

## Overview

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## Usage scenario for distributing statements based on a preferences file

In this scenario, a company changes their PDF print process to distribute statements to customers through multiple channels. Customers choose whether their statements are printed, emailed, or displayed in their customer account on the company website. Because this information is not part of the data on the statement, the company exports the information from their customer database into a text file that contains headers. That text file is used as a preferences file. The values in the file determine how each statement is distributed to the customer.

The preferences file contains customer account numbers, statement delivery preferences, email addresses, and marketing preferences. Customers choose whether they want to receive offers from the company and third party vendors, offers only from the company, or no offers.

Before changing their process, the company prints all their statements using the **EnhancePDFDocuments** supplied workflow. The value of the **Identify PDF control file** property on the **IdentifyPDFDocuments** step is `/aiw/aiwl/control_files/EnhancePDFdocs.ctl`. The value of the **Build PDF control file 1** property on the **BuildPDFFromDocuments** step also is `/aiw/aiwl/control_files/EnhancePDFdocs.ctl`.

The company uses the **HotFolderPDF** supplied input device with the **Child workflow** property set to **EnhancePDFDocuments**.

They use RICOH ProcessDirector Plug-in for Adobe Acrobat to identify the statements as individual documents in the production PDF file for each job. The data in each statement includes the account number.

To support the new process, the administrator:

- Sets up custom document properties.
- Creates a document property mapping object.
- Makes the preferences file available to RICOH ProcessDirector.
- Adds the **ApplyPreferences** step to the **EnhancePDFDocuments** workflow.
- Adds steps that let the modified **EnhancePDFDocuments** workflow email statements to customers and display statements on the company website.

### Setting up custom document properties

To set up custom document properties and add markup, the administrator:

- Defines and activates two custom document properties on the **Administration** ⇒ **Objects** ⇒ **Custom properties** page:
  - **Doc.Custom.AccountNumber**, with **Account number** for the **Field name**
  - **Doc.Custom.PrefOffers**, with **Offers preference** for the **Field name**
- Loads the updated RICOH ProcessDirector document properties to RICOH ProcessDirector Plug-in for Adobe Acrobat.
- Uses the **Define Document Property** function in the plug-in to map account number data in the documents to the **Account number** document property (database name **Doc.Custom.AccountNumber**).

During processing, the **IdentifyPDFDocuments** step in the workflow extracts the data for the **Account number** document property from each document in the PDF file for the job.

#### Note:

◦ The **Define Document Property** function cannot be used to map data to the **Offers preference** document property (database name **Doc.Custom.PrefOffers**) because the documents do not have that data. During processing, the **ApplyPreferences** step in the workflow uses the preferences file to populate the property values.

- Uses the **Save control file** function in the plug-in to save the document property definition in the `EnhancePDFdocs.ctl` control file.
- Sends the control file to the RICOH ProcessDirector server.

### Creating a document property mapping object

The administrator creates a **CustomerPreferences** document property mapping object with these values:

- In the **General** section, the value of **File type** is **CSV**.
- In the **Property Mapping** section, the values are:

Heading	Document property	Usage
Account Number	Account number	Identify document
Output Type	Output type	Update property
Email Address	Email address	Update property
Offers	Offers preference	Update property

## Making the preferences file available to RICOH ProcessDirector

To make the preferences file available to RICOH ProcessDirector, the administrator:

- Creates an /aiw/aiwl/preferences directory for preferences files.
- Asks the department that provides the preferences file to name it EnhancePDFprefs.csv and write it to the /aiw/aiwl/preferences directory.
- Makes sure that the preferences file is ready for RICOH ProcessDirector to process:
  - The file must be in comma-separated values (CSV) format or tab-delimited format.

The columns of data must have the headings specified in the document property mapping object: Account Number, Output Type, Email Address, and Offers.

This example shows a portion of the file:

```
Account Number,Output Type,Email Address,Offers
2000144372,Print,,All
2001144678,Print,,None
2001154898,Email,m.lopez@isp1.com,Company
2004187456,Print,,Company
2007192007,Web,j.gomez@isp2.com,All
2010197554,Email,s.jones@isp3.com,Company
2010223114,Email,d.wilson@isp4.com,None
2012234096,Web,a.larson@isp5.com,None
2231547625,Print,,All
```

## Modifying the workflow

To modify the **EnhancePDFDocuments** workflow that the company uses to print statements, the administrator:

- Adds an **ApplyPreferences** step after the **IdentifyPDFDocuments** step and sets values for the step properties:
  - The value of **Preferences file** is /aiw/aiwl/preferences/EnhancePDFprefs.csv.
  - The value of **Property mapping** is CustomerPreferences.
- Adds a **GroupDocuments** step after the **ApplyPreferences** step and sets the value of the **Group first** property to **Output type**. The **GroupDocuments** step creates three groups of documents based on the values of the **Output type** document property. The values come from the EnhancePDFprefs.csv file: Print, Email, and Web.
- Adds a **CreateJobsFromDocuments** step to the workflow after the **GroupDocuments** step and sets the value of the **Child workflow** property to the name of the current workflow.
- Disconnects the **CreateJobsFromDocuments** step from the **BuildPDFFromDocuments** step.
- Adds a condition on the connector between the **SetJobPropsFromTextFile** and **CountPages** steps. The rule on the connector is: **Job number Unlike \*.\***

This rule lets you process parent and child jobs through different branches. Parent jobs, which do not have a . (period) in their names, use this branch.

- Adds a **SetDocPropsFromConditions** step and connects the **SetJobPropsFromTextFile** step to it. The **SetDocPropsFromConditions** step starts a new branch for child jobs. The connector does not have a rule. Child jobs, which have a decimal point in their job number, go down this branch.

The **SetDocPropsFromConditions** step specifies a property conditions file that sets the **Custom 1** job property (database name **Job.Info.Attr1**) based on the value of the **Output type** document property from the preferences file. The property conditions file has this content:

```
"Doc.Pref.Output","Job.Info.Attr1"
"=Email","Email"
"=Print","Print"
"=Web","Web"
```

- Connects the **SetDocPropsFromConditions** step to the **BuildPDFFromDocuments** step.
  - Creates a workflow branch for child jobs with statements to be printed by adding a condition on the existing connector from the **BuildPDFFromDocuments** step to the **CountPages** step. The rule on the connector is: **Custom 1 = Print**.
  - Adds an **EmailDocuments** step and connects the **BuildPDFFromDocuments** step to it. The **EmailDocuments** step sends each statement as a PDF file to the email address for the customer.
- The preferences file contains the customer email addresses.
- Creates a workflow branch for child jobs with statements to be emailed by adding a condition on the connector between the **BuildPDFFromDocuments** and **EmailDocuments** steps. The rule on the connector is: **Custom 1 = Email**.
  - Adds a **RunExternalProgram** step and connects the **BuildPDFFromDocuments** step to it. The **RunExternalProgram** step sends the statements to an external program that posts them on the company website.
  - Creates a workflow branch for child jobs with statements to be posted on the company website by adding a condition on the connector between the **BuildPDFFromDocuments** and **RunExternalProgram** steps. The rule on the connector is: **Custom 1 = Web**.
  - Adds a **WaitForRelatedJobs** step between the **PrintJobs** step and the **RetainCompletedJobs** step.
  - Connects the **CreateJobsFromDocuments**, **EmailDocuments**, and **RunExternalProgram** steps to the **WaitForRelatedJobs** step.

## Processing jobs through the workflow

After setting up the workflow and testing it, the administrator places the workflow in production.

The **HotFolderPDF** supplied input device receives a PDF job with statement documents and submits it to the **EnhancePDFDocuments** workflow.

The job goes through the workflow branch for parent jobs and moves to the **ApplyPreferences** step. RICOH ProcessDirector reads the information in the EnhancePDFprefs.csv file and creates three columns of data in the document properties file for the job. The columns contain values for these properties:

- Doc.Pref.Output
- Doc.Email.Address
- Doc.Custom.PrefOffers

The job moves to the **GroupDocuments** step, which places each document in one of three groups based on the value of the **Output type** property.

The job moves to the **CreateJobsFromDocuments** step, which creates a child job for each group of documents and submits the child jobs to the same workflow.

The child jobs go through the workflow branch for child jobs.

When the child jobs reach the **SetDocPropsFromConditions** step, RICOH ProcessDirector sets the value of the **Custom 1** job property:

- For the child job with the **Output type** property set to **Print**, the **Custom 1** job property is set to **Print**.
- For the child job with the **Output type** property set to **Email**, the **Custom 1** job property is set to **Email**.
- For the child job with the **Output type** property set to **Web**, the **Custom 1** job property is set to **Web**.

RICOH ProcessDirector sends the child jobs to the print branch, email branch, or Web branch of the workflow based on the value of the **Custom 1** job property.

The child job with documents to be printed moves to the **WaitForRelatedJobs** step after the **PrintJobs** step.

The child job with email documents moves to the **EmailDocuments** step, and RICOH ProcessDirector uses the value specified for the **Email address** property to email each policy as a PDF file to the customer.

The child job then moves to the **WaitForRelatedJobs** step.

The child job with Web documents moves to the **RunExternalProgram** step, which sends the statements to an external program that posts them on the company website.

The child job then moves to the **WaitForRelatedJobs** step.

When all of the child jobs reach the **WaitForRelatedJobs** step, the parent job and the child jobs start their retention period.

 **Note:**

- This usage scenario shows how to add values for the **Offer preferences** property to the document properties file but does not use those values in the workflow. The company might use the property to determine whether to add an image with a marketing offer to the customer statement.

Parent topic: [Preference Management](#)