Configuring

Creating a workflow to exchange data with postal software

You can create a workflow, or a set of workflows, to extract mailing address data from the documents in a job and prepare the data for processing by external postal software. After the postal software verifies the addresses and improves their quality, the workflow can process results received from the postal software to update the documents in the job.

The Postal Enablement feature does not provide postal software. You can use your choice of external postal software, for example, the Bell and Howell BCC Mail Manager software or the TEC Solutions MailPreparer software. You must understand what information your postal software needs to perform the postal processing that you want. You also need to know how to connect the postal software to RICOH ProcessDirector. To create a workflow to exchange data with postal software:

1. Identify the job and document data that you need to exchange with the postal software.

    1. Identify the data that your postal software requires for each mail piece.
       The postal software requires name and address data in a specific format.
       If you are using the postal software to compute postage, the software might need information about mail piece weight and thickness. Some postal software assumes that all mail pieces in a job have uniform weight and thickness. Other postal software lets you specify different values for each mail piece.

    2. Identify the data that your postal software requires for each job.
       For example, you might need to specify Mailer ID and Postage statement date.

    3. Identify the RICOH ProcessDirector job and document properties that correspond to the data required by your postal software.
       The Postal Enablement feature provides a large number of job and document properties for use with postal software. For job properties, examine the properties notebook for the **SetPostalJobProps** step template. For document properties, examine the properties notebook for the **BuildExternalDocPropsFile** step template. Select from the document properties on the **Available** list.

    4. If you need custom document properties, edit the `docCustomDefinitions.xml` file and then run the `docCustom` utility to define the properties to the system. See *RICOH ProcessDirector: Installing Document Processing Features* for instructions.

2. If your print file is in PDF format, do these steps:

    1. Follow the instructions in the Information Center to enhance PDF files for Postal Enablement.
       These instructions explain how to identify the start of each mail piece in a job, define document properties to extract address data from each mail piece, and make changes to the PDF file based on the data returned by the postal software.

    2. Save your document property definitions in a control file for use with a step based on the **IdentifyPDFDocuments** step template.

    3. Send the control file to the RICOH ProcessDirector server in a directory that the RICOH ProcessDirector system user has access to.

    4. If you are making changes to the PDF file based on the data returned by the postal software (for example, adding a barcode or replacing the address), save your document property definitions and updated address data in a control file with a different name from the control file in the previous step. Send the control file to the RICOH ProcessDirector server in a directory that the RICOH ProcessDirector system user has access to.
       This new control file is used with a step based on the **BuildPDFFromDocuments** step template.

3. If you have the AFP Support feature installed and your print file is in AFP format, do these steps:

    1. Follow the instructions in the Information Center to enhance AFP files for Postal Enablement.
       These instructions explain how to identify the start of each mail piece in a job, define document properties to extract address data from each mail piece, and make changes to the AFP file based on the data returned by the postal software.

    2. Save the control file created by RICOH Visual Workbench and send it to the RICOH ProcessDirector server in a directory that the RICOH ProcessDirector system user has access to.
       This control file is used with a step based on the **IdentifyDocuments** step template.

    3. If you are making changes to the AFP file based on the data returned by the postal software (for example, adding a barcode or replacing the address), save your document property definitions and updated address data in an Enhance AFP control file. Send the control file to the RICOH ProcessDirector server in a directory that the RICOH ProcessDirector system user has access to.
       The Enhance AFP control file is used with a step based on the **BuildAFPFromDocuments** step template.

4. Log in to RICOH ProcessDirector as an administrator.

5. Click the **Workflow** tab.

6. Copy the workflow that best meets your processing needs:

    - If you do not need to change how documents are processed based on results from the postal software, right-click the **PrintAndMailJob** workflow, and select **Copy**.
      The **PrintAndMailJob** workflow collects document data to send to postal software and uses a step based on the **RunHotFolderApplication** step template to exchange files with the postal software. After receiving the output of the postal software, the workflow updates the document data and prints the job for mailing. If you have RICOH ProcessDirector, the workflow processes both AFP and PDF print jobs. If

you are using only one format, you can delete the steps in the branch for the other format.

- If you need to take results from the postal software and split a job into child jobs that are processed by different workflows, right-click the **GroupDocsForPostalProcess** workflow, and select **Copy**.
  GroupDocs ForPostalProcess is part of a set of three workflows:
  - **GroupDocsForPostalProcess**
    This workflow collects document data to send to postal software and updates the document data from the output of the postal software. Using rules that you set up to interpret the data, the workflow produces child jobs for each type of mail that the postal software identified. The workflow is configured to pass the child jobs to one of the next two workflows.
  - **ProcessQualifiedDocuments**
    This workflow processes child jobs created by the **GroupDocsForPostalProcess** workflow if the documents in the job qualified for additional postal processing. The workflow sorts the documents, using the optimal method determined by the postal software, and passes the child jobs to the **PrintForPostalProcess** workflow.
  - **PrintForPostalProcess**
    This workflow prints the child jobs created by the **GroupDocsForPostalProcess** workflow. The child jobs contain qualified, nonqualified, and other types of mail. The workflow makes sure that the order of documents within each job is correct for each type of mail.

    After you copy the **GroupDocsForPostalProcess** workflow, determine how many additional workflows you need to perform postal processing at your company.

7. Name the copy of the workflow, fill in or edit other values that you need, and click **OK**.

8. If you have both the AFP Support and PDF Document Support features installed, these workflows process both AFP and PDF print jobs. If you only have one of those features installed, delete the steps in the branch for the other format.

9. If the workflow process PDF jobs, right-click the **IdentifyPDFDocuments** step. Select **Properties**, and then click **PDF**. For the **Identify PDF control file** property, type the path and file name of the control file that contains your document property definitions. Click **OK**.

10. If you have the AFP Support feature installed and the workflow processes AFP jobs, do these steps:

    1. Right-click the **IdentifyDocuments** step. Select **Properties**, and then click **AFP**. For the **Visual Workbench control file** property, type the path and file name of the control file that you created with Document Property Designer. Click **OK**.

    2. If your AFP print file is not already indexed, add a step based on the **IndexAFP** step template before the **IdentifyDocuments** step. This step shares the control file you specified for the **IdentifyDocuments** step. You do not need to specify the control file here.

11. Right-click the **SetPostalJobProps** step. Select **Properties**, and then click **Postal**. Specify the values of the properties for the job. Click **OK**.

12. Right-click the **BuildExternalDocProps** step. Select **Properties** , and then click **Document processing**. Do these steps:

    1. For the **External document properties file** property, specify the name and location that you want to use for the external document properties file.
       The default value writes a file named $jobID$.ToPostal.csv to the job's spool directory.
       When RICOH ProcessDirector creates this file, it converts the document properties file into the format required by the postal software.

    2. For the **File type** property, select **CSV** or **Tab-delimited**.

    3. From the **Document properties** list, select the document properties that you saved in the control file for the **IdentifyPDFDocuments** step (PDF) or the **IdentifyDocuments** step (AFP).

       > ★ Important:
       > - Make sure that you include the **Document number** or **Sequence in job** property.

    4. In the **Column headings** field, type the names of the column headings required by postal software for the document properties. Use commas to separate the names, even if you selected **Tab-delimited** for the file type.
       The order of the headings must match the order of the selected document properties.

    5. Click **OK**.

13. Based on the capabilities of the postal software, choose an interface with RICOH ProcessDirector:
    - **RunHotFolderApplication** step
      If your software can receive data using a hot folder, use this step to send and receive files containing document information that the postal software requires. You must:
      - Configure the postal software to watch a directory for a file with a specific name or filetype.
      - Configure the postal software to write its output to a directory with known filename characteristics.
      - Set up the network (for example, NFS or SAN), file permissions, and so on to share the directories defined for input and output on the **RunHotFolderApplication** step.

      The sample workflows provided with the Postal Enablement feature use this step with example directory names.
    - **RunExternalProgram** step
      If your software accepts command line input, use this step to run the postal software directly in the workflow.
      - The postal software must have a command line invocation that can be run on the primary RICOH ProcessDirector server. If you have RICOH ProcessDirector, the command line invocation also can be run on a secondary server or a Windows application server.
      - You must use standard RICOH ProcessDirector methods, such as **${getFileName(postal,bcc,read)}**, to reference the files exchanged with the postal software.
    - **SendEmail** and **ManualStepWithAutoStart** steps
      Use these steps for a manual interface with the postal software. The **SendEmail** step sends the output file to a person who submits the file to the postal software while the job waits in the **ManualStepWithAutoStart** step. The person puts the results file returned by the postal software into the workflow where the **MapExternalResultsFiletoDocProps** step expects to find the file. The person then does a

       Manual Complete action to let the job continue through the workflow to the **MapExternalResultsFiletoDocProps** step.

14. If you are using the **RunHotFolderApplication** step to interface with the postal software, do these steps:

    1. Right-click the **RunHotFolderApplication** step. Select **Properties**, and then click **Job Defaults**.
    2. Specify values for the **Sending folder**, **File to send**, **Retrieval folder**, **Retrieval pattern**, and **Retrieved file** properties.
    3. Specify values for other properties as needed.
    4. Click **OK**.

15. If you are using the **RunExternalProgram** step to interface with the postal software, do these steps:

    1. Delete the **RunHotFolderApplication** step and replace it with the **RunExternalProgram** step.
    2. Right-click the **RunExternalProgram** step, select **Properties**, and then click **External**.
    3. Specify the command line invocation for the postal software in the **External command** field.
    4. Specify other values as needed.
    5. Click **OK**.

16. If you are using the **SendEmail** and **ManualStepWithAutoStart** steps to interface with the postal software, do these steps:

    1. Delete the **RunHotFolderApplication** step and replace it with the **SendEmail** step.
    2. Add the **ManualStepWithAutoStart** step to the workflow after the **SendEmail** step.
    3. Right-click the **SendEmail** step. Select **Properties**, and then click **Email**.
    4. For the **Recipient address** property, specify the email address.
    5. Specify the other values as needed.

    > ⬇ **Note:**
    > - If you have not already specified SMTP server settings, you should specify them to enable the email function. After you save the workflow, you can access the settings by clicking the **Administration** tab on the Main page. In the left pane, click **System ⇒ Settings**.

    6. Click **OK**.
    7. Right-click the **ManualStepWithAutoStart** step, and select **Properties**.
    8. Specify values as needed.
    9. Click **OK**.

17. Right-click the **MapExternalResultsFileToDocProps** step. Select **Properties**, and then click **Document processing**. Do these steps:

    1. For the **Modified results file** property, specify the name and location that you want to use for the modified results file.
    2. For the **External results file** property, specify the name and location that you want to use for the external document properties file that is returned from the postal software.
    3. For the **File type** property, select the type of the external results file: **CSV** or **Tab-delimited**.
    4. For the **External results contain column headings** property, select **Yes** or **No**.
       If the external results file does not contain column headings, you must edit the results file to contain only the columns of data that map to the list of selected properties. The number and order of columns in the external results file must match the number and order of the document properties in the **Selected** list.
    5. If the external results file contains column headings, type the names of the column headings that you want to keep in the **Columns to keep** field. Use commas to separate the names.
    6. From the **Document properties** list, select the document properties that correspond to the column headings that you are keeping. The order of the document properties must match the order of the column headings. The step uses this Information to create a modified results file.
    7. Click **OK**.

18. You can use the information in the modified results file to have other RICOH ProcessDirector steps do additional processing of the document data before the data is merged into the document properties file.

19. Right-click the **UpdateDocPropsFromExtResultsFile** step. Select **Properties**, and then click **Document processing**. For the **Modified results file** property, type the path to and name of the file. Click **OK**.
    This step merges the document data in the modified results file with the original document properties file that was created in the **IdentifyPDFDocuments** step for PDF jobs or the **IdentifyDocuments** step for AFP jobs.
    The document data from your postal software is now in RICOH ProcessDirector. The data can be used by a variety of RICOH ProcessDirector steps.

20. If you want to set job properties based on document properties, do these steps:

    1. With a text editor, create a properties conditions file.
    2. Define the logic required to group documents for additional processing.

       Four sample properties conditions files are in the `/aiw/aiw1/control_files/postal` directory (on Linux) or the `C:\aiw\aiw1\control_files\postal` directory (on Windows):
       - `postal_doc.csv`

- `postal_doc_qualified.csv`
- `postal_doc_print.csv`
- `postal_doc_print_afp.csv`

For more information, see the topic on the **SetDocPropsFromConditions** step template in the information center.

The **GroupDocsForPostalProcess** workflow uses a properties conditions file to place documents in child jobs for additional processing by the **ProcessQualifiedDocuments** workflow, the **PrintForPostalProcess** workflow, or both.

3. If you are editing a copy of the **PrintAndMailJob** workflow, add a step based on the **SetDocPropsFromConditions** step template to the workflow.

4. Right-click the **SetDocsPropsFromConditions** step. Select **Properties**, and then click **Documents**. For the **Property conditions file** property, type the path to and name of the file. Click **OK**.

21. If the workflow processes PDF jobs, right-click the **BuildPDFFromDocuments** step. Select **Properties**, and then click **PDF**. For the **Build PDF control file 1** property, type the path and file name of the control file that contains your document property definitions and address replacement data. Click **OK**.

> **⊙ Note:**
> - The **GroupDocsForPostalProcess** workflow does not have a **BuildPDFFromDocuments** step. If you have been editing a copy of **GroupDocsForPostalProcess**, you can copy the **PrintForPostalProcess** workflow and edit the **BuildPDFFromDocuments** step in that workflow, or you can create a workflow to perform the job processing you need. If you edit a copy of the **PrintForPostalProcess** workflow, you can use different control files for each processing path.

22. If the workflow processes AFP jobs, right-click the **BuildAFPFromDocuments** step. Select **Properties**, and then click **Documents**. For the **Enhance AFP control file** property, type the path and file name of the Enhance AFP control file that you created. Click **OK**.
If you edit a copy of the **PrintForPostalProcess** workflow, you can use different Enhance AFP control files for each processing path.

23. Save the workflow.

24. To test the workflow, do these steps:

    1. Create one or more input devices to point to the workflow.

    2. Enable the input devices.

    3. Submit your PDF or AFP print job to the input device.

25. If you want to process reports from the postal software that are required for your postal service, you can add steps to your workflow to receive those reports along with the external results file and use a step based on the **CopyToFolder** step template to submit the report files for printing in their own workflow.
Another approach is to build a workflow that emails the reports to users. If the reports are in a specified directory with a specified name, the **SendEmail** step can email them to a recipient that you specify on the step.

Parent topic: [Setting up the Postal Enablement feature](#)