Programs > IBM Datacap Clients > Datacap Desktop** or click the shortcut on the Windows desktop.
  - b. Type the following values:
 

**User:** admin  
**Password:** admin  
**Station:** 1
  - c. Click **Start**.
3. If you are prompted with the message Waiting 10 Seconds for a batch to become available, click **Stop**.

4. Run a single document batch with Datacap Desktop.
  - a. On the left pane, for **Applications**, select **Expense** from the list.
  - b. Click the **VScan** task shortcut and click **Demo\_Single\_TIFFs**.
  - c. When the processing is complete click **OK** and click **Stop**.
  - d. Click the **Profiler** task shortcut, when the processing is complete click **OK**, and click **Stop**.
5. Run the Verify task.
  - a. Click the **Verify** task shortcut.
  - b. When the Verify panel opens, check that the correct values are extracted for each of the four index fields: **Name**, **Date**, **Total**, and **Reference\_Number**



The screenshot shows the Datacap Verify panel. It contains a table with four rows:

?	Name	Value
✗	Fingerprint_Class	
✓	Add_New_Fingerprint	No
✓	Name	MILLARD BRYAN

Below the table, there is a large empty text area. At the bottom, there is a row with two buttons: "Fingerprint\_Class" and a red-highlighted button.



## Troubleshooting

If the extracted values are not correct, then:

- Suspend the batch.
  - Go back into Datacap Studio and check and correct your locate rules.
  - Run the batch again.
- 
- c. When the locate rules extract all for values correctly, for **Fingerprint\_Class**, type: **Air\_Receipt**
  - d. Click **Submit**.
  - e. Click **OK** to acknowledge the message: Validations failed. Override and continue?
  - f. Click **OK** to acknowledge the message: All documents are complete. Finish batch?"
  - g. When the processing is complete click **OK** and click **Stop**.



## Important

You must run the **Export** task to complete the Fingerprint creation.

6. Run the Export batch step.
  - a. Click the **Export** shortcut.
  - b. When the processing is complete click **OK** and click **Stop**.
7. Close the Datacap Desktop window.
8. Check the fingerprint.
  - a. In Windows Explorer, navigate to the fingerprint folder: C:\Datacap\Expense\fingerprint
  - b. Notice that you now see a new fingerprint, the **557.cco**, **557.tif**, and **557.xml** files.
  - c. Double-click **557.xml** to open the XML file added by the Export task.

```

<?xml version="1.0"?>
- <S>
  - <P type="Main_Page">
    <V n="HostID" ></V>
    <V n="HostName" >Air_Receipt</V>
    - <F type="Name">
      <V n="Position" >208,300,534,334</V>
    </F>
    - <F type="Date">
      <V n="Position" >848,2068,1048,2108</V>
    </F>
    - <F type="Total">
      <V n="Position" >530,892,682,928</V>
    </F>
    - <F type="Reference_Number">
      <V n="Position" >797,2024,1146,2060</V>
    </F>
  </P>
</S>

```



## Note

Notice the HostName of Air\_Receipt This value is used to populate all subsequent pages that are identified by using this finger print. The Air\_Receipt value is used to populate the Fingerprint Class field of the Verify panel.

Notice that the location (position) of each value that is read from the page is shown.

9. Close the Internet Explorer window where the 557.xml is displayed.

## **Procedure 7: Delete any old batches in your system**

To easily identify the new batches that you are going to create, it helps to clear the old batches.

1. Use tmweb to log in to the **Expense** application.
  - a. Open Internet Explorer and click **tmweb** bookmark or **URL**: <http://ecmedu01/tmweb.net/>
  - b. Log in to the **Expense** application by using the following values:
    - **User id**: admin
    - **Password**: admin
    - **Station**: 1
2. Click **Monitor** and if there are processed or pending batches, delete them.
  - a. Click the **Delete batches** link above the Monitor batches view.
  - b. Click **OK** to acknowledge the message to delete all batches.
3. Logout and close the Internet Explorer window.

---

### **End of exercise**

## Exercise 2: Create an Air\_Receipt page fingerprint

### Introduction

This activity gives you practice creating another fingerprint for the Air\_Receipt Page.

### Procedures

[Procedure 1, "Create the Air Receipt fingerprint,"](#) on page 6-46

#### **Procedure 1: Create the Air\_Receipt fingerprint**

The air3\_part2.tif a different format of the Air Receipt page. In this exercise, you process this image. You see that it locates all of the fields even though they are in different positions but it does not identify the page as an Air\_Receipt page. You manually identify the page as an Air\_Receipt page and verify that the Learning Template automatically generates a new fingerprint to identify future versions of this new layout.

1. Change to the correct image to create the second Air\_Receipt fingerprint.
  - a. Delete the **air1\_part2.tif** image in the C:\Datacap\Expense\images\Input\_SingleTIFFs folder.
  - b. Copy the **air3\_part2.tif** file from the C:\DC9-Lab Exercises\Expense\All-images\Air\ folder to the C:\Datacap\Expense\images\Input\_SingleTIFFs folder.
2. Log in to Datacap Desktop as the admin user.
  - a. Click **Start > All Programs > IBM Datacap Clients > Datacap Desktop** or click the shortcut on the Windows desktop.
  - b. Type the following values:
 

**User:** admin  
**Password:** admin  
**Station:** 1
  - c. Click **Start**.
3. If you are prompted with the message Waiting 10 Seconds for a batch to become available, click **Stop**.
4. Run a single document batch with Datacap Desktop.
  - a. On the left pane, for **Applications**, select **Expense** from the list.
  - b. Click the **VScan** task shortcut and click **Demo\_Single\_TIFFs**.
  - c. When the processing is complete click **OK** and click **Stop**.
  - d. Click the **Profiler** task shortcut, when the processing is complete click **OK**, and click **Stop**.
5. Run the Verify task.
  - a. Click the **Verify** task shortcut.
  - b. When the Verify panel opens, check that the correct values are extracted for each of the four index fields: **Name**, **Date**, **Total**, and **Reference\_Number**

	Name	Value
✗	Fingerprint_Class	
✓	Add_New_Fingerprint	No
✓	Name	MILLARD BRYAN
✗	Date	07/22/09
✓	Total	277.70
✓	Reference_Number	708490174

Fingerprint\_Class



## Troubleshooting

If the extracted values are not correct, then:

- Suspend the batch.
  - Go back into Datacap Studio and check and correct your locate rules.
  - Run the batch again.
- 
- c. When the locate rules extract all for values correctly, for **Fingerprint\_Class**, type: Air\_Receipt
  - d. Click **Submit**.
  - e. Click **OK** to acknowledge the message: Validations failed. Override and continue?
  - f. Click **OK** to acknowledge the message: All documents are complete. Finish batch?"
  - g. When the processing is complete click **OK** and click **Stop**.



## Important

You must run the **Export** task to complete the Fingerprint creation.

6. Run the Export batch step.
  - a. Click the **Export** shortcut.
  - b. When the processing is complete click **OK** and click **Stop**.
7. Close the Datacap Desktop window.

8. Check the fingerprint.

- In Windows Explorer, navigate to the fingerprint folder: C:\Datacap\Expense\fingerprint
- Notice that you now see a new fingerprint, the **558.cco**, **558.tif**, and **558.xml** files.
- Double-click **558.xml** to open the XML file added by the Export task.
- Also, double-click the **557.xml** file and notice that the only difference between the two files is that position of the zones are different.



**Note**

Notice the Hostname of Air\_Receipt. This value is used to populate all subsequent pages that are identified by using this finger print. The Air\_Receipt value is used to populate the Fingerprint Class field of the Verify panel.

```

C:\Datacap\Expense\fingerprint\558.xml Internet Explorer
<?xml version="1.0"?>
- <S>
  - <P type="Main_Page">
    - <V n="HostID"> </V>
    - <V n="HostName">Air_receipt</V>
    - <F type="Name">
      - <V n="Position">347,1599,675,1633</V>
    - <F type="Date">
      - <V n="Position">838,2576,1039,2616</V>
    - <F type="Total">
      - <V n="Position">524,586,675,621</V>
    - <F type="Reference_Number">
      - <V n="Position">788,2532,1135,2569</V>
  - </P>
</S>

C:\Datacap\Expense\fingerprint\557.xml Internet Explorer
<?xml version="1.0"?>
- <S>
  - <P type="Main_Page">
    - <V n="HostID"> </V>
    - <V n="HostName">Air_Receipt</V>
  - <F type="Name">
    - <V n="Position">208,300,534,334</V>
  - <F type="Date">
    - <V n="Position">848,2068,1048,2108</V>
  - <F type="Total">
    - <V n="Position">530,892,682,928</V>
  - <F type="Reference_Number">
    - <V n="Position">797,2024,1146,2060</V>
  - </P>
</S>

```

9. Close the Internet Explorer window where the **557.xml** and **558.xml** are displayed.

10. Close the Datacap Desktop window.

---

## End of exercise

# Lesson 6.6. Extend the validate rules

## Overview

### Why is this lesson important to you?

As a Datacap Solution/Application Builder, you build and deploy applications with the Datacap capture system and communicate solution details to the solution architect, administrator, and business analysts.

To build Datacap applications, you need to be an expert in the use of the locate actions. Locate actions are an alternative and sometimes more explicit method of identifying fields on a page.

## Activities

- [Exercise 1: Extend the validate rules for the Air\\_ Receipt pages](#), on page 6-50

## User accounts

Type	User ID	Password
Operating System	Administrator	passw0rd
Datacap	admin	admin



### Note

Passwords are always case-sensitive.

# Exercise 1: Extend the validate rules for the Air\_Receipt pages

## Introduction

This activity gives you practice at extending the Validate rules that are currently only configured for the fields on the Rental\_Agreement page type. You add new functions to handle the field names on the Air\_Receipt page. You can use the same validation rule for the Name field on both page types.

## Procedures

[Procedure 1, "Create an Issue Date Function for the Field Date rule," on page 6-50](#)

[Procedure 2, "Create a Ticket Number Function for the Field Reference Number rule," on page 6-51](#)

[Procedure 3, "Review the Output," on page 6-51](#)

### Procedure 1: Create an Issue Date Function for the Field Date rule

1. Log in to Datacap Studio (admin/admin) and open the **Expense** application.
2. Select the **Validate** ruleset and click the **Lock//Unlock ruleset (for editing)** icon on the ruleset toolbar.
3. Create an Issue Date function in the Validate >Field Date rule.
  - a. Expand the **Validate** ruleset, right-click the **Field Date** rule and click **Add Function**.
  - b. Click **Function1** and in the **Properties** pane, change the name to: **Issue Date**
  - c. Use the green up arrow icon on the ruleset toolbar to move **Issue Date** function before **Pickup Date**.
  - d. From the **Validations** action library and add **IsFieldLengthMin**, **IsFieldLengthMax**, and **IsFieldDate** actions.

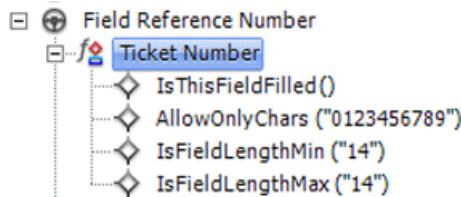
The **IsFieldDate** action checks if the value captured is in an acceptable date format.

  - e. Select the **IsFieldLengthMin** action and set the **string StrParam** to: 8
  - f. Select the **IsFieldLengthMax** action and set the **string StrParam** to: 8
4. Save and verify that the completed function contains the actions you added.



## **Procedure 2: Create a Ticket Number Function for the Field Reference Number rule**

1. Create a Ticket Number function in the Validate > Field Reference Number rule.
  - a. Right-click the **Validate > Field Reference Number** rule, and click **Add Function**.
  - b. Click **Function1** and in the **Properties** pane, change the name to: **Ticket Number**
  - c. Use the green up arrow icon on the ruleset toolbar to move **Ticket Number** function before the **Rental Agreement** function.
  - d. Go to the **Validations** action library and add the following actions in the order as listed:
    - **IsThisFieldFilled**
    - **AllowOnlyChars**
    - **IsFieldLengthMin**
    - **IsFieldLengthMax**
2. Set the action parameters for the Ticket Number function.
  - a. Set **AllowOnlyChars** action property to: 0123456789
  - b. Set the **IsFieldLengthMin** and **IsFieldLengthMax** actions both to: 14
3. Save and verify that the completed function contains the actions you added.



4. Save and publish all rulesets.
5. Click **Exit** in the Datacap Studio window to close it.

## **Procedure 3: Review the Output**

1. In Windows Explorer, copy the following images from **C:\DC9-Lab Exercises\Expense\All-images\Air** to the **C:\Datacap\Expense\images\Input\_SingleTIFFs** folder.
  - **air1\_part2.tif**
  - **air3\_part2.tif** (This image is already there)
2. Copy the following images from the **C:\DC9-Lab Exercises\Expense\All-images\Car** folder to the **C:\Datacap\Expense\images\Input\_SingleTIFFs** folder.
  - **car 1.tif**
  - **car 2.tif**
3. Log in to Datacap Desktop and run the **VScan** and **Profiler** tasks.
4. Open the **Verify** task and verify that the data is populated in each field in the verify panel for images.



## Troubleshooting

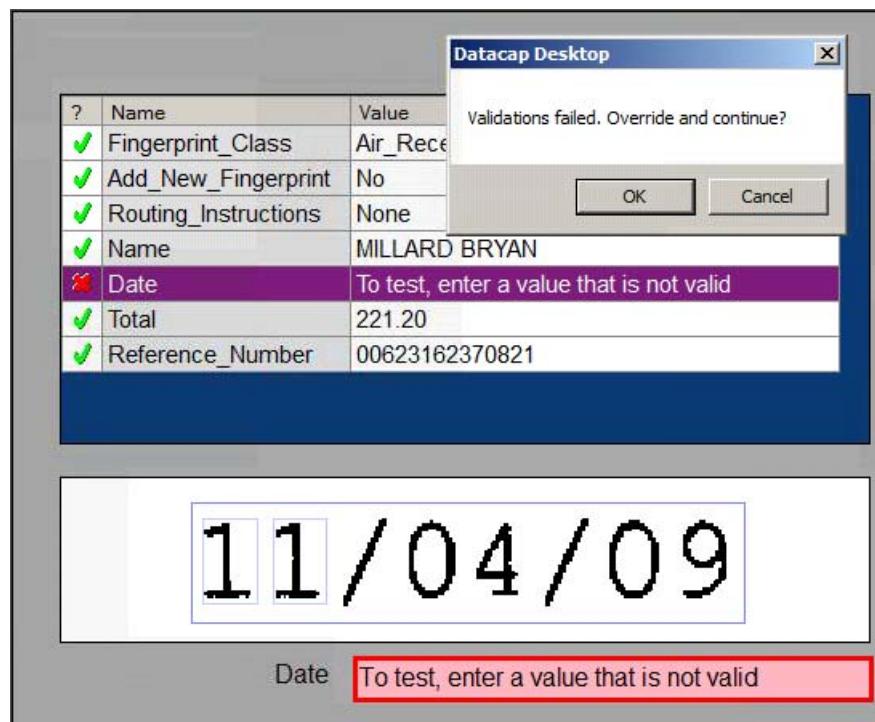
If the extracted values are not correct, suspend the batch by clicking the icon at the upper left corner and select **Hold Batch**.

- In Datacap Studio, check, and correct your locate rules.
- In Datacap Desktop, create a batch and process it to the Verify step.

If any of the images do not populate the Fingerprint\_Class field, it is likely that the image is not recognizable as one of the recorded fingerprints. In this case, the field values were extracted by applying the locate rules and a new fingerprint is automatically created.

- If you see that the Fingerprint\_Class field is not populated, it is going to create a new fingerprint. You can type the **Fingerprint\_Class** name to determine the class for the new fingerprint.

5. After you get everything working, to test the validate rules, double-click the **Date** row.
6. Enter a string that is not in the Date format and click **Submit**.
7. Verify that you get a message that Validations failed.



8. Click **Cancel**.
9. Fix the date and complete the batch.
10. Close the Datacap Desktop window.

## End of exercise

# Lesson 6.7. Export to an IBM FileNet repository

## Overview

### Why is this lesson important to you?

As a Datacap Solution/Application Builder, you build and deploy applications with the Datacap capture system and communicate solution details to the solution architect, administrator, and business analysts.

To build a complete Datacap application, you must complete the cycle by exporting the final captured documents to the selected content store. In this lesson, you export to an IBM FileNet P8 repository.

## Activities

- [Exercise 1: Export Expense documents to an IBM FileNet repository](#), on page 6-54
- [Exercise 2: Test Multi-page document capability](#), on page 6-62

## User accounts

Type	User ID	Password
Operating System	Administrator	passw0rd
Datacap	admin	admin



### Note

Passwords are always case-sensitive.

# Exercise 1: Export Expense documents to an IBM FileNet repository

## Introduction

This activity gives you practice in creating rules to export extracted data and document images content to an IBM FileNet Content Manager repository.

## Procedures

[Procedure 1, "Configure export to an IBM FileNet repository," on page 6-54](#)

[Procedure 2, "Scan documents," on page 6-57](#)

[Procedure 3, "Verify the export to the IBM FileNet repository," on page 6-59](#)

### **Procedure 1: Configure export to an IBM FileNet repository**

In this procedure, you configure the export task of the workflow for your application.

1. Log in to Datacap FastDoc (Admin) in the Datacap Server mode.
  - a. Click **Start > All Programs > IBM Datacap Developer Tools > Datacap FastDoc (Admin)** or the shortcut on the Windows desktop.
  - b. On the Welcome to Datacap window, select **Datacap Server** and for the **Application** field, select **Expense**.
  - c. Type the following values:
    - **User:** admin
    - **Password:** admin
    - **Station:** 1
  - d. Click **Login**.
2. Open the Configure view.
  - a. Click the **Configure Workflow**  icon.
  - b. Select the **DemoSingleTIFFs** job.
  - c. Scroll to the **Export** column (last one).
3. Select the **Create TIFF or PDF** ruleset, drag it to the **Export** task, and place it before the **Export** ruleset.
4. Select the **Export to FileNet Content Manager** ruleset, drag it to the **Export** column, and place it after the **Export** ruleset.

- d. Verify that the Export profile contains all the rulesets in the correct order.



- e. Click **Save** on the toolbar to save your changes.
5. Click the **Export to FileNet Content Manager** ruleset.
- The window changes to the **Configure document, page, and field** view with the **Ruleset** tab and the **Export to FileNet Content Manager** ruleset selected.
6. Click the Vertical dark gray bar between the **Ruleset** tab pane and the **Test** pane to temporarily hide the test pane and give you more image view area.
  7. Configure the batch level options for **Export to the FileNet Content Manager** repository.
    - a. Click the **Expense** batch in the **Batches Structure** pane on the left.
    - b. Enter the following parameters:
      - **FileNet Content Manager URL:** `http://ecmedu01:9080/wsi/FNCEWS40MTOM/`
      - **User ID:** `p8admin`
      - **Password:** `IBMFfileNetP8`
      - **Storage object ID:** `DCEexport`
      - **Parent folder:** `/Expenses/`
    - c. Click **Save** to save your changes.
  8. Configure the document level options for Export to the FileNet Content Manager repository.
    - a. Click the **Expense > Document** in the **Batch Structure** pane.

- b. Enter the following parameters:
- **Document Title:** @BatchID++@D\Main\_Page\Fingerprint\_Class++@D\Main\_Page\Name
  - **Document class ID:** Expenses
  - **Document title extension:** pdf
- c. Click **Save** to save your changes.
9. Configure field values to write to the IBM FileNet Content Manager repository properties.
- a. Click **Main\_Page** in the **Batch Structure** pane and click the **Name** field.
  - b. Click the **Field Information** check box.
  - c. Enter the symbolic name and property type from the following Table and click **Save**.
  - d. Repeat steps 9a - 9c for each table entry.

Name of field in FastDoc	Symbolic name on the repository	Property type
Name	Employee_Name	String
Date	Date	Date and Time
Total	Total	Floating Point
Reference_Number	ReferenceNumber	String

10. Configure the Create TIFF or PDF ruleset.

If you want the output image to be a PDF file, you must add the **Convert the image to PDF** to the **Export** workflow. You already added this ruleset in earlier step of this procedure.

- a. Click the **Expense** batch in the **Batch Structure** pane.
- b. Select **Create TIFF or PDF** from the list in the **Ruleset** pane.
- c. Select the **Create PDF Images for Export** and the **Create a searchable PDF document (text and image)** options.



- d. Click **Save**, log out of FastDoc (Admin) and close window.

## Procedure 2: Scan documents

1. In Windows Explorer, check the C:\Datacap\Expense\images\Input\_SingleTIFFs folder.
2. Delete or add files so that you have only the **air 1\_part2.tif** and the **car 1.tif** images in the folder.
3. If needed, copy the files from the C:\DC9-Lab Exercises\Expense folder.
4. Click the **Datacap Desktop** shortcut on the Windows desktop.
5. Log in with: admin/admin
6. If you are prompted with the message Waiting 10 Seconds for a batch to become available, click **Stop**.
7. Run a single document batch with Datacap Desktop.
  - a. For **Applications**, select **Expense** from the list.
  - b. Click the **VScan** task shortcut and select **Demo\_Single\_TIFFs** to start a batch that contains a Rental\_Agreement page and an Air\_Receipt page.
  - c. When the processing is complete click **OK** and then click **Stop**.
8. Click the **Profiler** task shortcut and when the processing is complete click **OK** and click **Stop**.
9. Click the **All** shortcut and verify that your batch is at the **Verify** step.
10. Verify the batch.
  - a. Click the **Verify** shortcut.
  - b. Click the  **Next Problem** icon to process the page.
  - c. If any warnings are displayed, click **OK** to acknowledge the warning message.
  - d. If you the batch is not submitted, click **Submit**.
  - e. If prompted, click **Stop**.
11. Run the **Export** task.



### Troubleshooting

If you see any error, then the common problems are:

- Mismatch between the Datacap Field Name and the Expenses Document class in the repository.
- One of the property values is not initialized correctly.
- One of the property data types is incorrect.
- Password is not correct.
- Incorrect repository information.
  - a. Open the **export\_rrs.log** file from the batches folder of your last batch. Search for the word **Error or Abort**. This search should point you to the field that is causing the problem.

- b. Check that you typed the repository field names correctly on the **Export** tab of each data field.
- In FastDoc (Admin) and open the **Main\_Page** defined fields and check that the names that you entered match the names that are defined in the **IBM FileNet Content Manager** Document class.
  - Correct the symbolic name if necessary.
  - Verify that the property type selected matches the document class property type.click Add Function
- c. If you need to check the **Document** class property names:
- In Internet Explorer, click the **ACCE** bookmark or **URL**: <http://ecmedu01:9080/acce>
  - Log in as: p8admin/IBMFileNetP8
  - On the **P8Domain** tab, expand **Object Stores** on the left pane and click **DCEExport**.
  - In the **DCEExport** tab, expand **Data Design > Classes > Document** and click **Expenses**.
  - In the **Expenses** tab, click the **Property Definitions** subtab.

Property	Data Type
Total	Float
Employee_Name	String
ReferenceNumber	String

- In the **Property** column, click a property.

- In the **Property Definition** page, look up the values for **Symbolic name** and **Data type**.

The Symbolic name that is entered in FastDoc must match the Symbolic Name on the server.

Property Definition	
<a href="#">General</a>	
<a href="#">Alias IDs</a>	<a href="#">More</a>
<a href="#">Modification Access</a>	
Display name: ?	Total
Symbolic name: ?	Total
Description: ?	Total
Data type: ?	Float

### **Procedure 3: Verify the export to the IBM FileNet repository**

1. In the Internet Explorer browser, open the Datacap Navigator for business users.

- a. Click the **DCN-Datacap** shortcut or enter the following URL:

<http://ecmedu01:9080/navigator/?desktop=datacap>

- b. Enter the following values:

User ID: admin

Password: admin

- c. Click **Login**.

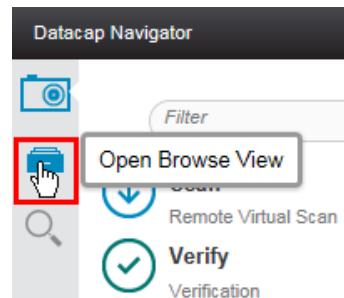
The Datacap view opens.



#### **Note**

On the student image, Datacap Navigator is configured to show the **Browse** and **Search** features. you can check the documents that are exported into the repositories directly in Datacap Navigator.

2. Click the **Open Browse View** icon on the left pane.



3. Login to the DCExport repository with the following credentials.
  - **User ID:** P8Admin
  - **Password:** IBMFileNetP8
4. Select the **DCExport** repository > **Expenses** folder from the left pane.
5. Verify that you have items that are listed with today's date, and with the name **MILLARD BRYAN** on the right pane.
  - a. Single-click the document to see the properties in the rightmost pane.
  - b. Verify that the properties contain values that were extracted from the scan image.
  - c. Verify that the document in the IBM FileNet Content Manager repository shows a PDF icon.
  - d. Expand the **System Properties** in the **Properties** pane on the right and check that the **MIME type** is **application/pdf**.

Class:	Expenses
Document Title:	20191211.000010-Rental_Agreement-MILLARD BRYAN
Total:	260.05
Employee_Name:	MILLARD BRYAN
ReferenceNumber:	703142974
Date:	4/17/2010, 8:00 PM

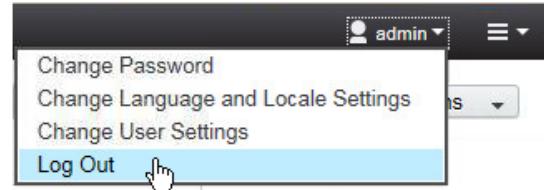
6. Optionally, double-click the document to open it and view the stored image in the viewer.
  - a. Close the image.



## Troubleshooting

If you double-click the document, it opens the document in the Viewer. If an error shows up for the Java update, click **Later**. Close the viewer to go back to the main page to see the properties.

7. Log out of Datacap Navigator and close the browser.



8. Log out of Datacap Desktop and close the window.
- 

## End of exercise

## Exercise 2: Test Multi-page document capability

### Introduction

This activity gives you practice at configuring Multi-page document batches that are processed with a Learning Template based application.

### Procedures

[Procedure 1, "Build a multi-page document sample batch," on page 6-62](#)

[Procedure 2, "Scan the multi-page Sample batch," on page 6-63](#)

[Procedure 3, "Investigate the batch failure," on page 6-64](#)

[Procedure 4, "Rescan the test document," on page 6-65](#)

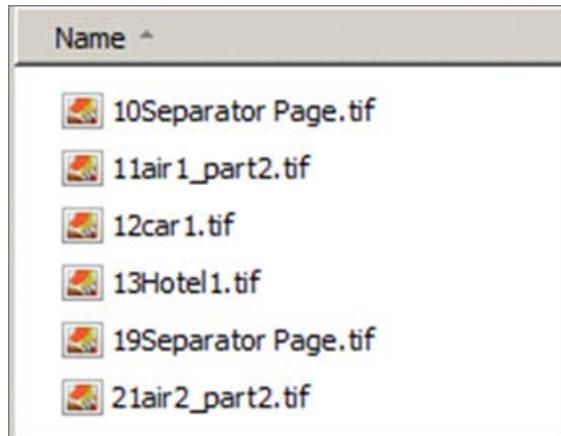
### **Procedure 1: Build a multi-page document sample batch**

The method for configuring a multi-page batch for a Learning Template based application, is to identify the beginning and end of a group pages that make up a document with a page separator page. With paper images, you simply slide a page separator page in between each document group of pages. Because you are using electronic pages for this exercise, you rename the pages so that they are arranged in the correct order.

1. In Windows Explorer, navigate to the C:\Datacap\Expense\images\Input\_SingleTIFFs folder.
2. Verify that the following documents are in the folder.
  - **air 1\_part2.tif**
  - **car 1.tif**
3. Copy the **air 2\_part2.tif** file from the C:\DC9-Lab Exercises\Expense\All-Images\Air folder to the C:\Datacap\Expense\images\Input\_SingleTIFFs folder.
4. Copy the **Hotel1.tif** file from the C:\Datacap\TravelDocs\images folder to the C:\Datacap\Expense\images\Input\_SingleTIFFs folder.
5. Copy two copies of the **APT007.tif** file (the document separator page) from C:\Datacap\APT\Images\Separator Page folder to the C:\Datacap\Expense\images\Input\_SingleTIFFs folder.
6. Use the data in the following table and rename the files in the C:\Datacap\Expense\images\Input\_SingleTIFFs folder so that they are ordered correctly.

Original name	Ordered names
air 1_part2.tif	11air 1_part2.tif
air 2_part2.tif	21air 2_part2.tif
APT007.tif	10SeparatorPage.tif
APT007 (2).tif	19SeparatorPage.tif
car 1.tif	12car 1.tif
Hotel1.tif	13Hotel1.tif

- b. When you are done with renaming, you have a Scan ready batch.



### ***Procedure 2: Scan the multi-page Sample batch***

1. Log in to Datacap Desktop as the admin user.
  - a. Click **Start > All Programs > IBM Datacap Clients > Datacap Desktop** or the shortcut on the desktop.
  - a. Click **Start > All Programs > IBM Datacap Clients > Datacap Desktop** or click the shortcut on the Windows desktop.
  - b. Type the following values:
 

**User:** admin  
**Password:** admin  
**Station:** 1
  - c. Click **Start**.
2. If you are prompted with the message Waiting 10 Seconds for a batch to become available, click **Stop**.
3. Run a multi-page batch with Datacap Desktop.
  - a. For **Applications**, select **Expense** from the list.

- b. Click the **VScan** task shortcut and select **Demo\_Single\_TIFFs** to start a batch that contains a multi-page structure.
  - c. When the processing is complete click **OK** and then click **Stop**.
4. Run the Profiler task.
    - a. Click the **Profiler** task shortcut.
    - b. When the processing is complete click **OK** and click **Stop**.
  5. Click the **All** shortcut and verify that your batch is at the verify step.
  6. Click the **Verify** shortcut and examine the results.
  7. Look at the structure in the **Batch View** pane. Click each of the **Main\_Page** pages.

In this case, the **Separator** pages were treated as normal document pages and the pages are in their document. You should be expecting to see the first document with three pages.

The separator pages should only be used to determine when a new page starts and then they should be discarded. They should not be part of the scanned batch.

At this point, the **Separator** page is not properly identified as a separator page.

8. Select the page for the first Document in **Batch View** on the right pane.
9. Check the image in the **Image View** on the leftmost pane and notice that the bar code looks corrupted.
10. Suspend the batch by clicking the icon at the upper left corner and select **Hold Batch** and minimize Datacap Desktop.

### **Procedure 3: Investigate the batch failure**

1. Log in to Datacap FastDoc (Admin) in the Datacap Server mode.
  - a. Click **Start > All Programs > IBM Datacap Developer Tools > Datacap FastDoc (Admin)** or the shortcut on the Windows desktop.
  - b. On the Welcome to Datacap window, select **Datacap Server** and for the **Application** field, select **Expense**.
  - c. Type the following values:
    - **User:** admin
    - **Password:** admin
    - **Station:** 1
  - d. Click **Login**.
2. Open the separator page.
  - a. On the left pane, click the **Configure documents, pages and fields**  icon.
  - b. Click **Separator > Separator\_Sheet** in the **Batch Structure** pane.
  - c. Click the **Ruleset** tab in the **Page Properties** pane.
3. Check image enhancement for the separator page.
  - a. Select the **Image Enhancement** ruleset.

- b. Click the dark gray vertical bar between the **Ruleset** and **Test** panes to give yourself maximum viewing area for the Ruleset panel.
  - c. Click **Open image file** and navigate to the C:\Datacap\Expense\images\Input\_SingleTIFFs folder.
  - d. Select **10Separator Page.tif** and click **Open**.  
The original image and enhanced image are displayed in side-by-side windows.
  - e. Zoom in as much as possible and position the images so that the **bar code** can be viewed clearly.
4. Adjust parameters to restore the enhanced bar code.
    - a. Expand the **Remove Lines** panel to view the configurable parameters.
    - b. Increase the **Minimum length** parameter by 10 until the bar code looks correct.



### Hint

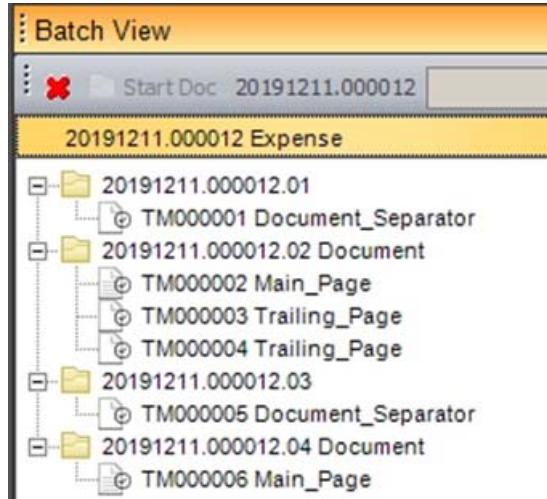
Minimum length of 70 should be enough.

- c. Click **Save**.

### **Procedure 4: Rescan the test document**

In this procedure, you rerun a multi-page document batch with Datacap Desktop.

1. Open the minimized Datacap Desktop client and run the **VScan**, **Profiler**, and **Verify** tasks.
2. Verify that in **Batch View**, the Separator pages are identified correctly.



3. Click **Submit**.
4. Click **OK** when you prompted with the message: the All documents are complete. Finish batch?

5. Click **OK** to complete the batch.
  6. Close the Datacap Desktop window.
  7. Log out of FastDoc and close the window.
- 

## **End of exercise**

# Unit 7. Debug and Test

## Estimated time

02:00

## Lessons

This unit contains the following lessons.

[Lesson 7.1, "Application debugging," on page 7-3](#)

[Lesson 7.2, "Datacap Studio Test tab," on page 7-7](#)

## Unit dependencies

The activities in this unit must be done in the presented order.

This unit builds on the knowledge from the Datacap Studio Introduction unit.

## Requirements

The activities in this unit assume that you have access to the student system configured for these activities.

## Do this first

1. If you are prompted to log in to the system, use:

Type	User ID	Password
Operating system	Administrator	passw0rd

2. Start the Datacap Server.
  - a. Click Start > **All Programs > IBM Datacap Services > Datacap Server Manager**.  
The Datacap Server Manager window is shown.
  - b. Click the **Service** tab.
  - c. Click **Start** to start the service if it is not already started. The Start operation is disabled if it is already started.
  - d. Click **Close** to close the **Datacap Server Manager** window.
3. Start WebSphere Application Server.
  - a. Double-click the **WebSphere Admin** folder on the Desktop.
  - b. Double-click the **Start Server1.bat** script file.

This action starts the IBM FileNet Content Manager, and the Content Navigator.

## System check

The activities in this unit assume that all system services are running when you begin an activity session. Perform a system check whenever you start an IBM FileNet Content Manager system or start working on a system that is in an unknown state.

1. Log in to the **Content Navigator Ping** page to verify that the IBM FileNet Content Management services are active.
  - **URL:** <http://ecmedu01:9080/navigator/Ping> or the browser shortcut: **ICN Ping Page**
  - **User name:** p8admin
  - **Password:** IBMFileNetP8

This page displays the version information for Content Navigator and Operating system.

2. Log in to Datacap Desktop as the admin user.
  - a. Click **Start > All Programs > IBM Datacap Clients > Datacap Desktop** or click the shortcut on the Windows desktop.
  - b. Type the login credentials:

**User:** admin  
**Password:** admin  
**Station:** 1
  - c. Click **Start**.
  - d. Verify that Datacap Desktop opens indicating that the server is active and connected.
3. See Appendix A for procedures to Start, Check, and Restart components on the Student system.

# Lesson 7.1. Application debugging

## Overview

In the lesson, you learn about the Learning Template and why you would use it to create your application instead of a Form Template.

## Why is this lesson important to you?

As a Datacap Solution/Application Builder, you build and deploy applications with the Datacap capture system. You also communicate solution details to the solution architect, administrator, and business analysts. As part of that process, you must be able to debug solutions.

You can run an application from Datacap Studio to monitor it during execution and determine whether the rules are running as you expect. You can use debugging tools like setting breakpoints, running your code 1 step at a time. You can look at the various logs that are available to you to enhance your debugging capabilities and results.

## Activities

- [Exercise 1: Configure and access logs for debugging](#), on page 7-4

## User accounts

Type	User ID	Password
Operating system	Administrator	passw0rd
Datacap	admin	admin



### Note

Passwords are always case-sensitive.

# Exercise 1: Configure and access logs for debugging

## Introduction

In this activity, you learn where to locate Datacap logs and how to use them find error in your rules.

## Procedures

[Procedure 1, "Clean up the existing batches before debugging," on page 7-4](#)

[Procedure 2, "Become familiar with Datacap 9.0 logs," on page 7-4](#)

[Procedure 3, "Run the Expense application and examine the logs," on page 7-5](#)

[Procedure 4, "Empty the images folder, run a batch, and examine the logs," on page 7-6](#)

### Procedure 1: Clean up the existing batches before debugging

In this procedure, you log in to tmweb and for the Expense application, delete all batches.

1. In Internet Explorer, log in to tmweb.

- **URL:** `http://ecmedu01/tmweb.net/`

You can also use the **tmweb** browser shortcut on the **Favorites bar**.

- **Application: Expense**
- **User ID:** admin
- **Password:** admin
- **Station:** 1

2. Click the **Monitor** tab and click the **Delete batches** link.



- e. Click **OK** to delete all batches.
3. In Windows Explorer, navigate to the `C:\Datacap\Expense\batches` folder and delete any remaining batches.

### Procedure 2: Become familiar with Datacap 9.0 logs

1. Search for Datacap 9.0 help by entering the following search string in your web browser:  
`http://www.ibm.com/Search/?q=datacap+logging&v=17&en=utf&lang=en&cc=us`
2. This search should return many results. Become familiar with what is returned when you run that query. Focus on Datacap 9.0 results.

## **Procedure 3: Run the Expense application and examine the logs**

In this procedure, you run the expense application and examine the various logs in the batch folder.

1. In Windows Explorer, open the C:\Datacap\Expense\images\Input\_SingleTIFFs folder and delete all the existing files.
2. Copy the following files from the C:\DC9-Lab Exercises\Expense\All-images\Air folder to the C:\Datacap\Expense\images\Input\_SingleTIFFs folder,
  - air1\_part2.tif
  - air3\_part2.tif
3. Copy the following files from the C:\DC9-Lab Exercises\Expense\All-images\Car folder to the C:\Datacap\Expense\images\Input\_SingleTIFFs folder.
  - car 1.tif
  - car 2.tif
4. Log in to Datacap Desktop as the admin user.
  - a. Click **Start > All Programs > IBM Datacap Clients > Datacap Desktop** or click the shortcut on the Windows desktop.
  - b. Type the login credentials:
    - **User:** admin
    - **Password:** admin
    - **Station:** 1
  - c. Click **Start**.
5. If you are prompted with the message Waiting 10 Seconds for a batch to become available, click **Stop**.
6. Run a batch with Datacap Desktop.
  - a. For **Applications**, select the **Expense** from the list.
  - b. Click the **VScan** task shortcut and click **Demo\_Single\_TIFFs**.
  - c. When the processing is complete click **OK** and click **Stop**.
  - d. Click the **Profiler** task shortcut.
  - e. When the processing is complete click **OK** and click **Stop**.
7. Run the Verify task.
  - a. Click the **Verify** task shortcut.
  - b. Click **Submit**.
  - c. If any messages or warnings are displayed, click **OK** to acknowledge the message.
  - d. Click **Stop**.
8. Run the **Export** task.
9. In Windows Explorer, navigate to the application batches folder where all the output from the batch processing is placed: C:\Datacap\Expenses\batches\<batch name>

10. Verify that the following runtime logs are created:

- scanfromdisk\_singletiffs\_rrs.log
- vscan\_ddt.0.log
- profiler\_rrs.log
- verify\_rrs.log
- export\_rrs.log

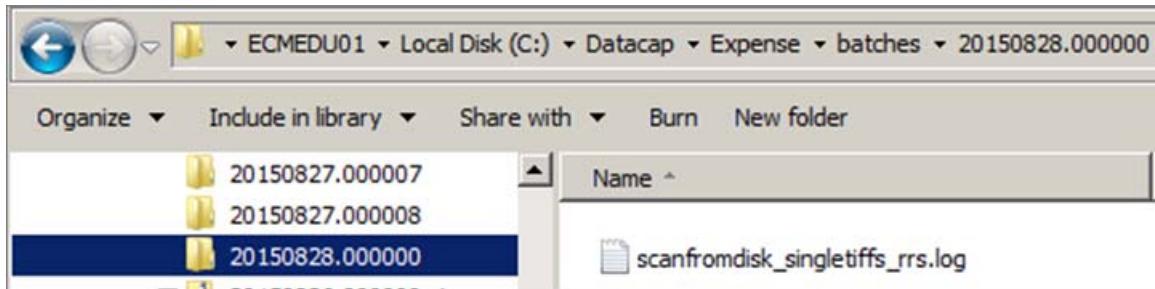
11. Examine the various logs and trace through the processing sequence.

In Datacap Studio, the task profile for a task contains the rulesets that the task uses and the actions called by those rulesets. You can compare the action names in the log file.

### **Procedure 4: Empty the images folder, run a batch, and examine the logs**

In this procedure, you remove all the images from the images folder from where the images are scanned, run the expense application and examine the logs in the batch folder.

1. In Windows Explorer, navigate to the C:\Datacap\Expense\images\Input\_SingleTIFFs folder and delete all the images.
2. Log in to Datacap Desktop:
  - **User:** admin
  - **Password:** admin
  - **Station:** 1
3. If you are prompted with the message Waiting 10 Seconds for a batch to become available, click **Stop**.
4. For **Applications**, select the **Expense** from the list.
5. Click the **VScan** task shortcut and click **Demo\_Single\_TIFFs**.
6. When the processing is complete click **OK** and click **Stop**.
7. In Windows Explorer, navigate to the batch folder and open the latest batch:  
C:\Datacap\Expense\batches\<batch name>
8. Open the **scanfromdisk\_singletiffs\_rrs.log** file, scroll down to the end of the file and find the encountered problem.



Every running component generates an **rrs.log** file. Sometimes the batch aborts, so the best thing to do is to search for the word **abort** and move up from there to discover the problem.

---

## **End of exercise**

# Lesson 7.2. Datacap Studio Test tab

## Overview

In this lesson, you learn how to use the Datacap Studio Test tab step through the task profiles and observe the status of variables as you go.

## Why is this lesson important to you?

As a Datacap Solution/Application Builder, you build and deploy applications with the Datacap capture system and communicate solution details to the solution architect, administrator, and business analysts.

When creating new applications, you are often confronted with rules that do not behave as you expected. It is important that you know about the test tools that are available to help find errors in the rules that you create.

## Activities

- [Exercise 1: Stepping a batch through a PagelD task profile](#), on page 7-8

## User accounts

Type	User ID	Password
Windows Administrator	Administrator	passw0rd
Datacap	admin	admin



### Note

Passwords are always case-sensitive.

# Exercise 1: Stepping a batch through a PageID task profile

## Introduction

This activity gives you practice at stepping a batch through the PageID Task Profile of the TravelDocs application. You run the VScan and PageID rulesets and step through the actions.

## Procedures

[Procedure 1, "Scan a batch with Datacap Desktop," on page 7-8](#)

[Procedure 2, "Step Profiler task profile," on page 7-8](#)

[Procedure 3, "Shut down the test mode," on page 7-13](#)

### **Procedure 1: Scan a batch with Datacap Desktop**

1. Double-click the **Datacap Desktop** icon on the Windows desktop and login with the following values:
  - **User:** admin
  - **Password:** admin
  - **Station:** 1
2. Click **Start** and if you are prompted with the message Waiting 10 Seconds for a batch to become available, click **Stop**.
3. For **Applications**, select **ExpenseDemo** from the list.
4. Scan a batch to analyze with Datacap Desktop.
  - a. Click the **VScan** shortcut.
  - b. Click the folder icon close to the **Scan from** field.
  - c. Navigate to the C:\Datacap\ExpenseDemo\images folder.
  - d. Select all the three images (press **Ctrl A**) and then click **Open**.
  - e. For the **Scan multiple images** option, select **3** expected.
  - f. Click **Scan**.
  - g. Verify that the three images are listed, scroll down, and click **Submit** at the end of the page.
  - h. Click **OK** when it prompts that the batch is completed and then click **Stop** for not processing next batch.
5. Close **Datacap Desktop**.

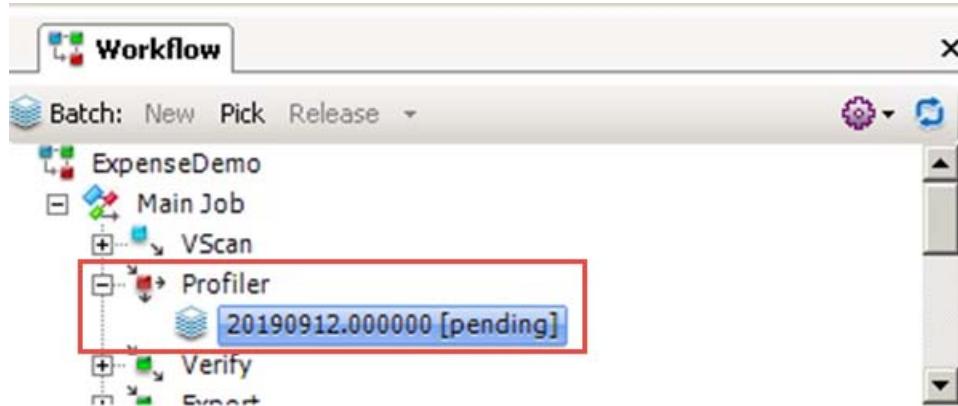
### **Procedure 2: Step Profiler task profile**

1. Open the ExpenseDemo application in Datacap Studio.
  - a. Double-click **Datacap Studio** on the desktop.
  - b. Select the **ExpenseDemo** application and log in as **admin** (and password: **admin**).

2. Click the **Test** tab.
- a. Click the **Update view** icon on the upper right corner of the **Workflows** pane.



- b. Expand the **Profiler** batch task.
- c. Notice that your scanned batch is **pending** at the **Profiler** task.



3. Double-click the batch under the pending task.
- a. Click the Step in icon on the toolbar.
- b. Notice that the **Profiler** task is running as shown in the **Workflow** and **Runtime batch hierarchy** tabs.

**Workflow**

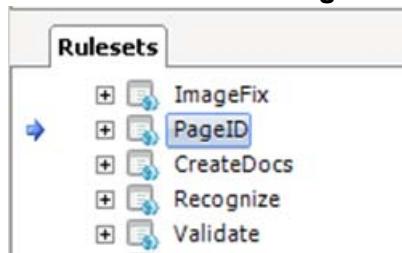
- ExpenseDemo
- Main Job
  - VScan
  - Profiler
    - 20190912.000000 [running]
  - Verify
  - Export

**Runtime batch hierarchy**

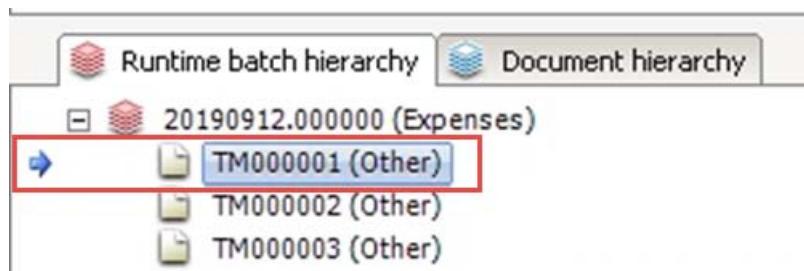
- 20190912.000000 (Expenses)
  - TM000001 (Other)
  - TM000002 (Other)
  - TM000003 (Other)

- c. Notice that the running rules on the selected batch object are shown on the **Rulesets** tab.

The current ruleset is **PageID**.

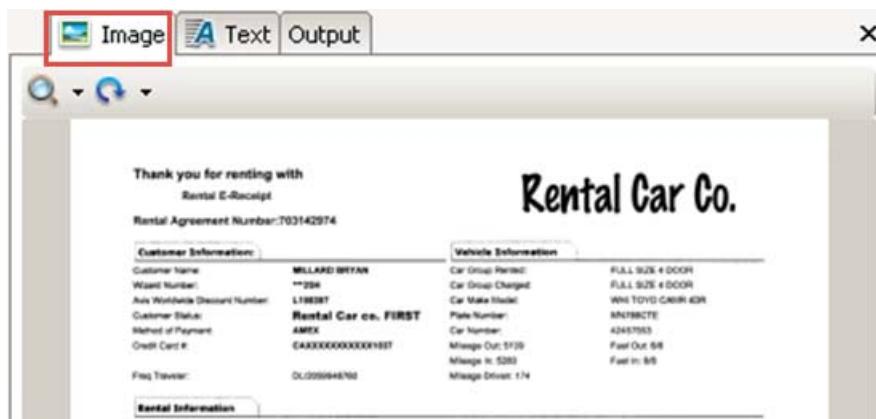


4. Click the **Step in** icon a couple of times, the execution remains at the batch level.  
a. Continue clicking the **Step in** icon until the **Runtime batch hierarchy** indicates the first page (TM000001) is selected.



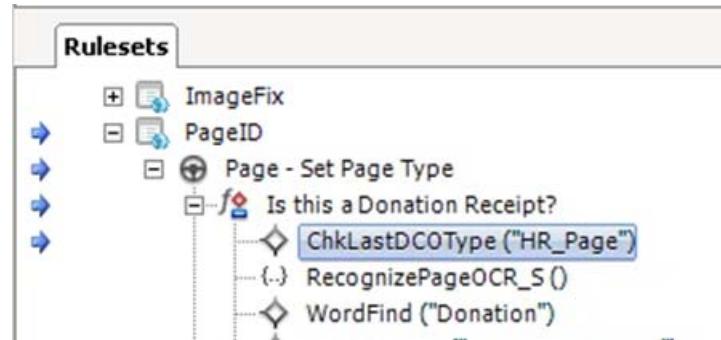
Datacap is now ready to run page level rules on each page in the runtime hierarchy, starting with page TM000001.

Notice that the image is shown in the **Image** tab of the middle pane.



- b. Continue clicking the Step in icon and observe the **Rulesets** tab.

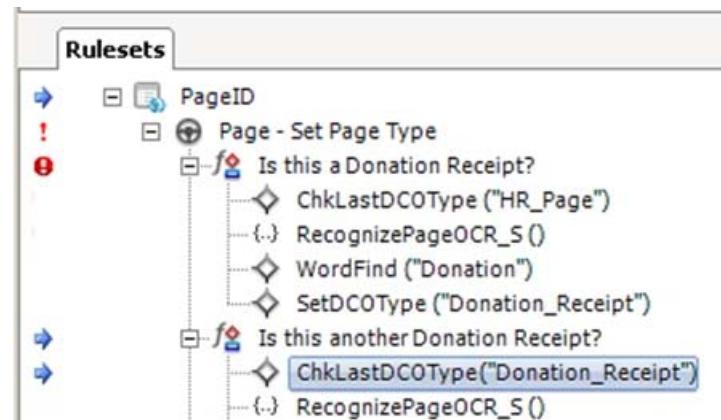
When you click a few more times, because the **Page - Set Page Type** rule is assigned at the page level, Datacap expands this rule, then the **is this a Donation Receipt?** function and prepares to run the **ChLastDCOType ("HR\_Page")** action.



- c. Continue clicking **Step in**.

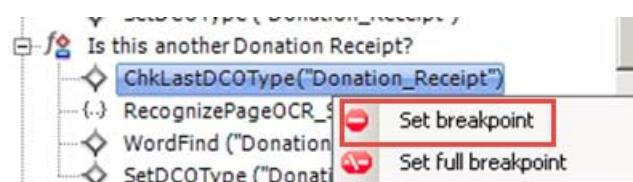
After the **is this a Donation Receipt?** function is completed, it moves to the next function (**is this another Donation Receipt?**).

When the selected page is not the **Donation Receipt** type, it is indicated by a red circle with white dots and moves to the next function.

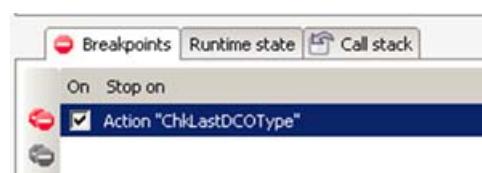


- d. Continue click **Step in** one more time until it reaches the **ChLastDCOType** function.

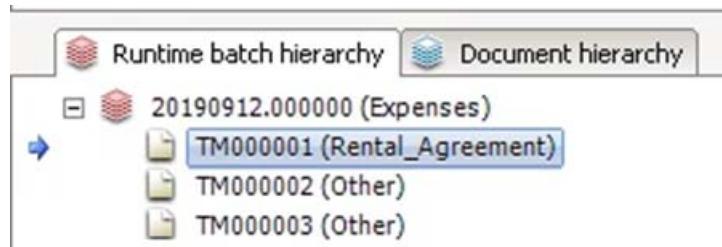
5. On the **Ruleset** pane, right-click the **ChLastDCOType** function and select **Set breakpoint**.



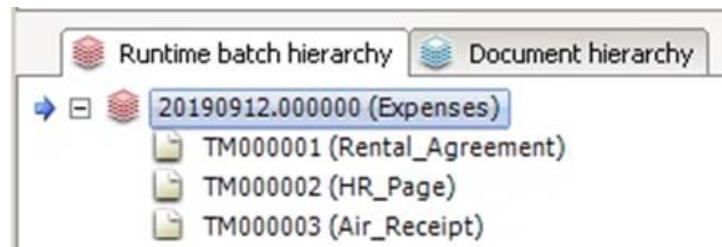
- a. Notice the new entry on the **Breakpoint** tab in the lower right pane.



- b. Continue click **Step in** several times until the marker in the Rulesets reaches the last function in the **Page - Set Page Type** rule.
- c. Notice that when the function identifies the page, a red tick mark is shown for this function.
- d. Continue click **Step in** several times until the marker in the **Runtime batch hierarchy** pane is advanced to the next page.
- e. Notice that on the **Runtime batch hierarchy** tab, the page is identified (**Rental\_Agreement**).



- 6. Click the **Step in** a few more times and watch the Ruleset pane as the progress pointers moves.
  - a. Continue click **Step in** several times until the marker in the Runtime batch hierarchy pane is completes all three pages.

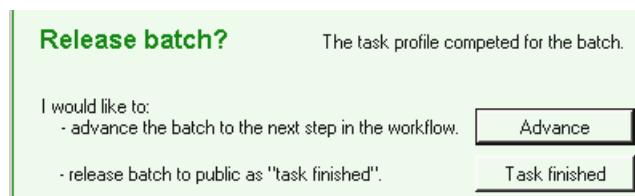


- 7. For the batch to progress to next task, click **Process rules for target object**  icon on the toolbar.

- a. Wait for the process to complete and the **Release batch?** window comes up.

On the **Runtime batch hierarchy** tab, the pointer is back at the batch level and the documents are created. Since the batch has left the page level processing, the image is no longer displayed on the image tab in the middle pane.

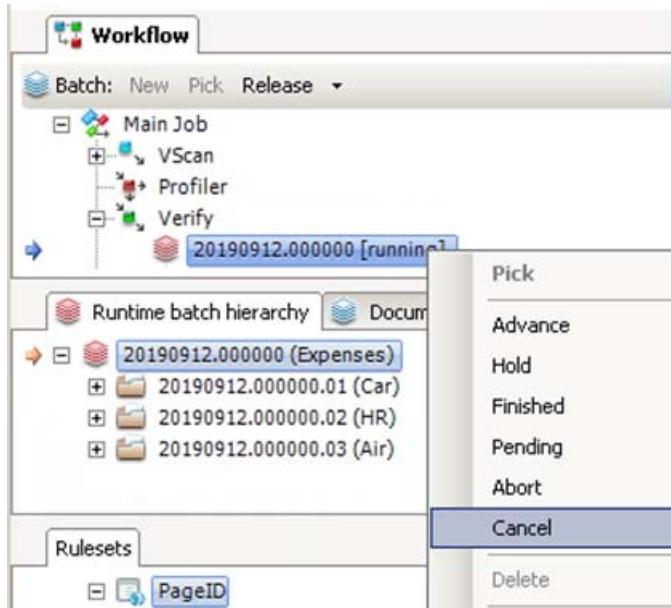
When the last Ruleset of the **Profiler** task is completed, the **Release batch?** window is displayed.



8. On the **Release batch?** window, click **Advance** to move to the next task.
9. On the **Workflow** tab, notice that the batch is now at **Verify** task.

### Procedure 3: Shut down the test mode

1. On the **Workflow** pane, right-click the running batch in the **Verify** node and select **Cancel**.



2. Exit Datacap Studio.

---

**End of exercise**

---

# Appendix A. System Check for Your Student System

## Appendix overview

This appendix contains the following activities.

## Activities

[Start student system components](#), on page A-2

[Check the WebSphere Application Server](#), on page A-3

[Restart the student system](#), on page A-6

## System Components

The server image is a Microsoft Server 2008 with an IBM FileNet P8 Platform 5.2.1, IBM Navigator, IBM Datacap 9.0.1. The server image also has Tivoli, DB2, WebSphere Application Server, Visual Studio, installed.

All files that are required for the student activities are on the image.

# Start student system components

## Procedures

[Procedure 1, "Start student system components," on page A-2](#)

[Procedure 2, "Start Datacap Server," on page A-2](#)

### Procedure 1: Start student system components

1. Start your Server 2008 system:
  - a. Log in as administrator user (password: `passw0rd`)
2. Start the WebSphere hosted system components.

There is a WebSphere Admin folder on the image desktop. This folder contains scripts to start stop and manage the WebSphere components. There are WebSphere instances but you use only Server 1 in this class.

Start the WebSphere components by running the start script.

- a. From the image desktop, double-click the WebSphere Admin Folder.
  - b. Double-click the Start Server1.bat script.
  - c. A Windows command window opens while the script is running. Wait for the command window to close, which signifies that the WebSphere components are started.
- The start process can take several minutes.
- d. The Terminal window closes when the services started.



#### Information

The following components are hosted on WebSphere Server1:

- DatacapEDSService
- FileNetEngine
- IBM Content Navigator

### Procedure 2: Start Datacap Server

1. Click Start > All Programs > IBM Datacap Service > Datacap Server Manager.  
The Taskmaster Server Manager window is shown.
2. Click the Service tab.
3. Click the Start icon  to start the The Datacap Taskmaster Server Service if it is not already started. The Start operation is disabled if it is already started.
4. Click Close to close the Taskmaster Server Manager window.

# Check the WebSphere Application Server

## Procedures

[Procedure 1, "Check the WebSphere Application Server,"](#) on page A-3

[Procedure 2, "Check the Content Engine,"](#) on page A-3

[Procedure 3, "Check the Process Engine,"](#) on page A-4

[Procedure 4, "Check the Administration Console,"](#) on page A-4

[Procedure 5, "Check the IBM Content Navigator,"](#) on page A-4

[Procedure 6, "Check the Datacap Components,"](#) on page A-4

### Procedure 1: Check the WebSphere Application Server

1. On your image desktop, double-click the WebSphere Admin folder if it is not already open.
2. Double-click the Administrative console server1 shortcut to go to the WebSphere login window at <https://ecmedu01:9043/ibm/console/logon.jsp>.
3. Log in as p8admin user with IBMFileNetP8 as the password.  
If the WebSphere server is running, the page shows the Integrated Solution Console.
  - a. Log out of the Integrated Solutions Console.
4. If an error page is shown instead, the WebSphere is not running. Start it as directed in the procedure [Start student system components](#), on page A-2.
5. Leave the browser open for the next procedure.

### Procedure 2: Check the Content Engine

1. In the Internet Explorer browser click Bookmarks > P8 CPE-Ping or enter the following URL: <http://ecmedu01:9080/FileNet/Engine>
  - a. if prompted, log in as User: p8admin Password: IBMFileNetP8

The Content Engine is running if you get the *Content Engine Startup Context (Ping Page)* page as shown in the following screen capture.



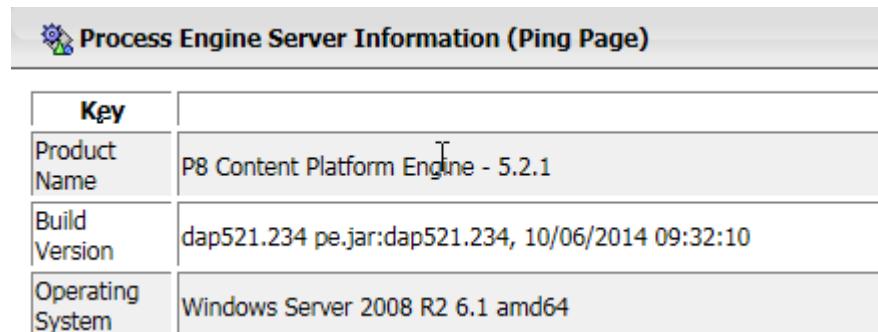
Key	
Product Name	P8 Content Platform Engine - 5.2.1
Build Version	dap521.234
Operating System	Windows Server 2008 R2 6.1

2. If an error page is shown instead, the Content Engine is not running. Start it as directed in the procedure [Start student system components](#), on page A-2.

## **Procedure 3: Check the Process Engine**

1. In the Internet Explorer browser click Bookmarks > PE Server-Ping or enter the following URL: <http://ecmedu01:9080/peengine/IOR/ping>.
2. Log in as p8admin with password IBMFileNetP8.

The Process Engine is running if you get the *Process Engine Server Information (Ping Page)* page as shown in the following screen capture.



A screenshot of a web page titled "Process Engine Server Information (Ping Page)". The page contains a table with four rows. The first row has a header "Key". The second row shows "Product Name" with the value "P8 Content Platform Engine - 5.2.1". The third row shows "Build Version" with the value "dap521.234 pe.jar:dap521.234, 10/06/2014 09:32:10". The fourth row shows "Operating System" with the value "Windows Server 2008 R2 6.1 amd64".

Key	
Product Name	P8 Content Platform Engine - 5.2.1
Build Version	dap521.234 pe.jar:dap521.234, 10/06/2014 09:32:10
Operating System	Windows Server 2008 R2 6.1 amd64

3. If an error page is shown instead, the Process Engine is not running. Start it as directed in the procedure [Start student system components](#), on page A-2.

## **Procedure 4: Check the Administration Console**

1. In the Internet Explorer browser click the ACCE-CPE shortcut or enter the following URL: <http://ecmedu01:9080/acce>
2. Log in as p8admin with password IBMFileNetP8.
3. The Administrative Console for Content Platform Engine is running if the Browse page opens. The page shows a list of Object Stores.
4. If Administrative Console for Content Platform Engine does not open, start it as directed in the procedure [Start student system components](#), on page A-2.

## **Procedure 5: Check the IBM Content Navigator**

1. In the Internet Explorer browser click the ICN-ADMIN shortcut or enter the following URL: <http://ecmedu01:9080/navigator>
2. Log in as p8admin with password IBMFileNetP8.
3. The IBM Content Navigator is running if you get the IBM Content Navigator page.
4. If IBM Content Navigator does not open, start it as directed in the procedure [Start student system components](#), on page A-2.

## **Procedure 6: Check the Datacap Components**

1. Check Datacap Navigator.
  - a. In Internet Explorer browser click the DCN-Datacap shortcut or enter the following URL: <http://ecmedu01:9080/navigator/?desktop=datacap>

- b. Log in as admin with password admin
  - c. The Datacap Navigator is running if the Datacap Navigator page opens.
2. Check the tmweb client.
    - a. In the Internet Explorer browser click the tmweb shortcut or enter the following URL:  
`http://ecmedu01/tmweb.net`  
Select the TravelDocs Application.  
User ID: admin  
Password: admin  
Station: 1
    - b. Click Login.
    - c. The tmweb page opens showing the Operations tab view.



The screenshot shows a web browser window for the IBM Datacap tmweb client. The top navigation bar includes links for Home, Operations (which is selected), Monitor, Administrator, Help, and Log out, along with the IBM logo. The main content area displays the title "TravelDocs » Run Shortcut" and a breadcrumb trail "Operations > Run Shortcut". Below this, a section titled "» Available shortcuts" lists a single item: "FixUp" under the "Name" column, with "Exception Handling" listed under "Description".

- d. If the login fails, it is possible that the Datacap Server Service was not started.
- e. Click log out and close the explorer window.

# Restart the student system

## Procedures

[Procedure 1, "Restart the student system \(if needed\)," on page A-6](#)

[Procedure 2, "Start the Content Engine \(use only if required\)," on page A-6](#)

### ***Procedure 1: Restart the student system (if needed)***

If you need to reboot your student system, do the following steps.

1. Stop the WebSphere hosted system components.

Stop the WebSphere components by running the stop script from the WebSphere Admin folder on the image desktop.

- a. On the desktop, double-click the WebSphere Admin Folder.
- b. Double-click the StopServer1.bat script.
- c. A Windows command window opens while the script is running. Wait for the command window to close.
- d. The Terminal window closes when the components are stopped.

2. Stop the Datacap Server service.

- a. Click Start > All Programs > IBM Datacap Service > Datacap Server Manager.
- b. The Taskmaster Server Manager window is shown.
- c. Click the Service tab.
- d. Click the Stop icon  to start the The Datacap Taskmaster Server Service if it is not already started.
- e. Click Close to close the Taskmaster Server Manager window.

3. Restart the windows server.

- a. Click Start > Restart.
- b. Do [Procedure 1, "Start student system components," on page A-2](#)
- c. Do [Procedure 2, "Start Datacap Server," on page A-2](#)



#### **Important**

Perform the following procedures **only if** you need to manually start individual components. After starting your Server 2008 system, and running Procedure 1, the script should start all of the required components on your student system. If you need to check or start individual WebSphere components do the following procedure.

### ***Procedure 2: Start the Content Engine (use only if required)***

1. On your system desktop, double-click the WebSphere Admin folder.

2. Double-click the Administrative console server1 shortcut to go to the WebSphere login window at <https://ecmedu01:9043/ibm/console/logon.jsp>.
3. Log in as `p8admin` user with `IBMFfileNetP8` as the password.
4. Expand the Applications > Application Types node in the left pane, and then click WebSphere enterprise applications.

In the right pane, the Content Engine application is listed as `FileNetEngine`.

5. Check the status of the application. If a red X is shown in the Application Status column, the application is stopped.
  6. If the `FileNetEngine` application is stopped, select the check box for `FileNetEngine` and click Start.
  7. Log out of the console and close the browser.
-

# Configure Datacap Rulerunner for TravelDocs

## Procedures

### ***Procedure 1: Stop and Connect***

1. Open the Rulerunner Server Service properties.
  - a. Double-click the Rulerunner Server Manager on the desktop.
  - b. Click Stop if the Rulerunner is already started.
  - c. Click the Rulerunner Login tab to display it.
  - d. Select Taskmaster Authentication.  
Type:  
User ID: admin  
Password: admin  
Station ID: 1
  - e. Click Save if you changed the User ID or Station ID. If you only entered the password the Save control will not be active.  
It is critical that these credentials are saved because they are used at runtime.
  - f. Click Connect.

### ***Procedure 2: Configure TravelDoc tasks***

2. Configuring Rulerunner to run tasks.
  - a. Click the Workflow:Job:Task tab to display it.  
The names of the applications from the datacap.xml file are displayed in the left pane. The right pane does not contain threads the first time you use Rulerunner Manager.
  - b. If you don't see a list of application in the top left pane, click the full screen icon in the top right corner.



#### Note

This server image is used for multiple Datacap classes. You can see in the right pain that tasks have already been configured for Rulerunner to run the Navigator Job tasks for the TravelDocs application.

- c. If a thread did not already exist or if you want to create a new thread then right-click in the right pane, select Threads, then select Add Thread.  
A new thread is created in the right pane. For this exercise you use the existing thread.
- d. In the left pane, click the TravelDocs check box.
- e. The application tree expands with the Server, Administrator, and Engine databases selected.

- f. Click the check boxes under the Main Job, Web Job and the Navigator Job for the PageID, Profiler, and Export tasks.
  - g. Click the Main Job text and drag it to the thread0 node in the right pane. Release the mouse key while the cursor is hovering over thread0.
  - h. Verify that PageID, Profiler, and Export tasks appear under thread0 for the Main Job, Web Job and the Navigator Job.
  - i. Click Save (or CTRL+S) to save your changes.
  - j. If you see a warning that the file does not exist, click Yes acknowledge the warning and to save the configuration file.
  - k. Make sure that the thread0 check box in the right pane is selected.
3. Disconnect from the application
    - a. Click the Rulerunner Login tab.
    - b. Click Disconnect.
    - c. Close the Datacap Rulerunner Manager Window.
-

## Enable Datacap Rulerunner logging

1. If Rulerunner is connected then do [Procedure 1, "Stop and Connect,"](#) on page A-8 to open and connect to Datacap Rulerunner Manager.
2. Configure Logging.
  - a. Click the Settings tabs and click *Write to Debug. Log Queuing activity in debug table.*
  - b. Click Save or CTRL+S to save your changes.
  - c. Click the Logging tab.
  - d. Click the Quick Log tab.
  - e. Slide the Number of Messages slider to No.
  - f. The Quick Log setting sets the ATM Rulerunner, and RRS log logging options.
3. Disconnect from the application
  - a. Click the Rulerunner Login tab.
  - b. Click Disconnect.
  - c. Close the Datacap Rulerunner Manager Window.

---

## Start the Datacap Rulerunner Manager Service

### ***Procedure 1: Start the Rulerunner service***

1. Double-click the Datacap Rulerunner Manager icon on the Desktop.
  2. Click the Rulerunner tab.
  3. Click Start.
  4. Close the Datacap Rulerunner Manager window.
-



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